# ARKANSAS TEACHER RETIREMENT SYSTEM

**September 27, 2021**

1400 West Third Street
**BOARD ROOM**
Little Rock, AR 72201

## Board of Trustees Meeting
**11:30 a.m.**

**AGENDA**
**ARKANSAS TEACHER RETIREMENT SYSTEM**
**BOARD OF TRUSTEES**

**September 27, 2021**
**11:30 a.m.**
**1400 West Third Street**
**Little Rock, AR 72201**

I. ***Call to Order/Roll Call.** page 1.

II. ***Motion for Excused Absenses.**

III. ***Adoption of Agenda.** page 2.
   A. ***Attachment No. 1.** page 2.

IV. Executive Summary. (Attachment No. 1) page 8.

V. ***Approval of Prior Meeting Minutes.**
   A. ***December 7, 2020, Corrected Minutes - Scriverner's error.** (Attachment No. 2) page 24.
   B. ***June 7, 2021 Minutes.** (Attachment No. 3) page 32.
   C. ***June 23, 2021, Minutes.** (Attachment No. 4) page 41.
   D. ***July 14, 2021, Minutes.** (Attachment No. 5) page 44.
   E. ***August 3, 2021, Minutes.** (Attachment No. 6) page 47.
   F. ***August 19, 2021, Minutes.** (Attachment No. 7) page 50.

VI. ***Recognition of Retired Trustee.**
   A. ***Resolution 2021-31.** (Attachment No. 8) page 52.

VII. Member Interest Waived Under A.C.A Sec. 24-7-205. (Attachment No. 9) page 53.

VIII. Employer Interest and Penalties Waived Under A.C.A. Sec. 24-7-411. (Attachment No. 10) page 54.

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IX. ***Legislative Audit Report, June 30, 2020 Official Review.** *Clint Rhoden, Executive Director* (Attachment No. 11) page 55.

X. ***Establishment of a Fixed T-DROP Plan Interest Rate for Regular Participants.**

A. ***Resolution 2021-32.** (Attachment No. 12) page 89.

XI. ***Establishment of a Variable Interest Rate for Post 10 Year T-DROP Plan.**

A. ***Resolution 2021-33.** (Attachment No. 13) page 91.

XII. ***Authorization to Pay Regular T-DROP Interest for Fiscal Year 2022.** page 77.

A. ***Resolution 2021-34.** (Attachment No. 14) page 93.

XIII. ***Authorization to Pay Post 10 year T-DROP Interest for Fiscal Year 2022.**

A. ***Resolution 2021-35.** (Attachment No. 15) page 95.

XIV. ***Authorization to Pay an Incentive Interest Rate on T-DROP Cash Balance Accounts on June 30, 2022.**

A. ***Resolution 2021-36.** (Attachment No. 16) page 96.

XV. ***Extension of ATRS CASH Program for Fiscal Year 2022.**

A. ***Resolution 2021-37.** (Attachment No. 17) page 97.

XVI. ***Office Terms For Trustees Elected in 2021.**

A. ***Resolution 2021-52.** (Attachment No. 18) page 101.

XVII. Discussion of Retirement Applications waived in 2020. *Clint Rhoden, Executive Director*

XVIII. Audit Committee Report.

A. ***Nominees for Vacant At-Large Member Position.**

1. ***Maggie Garrett, CPA, CIA.** (Attachment No. 19) page 103.

2. ***John Owens.** (Attachment No. 20) page 105.

B. Internal Audit Report: Implementation of Legislation Enacted by the 92nd General Assembly. (Attachment No. 21) page 106.

XIX. Investment Committee Report.

A. Arkansas Related and Investment Update.

1. List of Fund Closings.

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a. KKR Diversified Core Infrastructure Fund L.P., an Open End Infrastructure Fund Focused on Existing Projects with Imminent Need, the Board Authorized Additional Commitment of up to $50 Million Dollars on June 7, 2021 was Accepted and Closed on June 30, 2021.

b. Carlyle Realty Partners IX, L.P., a Value Add Closed End Real Estate Fund that Seeks to Identify and Capitalize on Real Estate Trends with Imminent Need. Due to High Demand ATRS obtained $35 Million Dollars of the Board Authorized Additional Commitment of up to $50 Million Dollars on June 7, 2021 was Accepted and Closed on June 30, 2021.

c. GLP Capital Partners IV L.P., a Value Add Open End Real Estate Fund Specializing in Distribution and Logistic Companies with Imminent Need, the Board Authorized Additional Commitment of up to $50 Million Dollars on June 7, 2021 was Accepted and Closed on June 28, 2021.

d. Alpine Investors VIII, L.P., a Buyout Fund that will Focus on Small and Lower Middle Market Software and Services Companies, the Board Authorized Commitment of up to $30 Million Dollars on July 14, 2021 was Accepted and Closed on August 13, 2021.

e. Transfer of Investment in ISQ Global Infrastructure Fund III, L.P. to ISQ Global Infrastructure Fund III (UST), L.P. with Imminent Need, the Board Authorized Transfer of $50 Million Dollars on August 3, 2021 was Accepted and Closed on August 4, 2021.

2. Fixed Income Guideline Update.

3. Highland Update.

B. General Investment Consultant Report.

1. Performance Report for the Quarter Ended June 30, 2021. (Attachment No. 22) page 113.

2. Preliminary Performance Report for the Month Ended August 31, 2021. (Attachment No. 23) page 259.

3. Emerging Manager Report for Fiscal Year Ended June 30, 2021. (Attachment No. 24) page 283.

4. ***Recommendation to Transfer Assets from the Existing ATRS Investment in CFM Institutional Systematic Diversified Fund Series 1.5 (CFM ISD) to CFM Systematic Global Macro, L.P. Series 1 (CFM SGM), a Fund that Seeks to Deliver Consistent Returns at Targeted Risk Levels both on a Long and Short Basis. Resolution 2021-38.** (Attachment No. 25) page 299.

a. ***Resolution 2021-38.** (Attachment No. 26) page 329.

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5. ***Recommendation to Redeem in Full the ATRS Investment in Nephila Rubik Holdings, Ltd. Resolution 2021-39.** (Attachment No. 27) page 331.
    a. ***Resolution 2021-39.** (Attachment No. 28) page 332.
6. ***Recommendation to Commit Approximately $95 Million Dollars in Juniperus Insurance Opportunity Fund Limited a Fund that Invests across Insurance Linked Securities, Including Private Reinsurance, Reassignment of Insurance Risk to Other Carriers, Catastrophe Bonds, and Other Insurance Linked Investments. Resolution 2021-40.** (Attachment No. 29) page 333.
    a. ***Resolution 2021-40.** (Attachment No. 30) page 348.
7. ***Recommendation to Commit up to $50 Million Dollars in Chatham Asset Private Debt and Strategic Capital Fund III, L.P. a Fund that Invests in High Yield Bonds, Leverage Loans and Equity both on a Long and Short Basis. Resolution 2021-41.** (Attachment No. 31) page 349.
    a. ***Resolution 2021-41.** (Attachment No. 32) page 362.

C. Real Asset Investment Consultant Report.

1. Performance Report for the Quarter Ended March 31, 2021. (Attachment No. 33) page 363.
2. ***Recommendation to Commit up to $40 Million Dollars in Almanac Realty Securities IX, L.P., a Closed End, Value Added Real Estate Fund Targeting Investments in Both Private and Public Real Estate Operating Companies Resolution 2021-42.** (Attachment No. 34) page 416.
    a. ***Resolution 2021-42.** (Attachment No. 35) page 454.
3. ***Recommendation to Commit up to $50 Million Dollars in LaSalle Asia Opportunity Fund VI, L.P., a Closed End Opportunistic Real Estate Fund Focused on Both Debt and Equity Investments in Asia with Imminent Need. Resolution 2021-43.** (Attachment No. 36) page 455.
    a. ***Resolution 2021-43.** (Attachment No. 37) page 553.
4. ***Recommendation to Commit up to $55 Million Dollars in LBA Logistics Value Fund IX, L.P., a Closed End Value Add Real Estate Fund with the Primary Purpose of Acquiring Industrial Properties Located in the U.S. Real Estate Market with Imminent Need. Resolution 2021-44.** (Attachment No. 38) page 555.
    a. ***Resolution 2021-44.** (Attachment No. 39) page 606.
5. ***Recommendation to Redeem and Redeploy Approximately $140 Million Dollars from JP Morgan Strategic Property Fund (SPF). Resolution 2021-45.** (Attachment No. 40) page 608.

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a. ***Resolution 2021-45.** (Attachment No. 41) page 657.

6. ***Recommendation to Commit up to $70 Million Dollars in Morgan Stanley Prime Property Fund LLC, (PPF) an Open End, Core Real Estate Fund Focused on Income Producing Properties. Resolution 2021-46.** (Attachment No. 42) page 658.

   a. ***Resolution 2021-46.** (Attachment No. 43) page 722.

7. ***Recommendation to Commit up to $70 Million Dollars in RREEF Core Plus Industrial Fund L.P.(CPIF), an Open End, Core Plus Real Estate Fund Specializing in Industrial Assets. Resolution 2021-47.** (Attachment No. 44) page 723.

   a. ***Resolution 2021-47.** (Attachment No. 45) page 788.

D. Private Equity Consultant Report.

1. Preliminary Private Equity Portfolio Review for the Quarter Ended March 31, 2021. (Attachment No. 46) page 789.

2. Emerging Manager Report for Fiscal Year Ended June 30, 2021. (Attachment No. 47) page 843.

3. ***Recommendation to Commit up to $30 Million Dollars in Bison Capital Partners VI, L.P., a Private Equity Debt and Equity Fund Focused on Hybrid Debt and Equity Investments in Small to Middle Market Companies. Resolution 2021-48.** (Attachment No. 48) page 850.

   a. ***Resolution 2021-48.** (Attachment No. 49) page 853.

4. ***Recommendation to Commit up to $30 Million Dollars in Clearlake Capital Partners VII, L.P. a Private Equity Fund that Makes Opportunistic Debt and Equity Investments in Middle Market Companies Undergoing Change and/or are in Underserved Industries or Markets in North America. Resolution 2021-49.** (Attachment No. 50) page 854.

   a. ***Resolution 2021-49.** (Attachment No. 51) page 858.

5. ***Recommendation to Commit up to $30 Million Dollars in Franklin Park Venture Fund XIV, L.P., (formerly Franklin Park Venture Fund Series) a Fund of Funds Managed by Franklin Park Investing in Venture Capital Private Equity Funds. Resolution 2021-50.** (Attachment No. 52) page 859.

   a. ***Resolution 2021-50.** (Attachment No. 53) page 869.

6. ***Recommendation to Commit of up to $30 Million Dollars in Franklin Park Corporate Finance Access Fund II, L.P., a Fund of Funds Managed by Franklin Park Investing in Smaller Buyout, Growth, and Turnaround Private Equity Funds. Resolution 2021-51.** (Attachment No. 54) page 870.

   a. ***Resolution 2021-51.** (Attachment No. 55) page 879.

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XX. Operations Committee Report. *Bobby Lester, Operations Committee Chair*

A. Open Forum for Potential Rule or Law Changes by Committee Member and Board Members Present.

1. Open Forum.

B. ***Board Policy 1 Update - Regarding Committee Appointments.** (Attachment No. 56) page 880.

C. ***Potential Rule Change Package.**

1. ***Rule 4 - Election of Board of Trustees.** (Attachment No. 57) page 891.

2. ***Rule 6 - Membership.** (Attachment No. 58) page 905.

3. ***Rule 7 - Reporting and Eligibility.** (Attachment No. 59) page 931.

4. ***Rule 8 - Purchases and Refunds.** (Attachment No. 60) page 949.

5. ***Rule 9 - Retirement Benefits.** (Attachment No. 61) page 967.

6. ***Rule 10 - T-DROP and Return to Service.** (Attachment No. 62) page 995.

7. ***Rule 11 - Survivors and Domestic Relations Order.** (Attachment No. 63) page 1011.

XXI. ***Board of Trustees Disability Review.**

A. ***Group Order - Approved - DR-2021-09-A.** (Attachment No. 64) page 1031.

B. ***Member Order - DR-2021-09-444395.** (Attachment No. 65) page 1033.

C. ***Member Order - DR-2021-09-498094.** (Attachment No. 66) page 1035.

XXII. ***Staff Reports.**

A. ***Medical Committee Report. A total of 31 Disability Applications were approved.** (Attachment No. 67) page 1038.

XXIII. ***Election of Board Chair and Vice Chair.**

XXIV. Other Business.

XXV. ***Adjourn.**

* Action Item

## EXECUTIVE SUMMARY

TO: Board of Trustees

FROM: ATRS Staff

RE: Executive Summary

DATE: September 27, 2021

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**V. Recognition of Retired Trustee.** Robin Nichols retired from the board in June. She will be recognized and honored for her service. **This is an action item.**

**A. Resolution No. 2021-31**

**VI. Report of Member Interest Amount Waived Under A.C.A. Sec. 24-7-205**. ATRS waives interest for members when there is a dispute between ATRS and the member as to whether ATRS made a mistake or otherwise did not do all that was required on the member's account. Since ATRS has implemented the actuarial cost method for the purchase of service credit, interest waived is slowly disappearing, as well as the number of members who purchase service credit. Ten (10) member interest amounts were waived for this reporting period in the amount of $2,233.24. This is a standard report for information and is not an action item.

**VII. Report of Employer Penalties and Interest Waived Under A.C.A. Sec. 24-7-411.** ATRS may also waive employer interest and penalties when reports or payments are late or have issues due to a new bookkeeper, inclement weather, sickness and other situations that justify a waiver. Six (6) employer penalties and interest amounts were waived for this reporting period in the amount of $2,130.94. This is a standard report for information and is not an action item.

**VIII. Legislative Audit Report, June 30, 2020 Official Review.** The Division of Legislative Audit has provided ATRS staff with the 2020 fiscal year audit report for the fiscal year that ended on June 30, 2020. The audit report was reviewed by the Legislative Joint Auditing Committee on August 13, 2021. The audit report is included in the Board packet for this meeting. The law requires that the ATRS Board have the Legislative Audit report on the ATRS Board agenda and that the ATRS Board pass a motion reflecting that the audit report was received and reviewed by the Board in the event issues arise in the future related to the audit. **This is an action item.**

**IX. Establishment of a Fixed T-DROP Plan Interest Rate for Regular Participants.** Legislation was passed in the 2021 Regular Session that allowed the board to set an incentive Regular T-DROP interest rate as late as the first regular board meeting of the fiscal year. This allows the board to set a rate based on the actual investment returns. Resolution 2021-32 modifies the annual process accordingly. **<u>This is an action item</u>.**

**A. Resolution No. 2021-32**

**X. Establishment of a Variable Interest Rate for Post 10-Year T-DROP Plan.** Legislation was passed in the 2021 Regular Session that allowed the board to set the annual Post 10-year T-DROP interest rate as late as the first regular board meeting of the fiscal year. This allows the board to set a rate based on the actual investment returns. Resolution 2021-33 modifies the annual process accordingly. **<u>This is an action item</u>.**

**A. Resolution No. 2021-33**

**XI. Authorization to Pay Regular T-DROP Interest for Fiscal Year 2022.** The ATRS Board annually sets the interest rates on T-DROP accounts. Resolution 2021-32 sets the T-DROP rate at a fixed 3% unless investment returns in the prior fiscal year exceeded the current assumed rate of return by more than 2%. The resolution also allows the Board to award an incentive rate of up to 3% which when combined with the 3% fixed rate provides a maximum T-DROP rate of 6%. The executive staff recommends the incentive rate to be set at 3% for the fiscal year 2021-2022 (combined rate of 6.0%). **<u>This is an action item.</u>**

**A. Resolution No. 2021-34**

**XII. Authorization to Pay Post 10 year T-DROP Interest for Fiscal Year 2022.** The ATRS Board annually sets the interest rates on Post 10 Year T-DROP accounts. Resolution 2021-33 sets the Post 10 Year T-DROP rate at a rate between 4% and 6% with an incentive rate available when the returns exceed the assumed rate of return by more than 2%. The resolution also allows the Board to award an incentive rate of up to 1.5% which when combined with the 6% maximum rate provides a maximum Post 10 Year T-DROP rate of 7.5%. The executive staff recommends the combined rate to be set at 7.5% for fiscal year 2021-2022. **<u>This is an action item.</u>**

**A. Resolution No. 2021-35**

**XIII. Authorization to Pay an Incentive Interest Rate on T-DROP Cash Balance Accounts on June 30, 2022.** The ATRS Board provides the CBA program for members who have retired out of T-DROP and wish to leave a cash balance at ATRS for ultimate distribution to the member after retirement based upon the members withdrawal request. The Board can award an incentive rate with an incentive rate when the returns exceed the assumed rate of return by more than 2%. The executive staff recommends the CBA incentive rate to be set at 1% for fiscal year 2021-2022. **<u>This is an action item.</u>**

**A. Resolution No. 2021-36**

**XIV. Extension of ATRS CASH Program for Fiscal Year 2022.** The CASH Program expired on June 30, 2021. ATRS staff recommends that the CASH program for fiscal year 2022 be the same as the expiring program except that the age for calculation of the accrued liability be set to the age attained as of June 30, 2021. **<u>This is an action item.</u>**

A. **Resolution No. 2021-37**

**XV. Office Terms For Trustees Elected in 2021.** The term for elected trustee is six years. Resolution 2021-52 reaffirms the certification of all trustees elected in the 2021 regular system election and clearly states that the terms began July 1, 2021 and expire on June 30, 2027. **<u>This is an action item.</u>**

**A. Resolution No. 2021-52**

**XVI. Discussion of Retirement Applications waived in 2020.** The Board granted the Executive Director some minor discretion last year to waive application deadlines for the month of May, 2020 due to the COVID-19 pandemic. It was also agreed that a report would be given to the Board on the number of applications waived.

**XVII. Audit Committee Report.** ***Danny Knight, Vice Chair*.**

**A. Nominees for Vacant At-Large Member Position. Brenda West, Risk Management/Internal Audit.** A vacancy for an at-large member position was created in June of this year when June Barron left. The Audit Committee needs to appoint someone from the public with extensive auditing experience that does not have any affiliation with the System. The names of two well qualified individuals have been submitted for consideration. The two nominees are Maggie Garrett, CPA, CIA, and John Owens. Their resumes are included for your review. Appointment of an at-large member is to be approved by the ATRS Board of Trustees.

**B. Internal Audit Report: Implementation of Legislation Enacted by the 92nd General Assembly.**

**XVIII. Investment Committee Report. Arthur "Chip" Martin*, Vice Chair.***

**A. Arkansas Related and Investment Update**

**1. List of Fund Closings**

**a. KKR Diversified Core Infrastructure Fund L.P., an Open End Infrastructure Fund Focused on Existing Projects with Imminent Need, the Board Authorized Additional Commitment of up to $50 Million Dollars on June 7, 2021 was Accepted and Closed on June 30, 2021.** The ATRS full commitment of $50 million dollars was negotiated, accepted, and closed on June 30, 2021.

**b. Carlyle Realty Partners IX, L.P., a Value Add Closed End Real Estate Fund that Seeks to Identify and Capitalize on Real Estate Trends with Imminent Need. Due to High Demand ATRS obtained $35 Million Dollars of the Board Authorized Additional Commitment of up to $50 Million Dollars on June 7, 2021 was Accepted and Closed on June 30, 2021.** Due to high demand ATRS was only able to obtain $35 million dollars of the requested $50 million dollars. The additional $35 million dollar commitment was negotiated, accepted, and closed on June 30, 2021.

**c. GLP Capital Partners IV L.P., a Value Add Open End Real Estate Fund Specializing in Distribution and Logistic Companies with Imminent Need, the Board Authorized Additional Commitment of up to $50 Million Dollars on June 7, 2021 was Accepted and Closed on June 28, 2021.** The ATRS full commitment of $50 million dollars was negotiated, accepted, and closed on June 28, 2021.

**d. Alpine Investors VIII, L.P., a Buyout Fund that will Focus on Small and Lower Middle Market Software and Services Companies, the Board Authorized Commitment of up to $30 Million Dollars on July 14, 2021 was Accepted and Closed on August 13, 2021.** The ATRS full commitment of $30 million dollars was negotiated, accepted, and closed on August 13, 2021.

**e. Transfer of Investment in ISQ Global Infrastructure Fund III, L.P. to ISQ Global Infrastructure Fund III (UST), L.P. with Imminent Need, the Board Authorized Transfer of $50 Million Dollars on August 3,**

**2021 was Accepted and Closed on August 4, 2021.** The ATRS full transfer of $50 million dollars was negotiated, accepted, and closed on August 4, 2021.

**2. Fixed Income Guideline Update.** ATRS has established guidelines for some accounts managed by third party investment managers. These guidelines include information about the investment manager's strategy, benchmark, and type of securities the investment manager is allowed to trade on behalf of ATRS. The guidelines also include types of investments that the investment manager is not allowed to trade for ATRS.

As discussed at the December 2, 2019 meeting, ATRS staff and Aon Hewitt Investment Consulting (AHIC) worked with global account managers to adjust the guidelines for global separate accounts to prohibit direct trades in Indian currency. ATRS investment managers may continue to invest in Indian companies as long as the investment is U.S. dollar denominated. The restriction simplifies accounting for investments in India and reduces administrative costs associated with direct trades in Indian currency. The guideline change only applies to separate account managers and does not change ATRS investments in commingled funds or partnerships. The guideline changes were finalized and effective as of January 21, 2020 for most applicable investment managers. The revisions effective January 21, 2020 were made to equity investment manager guidelines. Staff and AHIC have identified one fixed income manager that occasionally has trades settling in Indian currency. Those guidelines have now been updated to reflect the restrictions placed on trades settling in Indian currency.

Since this is an adjustment to the guidelines for these managers versus a reassignment of duties, this is a change implemented by ATRS staff in consultation with the investment consultant. However, since this is happening about the time of the Investment Committee and Board meetings, this is on the agenda for notice and informational purposes.

**3. Highland Update**

**B. General Investment Consultant**

**1. Performance Report for the Quarter Ended June 30, 2021.** P.J. Kelly and Katie Comstock of Aon Hewitt Investment Consulting will provide the Board with a portfolio update for the quarter ending June 30, 2021.

2. **Preliminary Performance Report for the Month Ended August 31, 2021.** P. J. Kelly and Katie Comstock of Aon Hewitt Investment Consulting will provide the Board with a preliminary portfolio update for the month ending August 31, 2021.

3. **Emerging Manager Report for Fiscal Year Ended June 30, 2021.** P.J. Kelly and Katie Comstock of Aon Hewitt Investment Consulting (AHIC) will provide the Board with a report of AHIC's manager research process, including coverage of emerging managers, and provide an update on due diligence activities on emerging managers conducted on behalf of ATRS for the fiscal year ended June 30, 2021.

4. **Recommendation to Transfer Assets from the Existing ATRS Investment in CFM Institutional Systematic Diversified Fund Series 1.5 (CFM ISD) to CFM Systematic Global Macro, L.P. Series 1 (CFM SGM), a Fund that Seeks to Deliver Consistent Returns at Targeted Risk Levels both on a Long and Short Basis. Resolution 2021-38.** The Board approved Resolution 2018-17 authorizing an investment of up to $100 million dollars in CFM ISD. The fund manager now offers a newer strategy, CFM SGM, and Aon Hewitt Investment Consulting recommends transferring ATRS interests from CFM ISD to CFM SGM. The recommendation for the transfer is based on continuous efforts to improve manager structures and is one of the results of the Opportunistic/Alternative Portfolio review presented to the Board at the June 7, 2021 meeting.

   CFM SGM seeks to use economic indicators, inflation indicators, interest rates and other factors along with forward-looking price returns in specific asset classes to generate returns with lower volatility than CFM ISD. The funds founder, Jean-Philippe Bouchaud is a French physicist. He is founder and Chairman of Capital Fund Management (CFM), professor of physics at École Polytechnique and co-director of the CFM-Imperial Institute of Quantitative Finance at Imperial College London. He is a member of the French Academy of Sciences. This SGM fund began in November of 2020 and has a 17.9% total return to date. Aon Hewitt Investment Consulting recommends transferring ATRS interests by withdrawing entirely from CFM ISD and redeploying the proceeds to CFM SGM. ATRS staff concurs with the recommendation.

   B. **Resolution No. 2021-38**

5. **Recommendation to Redeem in Full the ATRS Investment in Nephila Rubik Holdings, Ltd. Resolution 2021-39.** The Board approved

Resolution 2016-12 authorizing an investment of up to $50 million dollars in Nephila Rubik Holdings Ltd. in April 2016. As part of the rebalancing process and another result of the Opportunistic/Alternative Portfolio review presented to the Board at the June 7, 2021 meeting, Aon Hewitt Investment Consulting recommends a full redemption of ATRS interests in Nephila Rubik Holdings. ATRS staff concurs with the recommendation.

a. **Resolution No. 2021-39**

6. **Recommendation to Commit Approximately $95 Million Dollars in Juniperus Insurance Opportunity Fund Limited, a Fund that Invests across Insurance Linked Securities, Including Private Reinsurance, Reassignment of Insurance Risk to Other Carriers, Catastrophe Bonds, and Other Insurance Linked Investments. Resolution 2021-40.** The fund is an investment vehicle that provides its investors with an opportunity to invest in an actively managed and diversified portfolio of insurance based opportunities. Pillar Capital Management Limited is the fund's investment manager and is based in Bermuda. The investment team currently consists of Stephen A. Velotti, Tara L. Railton, Thomas Cosenza, Jeff Franklin and Stewart Foster who have collectively over one hundred years of experience in reinsurance underwriting. The fund has a net return objective of 8 to 12% with the annual compounded return being 8% since its inception in 2008. Aon Hewitt Investment Consulting recommends an investment of up to $95 million dollars in Juniperus Insurance Opportunity Fund Limited and ATRS staff concurs.

a. **Resolution No. 2021-40**

7. **Recommendation to Commit up to $50 Million Dollars in Chatham Asset Private Debt and Strategic Capital Fund III, L.P., a Fund that Invests in High Yield Bonds, Leverage Loans and Equity both on a Long and Short Basis. Resolution 2021-41.** Founded in 2002 and based in Chatham, NJ, the fund is designed to provide clients with exposure to illiquid and opportunistic debt assets both on a long and short basis. The fund seeks to take advantage of opportunities arising from the mismatch between the supply of capital available to middle market companies and the demand for capital from those companies.

Prior to co-founding the management company in 2003, Anthony Melchiorre was a Managing Director and Head of Global High Yield Trading at Morgan Stanley from 1998 to 2002. At Morgan Stanley, Mr. Melchiorre actively traded a proprietary book including domestic and global investments in high yield debt, bank debt, and high yield credit derivatives. His duties also included responsibility for the risk management of a $3 billion dollar global balance sheet. In addition to his experience at Morgan Stanley, Mr. Melchiorre garnered over fifteen years of experience as a high yield trader for various other firms. Previous funds in this series have averaged a 20% return. Aon Hewitt Investment Consulting recommends an investment of up to $50 million dollars in Chatham Asset Private Debt and Strategic Capital Fund III and ATRS staff concurs.

**a. Resolution No. 2021-41**

**C. Real Assets**

1. **Performance Report for the Quarter Ended March 31, 2021.** Chae Hong of Aon Hewitt Investment Consulting will provide the Board with a performance report for the quarter ending March 31, 2021.

2. **Recommendation to Commit up to $40 Million Dollars in Almanac Realty Securities IX, L.P., a Closed End, Value Added Real Estate Fund Targeting Investments in Both Private and Public Real Estate Operating Companies. Resolution 2021-42.** Founded in 1996 and located in New York, Almanac was originally known as Five Arrows before changing the firm's name in 2011. ATRS has previously invested in Almanac Fund V (formerly known as Five Arrows Fund V), VI, VII and VIII for an average net IRR of 12.4%. Overall, Almanac's funds have produced favorable and consistent risk adjusted returns. Almanac's experienced team of fourteen real estate professionals is led by owners John McGurk, Matt Kaplan, Pike Aloian, Andrew Silberstein, and Justin Hakimian. The owners of the firm each have more than twenty years of real estate industry experience and the team currently has $2.6 billion dollars under management.

   This fund focuses on real estate operating companies that have strong management teams with stable cash flows. This strategy strives to provide attractive current yields coupled with additional returns by continuing to grow already stable companies while providing downside protection. Almanac Realty Securities VIII will pursue a relatively unique strategy within the value added category and it is anticipated that roughly 50% of returns will be earned in the form of current income. The fund will make both equity and debt investments with a target net IRR to investors of 12%. Aon Hewitt Investment Consulting recommends an investment of up to $40 million dollars in Almanac Realty Securities VIII and ATRS staff concurs.

   **a. Resolution No. 2021-42**

3. **Recommendation to Commit up to $50 Million Dollars in LaSalle Asia Opportunity Fund VI, L.P., a Closed End Opportunistic Real Estate Fund Focused on Both Debt and Equity Investments in Asia with Imminent Need. Resolution 2021-43.** Headquartered in Chicago, Illinois, LaSalle Investment Management was formed in 1996 to focus on commercial real estate investments. The LaSalle Asia Opportunity real estate series platform began in 2001. ATRS invested in the two preceding funds, IV and V, which have averaged a net IRR of 22% as of March 30, 2021. The objective of the LaSalle Asia Opportunity Fund VI, L.P. (LAOF VI) is to provide a net IRR of 18% by making debt or equity investments in office, retail, residential, warehousing, hotels, and other commercial properties primarily in Asia. Mark Montanus and Mark Gabbay return as Fund Manager & CEO respectively, and the same strong support team remains intact for Fund VI. Aon Hewitt Investment Consulting recommends an investment in LaSalle Asia Opportunity Fund VI, L.P. with a commitment of up to $50 million dollars and ATRS staff concurs. Since ATRS may need to close the investment in LaSalle Asia Opportunity Fund VI, L.P before the next meeting of the Arkansas Legislative Council, Imminent Need is requested.

   a. **Resolution No. 2021-43**

4. **Recommendation to commit up to $55 Million Dollars in LBA Logistics Value Fund IX, L.P., a Closed End Value Add Real Estate Fund with the Primary Purpose of Acquiring Industrial Properties Located in the U.S. Real Estate Market with Imminent Need. Resolution 2021-44.** Headquartered in Irvine, CA, LBA was formed in 1991 by Phil Belling and Steve Layton as a full service real estate company with in-house expertise in acquisitions, dispositions, asset and property management, development, construction and leasing. The previous seven funds have had an average IRR of 13.57%. Fund VIII was an office property fund which closed this year and has made no investments as of June 2021. Aon Hewitt Investment Consulting recommends an investment of up to $55 million dollars in LBA Logistics Value Fund IX, L.P. and ATRS staff concurs. Since ATRS may need to close the investment in LBA Logistics Value Fund IX, L.P. before the next meeting of the Arkansas Legislative Council, Imminent Need is requested.

   a. **Resolution No. 2021-44**

5. **Recommendation to Redeem and Redeploy Approximately $140 Million Dollars from JP Morgan Strategic Property Fund (SPF). Resolution 2021-45.** ATRS first invested in SPF in 2006 and has fully funded the $170 million dollar commitment authorized through Resolution 2006-25 and an additional commitment of $50 million dollars authorized through Resolution 2010-12. The growth of the ATRS investment in this fund has resulted in ATRS having approximately $280 million dollars invested in SPF. Aon Hewitt Investment Consulting recommends withdrawing approximately $140 million dollars from SPF to increase diversity in the core real estate portfolio. The potential withdraw of $140 million dollars from SPF could be redeployed to two real estate funds described below in F and G if those items are approved by the Board. ATRS staff concurs with the recommendation.

    a. **Resolution No. 2021-45**

6. **Recommendation to Commit up to $70 Million Dollars in Morgan Stanley Prime Property Fund LLC, (PPF) an Open End, Core Real Estate Fund Focused on Income Producing Properties. Resolution 2021-46.** Headquartered in New York, Morgan Stanley Real Estate Investing (MSREI) has a global platform of real estate investment products and strategies with almost $44 billion in assets under management. PPF is MSREI's single largest fund. PPF is a U.S. open end, diversified core fund that targets the highest quality income-producing properties located in primary markets. Scott Brown is the portfolio manager and has been with Morgan Stanley since 2003 and has thirty years of real estate experience. The fund is targeting gross returns of 8 to 10%. Over the last ten years PPF has produced a 10.9% net IRR. Aon Hewitt Investment Consulting recommends an investment of up to $70 million dollars in Morgan Stanley Prime Property Fund and ATRS staff concurs.

    a. **Resolution No. 2021-46**

7. **Recommendation to Commit up to $70 Million Dollars in RREEF Core Plus Industrial Fund L.P.(CPIF), an Open End, Core Plus Real Estate Fund Specializing in Industrial Assets. Resolution 2021-47.** The CPIF headquarters are located in New York. The CPIF parent companies (DWS Group and KGaA) are based in Frankfurt, Germany. Darrel Campos is the lead portfolio manager for CPIF and has been with RREEF for twenty-three years. CPIF invests in high quality industrial assets via core, transitional and development investments primarily located in and

around U.S. major industrial metropolitan areas. CPIF has a since inception net return of 10.5%. Aon Hewitt Investment Consulting recommends an investment of up to $70 million dollars in RREEF Core Plus Industrial Fund L.P. and ATRS staff concurs.

**a. Resolution No. 2021-47**

**D. Private Equity Consultant Report**. *Franklin Park*

1. **Preliminary Private Equity Portfolio Review for the Quarter Ended March 31, 2021.** Michael Bacine of Franklin Park will provide the Board with a preliminary portfolio review for the quarter ending March 31, 2021.

2. **Emerging Manager Report for Fiscal Year Ended June 30, 2021.** Michael Bacine of Franklin Park will provide the Board with a report of Franklin Park's manager research process, including coverage of emerging managers, and provide an update on due diligence activities on emerging managers conducted on behalf of ATRS for the fiscal year ended June 30, 2021.

3. **Recommendation to Commit up to $30 Million Dollars in Bison Capital Partners VI, L.P., a Private Equity Debt and Equity Fund Focused on Hybrid Debt and Equity Investments in Small to Middle Market Companies. Resolution 2021-48.** The general partner was founded in 2001 and is currently led by Doug Trussler, Lou Caballero, Andreas Hildebrand, Peter Macdonald and Kurt Pilecki (principals). The principals, based in both Los Angeles and New York, have an average of over twenty-one years' experience each in private equity and more than thirteen years of experience with Bison.

   The fund will seek to make hybrid debt/equity investments in small and lower middle market U.S. companies primarily in the business services, healthcare services, technology-enabled businesses, and logistics and distribution sectors. Investments will typically be non-control, junior capital and structured as a combination of senior and subordinated debt and preferred equity securities, with existing owners retaining a control stake. Investments will generally be structured with a yield of 8-15%, including cash interest and payment-in-kind (PIK) interest. Capital will be used to support growth initiatives, acquisitions and/or recapitalization of non-active shareholders. This type of investment has a slightly lower risk/return profile than other types of private equity due to the debt component. The firm has generated strong returns in its previous five funds with an average gross IRR of approximately 15%. ATRS invested in Bison V in 2016 and it is currently generating a net IRR of 14.5% as of December 31,

2020. Franklin Park recommends a commitment of up to $30 million dollars in Bison Capital Partners VI, L.P. and ATRS staff concurs.

**a. Resolution No. 2021-48**

4. **Recommendation to Commit up to $30 Million Dollars in Clearlake Capital Partners VII, L.P. a Private Equity Fund that Makes Opportunistic Debt and Equity Investments in Middle Market Companies Undergoing Change and/or are in Underserved Industries or Markets in North America. Resolution 2021-49.** Based in Santa Monica, California, Clearlake Capital was formed in 2007 by Steve Chang, Jose Feliciano and Behdad Eghbali with sponsorship by Reservoir Capital. As of April 2017, Reservoir no longer has a stake in the general partner; however, the firms Landmark, Goldman Sachs and Dyal together own 22.5% of the general partner. The fund is now managed by Messrs. Feliciano and Eghbali as well as Prashant Mehrota, Colin Leonard and James Pade (partners) who are supported by twelve investment professionals. The partners have an average of approximately thirteen years of experience each with the general partner and nineteen years each in the private equity industry.

   Clearlake makes both debt and equity investments in companies undergoing significant change or that are in underserved industries or markets. These investment opportunities often involve bankruptcies, restructurings and turnarounds. They may also involve companies that are experiencing legal or regulatory challenges or challenges meeting growth plans. The fund will focus primarily on the industrials and energy, software and technology-enabled services, and consumer sectors. ATRS invested in Clearlake V and VI that have produced net returns of 56.1% and 38.8%, respectively. Overall, the firm has generated an aggregate net IRR in excess of 30% on its previous four funds and is targeting a net return above 20% for Clearlake VII. Franklin Park recommends an investment of up to $30 million dollars in Clearlake Capital Partners VII, L.P. and ATRS staff concurs.

   **a. Resolution No. 2021-49**

5. **Recommendation to Commit up to $30 Million Dollars in Franklin Park Venture Fund XIV, L.P., (formerly Franklin Park Venture Fund Series) a Fund of Funds Managed by Franklin Park Investing in Venture Capital Private Equity Funds. Resolution 2021-50.** ATRS has invested in venture capital through Franklin Park investment vehicles for the last thirteen years with excellent results. In December 2019, the

Board approved a commitment of $30 million dollars in Franklin Park Venture Capital Fund XIII, L.P., a new vehicle designed to provide more flexibility to invest in high quality venture funds over a multi-year period. The Board approved an additional commitment of $30 million in Fund XIII in June 2020. In this new multi-year fund, Franklin Park admitted investors who were not existing clients as limited partners, but they were required to pay fees and carried interest. Beginning with Fund XIV, non-client investors will be required to pay a management fee of .9% with carried interest of 5% after an 8% preferred return is achieved. Existing clients that invest $60 million or more in the two to three year fund will not pay a management fee, and their carried interest is reduced to 4%. The fees and carried interest provide a source of incentive compensation for Franklin Park's investment staff. Franklin Park is committed to remaining a small boutique firm and is not seeking to add large clients to grow their fee base. The small size and high level of expertise of the firm are of significant benefit to ATRS because they allow Franklin Park to access top-tier venture funds that are often top-decile performers.

As a reminder, Franklin Park acts as the manager of a fund of funds in the venture space since it is a very volatile segment of private equity. In order to offset some of that risk, Franklin Park acquires an interest in several venture funds and spreads those through its investors to create greater diversity of managers and styles. The venture capital portfolio that Franklin Park has created and managed for ATRS has performed very well. The current average net IRR for all of the venture vehicles (since 2008) is 27.2%. In the next few months, a number of highly successful and sought-after venture managers are coming to market with new funds. In order to make timely investments in these top-tier managers, the vehicle needs commitments from its limited partners at this time. ATRS staff concurs with Franklin Park's recommendation to commit up to $30 million dollars in Franklin Park Venture Capital Fund XIV, L.P. and to the fee structure.

**a. Resolution No. 2021-50**

6. **Recommendation to Commit up to $30 Million Dollars in Franklin Park Corporate Finance Access Fund II, L.P., a Fund of Funds Managed by Franklin Park Investing in Smaller Buyout, Growth, and Turnaround Private Equity Funds. Resolution 2021-51.** Franklin Park Corporate Finance Access Fund (FPCFAC) is a multi-year fund of funds

that was formed to allow other investors to invest in smaller buyout, growth equity and turnaround funds with ATRS as the anchor. Though the fund sizes are smaller, the managers chosen are experienced investors, often having spun-out from larger successful firms. The managers are usually sector-focused with competitively advantaged domain knowledge. They typically have an operationally intensive value-add approach. Previously, ATRS had invested in these smaller or “next generation” funds through the ATRS/FP Fund. Over the years, the ATRS/FP Fund had become fairly complicated with various types of investments. Investing in these smaller funds through FPCFAC has helped to simplify the monitoring and accounting processes for the ATRS/FP Fund.

With the exception of ATRS, both clients and non-clients of Franklin Park are currently paying a management fee of .9% and carried interest of 5% in Fund I. Beginning with FPCFAC II, non-clients will pay a .9% management fee and 5% carried interest while existing clients will pay no management fee and 5% carried interest. Carried interest will be reduced to 4% for existing clients, such as ATRS that invest a total of at least $60 million in the fund over the two to three year investment period. The fees and carried interest provide a source of incentive compensation for Franklin Park’s investment staff and better align ATRS’s interest with that of Franklin Park and its other investors. Franklin Park is committed to remaining a small boutique firm and is not seeking to add large clients to grow their fee base. Again, the small size and high level of expertise of the firm are of significant benefit to ATRS because they allow Franklin Park to access top-tier funds.

The first FPCFAC is now fully committed having invested approximately $147 million in sixteen funds. ATRS has invested a total of $90 million in the first FPCFAC fund since 2019. Though the investments are young, they are all on track to perform well. Franklin Park is in the process of raising the second FPCFAC fund to take advantage of high-quality smaller funds coming to market in the near future. ATRS staff concurs with Franklin Park’s recommendation to commit up to $30 million dollars in Franklin Park Corporate Finance Access Fund II, L.P. and to the fee structure.

**a. Resolution No. 2021-51**

**XIX. Operations Committee Report.** ***Bobby Lester, Chair.***

**A. Open Forum for Potential Rule or Law Changes by Committee Members and Board Members Present.** This is a standard part of the Committee agenda to allow Committee Members and Board Members in attendance to address topics and issues for consideration.

**B. Board Policy 1 Update - Regarding Committee Appointments.** Board Policy 1 currently states that trustees are appointed to committee assignments for 4-year terms. This has not been the recent practice. It would be difficult to reconcile 4-year committee terms with the existing 6-year term for trustee positions. The proposed change puts the formation of the committee membership under the responsibility of the board chair, soon after being elected. **This is an action item.**

**C. Potential Rule Changes.** The staff will present various proposed changes to ATRS Rules as required by the 2021 legislative session, staff recommendations, and preparation for the rules being codified into the Codified Arkansas Rules (CAR). Red-line markup versions of the following rules are included in the board packet. **This is an action item.**

1. **Rule 4: Election of Board of Trustees.**
2. **Rule 6: Membership**.
3. **Rule 7: Reporting and Eligibility**.
4. **Rule 8: Purchases and Refunds.**
5. **Rule 9: Retirement Benefits.**
6. **Rule 10: T-DROP and Return to Service.**
7. **Rule 11: Survivors and Domestic Relations Order.**

**XX. Board of Trustees Disability Review.** Under the Disability Review procedure described in A.C.A.§24-7-704(b)(3)(D) the Board shall approve the recommendations of the Medical Committee. The following are proposed orders for Board approval regarding Disability Review recommendations.

**A. Group Order - Approved - DR-2021-09-A.** The proposed order is for the acceptance of **five (5) approved** disability reviews. **This is an action item.**

**B. Member Order - DR-2021-09-444395.** The proposed order is to approve continued disability benefits retroactively to the date of the suspension of benefits for member ATRS ID# 444395. **This is an action item.**

**C. Member Order - DR-2021-09-498094.** The proposed order is to accept the medical committee recommendation to approve disability benefits, and restore benefits retroactively for member ATRS ID# 498094. **This is an action item.**

**XXI. Staff Reports.**

**A. Medical Committee Reports. A Total of 31 Disability Retirement Applications Approved.**

The Medical Committee Report is a standard report made by staff on behalf of the Medical Committee approving disability cases. A total of 46 disability applications were received, 31 were approved, 7 were denied, and 8 needed more information. **This is an action item.**

**XXII. Election of Board Chair and Vice Chair.**

**XXIII. Other Business.**

**XXIV. Adjourn.**

**CORRECTED MINUTES**
**ARKANSAS TEACHER RETIREMENT SYSTEM**
**BOARD OF TRUSTEES**

**Monday, December 7, 2020**
**11:00 a.m.**
**1400 West Third Street**
**Little Rock, AR 72201**

## ATTENDEES

**<u>Board Members Present</u>**
Danny Knight, Chair
Anita Bell*
Lloyd Black*
Kathy Clayton*
Kelly Davis*
Dr. Mike Hernandez*
Shawn Higginbotham*
Michael Johnson*
Bobby Lester*
Chip Martin*
Robin Nichols*
Johnny Key, Secretary, Dept. of Ed*
Hon. Andrea Lea, State Auditor*
Susannah Marshall, State Bank Commissioner*

**<u>Board Member's Absent</u>**
Hon, Dennis Milligan, State Treasurer

**<u>ATRS Staff Present</u>**
Clint Rhoden, Executive Director
Rod Graves, Deputy Director*
Tammy Porter, Ex. Assistant/Board Secretary
Curtis Carter, Chief Financial Officer
Dena Dixson, Int. Audit/Risk Mgmt.*
Vicky Fowler, Director, Human Resources*
Willie Kincade, Director of Operations*
Jerry Meyer, Manager, Real Assets*
Martha Miller, General Counsel*
Joe Sithong, Information Systems Coordinator*
Brenda West, Int. Audit/Risk Mgmt.*
Misty Yant, Manager, Reporting

**<u>Guest Present</u>**
Chris Caldwell, Div. of Legislative Audit*
Jorge Perez, Div. of Legislative Audit*
Emily Tucker, Div. of Legislative Audit*
Johnna Staudinger, Div. of Legislative Audit*
Duncan Baird, APERS*
David Kizzia, AEA*
Donna Morey, ARTA*
Candace Franks*
ID# Capitol 2*
Will Muoio, Pageant Media*
Gar Chung*
Brian Murphy, GRS*
Judy Kermans, GRS*
Heidi Berry, GRS*
Lura Campbell, ARTA*
Emilie Monk*

* *via ZOOM*

I. **Call to Order/Roll Call.** Mr. Danny Knight, Chair, called the Board of Trustees meeting to order at 11:10 a.m. Roll call was taken. Hon. Dennis Milligan, State Treasurer was absent.

**II. Adoption of Agenda.**

> **Ms. Nichols *moved* for *adoption* of the Agenda. Mr. Martin s*econded* the *motion,* and the Board *unanimously approved the motion.***

**III. Election of Board Vice Chair.** Mr. Knight, Chair, opened the floor for nominations for the position of Vice Chair. Mr. Lester nominated Mr. Lloyd Black as Vice Chair of the ATRS Board of Trustees. No other nominations were made.

> **Mr. Higginbotham *moved to approve* Mr. Lloyd Black as Vice Chair of the ATRS Board of Trustees. Ms. Bell *seconded the motion* and the Board *unanimously approved the motion*.**

**IV. Executive Summary.** The Executive Summary was provided for reference with no questions or expansions on the written summary.

**V. Approval of Prior Meeting Minutes.**

**A. September 28, 2020, Minutes.**

> **Mr. Lester *moved* for *approval* of the Minutes of the Board of Trustees meeting of September 28, 2020. Mr. Higginbotham *seconded* the *motion*, and the Board *unanimously approved the motion.***

**B. November 9, 2020, Minutes.**

> **Ms. Lester *moved* for *approval* of the Minutes of the Board of Trustees meeting of November 9, 2020. Mr. Higginbotham *seconded* the *motion*, and the Board *unanimously approved the motion.***

**VI. Preliminary Active Actuarial Valuation.** Judy Kermans and Brian Murphy of Gabriel, Roeder, Smith & Co., gave a presentation of the preliminary active actuarial valuation for the 2019-2020 fiscal year.

**VII. Statement of Financial Interest.** Mr. Rhoden, Executive Director, reminded the Board members that their Statement of Financial Interest filings are to be filed with the Secretary of State's office by Monday, February 1, 2021, for financial information for calendar year 2020.

**VIII. Proposed 2021 Board of Trustees Schedule.** The Board reviewed the proposed schedule.

**Mr. Lester *moved* to *approve* the 2021 Board of Trustee Schedule. Mr. Black *seconded* the *motion*, and the Board *unanimously approved the motion.***

**IX. Report of Member Interest Waived Under A. C. A. Section 24-7-205.** Mr. Rhoden presented the member interest amount waived report. ATRS waives interest for members when there is a dispute between ATRS and the member as to whether ATRS made a mistake or otherwise did not do all that was required on the member's account. One (1) member interest and penalties was waived for this reporting period in the amount of $164.68.

**X. Report of Employer Interest and Penalties Waived Under A. C. A. Sec. 24-7-411.** Mr. Rhoden presented the employer interest and penalties waived report. ATRS may also waive employer interest and penalties when reports or payments are late or have issues due to a new bookkeeper, inclement weather, sickness and other situations that justify a waiver. No employer interest and penalties was waived for this reporting period.

**XI. Manifest Injustice Report**. Mr. Rhoden presented the Board with the Manifest Injustice Report. Two (2) Manifest Injustice resolutions have occurred since the previous Manifest Injustice Report. The rule on Manifest Injustice requires reports on Manifest Injustice resolutions to the Board at least two times per year. This was the second report of the year.

**XII. Forfeiture Recommendations Pursuant A.C.A 24-7-734(6).** A.C.A. §24-7-734(b) provides that benefits that are not paid within five (5) years of the date they are due may be forfeited if (1) ATRS is unable to contact the person entitled to the benefit by mail addressed to the last known address on record; <u>or</u> (2) if the person entitled to the benefit fails to submit the required paperwork to ATRS to claim the benefit.

ATRS staff reviewed thirty-four (34) member accounts and identified benefits in thirty (30) accounts totaling in the aggregate $89,193.35 that fall within the provisions of this Code section.

Staff recommends that the Board find these benefits should be forfeited according to A.C.A. §24-7-734(b) and direct the staff to transfer these benefits to the trust assets of ATRS.

**Mr. Lester *moved* to *approved* the Forfeiture Recommendations of 30 member accounts and direct staff to transfer these benefits to the**

**trust assets of ATRS. Ms. Bell *seconded* the *motion*, and the Board *unanimously approved* the *motion*.**

**XIII. Investment Committee Report.** ***Robin Nichols, Investment Committee Chair.***

**A. Arkansas Related and Investment Update.** Rod Graves, Deputy Director, gave an update on the following recent Investment activity.

1. List of Fund Closings.

2. **Recommendation to Change the Legal Structure of Existing Highland Investments.**

**Ms. Nichols *moved* to *adopt* Resolution 2020-36, to Change the Legal Structure of Existing Highland Investments. The Board *unanimously adopted the Resolution*.**

3, American Center Management Update.

**B. General Investment Consultant Report.** ***Aon Hewitt Investment Consulting.***

**1. Performance Report for the Quarter Ending September 30, 2020.** PJ Kelly and Katie Comstock of Aon Hewitt Investment Consulting provided the Committee with a preliminary performance report for the quarter ending September 30, 2020.

**2. AB TALF Opportunity 2020 (Delaware) Fund Update.** PJ Kelly and Katie Comstock of Aon Hewitt Investment Consulting provided the Board with an update of the AB TALF Opportunity 2020 (Delaware) Fund

**C. Real Assets Consultant Report.** ***Aon Hewitt Investment Consulting.***

**1. Performance Report for the Quarter Ended June 30, 2020.** Chae Hong of Aon Hewitt Investment Consulting provided the Committee with a performance report for the quarter ending June 30, 2020.

**2. 2021 Real Assets Commitment Pacing (Total Pacing $330 Million Dollars).** Chae Hong of Aon Hewitt Investment Consulting presented the 2021 Real Assets Commitment

Pacing. For calendar year 2021, Aon Hewitt Investment Consulting and ATRS staff are recommending approximately **$330 million dollars for 2021 real assets pacing.**

ATRS staff concurs with the recommendation.

> **Ms. Nichols *moved* to *approve* the 2021 Real Assets Commitment Pacing for a Total of $330 Million Dollars. The Board *unanimously adopted the Motion.***

3. **Recommendation to Commit up to $40 Million Dollars in Mesa West Real Estate Income Fund V, LP, a Closed-End Value Added Real Estate Fund Focused on Originating Senior Debt on Value Add/Transitional Commercial Real Estate Properties.** Chae Hong of Aon Hewitt Investment Consulting provided the Committee with the recommendation to Commit up to $40 Million Dollars Mesa West Real Estate Income Fund V, LP, a Closed-End Value Added Real Estate Fund Focused on Originating Senior Debt on Value Add/Transitional Commercial Real Estate Properties.

   ATRS staff concurs with the recommendation.

   > **Ms. Nichols *moved* to *adopt* Resolution 2020-37, to Commit up to $40 Million Dollars in Mesa West Real Estate Income Fund V, LP, a Closed-End Value Added Real Estate Fund Focused on Originating Senior Debt on Value Add/Transitional Commercial Real Estate Properties. The Board *unanimously adopted the Resolution*.**

4. **Recommendation to Revise Board Policy 6 (Real Assets Investment Policies) and Board Policy 4 (Investment Policy) Related to Performance Benchmarks for Timber and Agriculture and to Change Portfolio Diversification Related to Agriculture, Real Estate and Timber.** Chae Hong of AON Hewitt Investment Consulting will present proposed changes to Board Policy 6 related to performance benchmarks and real asset portfolio diversification.

   > **Ms. Nichols *moved* to *approve* the Recommendation to Revise Board Policy 6 (Real Assets Investment Policies) and Board Policy 4 (Investment Policy) Related to Performance Benchmarks for Timber and**

**Agriculture and to Change Portfolio Diversification Related to Agriculture, Real Estate and Timber. pThe Board *unanimously adopted the Motion*.**

**D. Private Equity Consultant Report. *Franklin Park***

1. **2021 Private Equity Pacing Schedule (Total Pacing $300 Million Dollars).** Michael Bacine of Franklin Park provided the 2021 pacing schedule for private equity.

    **Ms. Nichols *moved* to *approve* the 2021 Private Equity Pacing Schedule for a Total Pacing of $330 Million Dollars. The Board *unanimously adopted the Motion*.**

2. **ATRS/FP Private Equity Fund, L. P., a Multi-Strategy Fund Focused on Co-Investments and Other Strategies That Seeks to Use Accumulated Recallable Distributions to Fund an Investment in Franklin Park Co-Investment Fund V, L.P. and Discussion of Change in Fee Structure.** Michael Bacine of Franklin Park provided the Committee with the recommendation to use accumulate recallable distributions to find an Investment in Franklin Park Co=Investment Fund V, LP, and discussion of Change in Fee Structure.

    ATRS staff concurs with the recommendation.

    **Ms. Nichols *moved* to *approve* the ATRS/FP Private Equity Fund, L. P., a Multi-Strategy Fund Focused on Co-Investments and Other Strategies That Seeks to Use Accumulated Recallable Distributions to Fund an Investment in Franklin Park Co-Investment Fund V, L.P. and Change in Fee Structure. The Board *unanimously adopted the Motion.***

**XIV. Operations Committee Report.** Bobby Lester, Chair, gave a report on the Operations Committee meeting.

**A. Open Forum for Potential Rule and Law Changes by Committee Members and Board Members Presents.**

1. **Open Forum**. None.

**B.** **ATRS 2021 Legislative Package.** Director Rhoden gave the Committee a report of the potential 2021 Legislative Package. Draft copies for approval were presented to the Committee.

> **Mr. Lester *moved* to *approve* the 2021 Legislative Package. The Board *unanimously adopted the Motion.***

## XV. Staff Reports.

**A.** **Medical Committee Report.** Mr. Kincade reported that a total of 28 disability applications were received. 13 were approved, 14 were denied, and 1 needed more information.

> **Ms. Nichols *moved to approve* the Medical Committee Report. Ms. Davis *seconded* the *motion* and the Board *unanimously approved* the *Motion*.**

**B.** **Financial Report.**

1. **Financial Statement Report.** Curtis Carter, ATRS Chief Financial Officer gave the Board summary information for the financial reports for the year ending June 30, 2020. Plan net assets were $16.9 billion dollars in fiscal year 2020.

2. **Travel Report.** Curtis Carter, ATRS Chief Financial Officer gave the Board a standard travel report showing the expenses for staff and Trustees for fiscal year ending June 30, 2020. Board travel expenses decreased in 2002 as compared to fiscal year 2019. Other staff travel also decreased in fiscal year 2020 as compared to fiscal year 2019

**C.** **Contracts.** Rod Graves, Deputy Director, gave an update on the ATRS Contracts.

**D.** **Personnel Report.** The Personnel report was presented to the Board. ATRS currently has 87 appropriated positions with a cap set at 81. Currently, there are 74 positions filed and 13 are vacant

## XVI. Recognition of Retirement of Candace Franks, Ex Officio Trustee. Director Rhoden recognized Ms. Candace Franks on her service to the ATRS Board of Trustees.

**A.** **Resolution 2020-38.**

**Ms. Nichols *moved* to *adopt* Resolution 2020-38, Recognition of Ms. Candace Franks' service to the ATRS Board of Trustees. Ms. Davis seconded the motion, and the Board *unanimously adopted the Resolution*.**

**XVII. Other Business.** None.

**XVIII. Adjourn.**

**Mr. Knight, Chair asked for any further business. With none being heard, Mr. Knight called the Board of Trustee meeting adjourned.**

**Meeting adjourned at 12:40 p.m.**

| | |
|---|---|
| Clint Rhoden,<br>Executive Director | Mr. Danny Knight, Chair<br>Board of Trustees |
| Tammy Porter,<br>Recorder | Date Approved |

**MINUTES**
**ARKANSAS TEACHER RETIREMENT SYSTEM**
**BOARD OF TRUSTEES**

**Monday, June 7, 2021**
**11:30 a.m.**
**1400 West Third Street**
**Little Rock, AR 72201**

**ATTENDEES**

**Board Members Present**
Danny Knight, Chair
Lloyd Black, Vice Chair*
Anita Bell
Kathy Clayton*
Dr. Mike Hernandez*
Shawn Higginbotham*
Michael Johnson
Bobby Lester
Chip Martin
Robin Nichols
Susannah Marshall, Bank Commissioner*
Hon. Andrea Lea, State Auditor
Jason Brady, designee for Dennis Milligan, State Treasurer
Johnny Key, Secretary, Dept. of Ed.*

**Board Members Absent**
Kelly Davis

**Reporters Present**
Mike Wickline, Arkansas Dem Gaz.

**ATRS Staff Present**
Clint Rhoden, Executive Director
Rod Graves, Deputy Director
Tammy Porter, Ex. Assistant/Board Secretary
Curtis Carter, Chief Financial Officer
Dena Dixson, Int. Audit/Risk Mgmt.
Vicky Fowler, Directory, Human Resources
Willie Kincade, Director of Operations
Manju, Director, Information Systems
Jerry Meyer, Manager, Real Assets
Leslie Ward, Manager, Private Equity
Brenda West, Int. Audit/Risk Mgmt.
Misty Yant, Manger, Reporting *

**Guest Present**
Duncan Baird, APERS*
Katie Comstock, Aon Hewitt (AHIC)*
PJ Kelly, Aon Hewitt (AHIC)*
Michael Bacine, Franklin Park*
Jack Down, Aon Hewitt (AHIC)*
Iftikhar Ahmed, Aon Hewitt (AHIC)*
Chae Hong, Aon Hewitt (AHIC)*
Kevin Hrad, Aon Hewitt (AHIC)*
ID# A. Woods*

***via ZOOM***

I. **Call to Order/Roll Call.** Mr. Danny Knight, Chair, called the Board of Trustees meeting to order at 11 47 a.m. Roll call was taken. Ms. Kelly Davis was absent.

II. **Motion for Excused Absences**.

**Mr. Black *moved* to *excuse* Ms. Kelly Davis from the June 6, 2021, Board of Trustees Meeting. Ms. Bell s*econded* the *motion,* and the Board *unanimously approved the motion.***

**III. Adoption of Agenda.**

**Ms. Nichols *moved* for *adoption* of the Agenda. Mr. Lester s*econded* the *motion,* and the Board *unanimously approved the motion.***

**IV. Executive Summary.** The Executive Summary was provided for reference with no questions or expansions on the written summary.

**V. Approval of Prior Meeting Minutes.**

**A. April 6, 2020, Corrected Minutes.**

**Mr. Lester *moved* for *approval* of the Corrected Minutes of the Board of Trustees meeting of April 6, 2020. Ms. Bell *seconded* the *motion*, and the Board *unanimously approved the motion.***

**B. April 5, 2021, Minutes.**

**Ms. Nichols *moved* for *approval* of the Minutes of the Board of Trustees meeting of April 5, 2021. Mr. Johnson *seconded* the *motion*, and the Board *unanimously approved the motion.***

**C. May 3, 2021, Minutes.**

**Mr. Martin *moved* for *approval* of the Minutes of the Board of Trustees meeting of May 3 2021. Ms. Marshall *seconded* the *motion*, and the Board *unanimously approved the motion.***

**VI. Report of Member Interest Amount Waived Under A.C.A. Sec. 24-7-205**. ATRS waives interest for members when there is a dispute between ATRS and the member as to whether ATRS made a mistake or otherwise did not do all that was required on the member's account. Since ATRS has implemented the actuarial cost method for the purchase of service credit, interest waived is slowly disappearing, as well as the number of members who purchase service credit. Three (3) member interest amounts were waived for this reporting period in the amount of $134.25. This is a standard report for information and no action was needed.

**VII. Report of Employer Penalties and Interest Waived Under A.C.A. Sec. 24-7-411.** ATRS may also waive employer interest and penalties when reports or payments are late or have issues due to a new bookkeeper, inclement weather, sickness and other situations that justify a waiver. Three (3) employer penalties and interest amounts were waived for this reporting period in the amount of $1,366.20. This is a standard report for information and no action was needed.

**VIII. Manifest Injustice Board Review.**

**A. In the Matter of MI Claim #2021-05.** Director Rhoden presented the Board with MI Claim #2021-05. Executive Staff recommended the Board find a manifest injustice exists in this case and grant a three (3) month extension retroactively

**A. Ms. Nichols *moved* to *approve* the Recommendation to find a manifest injustice exists and grant a three (3) month extension retroactively. Mr. Martin seconded the *motion*, and the Board *unanimously approved* the *motion*.**

**IX. Manifest Injustice Report.** The rule on Manifest Injustice requires reports on Manifest Injustice resolutions to the Board at least two times per year. This Manifest Injustice report is for information and is not an action item

**X. GASB Report after Legislative Audit Review.** Mr. Curtis Carter presented the Board with the GASB Report.

**Mr. Lester *moved* for *approval* of the GASB Report after Legislative Audit Review. Ms. Nichols *seconded* the *motion*, and the Board *unanimously approved the motion.***

**XI. Legislative Audit Report**. Director Rhoden gave a report to the Committee regarding the current legislative report. The Board deferred it until the final ruling was done by ALC.

**XII. Discussion of ATRS Audit Findings for Fiscal Year 2020.** Director Rhoden discussed the Audit Findings with the Board. Director Rhoden recommended that the Board revise ATRS Board Policy 4 – Statement of Investment Policy.

**Mr. Brady *moved* to *approve* the recommendation of Staff to revise the Board Policy 4 to reflect that the System shall not approve any material changes in any direct investment without first receiving**

- **i. written advice/recommendation from a third-party Investment consultant;**
- **ii. If needed, outside legal counsel; and,**

**iii. without thereafter receiving written approval by the Investment Committee and Board of Trustees.**

**Mr. Lester seconded the Motion and the Board unanimously approve the Motion.**

Director Rhoden presented the Board with a recommendation regarding changes to the RFQ process to evaluate investment consultants for direct investments**.**

**Mr. Brady *moved* to *approve* the recommendation of Staff to use the RFQ process to evaluate and identify investment consultants for direct investments. The scope of the RFQ should include recommendations for new direct investments and ongoing monitoring and management of existing and new direct investments. Auditor Lea *seconded the Motion* and the Board *unanimously approve* the *Motion.***

**XIII. Discussion of Retirement Applications waived in 2020.** No action was taken.

**XIV. Audit Committee Report.** Danny Knight, Vice Chair, gave a report on the Audit Committee meeting.

**A, Internal Audit:** Application of IRS 415 Limit Testing**.** Report presented by Ms. Dena Dixson.

**B. Special Project: Cyber Security Training.** Report presented by Ms. Dena Dixson.

**C. 2021-2021 Audit Plan.** The 2021-2022 Audit Plan was presented by Ms. Brenda West.

**Mr. Knight *moved* to *approve* the Audit Plan for FY2022 as presented to the Committee, and the Board *unanimously approved the motion.***

**XV. Investment Committee Report.** ***Robin Nichols, Chair***

**A. Arkansas Related and Investment Update.**

**1. List of Fund Closings.** Rod Graves, Deputy Director, gave an update on recent investment activity.

**B. General Investment Consultant Report.** ***Aon Hewitt Investment Consulting.***

1. **Preliminary Performance Report for the Quarter Ended March 31, 2021.** P. J. Kelly and Katie Comstock of Aon Hewitt Investment Consulting provided the Board with a preliminary portfolio update for the quarter ending March 31, 2021.

2. **Preliminary Performance Report for the Month Ended April 30, 2021.** P. J. Kelly and Katie Comstock of Aon Hewitt Investment Consulting provided the Board with a preliminary portfolio update for the month ending April 30, 2021.

3. **Opportunistic/Alternative Portfolio Review.** P.J. Kelly and Kevin Hrad of Aon Hewitt Investment Consulting provided the Board with an update of the Opportunistic/Alternative portfolio.

**C. Real Assets Consultant Report.** ***Aon Hewitt Investment Consulting***

1. **Performance Report for the Quarter Ended December 31, 2020.** Jack Dowd of Aon Hewitt Investment Consulting provided the Board with a performance report for the quarter ending December 31, 2020.

2. **ATRS Farmland Portfolio Discussion –** Chae Hong of Aon Hewitt Investment Consulting provided the Board with an update of the farmland portfolio.

3. **Recommendation to Commit up to $50 Million Dollars to KKR Diversified Core Infrastructure Fund L.P., an Open End Infrastructure Fund Focused on Existing Projects with Imminent Need.** Mr. Iftikhar Ahmed presented the Committee with the recommendation to Commit up to $50 Million Dollars to KKR Diversified Core Infrastructure Fund L.P., an Open End Infrastructure Fund Focused on Existing Projects with Imminent Need.

   a. **Resolution 2021-23.**

   **Ms. Nichols *moved* to *adopt* Resolution 2021-23, to Commit up to $50 Million Dollars to KKR Diversified Core Infrastructure Fund L.P., an Open End Infrastructure Fund Focused on Existing Projects**

**with Imminent Need, and the Board *unanimously approved the* Resolution.**

4. **Recommendation to Commit up to $50 Million Dollars to Carlyle Realty Partners IX, L.P., a Value Add Closed End Real Estate Fund that Seeks to Identify and Capitalize on Real Estate Trends with Imminent Need.** Mr. Chae Hong presented the Committee with the recommendation to Commit up to $50 Million Dollars to Carlyle Realty Partners IX, L.P., a Value Add Closed End Real Estate Fund that Seeks to Identify and Capitalize on Real Estate Trends with Imminent Need

   a. **Resolution 2021-24.**

   **Ms. Nichols *moved* to *adopt* Resolution 2021-24, to Commit up to $50 Million Dollars to Carlyle Realty Partners IX, L.P., a Value Add Closed End Real Estate Fund that Seeks to Identify and Capitalize on Real Estate Trends with Imminent Need, and the Board *unanimously approved the* Resolution.**

5. **Recommendation to Commit up to $50 Million Dollars to GLP Capital Partners IV L.P., a Value Add Open End Real Estate Fund Specializing in Distribution and Logistic Companies with Imminent Need.** Mr. Chae Hong presented the Committee with the recommendation to Commit up to $50 Million Dollars to GLP Capital Partners IV L.P., a Value Add Open End Real Estate Fund Specializing in Distribution and Logistic Companies with Imminent Need.

   a. **Resolution 2021-25.**

   **Ms. Nichols *moved* to *adopt* Resolution 2021-25, to Commit up to $50 Million Dollars to GLP Capital Partners IV L.P., a Value Add Open End Real Estate Fund Specializing in Distribution and Logistic Companies with Imminent Need and the Board *unanimously approved the Resolution.***

**D. Real Assets Consultant Report.** ***Franklin Park***

1. **Private Equity Portfolio Review for the Quarter Ended December 31, 2020.** Michael Bacine of Franklin Park provided the Board with a portfolio review for the quarter ending December 31, 2020.

2. **Recommendation to Commit up to $30 Million Dollars in Kerberos Capital Fund III, L.P., a Debt Fund that will Focus on the Litigation Finance Market with Imminent Need.** Mr. Michael Bacine presented the Committee with the recommendation to Commit up to $30 Million Dollars in Kerberos Capital Fund III, L.P., a Debt Fund that will Focus on the Litigation Finance Market with Imminent Need.

   a. **Resolution 2021-26.**

   **Mr. Knight *moved* to *withdraw* Resolution 2021-26, to Commit up to $50 Million Dollars to Carlyle Realty Partners IX, L.P., a Value Add Closed End Real Estate Fund that Seeks to Identify and Capitalize on Real Estate Trends with Imminent Need. Mr. Higginbotham seconded the motion and the Board *unanimously approved the* Motion.**

**XVI. Operations Committee Report.** Bobby Lester, Chair, gave a report on the Operations Committee meeting.

**A. Open Forum for Potential Rule or Law Changes by Committee Members and Board Members in Attendance.**

1. Open Forum. None.

**B. Discussion of Code Arkansas Rules (CAR).** Director Rhoden gave an update on the new Code Arkansas Rules (CAR)

**C. Potential Rule Changes**. Director Rhoden discussed potential rules changes to Rule 10, Rule 9 and Rule 4.

**XVII. Board of Trustees Disability Review.** Under the Disability Review procedure described in A.C.A.§24-7-704(b)(3)(D) the Board shall make a final decision on the recommendations of the Medical Committee. Mr.

Rhoden presented the Board with the following proposed orders for Board approval regarding Disability Review recommendations.

**A.** **Group Order - Approved.** The proposed order is for the acceptance of **five (5) approved** disability reviews from March 2021 to May 2021. Staff concurs with the recommendation.

**B.** **Group Order - Denied.** The proposed order is for the acceptance of one (1) **denied** disability review from March 2021 to May 2021. Staff concurs with the recommendation.

> **Mr. Brady *moved to approve* the Group Order – Approved for the acceptance of five (5) approved disability reviews from March 2021 to May 2021, AND the Group Order - Denied for the acceptance of one (1) denied disability review from March 2021 to May 2021. Ms. Bell *seconded* the *motion* and the Board *unanimously approved* the *Motion.***

**C.** **Member Order - ATRS ID #368231.** The proposed order is to return the matter to the medical committee with a request that it reconsider the matter to confirm that the standard of review is based upon the ATRS standard established in A.C.A.§24-7-704(a)(1)(D) for member ATRS ID #368231. Staff concurs with the recommendation.

> **Ms. Marshall *moved to approve* the Member Order – ATRS ID# #368231 – return the matter to the medical committee with a request that it reconsider the matter to confirm that the standard of review is based upon the ATRS standard established in A.C.A.§24-7-704(a)(1)(D). Ms. Davis *seconded* the *motion* and the Board *unanimously approved* the *Motion*.**

**XVIII Staff Reports.**

**A.** **Medical Committee Report. Mr. Kincade reported that a total of Sixteen (16) Disability Retirement Applications were approved.**

> **Mr. Lester *moved to approve* the Medical Committee Report. Ms. Nichols *seconded* the *motion* and the Board *unanimously approved* the *Motion*.**

**XIX. Other Business:** None.

**XX. Adjourn.**

**Mr. Bobby Lester *moved to adjourn* the Board of Trustees meeting. Mr. Higginbotham *seconded the motion*, and the Board *unanimously approved the motion.***

Meeting adjourned at 12:39 p.m.

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|---|---|
| Mr. Clint Rhoden,<br>Executive Director | Mr. Danny Knight, Chair<br>Board of Trustees |
| Tammy Porter,<br>Recorder | Date Approved |

**MINUTES**
**ARKANSAS TEACHER RETIREMENT SYSTEM**
**BOARD OF TRUSTEES - CALLED MEETING**

**Wednesday, June 23, 2021**
**9:15 a.m.**
**1400 West Third Street**
**Little Rock, AR 72201**

**ATTENDEES**

**Board Members Present**
Danny Knight, Chair
Lloyd Black, Vice Chair
Anita Bell
Kathy Clayton
Kelly Davis
Dr. Mike Hernandez
Shawn Higginbotham
Michael Johnson
Bobby Lester
Susannah Marshall, Bank Commissioner
Hon. Andrea Lea, State Auditor
Grant Wallace, designee for Dennis Milligan, State Treasurer

**Board Members Absent**
Chip Martin
Robin Nichols
Johnny Key, Secretary, Dept. of Education

**ATRS Staff Present**
Clint Rhoden, Executive Director
Rod Graves, Deputy Director
Tammy Porter, Exec. Assistant/Board Secretary
Willie Kincade, Director of Operations
Martha Miller, General Counsel*
Manju, Director, Information Services
Leslie Ward, Manager, Private Equity
Brenda West, Internal Audit/Risk Mgmt.

**Guest Present**
Michael Bacine, Franklin Park*

**I. Call to Order/Roll Call.** Mr. Danny Knight called the Board of Trustees meeting to order at 9:15 a.m. Roll call was taken. Ms. Nichols, Mr. Martin, and Mr. Key were absent.

**II. Motion to Excuse Absences.**

**Ms. Clayton *moved* to *excuse* Ms. Nichols, Mr. Martin, and Mr. Key from the Board of Trustees meeting. Ms. Marshall *seconded* the *motion*, and the Committee *unanimously approved the motion.***

**III. Adoption of Agenda.**

**Ms. Clayton *moved* for *adoption* of the Agenda. Ms. Bell *seconded* the *motion* and the Committee *unanimously approved the motion.***

**IV.** **Executive Summary.** The Executive Summary was provided for reference with no questions or expansions on the written summary.

**V.** **Investment Committee Report.** Mr. Higginbotham, acting Chair

**A.** **Recommendation to Commit up to $30 Million Dollars in Revelstoke Capital Partners Fund III, L.P., a Buyout Fund that will Invest in Small and Lower Middle Market Healthcare and Related Business Services Companies.** Mr. Michael Bacine of Franklin Park presented the Committee with the recommendation to Commit up to $30 Million Dollars in Revelstoke Capital Partners Fund III, L.P., a Buyout Fund that will Invest in Small and Lower Middle Market Healthcare and Related Business Services Companies.

**1.** **Resolution No. 2021-27**

**Mr. Higginbotham *moved* to *adopt* Resolution 2021-27, to Commit up to $30 Million Dollars in Revelstoke Capital Partners Fund III, L.P., a Buyout Fund that will Invest in Small and Lower Middle Market Healthcare and Related Business Services Companies. The Board *unanimously adopted the Resolution*.**

**VI** **Disability Review Case.** Director Rhoden presented the Board with the recommendation to extent the deadline for a member so the matter can be hear at the July 2021 Medical Committee meeting.

**Mr. Wallace *moved* to *approve* the Disability case as presented by Director Rhoden to extend the deadline to the matter can be heard. Ms. Clayton *seconded the motion* and the Board *unanimously approved* the Motion.**

**VII.** **Recognition of Vacancy.** If a trustee is no longer able to serve the Board, the Board, by resolution, must recognize that a vacancy exists. Ms. Robin Nichols retired on June 30, 2021, and a vacancy exists for Position No. 1.

**A.** **Resolution 2021-28.**

**Ms. Davis *moved* to *adopt* Resolution 2021-28, to Recognize Vacancy for Position #1 – Member Trustee, 1st Congressional District. Ms. Bell *seconded the motion* and the Board *unanimously adopted the Resolution*.**

**VIII. Fulfillment of Vacancy Pursuant to A.C.A. §24-7-302(b)(2).** If a vacancy occurs in the office of an elected trustee, then the board, by a majority vote, may fill the vacancy by a special election, or appointment of a trustee until the next system election. After discussion, the Board decided to accept applications for Appointment to Position #1, and to appointment a member to fill the vacancy until the next regular election.

**p**

> **Mr. Lester *moved* to *approve* ATRS Executive Staff to advertise the vacancy and to accept applications beginning July 1, 2021 through August 13, 2021, for the Board to review and appointment a member to serve as Trustee of Position #1 until the next regular election. Mr. Black *seconded the motion* and the Board *unanimously approved* the Motion.**

**IX. Other Business.** Rod Graves gave the Board an update on the Goldman Sachs issue.

**X. Adjourn.**

> **Mr. Lester *moved* to *adjourn* the Board meeting. Ms. Davis *seconded* the *motion*, and the Board *unanimously approved the motion.***

**Meeting adjourned at 9:37 am.**

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| Clint Rhoden,<br>Executive Director | Danny Knight, Chairman<br>Board of Trustees |
| Tammy Porter,<br>Board Secretary | Date Approved |

**MINUTES**
**ARKANSAS TEACHER RETIREMENT SYSTEM**
**BOARD OF TRUSTEES - CALLED MEETING**

**Wednesday, July 14, 2021**
**4:15 p.m.**
**1400 West Third Street**
**Little Rock, AR 72201**

**ATTENDEES**

**Board of Trustees Members Present**
**Danny Knight, Chair**
Lloyd Back, Vice Chair*
Anita Bell*
Kelly Davis*
Shawn Higginbotham*
Michael Johnson*
Bobby Lester*
Chip Martin*
Susannah Marshall, Bank Commissioner*
Jason Brady, designee for Hon. Dennis Milligan*

**Board Members Absent**
Dr. Mike Hernandez
Johnny Key, Education Secretary
Hon. Andrea Lea

**ATRS Staff Present**
Clint Rhoden, Executive Director
Rod Graves, Deputy Director
Tammy Porter, Ex. Assistant/Board Secretary
Vicky Fowler, Director, Human Resources
Willie Kincade, Director of Operations
Manju, Director, Information Service*
Leslie Ward, Manager, Private Equity
Brenda West, Int. Audit/Risk Mgmt.

**Guest Present**
Michael Bacine, Franklin Park*
Gar Chung*
Duncan Baird, APERS*

***via ZOOM***

**I. Call to Order/Roll Call.** Mr. Danny Knight, Chair, called the Board of Trustees meeting to order at 4:14 p.m. Roll call was taken. Dr. Hernandez, Mr. Key and Auditor Lea were absent.

**II. Motion for Excused Absence.**

**Mr. Higginbotham *moved* to *excuse* Dr. Hernandez, Mr. Key and Auditor Lea from the July 14, 2021 Board meeting. Mr. Brady *seconded* the *motion* and the Committee *unanimously approved the motion.***

**III. Adoption of Agenda.**

**Mr. Lester *moved* for *adoption* of the Agenda, with an additional item regaring RFG process added to the Agenda by Director Rhoden. Mr.**

**Higginbotham *seconded* the *motion* with the additional item, and the Committee *unanimously approved the motion.***

**IV. Executive Summary.** The Executive Summary was provided for reference with no questions or expansions on the written summary.

**V. Investment Committee Report.** ***Mr. Chip Martin, acting Chair***

**A. Recommendation to Commit up to $30 Million Dollars in Alpine Investors VIII, L.P., a Buyout Fund that will Focus on Small and Lower Middle Market Software and Services Companies.** Mr. Michael Bacine presented the Committee with the recommendation to Commit up to $30 Million Dollars in Alpine Investors VIII, L.P., a Buyout Fund that will Focus on Small and Lower Middle Market Software and Services Companies

Director Rhoden stated staff concurred with the Recommendation.

**1. Resolution 2021-29**

**Mr. Martin *moved* to *adopt* Resolution 2021-29, to $30 Million Dollars in Alpine Investors VIII, L.P., a Buyout Fund that will Focus on Small and Lower Middle Market Software and Services Companies, The Board *unanimously approved the motion.***

**VI. Other Business.** Mr. Rhoden presented the Board with a recommendation to amend a motion that was made at the June 7, 2021 Board meeting regarding RFQ process. The recommendation by Director Rhoden was to clarify that ATRS staff may use the RFQ or the RFP process to evaluate and identify investment consultants for direct investments.

**Mr. Brady *moved to approve* ATRS staff to use the RFQ or RFP process to evaluate and identify Investment Consultants for direct investments. The scope of the RFQ or RFP should include recommendations for new direct investments and ongoing monitoring and management of existing and new direct investments. Ms. Bell *second the motion,* and the Board *unanimously approved the motion*.**

**VII. Adjourn.**

**Mr. Lester *moved* to *adjourn* the Board Meeting. Mr. Higginbotham s*econded* the *motion*, and the Board *unanimously approved the motion.***

**Meeting adjourned at 4:13 p.m.**

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| Mr. Clint Rhoden,<br>Executive Director | Mr. Danny Knight, Chair<br>Board of Trustees |
| Tammy Porter,<br>Board Secretary | Date Approved |

**MINUTES**
**ARKANSAS TEACHER RETIREMENT SYSTEM**
**BOARD OF TRUSTEES - CALLED MEETING**

**Tuesday, August 3, 2021**
**4:15 p.m.**
**1400 West Third Street**
**Little Rock, AR 72201**

**ATTENDEES**

**Board Members Present**
Danny Knight, Chair
Lloyd Black, Vice Chair*
Anita Bell*
Kathy Clayton*
Kelly Davis*
Dr. Mike Hernandez*
Shawn Higginbotham*
Michael Johnson*
Bobby Lester*
Chip Martin*
Susannah Marshall, Bank Commissioner*
Hon. Andrea Lea*
Jason Brady, designee for Hon. Dennis Milligan*

**Board Members Absent**
Johnny Key, Education Secretary

**ATRS Staff Present**
Clint Rhoden, Executive Director
Rod Graves, Deputy Director
Tammy Porter, Ex. Assistant/Board Secretary
Jerry Meyer, Manager, Real Assets
Mike Lauro, Manager, Information Systems

Martha Miller, General Counsel*
Manju, Director, Information Services*
Brenda West, Int. Audit/Risk Mgmt.

**Guest Present**
Chae Hong, Aon Hewitt Investment Consulting*
Jack Dowd, Aon Hewitt Investment Consulting*
Duncan Bair, APERS*
Heartsill Ragon, Gill Elrod Ragon Law Firm*
ID: K Baload*

***via Zoom***

**I. Call to Order/Roll Call.** Mr. Danny Knight, Chair, called the Board of Trustees meeting to order at 4:09 p.m. Roll call was taken. Mr. Johnny Key was absent. All members were Present. Ms. Kelly Davis arrived at 4:13.

**II. Motion for Excused Absences.**

**Mr. Martin *moved* to *excuse* Mr. Johnny Key, Education Secretary, from the August 3, 2021, Board of Trustees Meeting. Mr. Lester *seconded* the *motion*, and the Board *unanimously approved the motion.***

**III. Adoption of Agenda.**

**Ms. Clayton *moved* for *adoption* of the Agenda. Ms. Bell *seconded* the *motion* and the Board *unanimously approved the motion.***

**IV. Executive Summary.** The Executive Summary was provided for reference with no questions or expansions on the written summary.

**V.** Investment Committee Report. *Mr. Chip Martin, Investment Vice Chair.*

**A. Recommendation to Transfer Investment in ISQ Global Infrastructure Fund III, L.P. to ISQ Global Infrastructure Fund III (UST), L.P. with Imminent Need.** Mr. Rod Graves presented the Committee with the recommendation to transfer the investment in ISQ Global Infrastructure Fund III, L.P. to ISQ Global Infrastructure Fund III (UST), L.P. with Imminent Need. Director Rhoden stated staff concurred with the Recommendation.

**1. Resolution 2021-30**

**Mr. Higginbotham *moved* to *adopt* Resolution 2021-30, to approve the transfer of the $50 million dollar ($50,000,000) Investment in ISQ Global Infrastructure Fund III, L.P. to ISQ Global Infrastructure Fund III (UST), L.P., to immediately move to transfer the subscription of the limited partnership investment interest from ISQ Global Infrastructure Fund III L.P. to ISQ Global Infrastructure Fund III (UST), L.P., and ATRS staff is authorized to take all necessary and proper steps to transfer this investment using the Imminent Need process, if acceptable terms are reached**. **Mr. Lester *seconded the Motion*, and the Committee *unanimously approved the motion.***

**VI. Other Business.** Mr. Rod Graves provided the Board with an update on the Allianz press release.

**VII. Adjourn.**

**Mr. Lester *moved* to *adjourn* the Board of Trustees Meeting. Mr. Martin *seconded* the *motion*, and the Committee *unanimously approved the motion.***

**Meeting adjourned at 4:17 p.m.**

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| Mr. Clint Rhoden,<br>Executive Director | Mr. Danny Knight, Chair<br>Board of Trustees |
| Tammy Porter,<br>Board Secretary | Date Approved |

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**BOARD OF TRUSTEE MEETING – SPECIAL CALLED MEETING**

**Thursday, August 19, 2021**
**4:00 p.m.**
**1400 West Third Street**
**Little Rock, AR 72201**

**ATTENDEES**

**Board Members Present**
Danny Knight, Chair
Lloyd Black*
Anita Bell*
Kathy Clayton*
Dr. Mike Hernandez*
Shawn Higginbotham*
Michael Johnson*
Bobby Lester*
Chip Martin*
Susannah Marshall, Bank Commissioner*
Johnny Key*
Hon. Andrea Lea, State Auditor*
Jason Brady, designee for Dennis Milligan, State Treasurer*

**ATRS Staff Present**
Clint Rhoden, Executive Director
Rod Graves, Deputy Director
Tammy Porter, Ex. Asst/Board Secretary*
Willie Kincade, Assoc. Director of Operations
Manju, Director, Information Systems*

**Guest Present**
Duncan Baird*

**** via ZOOM***

**I. Call to Order/Roll Call.** Mr. Danny Knight, called the Board of Trustees meeting to order at 4:00 p.m. Roll call was taken. Ms. Davis was absent. Mr. Johnny Key joined the meeting at 4:02 p.m.

**II. Motion to Excuse Absences.**

**Mr. Higginbotham *moved to excuse* Ms. Kelly Davis from the August 19, 2021 Board of Trustees Meeting. Mr. Martin *seconded the motion,* and the Board *unanimously approved the motion.***

**III. Adoption of Agenda.**

**Mr. Lester *moved* for *adoption* of the Agenda. Mr. Martin s*econded* the *motion,* and the Committee *unanimously approved the motion.***

**IV. Executive Summary.** The Executive Summary was provided for reference with no questions or expansions on the written summary.

**V.** **Executive Session.** The Board has authority to fill vacant Board positions by appointment for member Trustees. One vacancy exists and the Board has asked for this item to be placed on the agenda. The Board has traditionally gone into Executive Session to discuss an appointment to the Board as allowed by the Arkansas Freedom of Information Act. Therefore, staff has placed this item on the Board agenda for that purpose.

**Mr. Lester *moved* to *convene* into Executive Session for the purpose of discussing filling the vacant position on the Board. Mr. Brady *seconded* the *motion* and the Board *unanimously approved* the *motion.***

**Mr. Knight, Chair, called the Executive Session of the Board of Trustee to Order at 4:06 p.m.**

**Mr. Knight, Chair, reconvened the Board of Trustees meeting at 4:37 p.m.**

**VI. Appointment of Trustee to Position No. 1 – Member Trustee, First Congressional District, to fill Unexpired Term until the next System Election.**

**Mr. Key *moved* to *approve* the appointment of Ms. Amanda Webb, to fill the unexpired term until the next system election for Member Position No. 1 on the Board of Trustees. Dr. Hernandez *seconded* the *motion.* A roll call was taken, and the Board *unanimously approved* the *motion.* Ms. Anita Bell gave a "yes" vote with a hand gesture.**

**VII. Other Business. None**

**VIII. Adjourn.**

**With no further business, Mr. Knight *moved* to *adjourn* the meeting*.***

**Meeting adjourned at 4:40 p.m.**

| | |
|---|---|
| Clint Rhoden<br>Executive Director | Mr. Danny Knight Chair<br>Board of Trustees |
| Tammy Porter,<br>Board Secretary | Date Approved |

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-31**

## Commending Ms. Robin Nichols for her Service to the Arkansas Teacher Retirement System

***WHEREAS,*** Ms. Robin Nichols has served on the Board of Trustees of the Arkansas Teacher Retirement System as a Member Trustee – First Congressional District in Position No. 1 from July 1, 2003, until June 30, 2021; and

***WHEREAS,*** Ms. Nichols served faithfully as a member of the Investment Committee, as the Chairman of the Investment Committee, as Chairman and Vice Chairman of the Board of Trustees; and

***WHEREAS,*** Ms. Nichols' membership on the Arkansas Teacher Retirement System Board provided valuable service to the System by means of her knowledge, integrity, wisdom, and dedication; and

***WHEREAS,*** Ms. Nichols' guidance, leadership, and vision will be missed by the Board and staff alike.

***NOW, THEREFORE, BE IT RESOLVED*** By the Board of Trustees of the Arkansas Teacher Retirement System to adopt this Resolution and authorize the transmittal of this Resolution to Ms. Robin Nichols as an expression of sincere appreciation for her leadership, wisdom, and dedicated service to the State of Arkansas and the members of the Arkansas Teacher Retirement System.

**Adopted this 27th day of September 2021**

______________________________________

**Mr. Danny Knight, *Chair***
***Arkansas Teacher Retirement System Board***

# Waiver of Member Interest 2021

**September 27, 2021, Board Meeting**
**A.C.A. Sec. 24-7-205**

| Amount | Reason to Waive Interest |
|---|---|
| $70.71 | Member will pay contributions and staff recommends waiving interest. |
| $1,313.22 | Member unaware of underpayment interest and staff recommends waiving interest. |
| $202.31 | Contributions were withheld from Member's check, but employer failed to remit. |
| $36.09 | Contributions were withheld from Member's check, but employer failed to remit. |
| $106.50 | Underpayment for FYE 2018. |
| $83.92 | Contributions were withheld from Member's check, but employer failed to remit. |
| $11.55 | Underpayment by Member. |
| $23.68 | Issues regarding internal process |
| $65.43 | Member given incorrection information. |
| $319.83 | Underpayment for FYE 2006 |

**Total: $2,233.24**

## Waiver of Employer Report Penalties 2021
### September 27, 2021, Board Meeting
**A.C.A. Sec. 24-7-411**

These are typical reports of employer penalties and interst waived by ATRS during a reporting period.

| | |
|---|---|
| **Employer Penalties Waived** | |
| Arkansas Easter Seals<br>Little Rock, AR | $300.00 |
| East End School District<br>Bigelow, AR | $150.00 |
| Harrisburg School District<br>Harrisburg, AR | $600.00 |
| Wonderview School District<br>Hattieville, AR | $150.00 |
| **TOTAL PENALTIES WAIVED** | **$1,200.00** |
| **Employer Interest Waived** | |
| Gravette School District<br>Gravette, AR | $248.86 |
| Nettleton School District<br>Jonesboro, AR | $682.08 |
| **TOTAL INTEREST WAIVED** | **$930.94** |
| **TOTAL PENALTIES AND INTEREST WAIVED** | **$2,130.94** |

# ARKANSAS TEACHER RETIREMENT SYSTEM

## Annual Financial Report

**June 30, 2020**

LEGISLATIVE JOINT AUDITING COMMITTEE

LEGISLATIVE AUDIT
ARKANSAS

ARKANSAS TEACHER RETIREMENT SYSTEM
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FOR THE YEAR ENDED JUNE 30, 2020





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LEGISLATIVE JOINT AUDITING COMMITTEE
ARKANSAS LEGISLATIVE AUDIT

ATRS
MAR 12 2021

## INDEPENDENT AUDITOR'S REPORT

Arkansas Teacher Retirement System
Legislative Joint Auditing Committee

***Report on the Financial Statements***

We have audited the accompanying financial statements of the Fiduciary Pension Trust Fund of the Arkansas Teacher Retirement System, an office of Arkansas state government, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Arkansas Teacher Retirement System's basic financial statements as listed in the table of contents.

***Management's Responsibility for the Financial Statements***

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

***Auditor's Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Fiduciary Pension Trust Fund of the Arkansas Teacher Retirement System as of June 30, 2020, and the changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

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www.arklegaudit.gov

### *Emphasis of Matter*

As indicated above, the financial statements of the Arkansas Teacher Retirement System are intended to present the financial position and the changes in financial position of only that portion of the Fiduciary Pension Trust Fund of the State that is attributable to the transactions of the Arkansas Teacher Retirement System. They do not purport to, and do not, present fairly the financial position of the State as of June 30, 2020, or the changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

### *Other Matters*

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the required supplementary information, listed in the accompanying table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

The Governmental Accounting Standards Board requires that a Management's Discussion and Analysis be presented to supplement government-wide financial statements. However, as discussed in the "Emphasis of Matter" paragraph above, the financial statements of the Arkansas Teacher Retirement System are only for the specific transactions and activity of the Agency and not for the State as a whole. Therefore, the Management's Discussion and Analysis is not required to be presented for the Arkansas Teacher Retirement System individually. Our opinion on the basic financial statements is not affected by the omission of this information.

### *Other Information*

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Arkansas Teacher Retirement System's basic financial statements. The Schedule of Selected Information is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The Schedule of Selected Information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on this information.

### *Other Reporting Required by Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated January 7, 2021, on our consideration of the Arkansas Teacher Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the effectiveness of the Arkansas Teacher Retirement System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Arkansas Teacher Retirement System's internal control over financial reporting and compliance.

ARKANSAS LEGISLATIVE AUDIT

Roger Norman

Roger A. Norman, JD, CPA, CFE, CFF
Legislative Auditor

Little Rock, Arkansas
January 7, 2021
SA1037520

Arkansas

Sen. Ronald Caldwell
Senate Chair
Sen. Gary Stubblefield
Senate Vice Chair

Rep. Richard Womack
House Chair
Rep. Nelda Speaks
House Vice Chair

Roger A. Norman, JD, CPA, CFE, CFF
Legislative Auditor

LEGISLATIVE JOINT AUDITING COMMITTEE
ARKANSAS LEGISLATIVE AUDIT

# REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

## INDEPENDENT AUDITOR'S REPORT

Arkansas Teacher Retirement System
Legislative Joint Auditing Committee

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Fiduciary Pension Trust Fund of the Arkansas Teacher Retirement System (the "Agency"), an office of Arkansas state government, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Arkansas Teacher Retirement System's basic financial statements, and have issued our report thereon dated January 7, 2021.

### *Internal Control Over Financial Reporting*

In planning and performing our audit of the financial statements, we considered the Agency's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. Accordingly, we do not express an opinion on the effectiveness of the Agency's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify certain deficiencies in internal control, described in the Schedule of Findings and Responses below as items 2020-1 that we consider to be significant deficiencies.

### *Compliance and Other Matters*

As part of obtaining reasonable assurance about whether the Agency's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

## SCHEDULE OF FINDINGS AND RESPONSES

2020-1 The Agency's investment policy indicates the Board is responsible for prudently investing funds and maintaining proper allocation of the Agency's investment assets. For assets that will not be managed by an investment manager, the policy does not permit the Agency to make an investment without a review and recommendation from the investment consultant. In May 2019, the Agency invested $58,000,000, in conjunction with multiple other parties, to execute a promissory note to Big River Steel totaling $290,000,000. The Agency did not obtain a review and recommendation from the investment consultant or Board approval for this investment. Additionally, in June 2020, loans of $48,000,000 to Highland Pellets were recapitalized to purchase 45,000 Class B units. The newly converted Highland Pellet Class B units were combined with the existing 155,000 Class B units and recharacterized as Class A units. The Agency did not receive a review and recommendation from the investment consultant or Board approval for the conversion of the loans to equity.

We recommend the Agency ensure all significant changes in investments are properly reviewed by the investment consultants, with a recommendation presented to and approved by the Board.

*Management personnel responded as follows:*

ATRS Policy 4 states in part "The System shall manage those assets not specifically allocated to investment managers. No investment shall be made without an investment consultant's recommendation." The ATRS Board addressed the processes in question at its regular meeting on February 1, 2021 and passed Resolution 2021-13, Clarification and Reaffirmation of Investment Management Process under ATRS Policy 4. Board involvement through notice to the Board Chair is also addressed in Resolution 2021-02. This Resolution is also attached and is a long standing Resolution that the Board reviews and renews on an annual basis.

As outlined in the attached Resolutions and the Board's discussion, the Board has historically approved initial investments only after receiving and reviewing the recommendation of an investment consultant. Further, the Board distinguishes between approval of initial investments, which requires the recommendation of an investment advisor, and the management by ATRS staff of an ongoing investment, which does not require the recommendation of an investment advisor.

The Board continues to monitor the management of any particular investment through affirmative advice of the Board Chair. These are ongoing established processes that have been in place for several years, and are consistent with Board policy. These processes parallel other investments in the ATRS portfolio where assigned investment managers may invest in equity, debt, a combination of both debt and equity, or other opportunities. These investment managers also have the ability to manage the investments in their portfolios by converting debt to equity, changing terms of investments and deciding when to unwind or liquidate investments they manage. Many of these investments also allow for the use of recallable distributions to be called by the specified investment manager and in most cases do not require an additional recommendation from an investment consultant. Some investments including Franklin Park, US Agriculture, and BTG Pactual are assigned to a specific manger and have similar processes that allow ATRS input in the use of recallable distributions. ATRS input for investments assigned to a specific manager varies based on recognized Board authority, the legal documents for each investment assigned to the specific manager, and the level of confidentiality required at the time.

In other words, similar types of ATRS investments are assigned a specific investment manager that typically performs these functions. In the case of direct investments or investments not assigned to an investment manager, ATRS staff has managed these ongoing investments according to Policy 4 and followed the established processes mentioned in the Resolutions to monitor and adjust to changing conditions that may arise from the direct investments.

***Agency's Response to Findings***

The Agency's response to the finding identified in our audit is described above. The Agency's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

***Purpose of this Report***

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose. However, pursuant to Ark. Code Ann § 10-4-417, all reports presented to the Legislative Joint Auditing Committee are matters of public record, and distribution is not limited.

ARKANSAS LEGISLATIVE AUDIT

Tom Bullington

Tom Bullington, CPA
Deputy Legislative Auditor

Little Rock, Arkansas
January 7, 2021

# ARKANSAS TEACHER RETIREMENT SYSTEM
# STATEMENT OF FIDUCIARY NET POSITION
# JUNE 30, 2020

Exhibit A

| | Totals |
|---|---|
| ASSETS | |
| Cash and cash equivalents | $ 348,739,106 |
| | |
| Receivables: | |
| Member contributions | 9,378,658 |
| Employer contributions | 24,093,069 |
| Investment trades pending | 21,871,383 |
| Accrued investment income | 12,922,708 |
| Due from other funds | 3,555,563 |
| Other receivables | 1,083,234 |
| Total Receivables | 72,904,615 |
| | |
| Investments, at fair value: | |
| Domestic equities | 2,071,795,588 |
| International equities | 961,079,504 |
| Pooled equity funds | 1,052,044,721 |
| U.S. Government obligations | 28,245,622 |
| Corporate obligations | 925,233,362 |
| Asset- and mortgage-backed securities | 23,104,762 |
| Pooled fixed income funds | 1,607,759,109 |
| Promissory notes | 257,463,572 |
| Limited partnerships | 28,276,070 |
| Real estate | 52,674,001 |
| Alternative investments | 9,351,605,145 |
| State recycling tax credits | 176,000,000 |
| Investment derivatives | (13,433) |
| Total Investments | 16,535,268,023 |
| | |
| Securities lending collateral | 315,801,222 |
| Capital assets, net of accumulated depreciation | 113,544 |
| Other assets | 74,552 |
| | |
| TOTAL ASSETS | 17,272,901,062 |
| | |
| DEFERRED OUTFLOWS OF RESOURCES | |
| Deferred outflows related to OPEB | 1,310,404 |
| | |
| TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES | 17,274,211,466 |
| | |
| LIABILITIES | |
| Accrued expenses and other liabilities | 889,241 |
| Compensated absences | 530,170 |
| Post-employment benefit liability | 6,585,411 |
| Investment trades pending payable | 35,049,671 |
| Accrued investment expenses | 10,225,884 |
| Securities lending liability | 315,851,510 |
| Due to other funds | 2,284,259 |
| | |
| TOTAL LIABILITIES | 371,416,146 |
| | |
| DEFERRED INFLOWS OF RESOURCES | |
| Deferred inflows of resources related to OPEB | 719,096 |
| | |
| TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES | 372,135,242 |
| | |
| NET POSITION RESTRICTED FOR PENSION BENEFITS | $ 16,902,076,224 |

The accompanying notes are an integral part of these financial statements.

ARKANSAS TEACHER RETIREMENT SYSTEM
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
JUNE 30, 2020

Exhibit B

| | Totals |
|---|---|
| ADDITIONS | |
| Contributions: | |
| Member | $ 153,105,134 |
| Employer | 446,228,128 |
| Total contributions | 599,333,262 |
| | |
| Investment income | |
| From investing activities: | |
| Net appreciation (depreciation) in fair value of investments | (267,694,438) |
| Interest and dividends | 130,592,889 |
| Real estate operating income | 7,545,561 |
| Total investment income (loss) | (129,555,988) |
| Less investment expense | 39,381,324 |
| Net investment income (loss) | (168,937,312) |
| | |
| From securities lending activities: | |
| Securities lending gross income | 8,224,492 |
| Less: securities lending expense | 5,151,614 |
| Net securities lending income (loss) | 3,072,878 |
| | |
| Other income | 101,370 |
| | |
| TOTAL ADDITIONS (LOSSES) | 433,570,198 |
| | |
| DEDUCTIONS | |
| Benefits | 1,255,065,794 |
| Refunds of contributions | 9,592,091 |
| Administrative expenses | 8,457,862 |
| | |
| TOTAL DEDUCTIONS | 1,273,115,747 |
| | |
| NET CHANGE IN NET POSITION | (839,545,549) |
| | |
| NET POSITION - BEGINNING OF YEAR | 17,741,621,773 |
| | |
| NET POSITION - END OF YEAR | $ 16,902,076,224 |

The accompanying notes are an integral part of these financial statements.

NOTE 1: Summary of Significant Accounting Policies

A. Reporting Entity/History

Act 266 of 1937, as amended, established the Arkansas Teacher Retirement System (ATRS) as an office of Arkansas state government for the purpose of providing retirement benefits for employees of any school or other educational agency participating in ATRS. Act 427 of 1973, as amended, provided that the general administration of ATRS, responsibility for its proper operation, and responsibility for making effective the provisions of the Teacher Retirement law are vested in a 15-member Board of Trustees. The State Bank Commissioner, Treasurer of State, Auditor of State, and Commissioner of Education are ex-officio trustees. The remaining 11 trustees are elected and consist of seven active members of ATRS with at least five years of actual service, three retired members receiving an annuity from ATRS, and one active or retired member from a minority racial ethnic group. The seven active trustees consist of one member from each of the four congressional districts; two employed in positions requiring an administrator's license, of which one must be an administrator; and one member employed in a position that does not require state licensure. The trustees are elected in accordance with rules adopted by the Board. Board members serve as trustees without compensation but are reimbursed for any necessary expenses incurred to attend Board meetings or perform other duties authorized by the Board.

B. Plan Description

ATRS is a cost-sharing, multiple-employer defined benefit pension plan that covers employees of schools and education-related agencies, including Arkansas School for the Blind, Arkansas School for the Deaf, Arkansas Activities Association, State Board of Education, regional education service cooperatives, ATRS, Arkansas Educational Television Commission, area vocational-technical schools, Arkansas Rehabilitation Services, enterprises privatized by a public school district, and educational nonprofit organizations licensed and regulated by Division of Developmental Disabilities Services of the Department of Human Services..

On June 30, 2020, the number of participating employers was as follows:

| | |
|---|---|
| Public schools | 262 |
| State colleges and universities | 39 |
| State agencies | 17 |
| Other/privatized | 28 |
| Total | 346 |

On June 30, 2020, ATRS's membership consisted of the following:

| | |
|---|---|
| Retirees or beneficiaries currently receiving benefits | 50,133 |
| T-DROP participants | 3,639 |
| Inactive plan members (not receiving benefits) | 13,338 |
| Active members | |
| Fully vested | 45,209 |
| Non-vested | 21,691 |
| Total | 134,010 |

NOTE 1: Summary of Significant Accounting Policies (Continued)

B. Plan Description (Continued)

Members are eligible for full retirement benefits at age 60 with five or more years of actual or reciprocal service or at any age with 28 or more years of credited service. Members with 25 years of actual or reciprocal service who have not attained age 60 may receive an annuity reduced by 10/12 of 1% multiplied by the number of months by which the early retirement precedes the earlier of (1) completion of 28 years of credited service or (2) attainment of age 60. The normal retirement benefit, paid monthly, is determined based on (1) the member's final average salary (FAS; effective July 1, 2018, computed using the average of the annual salaries paid during the period of five years of credited service producing the highest annual average) and (2) the number of years of service. For active members as of June 30, 2018, a benchmark three-year FAS was established as a minimum FAS.

ATRS has contributory and noncontributory plans. The contributory plan has been in effect since the beginning of ATRS. The noncontributory plan became available July 1, 1986. Acts 81 and 907 of 1999, effective July 1, 1999, require all new members under contract for 181 or more days to be contributory. Act 93 of 2007 allows an active noncontributory member to make an irrevocable election to become contributory on July 1 of each fiscal year.

A cost of living adjustment (COLA) is payable on July 1 of each year to retirees, certain survivors, and annuity beneficiaries who received monthly benefits for the previous 12 months. The COLA is calculated by multiplying 100% of the member's base retirement annuity plus 3%. Act 780 of 2017 allows the Board of Trustees to evaluate any future COLA adjustments on an annual basis to determine if a simple or compound COLA increase will be given based on the financial condition of the system.

Act 1096 of 1995 created a teacher deferred retirement option plan (T-DROP) for members with 30 or more years of service credit. Effective September 1, 2003, Act 992 of 2003 requires employers to make contributions on behalf of all members participating in T-DROP at rates established by the Board of Trustees. Member contributions and accumulation of service credit will cease once a member enters T-DROP. During participation in T-DROP, ATRS will credit the member account with plan deposits and interest. The plan deposits will be calculated beginning with the member's plan benefit reduced by 1% for each year of credited service. The Board of Trustees may authorize early participation in T-DROP for members with at least 28 years but less than 30 years of credited service. The plan deposit for early participation will be calculated the same as the regular T-DROP deposit with a further reduction of at least .5% but not more than 1% for each month of credited service under 30 years. The T-DROP account accrues interest at a variable rate that is set annually by the ATRS Board of Trustees. T-DROP deposits into member accounts cease at the completion of 10 years of participation in the program; however, a member may continue employment and will continue to receive interest on the account balance at the 10-year plus interest rate that is also set annually by the Board of Trustees. When T-DROP participation ceases, the member may receive the T-DROP distribution as a lump-sum cash payment or an annuity or may roll it over into another tax-deferred account. A member may also elect to defer all or part of the distribution into a T-DROP cash balance account held by ATRS.

Disability retirement benefits are payable to members who are vested and demonstrate total and permanent incapacity to perform the duties of their position while in active employment. The disability annuity is computed in the same manner as the age and service annuity.

Survivor benefits are payable to qualified survivors upon the death of an active, vested member. Eligible spouse survivors receive a survivor annuity that is based on the member's years of service credit prior to their death, and minor child survivors receive a percentage of the member's highest salary earned. ATRS also provides a lump sum death benefit for active and retired members with 10 or more years of credited service. The amount for contributory members will be up to $10,000 and up to $6,667 for noncontributory members. The amount will be prorated for members who have both contributory and non-contributory service; however, members with 15 or more years of contributory service will receive the full $10,000.

NOTE 1: Summary of Significant Accounting Policies (Continued)

C. Basis of Presentation – Fund Accounting

The accounting system is organized and operated on a fund basis. A fund is defined as a fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances and changes therein, which are segregated for purposes of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations. The following types of funds, if applicable to this Agency, are recognized in the accompanying financial statements.

Fiduciary Funds

Trust and Agency Funds – Trust and Agency Funds are used to report resources held by the Agency in a trustee capacity or as an agent for individuals, other governmental units, and other funds. These include Pension Trust Funds, Employee Health Trust Funds, Investment Trust Funds, Private-Purpose Trust Funds, and Agency Funds. The specific activity accounted for at this Agency includes the following:

Arkansas Teacher Retirement System Fiduciary Pension Trust Fund

D. Basis of Accounting

Basis of accounting refers to when revenues and expenditures or expenses are recognized and reported in the financial statements. The economic resources measurement focus and accrual basis of accounting are used in the Fiduciary Fund financial statements. Under the accrual basis, contributions and other revenues are recognized when earned, and benefits, refunds, and other expenses are recorded when incurred.

E. Federal Income Tax Status

During the year ended June 30, 2020, ATRS was a qualified plan under 26 USC § 401(a) and was exempt from federal income taxes under 26 USC § 501(a).

F. Cash and Cash Equivalents

Cash and cash equivalents include demand accounts, imprest accounts, cash on hand, cash in State Treasury, all short-term investments with maturities at purchase of 90 days or less, and all deposits in the Short-Term Investment Fund (STIF). The STIF is created through daily sweeps of excess cash by the custodial bank into bank–sponsored commingled funds that are invested in U.S. Government and agency securities and other short-term investments.

G. Deposits and Investments

Deposits

Deposits are carried at cost and consist of cash in bank, cash in State Treasury, cash on deposit with investment managers, and cash in Short-Term Investment Funds. At June 30, 2020, these totals were $24,922,043, $853,111, $105,877,308, and $217,086,569, respectively. State Treasury Management Law governs the management of funds held in the State Treasury, and the Treasurer of State is responsible for ensuring these funds are adequately insured and collateralized.

Custodial Credit Risk – Custodial credit risk for deposits is the risk that, in the event of the failure of a depository institution, the Agency will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The Agency has adopted the State Board of Finance Policy requiring the use of depository insurance and collateralization procedures to manage the risk that deposits may not be returned. As of June 30, 2020, none of the Agency's bank balance of $24,932,035 was exposed to custodial credit risk as it was fully insured by the FDIC.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Deposits (Continued)

As of June 30, 2020, none of the cash in the Short-Term Investment Fund was exposed to custodial credit risk as it was collateralized with securities held by the custodial agent in the name of ATRS. As of June 30, 2020, $1,002,127 of $106,080,937 in cash held by investment managers was exposed to custodial credit risk as it was uninsured and uncollateralized.

Investments

Ark. Code Ann. §§ 24-2-601 — 24-2-619 authorizes the ATRS Board of Trustees to have full power to invest and reinvest monies of ATRS and to hold, purchase, sell, assign, transfer or dispose of any of the investments, or investment proceeds in accordance with the prudent investor rule.

Each investment manager is required to invest within the specific guidelines and parameters set by the Board of Trustees. Asset allocation guidelines have been established as follows:

| Asset Allocation | Minimum | Target | Maximum |
|---|---|---|---|
| Total equity | 48.0% | 53.0% | 58.0% |
| Fixed income | 13.0% | 15.0% | 17.0% |
| Alternatives | N/A* | 5.0% | N/A* |
| Real assets*** | N/A* | 15.0% | N/A* |
| Private equity | N/A* | 12.0% | N/A* |
| Cash equivalents | 0.0% | 0.0% | 5.0% |

*Due to the illiquid nature of alternatives, real assets, and private equity, it is not prudent to set rebalancing ranges for these asset classes.

**Additional allocations to total equity may be made beyond the maximum range to serve as a placeholder for unfunded and uncommitted alternatives, real assets, and private equity.

***Real assets include real estate, timber, agriculture, and infrastructure.

The fair value measurement of investments is categorized within the hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. In instances where inputs used to measure fair value fall into different levels, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation.

The hierarchy of inputs is defined as follows:

Level 1: Unadjusted quoted prices for identical instruments in active markets.

Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3: Valuations derived from valuation techniques in which significant inputs are unobservable.

For investments that do not have a readily determinable fair value and fall outside of the fair value hierarchy, the system establishes the value by utilizing the Net Asset Value (NAV) or its equivalent as a practical expedient.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

The fair value measurement of plan investments and securities lending collateral as of June 30, 2020, was as follows:

| Investments measured at fair value | Total | Level 1 | Level 2 | Level 3 |
|---|---|---|---|---|
| Equity investments: | | | | |
| Domestic equities | $ 2,071,795,588 | $ 2,071,795,588 | | |
| International equities | 961,079,504 | 961,079,504 | | |
| Pooled equity investments | 1,052,044,721 | 1,052,044,721 | | |
| Fixed income investments: | | | | |
| U.S. Government obligations | 28,245,622 | | $ 28,245,622 | |
| Corporate obligations | 925,233,362 | | 925,233,362 | |
| Asset- and mortgage-backed securities | 23,104,762 | | 23,104,762 | |
| Pooled fixed income funds | 1,607,759,109 | | 1,607,759,109 | |
| Promissory notes | 257,463,572 | | | $ 257,463,572 |
| Real estate investments: | | | | |
| Limited partnerships | 28,276,070 | | | 28,276,070 |
| Real estate | 52,674,001 | | | 52,674,001 |
| State recycling tax credits: | 176,000,000 | | 176,000,000 | |
| Derivative investments: | | | | |
| Forward contracts | (13,433) | | (13,433) | |
| Total plan investments at fair value | 7,183,662,878 | $ 4,084,919,813 | $ 2,760,329,422 | $ 338,413,643 |
| | | | | |
| Investments measured at net asset value (NAV) | | | | |
| Alternative investments: | | | | |
| Commingled funds | 3,221,564,400 | | | |
| Private equity funds | 2,418,195,701 | | | |
| Real estate funds | 1,233,979,683 | | | |
| Timberland funds | 292,958,655 | | | |
| Farmland funds | 204,544,403 | | | |
| Infrastructure funds | 279,610,477 | | | |
| Re-insurance funds | 265,564,463 | | | |
| Hedge funds | 1,397,222,277 | | | |
| Opportunistic funds | 37,965,086 | | | |
| Total plan investments at net asset value | 9,351,605,145 | | | |
| | | | | |
| Total plan investments | $ 16,535,268,023 | | | |
| | | | | |
| Securities Lending Collateral: | | | | |
| Quality D short term investment pool* | $ 315,801,222 | | | |

*Cash collateral received totaled $315,851,510. The amount reported in the GASB 40 footnote above is the market value of the collateral received at June 30, 2020.

Cash equivalents invested in the Short-Term Investment Fund are valued at amortized cost, which approximates fair value. The fund may issue and redeem shares at any time.

Equity investments are classified as Level 1 are exchange-traded securities whose values are based on published market prices and quotations from either national security exchanges or active markets for those securities.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Fixed income investments are classified as Level 2 and include publicly traded securities in inactive markets. Investments in this category are sourced from reputable pricing vendors using price matrix models and techniques. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Fair value is defined as the quoted market value on the last trading day of the period.

Real estate and partnerships are classified as Level 3 and are comprised mostly of owned properties leased to commercial enterprises. These investments are valued using professional property valuations or appraisals, net of debt borrowed against the related assets. Appraisals and valuations are updated every 3 years.

Derivative investments include forward contracts and rights and are classified as Level 2 and valued using observable exchange, dealer or broker market pricing.

Alternative Investments generally do not have readily obtainable market values and are valued using the net asset value (NAV) per share (or its equivalent). These values are based on the capital account balance of the general partner reports at the end of each reporting period, adjusted by subsequent contributions, distributions, management fees, and changes in values of foreign currency. There are inherent uncertainties in estimating fair values for these types of investments, and it is possible that the estimates will change in the near-term or the subsequent sale of assets will be different from the reported net asset value. Generally, the investments cannot be redeemed or have certain redemption restrictions and distributions are from the liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

The unfunded commitments and redemption terms for investments measured at the net asset value (NAV) per share (or its equivalent) is presented in the following table:

| Investments measured at net asset value (NAV) | Total | Unfunded Commitments | Redemption Frequency | Redemption Notice Period |
|---|---|---|---|---|
| Alternative investments: | | | | |
| Commingled funds | $ 3,221,564,400 | | Daily - Quarterly | 1-30 days |
| Private equity funds | 2,418,195,701 | $ 1,190,898,503 | N/A | N/A |
| Real estate funds | 1,233,979,683 | 396,836,280 | Quarterly | 45-90 days |
| Timberland funds | 292,958,655 | | Quarterly | 90 days |
| Farmland funds | 204,544,403 | 15,463,892 | Daily - Quarterly | 30-60 days |
| Infrastructure funds | 279,610,477 | 46,114,685 | Quarterly | 90 days |
| Re-insurance funds | 265,564,463 | | Semiannually - Annually | 60-90 days |
| Hedge funds | 1,397,222,277 | 18,287,776 | Weekly - Annually | 3-90 days |
| Opportunistic funds | 37,965,086 | 73,800,000 | Quarterly | 60 days |
| Total plan investments at net asset value | $ 9,351,605,145 | $ 1,741,401,136 | | |

Commingled Funds – Commingled funds consist of assets from several accounts that are blended together to lower trading costs per dollar of investment. The System has funds invested in domestic and international equities. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments can be redeemed with proper notification to the fund manager. Distributions are received through liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Private equity funds – Private equity includes 54 buyout funds, 3 distressed debt funds, 2 growth equity funds, 13 hard asset funds, 4 mezzanine funds, 5 multi-strategy funds, 8 turnaround funds, 13 venture capital funds and 3 structured capital funds that invest mostly in private companies across a variety of industries. The value of the investments in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. The nature of private equity investments is that distributions are received through the liquidation of the underlying assets of the fund. The expected holding period of a private equity portfolio company is 2 to 10 years.

Real estate funds – Real estate funds include 6 core funds, 18 value added funds, and 20 opportunistic funds that invest primarily in the United States, Europe, and Asia. Fund investments can be made in the debt, equity, or a combination of both in real estate property ventures. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments can be redeemed with proper notification to the fund manager. Distributions from each fund may be received as cash flows from operations or return of capital from sales of assets. The expected holding period of underlying assets in the real estate funds is 2 to 10 years.

Timberland funds – The System has 2 timberland funds that invest in acquisition, growth, and disposition of timber and associated properties. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. Distributions from the fund may be received as cash flows from operations or return of capital from sales of assets. The holding period for these assets is at the discretion of the fund manager based on the fund's purchase or sale of the underlying assets.

Farmland funds – The System has 2 farmland funds. One fund is an open-ended fund comprised of units that represent the System's ownership of underlying agricultural related assets. This fund may be redeemed quarterly with proper notification to the fund manager. The other fund holds the System's direct investments in farmland and related assets. These investments cannot be easily redeemed. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. Distributions from the fund may be received in cash flows from operations or return of capital from sales of assets. The holding period is at the discretion of the fund manager based on the fund's purchase or sale of the underlying assets in the portfolio.

Infrastructure funds – Infrastructure funds include 7 funds that primarily invest in physical, operational systems and in monopolistic opportunities such as governmental functions (transmission lines and toll roads). The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. Distributions from each fund may be received as cash flows from operations or return of capital from sales of assets. The expected holding period of underlying assets in the real estate funds is 2 to 10 years.

Re-insurance funds – Re-insurance funds invest in insurance products designed to collect premiums from an insurance company for taking a specific type and level of risk associated with natural disasters. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments can be redeemed annually. Distributions from each fund may be received as cash flows from operations or return of capital from sales of assets. The expected holding period of underlying assets is 6 months to 1 year.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Hedge funds – Hedge funds consist of 3 risk premia funds that target absolute returns through long-short positions across various factors and classes, 2 long/short equity funds that seek to profit from securities identified as both undervalued and overvalued, 2 global macro funds that profit from broad market swings caused by political or economic events, 2 credit funds that invest primarily in debt instruments of other companies, and 1 event-driven fund and 1 co-investment fund that acquire enough shares of a company to gain a controlling interest in order to make corrections to potentially increase a stock's value. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. Redemption ranges from monthly to annually depending on the manager (with the exception of one fund that currently has a 1 year hold). Distributions are received through liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

Opportunistic funds – Opportunistic funds utilize operational experience of the fund managers in the fields of information technology, telecommunications, and business services industries to seek quality returns. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments can be redeemed quarterly with proper notification to the fund manager. Distributions are received through liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

Securities lending collateral - Cash collateral received from borrowers in the securities lending program is invested in a Quality D short-term investment fund that consists of a liquidating account with a liquidity pool and a duration pool. The value of this fund has been determined by the fund administrator using the NAV per share (or its equivalent).

Rate of Return – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the year ended June 30, 2020, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was -.96%.

Interest Rate Risk – Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Agency does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The summary shown below indicates that 87% of the Agency's investment maturities are one year or longer.

| | | Investment Maturities (In Years) | | | |
|---|---|---|---|---|---|
| Investment Type | Fair Value | Less than 1 | 1 - 5 | 6 - 10 | More than 10 |
| U.S. Government obligations | $ 28,245,622 | | $ 14,504,761 | | $ 13,740,861 |
| Corporate obligations | 925,233,362 | $ 21,291,768 | 433,509,823 | $ 363,003,387 | 107,428,384 |
| Asset- and mortgage-backed securities | 23,104,762 | | 7,095,419 | 1,227,164 | 14,782,179 |
| Pooled fixed income funds | 1,607,759,109 | 347,511,514 | 30,526,705 | 1,229,720,890 | |
| Promissory notes | 257,463,572 | | 102,298,022 | | 155,165,550 |
| State recycling tax credits | 176,000,000 | 16,000,000 | 64,000,000 | 80,000,000 | 16,000,000 |
| Total | $ 3,017,806,427 | $ 384,803,282 | $ 651,934,730 | $ 1,673,951,441 | $ 307,116,974 |
| Securities Lending Collateral | | | | | |
| Quality D short term investment pool | $ 315,801,222 | $ 314,876,043 | | $ 925,179 | |

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Asset-Backed Securities – As of June 30, 2020, ATRS held asset-backed securities with a fair value of $18,217,762. These securities represent interests in various trusts consisting of pooled financial assets other than mortgage loans conveyed by the issuing parties. ATRS's ability to recover the amount of principal invested in these securities depends on the performance and quality of the trust assets.

Mortgage-Backed Securities – As of June 30, 2020, mortgage-backed securities had a fair value of $1,232,391. The yields and maturities of mortgage-backed securities generally depend on when the underlying mortgage loan principal and interest are repaid. Although the full amount of principal will be received if prepaid, the interest income that would have been collected during the remaining period to maturity, net of any market adjustment, is lost.

Corporate Bonds – As of June 30, 2020, ATRS held corporate bonds with a fair value of $325,664,164. Corporate bonds are debt instruments that are issued by private corporations. These bonds have a term maturity and can have either a fixed or variable interest rate. Variable interest rate bonds have adjustments that are made periodically and vary directly with movements in interest rates.

Convertible Corporate Bonds – As of June 30, 2020, ATRS held convertible bonds with a fair value of $599,569,199. Convertible bonds convey an option to the bondholder to exchange each bond for a specified number of shares of common stock of the corporation. Convertible bonds generally offer lower coupon rates and promised yields to maturity in exchange for the value of the option to trade the bond into stock.

Promissory Notes – ATRS also held 4 promissory notes with a fair value of $257,463,572 at June 30, 2020. Promissory notes are form of debt that companies use to raise money in exchange for payment of a fixed amount of periodic income at a specified date or on demand. Three unsecured promissory notes were issued to Big River Steel Holdings, LLC, and one secured note was issued to Highland Pellets, LLC.

Credit Risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The risk is measured by the credit quality of investments in debt securities as described by nationally-recognized statistical rating organizations. A formal investment policy that limits investment in debt based on their statistical rating as a means of managing exposure to credit risk has not been adopted by the Agency.

As of June 30, 2020, the Agency's exposure to credit risk as rated by Standard and Poor's and Moody's Investors Service is as follows:

| Standard and Poor's | | Moody's Investors Service | |
|---|---|---|---|
| Rating | Fair Value | Rating | Fair Value |
| AAA | $ 4,414,675 | Aaa | $ 27,906,261 |
| AA | 30,870,068 | Aa | 207,024 |
| A | 18,229,377 | A | 24,639,866 |
| BBB | 231,729,951 | Baa | 196,209,728 |
| BB | 89,402,445 | Ba | 81,455,122 |
| B | 69,618,539 | B | 37,436,921 |
| CCC or below | 17,780,446 | Caa or below | 3,382,874 |
| Unrated | 2,555,760,926 | Unrated | 2,646,568,631 |
| Total | $ 3,017,806,427 | Total | $ 3,017,806,427 |
| Securities Lending Collateral | | | |
| Unrated | $ 315,801,222 | Unrated | $ 315,801,222 |

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Custodial Credit Risk – Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the Agency will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Agency, and are held by either the counterparty or the counterparty's trust department or agent but not in the Agency's name. The Agency has adopted the State Board of Finance Policy requiring the use of depository insurance and collateralization procedures to manage custodial credit risk for all investments other than loaned securities. As of June 30, 2020, none of the Agency's investments were exposed to custodial credit risk.

Concentration of Credit Risk – Concentration of credit risk is the risk of loss attributed to the magnitude of the Agency's investment in a single issuer (not including investments issued or explicitly guaranteed by the U.S. Government, investments in mutual funds, external investment pools, or other pooled investments). The Agency has not adopted a formal investment policy to limit the amount it may invest in any one issuer to manage the concentration of credit risk. As of June 30, 2020, none of the Agency's investments in any one issuer represent more than 5% of total investments.

Foreign Currency Risk – Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. The Agency does not have an investment policy that limits investment in foreign currency.

The Agency's exposure to foreign currency risk in U.S. dollars for investments and deposits at June 30, 2020, was as follows:

| | | | Investments | | | |
|---|---|---|---|---|---|---|
| Currency | | Fair Value | Fixed Income | Equities | Forward Contracts | Cash Deposits |
| Argentine Peso | ARS | $ 985,858 | $ 609,284 | | $ (9,897) | $ 386,471 |
| Australian Dollar | AUD | 2,284,572 | | $ 2,284,572 | | |
| Brazilian Real | BRL | 22,134,760 | | 22,134,759 | | 1 |
| British Pound Sterling | GBP | 323,323,814 | | 321,935,813 | 1,376,404 | 11,597 |
| Canadian Dollar | CAD | 12,025,276 | | 12,025,193 | | 83 |
| Chinese Yuan Renminbi | CNH | 26,082,132 | | 26,082,184 | (57,490) | 57,438 |
| Danish Krone | DKK | 388 | | | | 388 |
| Euro | EUR | 293,299,451 | | 292,738,193 | 569,390 | (8,132) |
| Hong Kong Dollar | HKD | 37,206,465 | | 36,234,390 | 972,073 | 2 |
| Indian Rupee | INR | 430,924 | | | | 430,924 |
| Indonesian Rupiah | IDR | 17,097,376 | | 17,097,359 | | 17 |
| Japanese Yen | JPY | 156,341,019 | | 156,383,342 | (165,149) | 122,826 |
| Mexican Peso | MXN | 2,244,163 | | 2,244,163 | | |
| New Taiwan Dollar | TWD | 22,271,689 | | 22,271,687 | | 2 |
| New Zealand Dollar | NZD | 3,767,789 | | 3,767,789 | | |
| South African Rand | ZAR | 44,390,039 | | 44,390,039 | | |
| South Korean Won | KRW | 57,546,379 | | 57,546,379 | | |
| Swedish Krona | SEK | 73,503,772 | | 73,492,263 | 11,483 | 26 |
| Swiss Franc | CHF | 65,421,341 | | 72,539,929 | (7,119,071) | 483 |
| Thailand Baht | THB | 2,031,662 | | 2,031,662 | | |
| Totals | | $ 1,162,388,869 | $ 609,284 | $ 1,165,199,716 | $ (4,422,257) | $ 1,002,126 |

For Forward Currency Contracts in the schedule above, a positive number represents the market value of contracts to purchase that currency in excess of the market value of contracts to sell that currency. A negative number, therefore, represents the market value of contracts to sell foreign currency in excess of contracts to purchase that currency.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Derivatives – Derivative instruments are financial contracts or agreements whose values depend on the values of one or more underlying assets, reference rates, and/or financial indexes. Derivative instruments include futures contracts, forward contracts, swap contracts, options contracts, forward foreign currency exchange and rights. ATRS investment guidelines state that derivatives may be used to reduce the risk in a portfolio but should not be used to create a position of leverage or substantially increase the risk of the overall portfolio. Futures and options should be matched by cash or cash equivalent securities, and all short futures positions should be matched by equivalent long security positions. Each investment manager's derivative usage is specified in the investment management agreement or specific guidelines.

At June 30, 2020, the fair value balance of derivative instruments and the changes in fair value for the year then ended, were as follows:

| | Changes in Fair Value | | Fair Value at June 30, 2020 | |
|---|---|---|---|---|
| Type | Classification | Amount | Classification | Amount |
| Foreign currency forwards | Investment income | $ 81,640 | Investments | $ (13,434) |

Foreign Currency Forwards – ATRS enters into various currency contracts to manage exposure of foreign portfolio holdings to changes in foreign currency exchange rates. A forward exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. Risks associated with such contracts include movement in the value of the foreign currency relative to the U.S. dollar and the ability of the counterparty to perform. The contracts are valued at forward exchange rates, and the changes in value of open contracts are recognized as unrealized appreciation (depreciation) in fair value of investments, a component of investment income, in the statement of changes in plan net position. The realized gain or loss on closed forward currency contracts represents the difference between the value of the original contracts and the closing value of such contracts and is included in net appreciation (depreciation) in fair value of investments, a component of investment income, in the statement of changes in plan net position. At June 30, 2020, ATRS had outstanding forward exchange currency contracts to purchase foreign currencies with contract amounts of $3,681,897 and market values of $3,684,353, resulting in a net gain of $2,456. Outstanding forward exchange currency contracts to sell foreign currencies with contract amounts of $8,090,720 had market values of $8,106,610, resulting in a net loss of $15,890.

The net fair value and net notional amounts of foreign currency forwards as of June 30, 2020, were as follows:

| Foreign Currency Forward | Fair Value | Net Notional | |
|---|---|---|---|
| Argentine Peso | $ 394 | ARS | 697,253 |
| British Pound Sterling | 7 | GBP | 9,062 |
| Chinese Yuan Renminbi | (70) | CNH | 406,323 |
| Japanese Yen | 1,210 | JPY | 17,817,065 |
| Swedish Krona | 440 | SEK | 5,895,026 |
| Swiss Franc | (17,871) | CHF | 6,710,986 |
| United States Dollar | 2,456 | USD | 3,681,897 |
| Totals | $ (13,434) | | |

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Securities Lending Transactions – Arkansas Code Annotated and Board policy permit ATRS to participate in a securities lending program administrated by State Street Bank (the "Custodian"). The Custodian enters into agreements with broker-dealers or other entities to loan securities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. There were no restrictions on the dollar amount of securities loaned by ATRS. Securities on loan to participating brokers at year-end include U.S. Government securities, corporate securities, and international securities. Brokers who borrow the securities provide cash or other collateral, including securities issued or guaranteed by the U.S. Government. Collateral must be provided in the amount of at least 100% of the market value of the loaned securities. ATRS cannot pledge or sell collateral securities received unless the borrower defaults. The cash collateral received on each loan is invested in a collective investment fund comprised of a liquidity pool and a duration pool.

As of June 30, 2020, the liquidity pool had an average duration of 26.81 days and an average weighted final maturity of 70.20 days for USD collateral. The duration pool had an average duration of 18.22 days and an average weighted final maturity of 1,602.55 days for USD collateral. Because the loans are terminable at will, their duration generally will not match the duration of the investments made with cash collateral.

At year-end, ATRS had no credit risk exposure to borrowers due to the custodian's indemnification agreement to purchase replacement securities, or return cash collateral in the event a borrower fails to return a loaned security or fails to pay the Agency for income of the securities while on loan. No borrowers failed to return loaned securities or pay distributions during the year. Investments made with cash collateral appear as an asset on the Statement of Plan Net Position. Corresponding liabilities are recorded, as ATRS must return the cash collateral to the borrower upon expiration of the loan.

ATRS is exposed to investment risk, including the possible loss of principal value in the cash collateral pool, due to fluctuation in the market value of the assets held by the cash collateral pool. As of June 30, 2020, the fair value of the securities lending liabilities exceeded the securities lending assets by $50,288.

H. Capital Assets

Capital assets purchased and in the custody of this Agency were recorded as expenditures at the time of purchase. Assets with costs exceeding $5,000 and an estimated useful life exceeding one year are reported at historical cost, including ancillary costs (such as professional fees and costs, freight costs, preparation or setup costs, and installation costs). Gifts or contributions are generally recorded in the accounts at acquisition value at the time received. Acquisition value is the market value if the Agency would have purchased the item. Depreciation is reported based on a straight-line method, with no salvage value. Estimated useful lives generally assigned are as follows:

| Assets: | Years |
|---|---|
| Equipment | 5-20 |

Capital assets activity for the year ended June 30, 2020, was as follows:

| | Beginning Balance | Additions | Retirements | Ending Balance |
|---|---|---|---|---|
| Fiduciary activities: | | | | |
| Equipment | $ 1,064,259 | $ 244,439 | $ 332,766 | $ 975,932 |
| Less: Accumulated depreciation | 914,489 | 148,050 | 200,151 | 862,388 |
| Fiduciary activities, net | $ 149,770 | $ 96,389 | $ 132,615 | $ 113,544 |

NOTE 1: Summary of Significant Accounting Policies (Continued)

I. Compensated Absences – Employee Leave

Annual leave is earned by all full-time employees. Upon termination, employees are entitled to receive compensation for their unused accrued annual leave up to 30 days. Liabilities for compensated absences are determined at the end of the year based on current salary rates.

Sick leave is earned by all full-time employees and may be accrued up to 120 days. Compensation up to a maximum of $7,500 for unused sick leave is payable to employees upon retirement.

Compensated absences are reported in the State's "Government-Wide" financial statements but are not reported as liabilities or expenditures in the governmental funds. However, the compensated absences payable attributable to this Agency's employee annual and sick leave as of June 30, 2020 and 2019, amounted to $530,170 and $445,890, respectively. The net changes to compensated absences payable during the year ended June 30, 2020, amounted to $84,280.

J. Post-Employment Benefits Other Than Pensions

Arkansas State Employee Health Insurance Plan (Plan)
Plan Description – The Department of Finance and Administration – Employee Benefits Division (DFA-EBD) provides medical and prescription drug benefits for eligible state employees and retirees. Policies for DFA-EBD related to medical and prescription drug plans are established by the State and Public School Life and Health Insurance Board (Board) and may include ad hoc benefit changes or annual cost redeterminations. For the current year, no ad hoc or cost redetermination changes occurred. The Constitution of Arkansas, Article 5, vests the General Assembly with legislative power to enact and amend duties of and benefit provisions of the Board and DFA-EBD, respectively, as published in Subchapter 4, Chapter 5 of Title 21 of the Arkansas Code Annotated. DFA-EBD is included in the State of Arkansas's Comprehensive Annual Financial Report (CAFR), which includes all applicable financial information, notes, and required supplementary information. That report may be obtained by writing to Department of Finance and Administration, 1509 West Seventh Street, Suite 403, Little Rock, Arkansas 72201 or by calling 501-682-1675.

The Agency contributes to the Plan, to a single employer defined benefit OPEB plan administered by the DFA-EBD, on a monthly basis. The Board establishes medical and prescription drug benefits for three classes of individuals covered as follows: active employees, terminated employees with accumulated benefits, and retires and beneficiaries. The Plan is established on the basis of a pay-as-you-go financing requirement and no assets are accumulated in a trust as defined by Governmental Accounting Standards Board (GASB) Statement No. 75. The State's annual OPEB cost for the Plan is based on an actuarially determine calculated amount made in accordance with GASB Statement No. 75.

Funding Policy – Employer contribution for the Plan are established by Ark. Code Ann. § 21-5-414 not to exceed $450 per budgeted position. Employees, retirees, and beneficiaries contribute varying amounts based on the type of coverage and inclusion of family members. Benefits for Medicare-eligible retirees are coordinated with Medicare Part A and B and the Plan is the secondary payer. The portion of the State's annual OPEB liability attributable to ATRS as of June 30, 2020, is $6,585,411.

K. Deferred Inflows and Outflows of Resources

Deferred outflows of resources represent a decrease of net position that applies to future periods. Thus, these items will not be recognized as an outflow of resources (an expense or expenditure) until a future period.

Deferred inflows of resources represent an increase of net position that applies to future periods. These items will not be recognized as an inflow of resources (revenue) until a future period.

NOTE 1: Summary of Significant Accounting Policies (Continued)

L. Contributions

The Agency's funding policy provides for periodic employer contributions at statutorily-established rates based on annual actuarial valuations. The employer contribution rate was 14.25% for the fiscal year ending June 30, 2020. Contributory members are required to contribute 6.25% of gross wages to ATRS. Employee contributions are refundable if ATRS-covered employment terminates before a monthly benefit is payable. Employee contributions remaining on deposit with ATRS for a period of one or more years earn interest credits, which are included in the refund.

M. Reserves

In accordance with the provisions of Ark. Code Ann. § 24-7-405, ATRS must maintain reserve accounts showing net assets available for benefits. At June 30, 2020, the reserve accounts were funded at a level that complied with the Code provisions.

| | Total |
|---|---|
| Members' deposit account reserve | $ 10,195,620,369 |
| Employers' accumulation account reserve | (6,237,129,203) |
| Retirement reserve | 12,389,040,912 |
| Teacher deferred retirement option plan account reserve | 442,391,622 |
| Survivor benefit account reserve | 102,904,404 |
| Income - expense account reserve | 9,248,120 |
| Total | $ 16,902,076,224 |

The Code provisions define each of the reserve accounts as follows:

Members' Deposit Account Reserve – The account in which members' contributions shall be accumulated with regular interest and from which shall be made transfers and refunds of contributions.

Employers' Accumulation Account Reserve – The account in which shall be accumulated the employer's contributions to ATRS and from which shall be made transfers as provided in the code.

Retirement Reserve – The account from which shall be paid all annuities and benefits in lieu of annuities payable as provided in this act to retirants who retired on account of superannuation or disability and to beneficiaries of such retirants.

Teacher Deferred Retirement Option Plan Account Reserve – The account in which shall be accumulated plan deposits made on behalf of the member with plan interest.

Survivor Benefit Account Reserve – The account from which shall be paid survivor benefits payable as provided in this act.

Income - Expense Account Reserve – The account to which shall be credited all investment income from invested assets of ATRS. It shall also be the account in which shall be accumulated the contributions made by employers for the administrative expenses of ATRS, from which shall be made annual transfers of interest credits and excess amounts to the other accounts of ATRS, and from which shall be paid all the expenses of the Board necessary for the administration and operation of ATRS.

NOTE 2: Net Pension Liability

The components of the net pension liability of the participating employers at June 30, 2020, were as follows:

| | |
|---|---|
| Total pension liability | $ 22,562,958,162 |
| Plan net position | (16,902,076,224) |
| Net pension liability | $ 5,660,881,938 |
| Plan net position as a percentage of the total pension liability | 74.91% |

Actuarial Assumptions – The total liability was determined by an actuarial valuation as of June 30, 2020, using the following actuarial assumptions, applied to all prior periods included in the measurement:

| | |
|---|---|
| Wage inflation rate | 2.75% |
| Salary increases | 2.75 - 7.75% |
| Investment rate of return | 7.50% |

Mortality rates were based on the RP-2014 Healthy Annuitant, Disabled Annuitant, and Employee Mortality headcount weighted tables for males and females adjusted for future mortality improvements using projection scale MP-2017 Table from 2006.

The actuarial assumptions used in the June 30, 2020, valuation were based on the results of an actuarial experience study for the period July 1, 2010 through June 30, 2015.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return were adopted by the plan's trustees after considering input from the plan's investment consultant and actuary.

For each major asset class that is included in the pension plan's target asset allocation as of June 30, 2020, these best estimates are summarized in the following table:

| Asset Allocation | Target | Long-Term Expected Real Rate of Return |
|---|---|---|
| Total equity | 53.0% | 5.2% |
| Fixed income | 15.0% | -0.1% |
| Alternatives | 5.0% | 3.5% |
| Real assets | 15.0% | 5.1% |
| Private equity | 12.0% | 7.2% |
| Cash equivalents | 0.0% | -1.0% |
| | 100.0% | |

NOTE 2: Net Pension Liability (Continued)

Single Discount Rate - A single discount rate of 7.50% was used to measure the total pension liability based on the expected rate of return on pension plan investments. The current member and employer contribution rates are 6.25% and 14.25% of active member payroll, respectively. Although not all members contribute, the member and employer rates are scheduled to increase by 0.25% increments ending in Fiscal Year 2023. The ultimate member and employer rates will be 7% and 15%, respectively. The projection of cash flows used to determine this single discount rate assumed that member and employer contributions will be made in accordance with this schedule. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.50%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1% lower or 1% higher:

Sensitivity of the Net Pension Liability to the Single Discount

| | 1% Decrease 6.50% | Current Rate 7.50% | 1% Increase 8.50% |
|---|---|---|---|
| Net pension liability | $ 8,423,120,901 | $ 5,660,881,938 | $ 3,370,051,058 |

NOTE 3: Required Supplementary Schedules

Detailed historical information about the pension liabilities for which the pension plan's assets are being held and managed and the significant assumptions used to measure these liabilities are required supplementary information. This required supplementary information, prepared in accordance with the parameters of GASB Statement No. 67, is included immediately following the notes to the financial statements.

Schedule 1

# ARKANSAS TEACHER RETIREMENT SYSTEM
## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
## FOR THE TEN-YEAR PERIOD ENDED JUNE 30, 2020

| | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013* | 2012* | 2011* |
|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL PENSION LIABILITY | | | | | | | | | | |
| Service cost | $ 331,035,218 | $ 325,464,537 | $ 315,864,318 | $ 307,786,503 | $ 305,086,337 | $ 298,134,477 | $ 326,999,276 | | | |
| Interest | 1,608,463,162 | 1,551,511,422 | 1,504,613,059 | 1,485,759,965 | 1,433,768,167 | 1,371,168,271 | 1,326,709,192 | | | |
| Changes in benefit terms | | | | (469,205,711) | | | (27,405,705) | | | |
| Difference between actual and expected experience | (24,869,157) | 119,427,343 | (7,365,993) | (76,812,667) | (15,341,738) | 123,519,055 | (103,017,525) | | | |
| Changes in assumptions | | | | 1,374,950,899 | | | | | | |
| Benefit payments | (1,255,065,793) | (1,205,326,555) | (1,160,738,238) | (1,092,952,357) | (1,035,958,950) | (970,719,484) | (914,250,015) | | | |
| Refunds | (9,592,091) | (9,679,783) | (9,455,405) | (10,874,003) | (10,145,471) | (10,774,122) | (10,485,103) | | | |
| NET CHANGE IN TOTAL PENSION LIABILITY | 649,971,339 | 781,396,964 | 642,917,741 | 1,518,652,629 | 677,408,345 | 811,328,197 | 598,550,120 | | | |
| TOTAL PENSION LIABILITY - BEGINNING OF YEAR | 21,912,986,823 | 21,131,589,859 | 20,488,672,118 | 18,970,019,489 | 18,292,611,144 | 17,481,282,947 | 16,882,732,827 | | | |
| TOTAL PENSION LIABILITY - END OF YEAR (A) | $ 22,562,958,162 | $ 21,912,986,823 | $ 21,131,589,859 | $ 20,488,672,118 | $ 18,970,019,489 | $ 18,292,611,144 | $ 17,481,282,947 | | | |
| PLAN NET POSITION | | | | | | | | | | |
| Contributions - employer | $ 446,228,128 | $ 430,864,656 | $ 424,488,126 | $ 414,954,939 | $ 410,358,229 | $ 408,230,472 | $ 404,920,440 | | | |
| Contributions - member | 153,105,134 | 141,885,632 | 138,766,747 | 133,109,939 | 131,100,983 | 128,555,684 | 125,225,906 | | | |
| Net investment income | (165,766,491) | 898,384,867 | 1,824,094,695 | 2,289,818,591 | 35,579,657 | 632,166,951 | 2,429,334,097 | | | |
| Benefit payments | (1,255,065,793) | (1,205,326,555) | (1,160,738,237) | (1,092,952,357) | (1,035,958,950) | (970,719,484) | (914,250,015) | | | |
| Refunds | (9,592,091) | (9,679,783) | (9,455,405) | (10,874,003) | (10,145,471) | (10,774,122) | (10,485,103) | | | |
| Administrative expense | (8,454,436) | (7,134,784) | (9,336,430) | (7,825,595) | (8,059,030) | (8,034,857) | (8,034,236) | | | |
| NET CHANGE IN PLAN NET POSITION | (839,545,549) | 248,994,033 | 1,207,819,496 | 1,726,231,514 | (477,124,582) | 179,424,644 | 2,026,711,089 | | | |
| PLAN NET POSITION - BEGINNING OF YEAR | 17,741,621,773 | 17,492,627,740 | 16,284,808,244 | 14,558,576,730 | 15,035,701,312 | 14,856,276,668 | 12,829,565,579 | | | |
| PLAN NET POSITION - END OF YEAR (B) | $ 16,902,076,224 | $ 17,741,621,773 | $ 17,492,627,740 | $ 16,284,808,244 | $ 14,558,576,730 | $ 15,035,701,312 | $ 14,856,276,668 | | | |
| NET PENSION LIABILITY - END OF YEAR (A) - (B) | $ 5,660,881,938 | $ 4,171,365,050 | $ 3,638,962,119 | $ 4,203,863,874 | $ 4,411,442,759 | $ 3,256,909,832 | $ 2,625,006,279 | | | |
| Plan net position as a percentage of total pension liability | 74.91% | 80.96% | 82.78% | 79.48% | 76.75% | 82.20% | 84.98% | | | |
| Covered employee payroll | $ 3,077,558,814 | $ 3,027,154,131 | $ 2,986,026,715 | $ 2,921,965,125 | $ 2,888,392,668 | $ 2,873,988,053 | $ 2,850,860,174 | | | |
| Net pension liability as a percentage of covered employee payroll | 183.94% | 137.80% | 121.87% | 143.87% | 152.73% | 113.32% | 92.08% | | | |

* ATRS is only required to present those years for which information is available until the full 10-year trend is completed.

Schedule 2

# ARKANSAS TEACHER RETIREMENT SYSTEM
## SCHEDULE OF CONTRIBUTIONS
## FOR THE TEN-YEAR PERIOD ENDED JUNE 30, 2020

| | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013* | 2012* | 2011* |
|---|---|---|---|---|---|---|---|---|---|---|
| Actuarially-determined contribution | $ 450,612,124 | $ 447,791,482 | $ 422,365,685 | $ 423,846,831 | $ 437,434,470 | $ 474,773,530 | $ 485,904,529 | | | |
| Actual contribution | 446,228,128 | 430,864,656 | 424,488,126 | 414,954,939 | 410,358,229 | 408,230,472 | 404,920,440 | | | |
| Contribution deficiency (excess) | $ 4,383,996 | $ 16,926,826 | $ (2,122,441) | $ 8,891,892 | $ 27,076,241 | $ 66,543,058 | $ 80,984,089 | | | |
| Covered employee payroll | $ 3,077,558,814 | $ 3,027,154,131 | $ 2,986,026,715 | $ 2,921,965,125 | $ 2,888,392,668 | $ 2,873,988,053 | $ 2,850,860,174 | | | |
| Actual contribution as a percentage of covered employee payroll | 14.50% | 14.23% | 14.22% | 14.20% | 14.21% | 14.20% | 14.20% | | | |

* ATRS is only required to present those years for which information is available until the full 10-year trend is completed.

Schedule 3

ARKANSAS TEACHER RETIREMENT SYSTEM
SCHEDULE OF INVESTMENT RETURNS
FOR THE TEN-YEAR PERIOD ENDED JUNE 30, 2020

| | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013* | 2012* | 2011* |
|---|---|---|---|---|---|---|---|---|---|---|
| Annual money-weighted rate of return | -0.96% | 5.25% | 11.46% | 16.09% | 0.24% | 4.34% | 19.27% | | | |

* ATRS is only required to present those years for which information is available until the full 10-year trend is completed.

NOTE 1: Summary of Significant Information Related to Required Supplementary Schedules

A. Changes in Benefit Terms

There were no significant changes in benefit terms for the year ended June 30, 2020.

B. Changes in Assumptions

There were no significant changes in assumptions for the year ended June 30, 2020.

C. Methods and Assumptions Used in Calculations of Actuarially-Determined Contributions

| | |
|---|---|
| Valuation date: | June 30, 2018 |
| | Actuarially determined contribution rates are calculated as of June 30 in the year which is one year prior to the beginning of the fiscal year in which contributions are reported. |

The following actuarial methods and assumptions were used to determine contribution rates reported in the schedule of contributions:

| | |
|---|---|
| Actuarial cost method | Entry age normal |
| Amortization method | Level percentage of payroll |
| Amortization period | 30 years |
| Asset valuation method | 4-year smoothed market for funding purposes ; 20% corridor |
| Payroll growth | 2.75% |
| Salary increases | 2.75 to 7.75% including inflation |
| Investment rate of return | 7.50% |
| Mortality table | RP-2014 Healthy Annuitant, Disabled Annuitant, and Employee Mortality headcount weighted tables were used for males and females. Mortality rates were adjusted for future mortality improvements using projection scale MP-2017 from 2006. |

| | Scaling Factor | |
|---|---|---|
| Table | Males | Females |
| Healthy Annuitant | 101% | 91% |
| Disabled Annuitant | 99% | 107% |
| Employee Mortality | 94% | 84% |

Schedule 4

# ARKANSAS TEACHER RETIREMENT SYSTEM
## SCHEDULE OF SELECTED INFORMATION
## FOR THE FIVE-YEAR PERIOD ENDED JUNE 30, 2020
## (UNAUDITED)

| | For the Year Ended June 30, | | | | |
|---|---|---|---|---|---|
| | 2020 | 2019 | 2018 | 2017 | 2016 |
| Total Assets | $ 17,272,901,062 | $ 18,281,516,802 | $ 18,088,381,003 | $ 16,792,590,856 | $ 15,236,170,821 |
| Total Deferred Outflows of Resources | 1,310,404 | | | | |
| Total Liabilities | 371,416,146 | 539,895,029 | 595,753,263 | 507,782,612 | 677,591,091 |
| Total Deferred Inflows of Resources | 719,096 | | | | |
| Net Position Restricted for Pension Benefits | 16,902,076,224 | 17,741,621,773 | 17,492,627,740 | 16,284,808,244 | 14,558,576,730 |
| Total Additions (Losses) | 433,570,198 | 1,471,135,154 | 2,387,349,568 | 2,837,883,469 | 577,038,869 |
| Total Deductions | 1,273,115,747 | 1,222,141,121 | 1,179,530,072 | 1,111,651,955 | 1,054,163,451 |

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

**R E S O L U T I O N**
**No. 2021-32**

# ESTABLISHMENT OF A FIXED T-DROP PLAN INTEREST RATE FOR REGULAR PARTICIPANTS

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) has the authority to set regular T-DROP interest rates for upcoming fiscal years by resolution; and

***WHEREAS,*** Act 1049 of 2017 allows the Board to set a fixed rate until changed by subsequent resolution for all fiscal years after the effective date of the new fixed rate; and

***WHEREAS,*** Act 279 of 2021 allows the Board to set a fixed rate by the end of the first quarter of the fiscal year in which the interest rate shall apply; and

***WHEREAS***, the Board has determined it is appropriate to use the authorization provided in A.C.A. § 24-7-1307(c)(1) to set a fixed interest rate, by the end of the first quarter of the fiscal year in which the interest rate shall apply, for each fiscal year, until such time as the ATRS Board makes a subsequent adjustment; and

***WHEREAS***, the Board has determined it is appropriate to use the authorization provided in A.C.A. § 24-7-1307(c)(2) to set a T-DROP participation incentive rate, by the end of the first quarter of the fiscal year in which the interest rate shall apply, for each fiscal year justified by an estimated investment return for the fiscal year.

***NOW, THEREFORE*, *BE IT RESOLVED,*** that the ATRS Board sets the T-DROP interest rate for Fiscal Year 2022, and payable on June 30, 2022, and all subsequent fiscal years thereafter, unless modified by subsequent resolution, at a fixed rate of three percent (3%).

***FURTHER BE IT RESOLVED,*** that the ATRS Board may provide an incentive rate for continued participation in T-DROP if the estimated ATRS rate of return, as estimated by the general financial consultant, is 2% or greater than the ATRS actuarial assumed rate of return in the most recent preceding fiscal year. However, in no event shall the incentive rate when combined with the fixed rate exceed six percent (6%).

***FURTHER BE IT RESOLVED,*** that the ATRS staff is hereby authorized and directed to take all necessary and proper steps to implement this resolution.

**Adopted this 27th day of September, 2021.**

______________________________________

**Mr. Danny Knight, *Chair***
***Arkansas Teacher Retirement System***

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

**R E S O L U T I O N**
**No. 2021-33**

# ESTABLISHMENT OF A VARIABLE INTEREST RATE FOR POST 10-YEAR T-DROP PLAN

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) may establish a formula to be used in setting the Post 10-year T-DROP plan interest pursuant to Arkansas Code § 24-7-1307 and ATRS Rule 10-3; and

***WHEREAS,*** Act 279 of 2021 allows the Board to set a Post 10-year T-DROP plan interest rate by the end of the first quarter of the fiscal year in which the interest rate shall apply; and

***WHEREAS,*** the Board intends to maintain the existing minimum plan interest of four percent (4%) and maintain the current maximum interest of six percent (6%) while adding a provision of allowing an incentive rate above the maximum rate under certain conditions.

***NOW, THEREFORE*****,** ***BE IT RESOLVED,*** beginning with Fiscal Year 2022, the maximum standard Post 10-Year T-DROP Plan Interest rate shall be six percent (6%) and the minimum standard Post 10-Year T-DROP Plan Interest rate shall be four percent (4%). The interest rate for a fiscal year shall be two percent (2%) less than the return estimated by the ATRS general financial consultant for the fiscal year just ended before the applicable fiscal year begins. Provided that the Board may approve an incentive rate in addition to the maximum six percent (6%) regular rate, if the ATRS rate of return, as estimated by the general financial consultant, is two percent (2%) or greater than the ATRS assumed rate of return in the most recent preceding fiscal year. However, in no event shall the incentive rate combined with the regular rate exceed the actuarially assumed rate of return on investments of the ATRS Fund.

***FURTHER BE IT RESOLVED,*** that the ATRS staff is hereby authorized and directed to take all necessary and proper steps to implement this resolution.

**Adopted this 27th day of September, 2021.**

**Mr. Danny Knight, *Chair***
**Arkansas Teacher Retirement System**

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

**R E S O L U T I O N**
**No. 2021-34**

## AUTHORIZATION TO PAY REGULAR T-DROP INTEREST FOR FISCAL YEAR 2022

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) has the authority to set regular T-DROP interest rates for fiscal years by resolution; and

***WHEREAS***, the Board has determined it is appropriate to use the authorization provided in A.C.A. § 24-7-1307(c)(1) to set a fixed interest rate, by the end of the first quarter of the fiscal year in which the interest rate shall apply, for each fiscal year, until such time as the ATRS Board makes a subsequent adjustment; and

***WHEREAS,*** Resolution 2021-32 authorizes the Board to award an incentive rate of up to 3% which when combined with the 3% fixed rate can provide a maximum potential T-DROP interest rate of 6% for regular participants; and

***WHEREAS,*** Resolution 2021-32 states the Board may authorize an incentive rate if the ATRS rate of return, as estimated by the general financial consultant, is 2% or greater than the ATRS actuarial assumed rate of return in the most recent preceding fiscal year; and

***WHEREAS,*** the Board has reviewed the general financial consultant's estimated rate of return for the preceding fiscal year and found that estimate to be in excess of 31%, which is greater than 2% above the ATRS actuarial assumed rate of return which is currently 7.5%.

***NOW, THEREFORE*****,** ***BE IT RESOLVED,*** that the ATRS Board sets the regular T-DROP standard interest rate to 3% for fiscal year 2022, and each fiscal year thereafter, until such time as the ATRS Board makes a subsequent adjustment.

***FURTHER BE IT RESOLVED,*** that the ATRS Board awards a regular T-DROP incentive interest rate of 3% for fiscal year 2022.

**Adopted this 27th day of September, 2021.**

**Mr. Danny Knight, *Chair***

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

**R E S O L U T I O N**
**No. 2021-35**

## AUTHORIZATION TO PAY POST 10-YEAR T-DROP INTEREST FOR FISCAL YEAR 2022

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) has the authority to set Post 10-Year T-DROP interest rates for fiscal years by resolution; and

***WHEREAS,*** Act 1049 of 2017 allows the Board to provide variable standard interest rate and an incentive interest rate for Post 10-Year T-DROP participants if justified by investment returns; and

***WHEREAS***, through Resolution 2017-36, beginning in fiscal year 2019, the Board determined it was appropriate to set the standard Post 10-Year T-DROP interest rate at a rate between 4% and 6% for a fiscal year; and

***WHEREAS,*** Resolution 2021-33 states that in no event can the incentive rate when combined with the standard Post 10-Year T-DROP interest rate exceed the actuarially assumed rate of return on investments, which is 7.5%; and

***NOW, THEREFORE*****,** ***BE IT RESOLVED,*** that the ATRS Board sets the Post 10-Year T-DROP standard interest rate to 6% for fiscal year 2022.

***FURTHER BE IT RESOLVED,*** that the ATRS Board awards a Post 10-Year T-DROP incentive interest rate to 1.5% for fiscal year 2022.

**Adopted this 27th day of September, 2021.**

________________________________________
**Mr. Danny Knight,** ***Chair***
***Arkansas Teacher Retirement System***

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-36**

## AUTHORIZATION TO PAY AN INCENTIVE INTEREST RATE ON T-DROP CASH BALANCE ACCOUNTS ON JUNE 30, 2022

***WHEREAS,*** there are a number of ATRS members retiring from T-DROP who leave all or part of the T-DROP distribution in a Cash Balance Account (CBA) at retirement; and

***WHEREAS***, paying an incentive rate is authorized under the CBA program when strong investment returns are made by ATRS; and

***WHEREAS,*** paying an incentive rate, when warranted, is likely to encourage members to open CBA accounts when retiring out of T-DROP and to leave money in CBA accounts longer by having the possibility of receiving incentive interest.

***WHEREAS,*** the investment returns for fiscal year 2021 were approximately 31%; and

***NOW, THEREFORE*****,** ***BE IT RESOLVED,*** that in addition to the regular CBA interest rate payable in fiscal year 2022 that the ATRS Board approves an additional incentive interest payment of 1% to be paid on all CBA account balances that are held by ATRS on June 30, 2022.

**Adopted this 27th day of September, 2021.**

______________________________________
**Mr. Danny Knight,** ***Chair***
***Arkansas Teacher Retirement System***

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-37**

## Extension of ATRS CASH Program for Fiscal Year 2022

***WHEREAS,*** The CASH Program was established by the Arkansas Teacher Retirement System (ATRS) Board of Trustees (Board) to allow inactive, vested non-contributory members to obtain an immediate one-time payment from ATRS instead of waiting until age 60 to draw monthly benefits; and

***WHEREAS,*** The CASH Program is beneficial to ATRS by allowing ATRS to reduce its unfunded liabilities while providing inactive members an opportunity to obtain a CASH Program payment to benefit the member; and

***WHEREAS,*** The CASH Program was established in November 2013 with significant participation from inactive, vested non-contributory members since its effective date; and

***WHEREAS,*** Inactive, vested members with contributory service and inactive, vested members with mixed contributory and non-contributory service have not been eligible for the CASH Program prior to 2017; and

***WHEREAS,*** Act 647 of 2017 allows the Board to extend, modify, or expand the CASH Program by Board Resolution; and

***WHEREAS,*** The CASH Program was extended, modified, and expanded by Board Resolution 2017-18 on May 10, 2017 to include all inactive, vested ATRS members; and

***WHEREAS,*** The extension of the CASH Program would enhance the benefit of the CASH Program to ATRS while providing the opportunity to obtain a CASH Program payment to all inactive, vested ATRS members;

***NOW, THEREFORE, BE IT RESOLVED,*** That this resolution establishes the ATRS Rule 16 CASH Program for the Fiscal Year 2022 for Inactive Vested Members as set forth herein:

# The Fiscal Year 2022 CASH Program for Inactive, Vested Members

## I. Applicable to Inactive, Vested Members Only

A. This offering is limited to vested members that are inactive. The CASH Program payment, once the CASH Program Election Form is properly submitted to ATRS, will be paid within a reasonable time or rolled out to another administrator at the direction of the member. The acceptance of a CASH Program payment by the member does not make the member a retiree.

B. This offering is limited to members of ATRS who:

i. Have vested in ATRS; and

ii. Are currently inactive and have remained inactive for at least one (1) fiscal year after the last fiscal year that the member rendered actual service to a covered employer, but not retired, during the offering period set forth in this Resolution.

## II. The Offering Period

The offering period for this CASH Program opportunity begins October 1, 2021 and ends June 30, 2022.

## III. The CASH Program Formula

A. Final Average Salary is defined under A.C.A. § 24-7-202(18) and calculated using the formula set in A.C.A. § 24-7-736.

B. The member's age shall be the age attained as July 1, 2021.

C. The CASH Program Payment is calculated on the following formula:

**Step 1**: (Final Average Salary) x (Years and partial years of Non-contributory Service) x (ATRS Non-contributory multiplier of 1.39%) +(Final Average Salary) x (Years and partial years of Contributory Service) x (ATRS Contributory multiplier of 2.15%) = Assumed Annual Benefit. The benefit stipend and lump sum death benefit are not part of the Assumed Annual Benefit.

**Step 2**: Assumed Annual Benefit ÷ 12 = Assumed Monthly Benefit Amount.

**Step 3:** Assumed Monthly Benefit Amount x Applicable Accrued Liability Factor for the Member as listed in the Accrued Liability Factor Table = Assumed Current Value.

**Step 4:** (Member Contributions + Interest on Member Contributions) x (101% for 1st Year of Eligibility OR 102% for 2nd Year of Eligibility OR 105% for 3rd Year of Eligibility OR 110% for the 4th the Year of Eligibility and beyond) = Premium Residue.

**Step 5**: Highest value of (Assumed Current Value x 30%) or Premium Residue = CASH Program payment.

## VIII. ACCRUED LIABILITY FACTOR TABLE

| Sample Attained Ages | Accrued Liability Factor | Sample Attained Ages | Accrued Liability Factor |
|---|---|---|---|
| 20 | 6.97 | 56 | 113.97 |
| 21 | 7.53 | 57 | 123.39 |
| 22 | 8.13 | 58 | 133.63 |
| 23 | 8.79 | 59 | 144.78 |
| 24 | 9.49 | 60 | 156.92 |
| 25 | 10.25 | 61 | 154.09 |
| 26 | 11.07 | 62 | 151.18 |
| 27 | 11.96 | 63 | 148.18 |
| 28 | 12.92 | 64 | 145.12 |
| 29 | 13.96 | 65 | 141.98 |
| 30 | 15.08 | 66 | 138.76 |
| 31 | 16.29 | 67 | 135.50 |
| 32 | 17.60 | 68 | 132.15 |
| 33 | 19.01 | 69 | 128.70 |
| 34 | 20.54 | 70 | 125.17 |
| 35 | 22.19 | 71 | 121.55 |
| 36 | 23.98 | 72 | 117.85 |
| 37 | 25.91 | 73 | 114.07 |
| 38 | 28.00 | 74 | 110.20 |
| 39 | 30.26 | 75 | 106.28 |
| 40 | 32.70 | 76 | 102.30 |
| 41 | 35.33 | 77 | 98.25 |
| 42 | 38.19 | 78 | 94.21 |
| 43 | 41.27 | 79 | 90.17 |
| 44 | 44.61 | 80 | 86.13 |
| 45 | 48.21 | 81 | 82.11 |
| 46 | 52.11 | 82 | 78.14 |
| 47 | 56.33 | 83 | 74.24 |
| 48 | 60.90 | 84 | 70.37 |
| 49 | 65.83 | 85 | 66.60 |
| 50 | 71.18 | 86 | 62.92 |
| 51 | 76.95 | 87 | 59.38 |
| 52 | 83.21 | 88 | 56.07 |
| 53 | 89.99 | 89 | 52.97 |

| | | | |
|---|---|---|---|
| 54 | 97.35 | 90 | 50.09 |
| 55 | 105.31 | | |

The mortality table used was the RP-2000 Mortality table for males and females projected 25 years with scale AA (95% for men and 87% for women).

**Adopted this 27th day of September, 2021.**

______________________________________

**Mr. Danny Knight, *Chair***
***Arkansas Teacher Retirement System Board***

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 WEST THIRD STREET**
**LITTLE ROCK, ARKANSAS 72201**

**R E S O L U T I O N**
**No. 2021-52**

## Office Terms For Trustees Elected in 2021

***WHEREAS,*** The Board of Trustees of the Arkansas Teacher Retirement System (ATRS) conducted a regular system election in March 2021, to fill expiring positions on the ATRS Board and;

***WHEREAS,*** Dr. Michael Hernandez, ran unopposed for Position #5 – Member Trustee – Administrator Trustee, and ATRS Board policy provides that should only one qualified candidate file a timely and verified petition, that person shall be declared by the Board of Trustees as elected to fill the vacant trustee position; and

***WHEREAS,*** Mr. Shawn Higginbotham, ran unopposed for Position #6 – Member Trustee – Administrator Trustee, and ATRS Board policy provides that should only one qualified candidate file a timely and verified petition, that person shall be declared by the Board of Trustees as elected to fill the vacant trustee position; and

***WHEREAS,*** Anita Bell, ran unopposed for Position #8 – Minority Trustee, and ATRS Board policy provides that should only one qualified candidate file a timely and verified petition, that person shall be declared by the Board of Trustees as elected to fill the vacant trustee position; and

***WHEREAS,*** The Board of Trustees of the Arkansas Teacher Retirement System (ATRS) entered into a contract with SourceOne Output Technologies (SourceOne) of Little Rock, Arkansas, to conduct a regular system election in March 2021, to fill two positions on the ATRS Board: Position #2 – Member Trustee ($2^{nd}$ Congressional District) and Position #7 – Non-Certified Trustee and;

***WHEREAS,*** Mr. Michael Johnson and Ms. April Reisma ran for Position #2 – Member Trustee. The election vendor, SourceOne, through its VP of Operations, Ms. Kelly Westerman, has given official notice that Mr. Michael Johnson is the winner of the 2021 Board of Trustees election for Position #2; and

***WHEREAS,*** Ms. Audrey Nichols and Ms. Kelly Davis ran for Position #7 – Non-Certified Trustee. The election vendor, SourceOne, through its VP of Operations, Ms. Kelly Westerman, has given official notice that Ms. Kelly Davis is the winner of the 2021 Board of Trustees election for Position #7;

***NOW, THEREFORE, BE IT RESOLVED,*** that the Board of Trustees of the Arkansas Teacher Retirement System hereby reaffirms Mr. Michael Johnson and Ms. Kelly Davis to be winners for Positions #2 and #7 respectively, as certified by the election vendor, SourceOne, through its VP of Operations, Kelly Westerman. These positions became effective July 1, 2021 and shall expire on June 30, 2027.

***FURTHER BE IT RESOLVED,*** that the Board of Trustees of the Arkansas Teacher Retirement System hereby declares and certifies Dr. Michael Hernandez, to be winner for Position #5. This position became effective July 1, 2021 and shall expire on June 30, 2027.

***FURTHER BE IT RESOLVED,*** that the Board of Trustees of the Arkansas Teacher Retirement System hereby declares and certifies Mr. Shawn Higginbotham, to be winner for Position #6. This position became effective July 1, 2021 and shall expire on June 30, 2027.

***FURTHER BE IT RESOLVED,*** that the Board of Trustees of the Arkansas Teacher Retirement System hereby declares and certifies Ms. Anita Bell, to be winner for Position #8. This position became effective July 1, 2021 and shall expire on June 30, 2027.

**Adopted this 27th day of September, 2021.**

________________________________

**Mr. Danny Knight, Chair**
***Arkansas Teacher Retirement System Board***

# MAGGIE GARRETT, CPA, CIA

Arkansas Department of the Inspector General
323 Center Street, Suite 1200
Little Rock, AR 72201
501-682-5415

255 Eagles Nest Drive
Austin, AR 72007
501-766-1745
Mmm.Garrett@gmail.com

## Professional Profile

*Licensing* Certified Public Accountant (2009) and Certified Internal Auditor (2012)

*Education* Bachelor's in Accounting and Master's in Business Administration (1999, ASU Jonesboro, AR)

*Associations* Member of the Institute of Internal Auditors and the Association of Certified Fraud Examiners

*Management* Over fifteen years of experience in a supervisory position

*Technology* Advanced with Microsoft Excel, Word, and PowerPoint

*Training* Presented certified professional education courses, written training manuals, and completed video tutorials with voice over

## Experience

Arkansas Department of the Inspector General, Office of Internal Audit, Little Rock, AR

*Audit Manager (10/09-present)*

Manage a team of four auditors as well as have assisted in managing the internal auditors at the Arkansas Lottery and Arkansas Development Finance Authority. Duties include working closely with the Audit Administrator in prioritizing the work load among staff, reviewing staff work papers to ensure audits and consultation work is done timely and accurately, and providing consultation services to State agency personnel as well as assisting with reported fraud cases. Implemented a statewide web tool for state agency personnel to record the results of the required agency control self-assessment and conducted training for users. Assisted in preparing the annual audit plans for the Office of Internal Audit, Arkansas Lottery Internal Audit, and Arkansas Development Finance Authority.

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Experience (*continued*)

Arkansas Department of Finance and Administration, Office of Accounting, Little Rock, AR

*Special Project Coordinator (12/07-10/09)*

Assisted with issues and analyzed AASIS data related to financial matters of State agencies. Worked with the Office of Internal Audit in two major efforts which included (1) assessing State agencies control environment and making recommendations to strengthen controls, and (2) resolving conflicts of duties allowed by assignment of AASIS authorization roles in the AASIS financial module. (AASIS is the Arkansas Administrative Statewide Information System).

Dillard Store Services, Inc., Little Rock, AR

*Comptroller-Dillard's Travel (10/03-12/07)*

Performed responsibilities as comptroller of the travel accounting department of the wholly-owned subsidiary (Dillard's Travel) of Dillard Store Services, Inc. Duties included supervising five employees, coding invoices, reconciling bank statements, maintaining payroll expense, creating accruals, and compiling the income statement and balance sheet for the travel segment of the company monthly. Also, gained experience in implementing a new computerized accounting system.

*Lease Operations Auditor/Analyst (6/99-10/03)*

Forecast budget and accrual amounts for rent, common area maintenance, and merchant dues (for approximately 350 locations nationwide) based on legal documents. Analyzed and reported on variances between budgeted and actual amounts spent for each account. Audited common area maintenance costs for locations that were required to pay a specific share.

# JOHN OWENS

Post Office Box 215, Fordyce, Arkansas 71742 • Home: 870-352-3923 • Cell: 870-352-1333 •
johnowens15@windstream.net

## Professional Summary

Senior Auditor bringing over twenty-nine (29) years of experience in audits, special investigations, policy reviews and research and analysis.

## Skills

- Financial reporting
- Microsoft Office Suite proficiency
- US GAAP principles
- Fraud detection and prevention
- Cash flow analysis
- Strong interpersonal skills
- Customer relations
- Audit reporting
- Risk assessment
- Business continuity plan

## Work History

**Internal Auditor**, 02/2016 to present
**Arkansas Public Employee Retirement System** – Little Rock, AR

- Conducts reviews and audits of internal processes
- Prepares Agency's risk assessment
- Computer software development testing
- Prepares internal audit reports and audit plans

**Road Employee,** 04/2015 to 02/2016
**Calhoun County**– Hampton, AR

- Perform duties for maintaining and repairing County Roads

**Senior Auditor**, 06/1993 to 03/2015
**Division of Legislative Audit** – Little Rock, AR

- Drafted the complete annual audit reports including all footnote disclosures.
- Supported management through risk identification, control testing and process improvement procedures.
- Reported internal control issues to management and supplied comprehensive recommendations to mitigate the associated risks.
- Communicated audit results to upper management through written reports and oral presentations.
- Articulated audit findings, risks and detailed recommendations to upper management.

**Helicopter Armament Technician,** Summer 1990 & 1991
**Camp Robinson Aviation Service Facility within the Arkansas National Guard –** North Little Rock, AR

- Maintained, repaired, and tested electronic armament on the AH-1 Cobra Helicopter
- Updated status logbooks on aircraft under maintenance
- Loaded 7.62 ammo, 40mm grenades and rockets to be fired on the ranges

## Education

**BBA**: Accounting, 1993
**Henderson State University** - Arkadelphia, AR

## INTERNAL AUDIT REPORT:

## Implementation of Legislation Enacted by the 92nd General Assembly

**July 1, 2019 – June 30, 2020**

**September 27, 2021**

## Introduction

The 92nd General Assembly met from January 14, 2019, through sine die adjournment on April 24,2019. Ten acts were passed in 2019 that affected ATRS including its appropriation. Acts that do not contain an emergency clause or a specified effective date became effective on the ninety-first day following the date that the General Assembly adjourns sine die. The 2019 Legislation without an emergency clause or a specified date became effective July 24, 2019.

ATRS staff is responsible for developing and implementing policies and procedures for enacting new legislation.

Of the ten acts, Internal Audit (IA) reviewed the five acts that affected member benefits.

Act 85 allows a member who owes contributions to cancel their contributory service credit and receive non-contributory service credit. Any contributions paid will be refunded to the member without interest. A member elects to cancel their contributory service by submitting a Forfeiture of Contributory Service form.

Act 209 allows a disability retiree under the age of 60 to work for a covered employer for 79 days in a fiscal year and continue to receive their disability benefit.

Act 210 defines a dependent child eligibility for a survivor annuity as a child that is under age 18, and as a child that is eighteen (18) years of age but not older than twenty-three (23) years of age and stays continuously enrolled as a full-time student at an accredited secondary school, college, or university.

Act 595 removed stipulation that service credit used in the computation of benefits shall not include any service for partial quarters worked. It added that a member cannot retire before July 1st once they have accrued a full year of service credit.

Act 474 made it possible for a member to purchase service credit for state active duty with the National Guard.

## Objectives

Our objectives in conducting this audit were as follows:

1. Verifying that the legislation enacted by the 92nd General Assembly affecting member benefits were implemented according to the legislation and ATRS rules.
2. Verifying that legislation enacted by the 92nd General Assembly affecting member benefits were made accurately and timely to the member's account.

3. Evaluate the internal controls surrounding the implementation of legislation enacted by the $92^{nd}$ General Assembly affecting member benefits including review procedures.

## Scope and Methodology

Our audit covered the period from July 1, 2019 through June 30, 2020. To accomplish the objective that the legislation passed by the $92^{nd}$ General Assembly was enacted accurately and timely we gathered the following populations and selected samples by random number generator.

To verify Act 85 was implemented accurately and timely, IA gathered a population from four sources: population from Manager of Reporting; docmage queues PCNC and PCNC2 on July 1, 2020; report R7051, Audit Log – History Adjustments, and Account Receivable Employee Contributions Under account for fiscal year 2020. There were twelve members who owed contributions and elected to convert their contributory service credit to non-contributory service credit. IA reviewed all twelve.

To verify Act 209 was implemented accurately and timely, IA gathered a population from three sources: population from Disability Counselor; query of all disability retirees with working retiree service for 2020; report R7351 Rescission/Suspended/Suspend Member Request. There were eight disability retirees who return to work with a covered employer. IA reviewed all eight.

To verify Act 210 was implemented accurately and timely, IA gather a population from report R7100 Age and Service, Survivor benefits, Disability retirants for fiscal year 2020. There were thirty-six survivors. IA reviewed all thirty-six for children eligible to receive survivor benefits.

To verify Act 595 was implemented accurately and timely, IA gathered a population from report R7100 Age and Service, Survivor benefits, Disability retirants from August 2019 through June 2020. There were one thousand one hundred seventy-two (1,172) mid-year retirees for fiscal year 2020. IA gathered a sample of thirty (30).

To verify Act 474 was implemented accurately and timely, IA gathered a population from report R7051 Audit Log – History Adjustments. There was only one member who purchased military service under Act 474 during fiscal year 2020. IA reviewed this member's purchase.

In order to evaluate staff training and internal controls over the implementation of legislation passed by the $92^{nd}$ General Assembly, IA reviewed procedures and conducted interviews with ATRS staff.

## Findings and Recommendations

**Finding 1:** Lack of consistency in treatment of members in application of Act 85. When a member owes contributions, Act 85 allows the member to convert their contributory service to non-contributory service. Prior to Act 85, Act 336 of 2013 allowed members who owed contributions to forfeit their service credit. Before Act 336, a member had to pay all contributions due before they were allowed to retire or enter the Teacher Deferred Retirement Option Plan.

Two members submitted the old ATRS Forfeiture of Service form that allowed a member to forfeit their service credit. Act 85 was effective July 24, 2019, forms were received Sept 24 and Oct 14. Both members did not receive non-contributory service credit. They were processed under Act 336; their service credit was removed. They should have been processed under the law in affect, Act 85 and given non-contributory service credit. Both members have retired. As of June 30, 2021, benefits are underpaid by $2,574.81. The remaining ten members received non-contributory service for the years they converted.

**Recommendation:** Procedures, forms, and letters updated in a timely manner. If ATRS receives the previous Forfeiture of Service form, they inform the member of the law change and allow the member to complete a new form. Credit both member's account with non-contributory service credit for their converted service. Recalculate member's benefits with the non-contributory service credit. Pay members the underpayment of benefits.

**Management Response:** Beginning with 2021 legislation, the ATRS Associate Director of Operations has implemented a "Legislative Checklist" designed to assign responsibility for necessary changes due to legislation to the appropriate departments. ATRS will continue to improve procedures to ensure all changes are made.

We have reconciled and recalculated the two member's benefits to be compliant with Act 85 of 2019.

**Finding 2:** ATRS five year look back policy was applied incorrectly to member's service credit. Member established unreported service for 2013-14 through 2017-18. Employer was billed and paid employer contributions for 2013-14 through 2017-18. A year passed from the time the employer was billed until they paid the employer contributions. Member was only billed for 2014-15 through 2017-18. ATRS did not bill member for 2013-14. Staff said member was not billed due to the five year look back. ATRS guidelines for determining the five-year lookback period is the initiation of the event. The initiation in this member's case is the receipt of the Salary Statement of Service forms and billing the employer for the employer contributions. Member was allowed to convert contributory service for non-contributory service credit for 2013-14 even though member was never billed contributions for 2013-14.

**Recommendation:** ATRS establish a form for applying five year look back to a member's account. The initiating event and the five year look back period be designated on the form. Management sign the form approving the five year look back period. A form was developed January 24, 2020.

**Management Response:** As noted above, a form was created to create more uniformity in the application of the five year look back provision. ATRS will amend the form to include the five year look back period applicable to each circumstance.

**Finding 3:** Implementing Act 85 was not done timely. Processing member's request to convert contributory service credit to non-contributory service credit under Act 85 was not done timely.

Act 85 was passed February 11, 2019 with an effective date of July 24, 2019. Forfeiture of Contributory Service form was not changed from stating member would receive no service credit to member will receive non-contributory service credit until October 7, 2019. Staff took nine months from the passing of the act and two and a half months from the effective date to having an updated form available for members.

It took over twenty-one days to process the member's request to convert their contributory service to non-contributory service for eight out of the twelve members. Two members retired prior to the request being processed.

**Recommendation:** Procedures developed for implementing legislation that includes who is responsible for designing or changing letters and forms. Member histories be updated within twenty-one days of receipt of request. A legislative checklist was created and used for implementing legislation enacted by the 93rd General Assembly.

**Management Response:** Beginning with 2021 legislation, the ATRS Associate Director of Operations has implemented a "Legislative Checklist" designed to assign responsibility for necessary changes due to legislation to the appropriate departments. ATRS will continue to improve procedures to ensure all changes are made.

ATRS staff will review the timeliness of these history adjustments to determine the reasons (if any) for a delay.

**Finding 4:** Obtaining the days worked for a disability retiree who has returned to work for a covered employer is not being done timely. Disability retiree exceeded the allowable days worked in February 2019. ATRS became aware the member exceeded in November 2019. Member was overpaid $12,452.00 in benefits.

**Recommendation:** Procedure set up to obtain and monitor monthly the days worked by a disability retiree who has return to covered employment.

**Management Response:** The ATRS Membership, Benefits and Counseling and Reporting departments in coordination with ATRS IT staff are continuously working to develop procedures to monitor days work more timely and accurately.

The member's service credit and benefit has been corrected and a repayment letter will be sent to the member.

**Repayment letter was sent to member September 13, 2021.**

**Finding 5:** Purchased service cost were incorrectly calculated including the purchase of military service under Act 474. Cost benefit projection were not updated to reflect the increase in member and employer contributions. ATRS undercharged purchased cost from July 2020 through January 2021 of $8,950.54.

**Recommendation:** ATRS has received an updated cost statement from Gabriel, Roeder, Smith and Company that charges the correct contribution rates. ATRS is currently charging the correct amount of contributions for purchasing service credit. ATRS has plans to program cost statement on Arkansas Teacher Retirement Member Information System (ATRMIS). This would allow ATRS the ability to keep the cost statement current. ATRS should present to the Board of Trustees the request to write-off the underpayment of $8,950.64.

**Management Response:** As stated above, ATRS is currently charging the correct amounts for purchased service. ATRS will present to the Board the recommended amount to be written off.

**Finding 6:** Incomplete population provided to IA for Act 85 and Act 209. Twelve members converted contributory service to non-contributory service in fiscal year 2020. IA was provided a population of six. After further research, IA found the other six members. Of the six members not given to IA, three had findings. (Finding 1 and 2)

Eight disability retirees worked for a covered employer in fiscal year 2020. IA was provided a population of six. After further research, IA found the other two members. One member not given to IA had a finding. (Finding 4)

**Recommendation:** Staff provide IA with a complete population for testing.

**Management Response:** ATRS will work with Internal Audit staff on future engagements to make sure all parties understand the scope of the audit and the best way to provide Internal Audit with compete populations for testing. This was an unintentional error.

**Finding 7:** Two member's files lacked documentation on decision made in regards to members service and benefit.

**Recommendation:** ATRS establish procedures and forms for staff to use in documenting a member's file.

**Management Response:** ATRS staff will work to develop better procedures for notating decisions and including that documentation in member files.

**Finding 8:** Eligibility for survivor benefits is determined on the date of death. This has always been ATRS process. Arkansas legislation and Board policy do not address the date of determination for survivor eligibility. A member died June 2019, under the law in effect in June the member's three children were not eligible for benefits. Act 210 effective date is July 1, 2019. Survivor benefits would have been effective July 1, 2019. Under Act 210, all three surviving children would have been eligible for survivor benefits.

**Recommendation:** Board policy to cover the date of determination of eligibility for survivor benefits.

**Management Response:** ATRS staff agrees that Arkansas code should clearly articulate how ATRS is to determine eligibility for any and all benefits. However, in the instance cited above, ATRS staff believes Arkansas law clearly establishes the date of determination for survivor children benefits as the date of the member's death.

## Conclusion

ATRS needs to implement new legislation with updated procedures, cost statements, forms, and member system prior to the effective date. ATRS needs to establish procedures for receiving outdated forms. ATRS needs to establish procedures for monitoring days worked by a disability retiree. ATRS needs to establish date of determination for survivor benefits in Arkansas code or Board policy.

Arkansas Teacher Retirement System | Second Quarter 2021

# Quarterly Investment Review

*Visit the **Investments Thought Leadership Site** (https://insights-north-america.aon.com/investment); sharing our best thinking.*

**Visit our new video library with our views on key investment topics for this quarter using access code "aon!"**
(https://site-494121.bcvp0rtal.com/category/videos/key-topics-by-investor-type)

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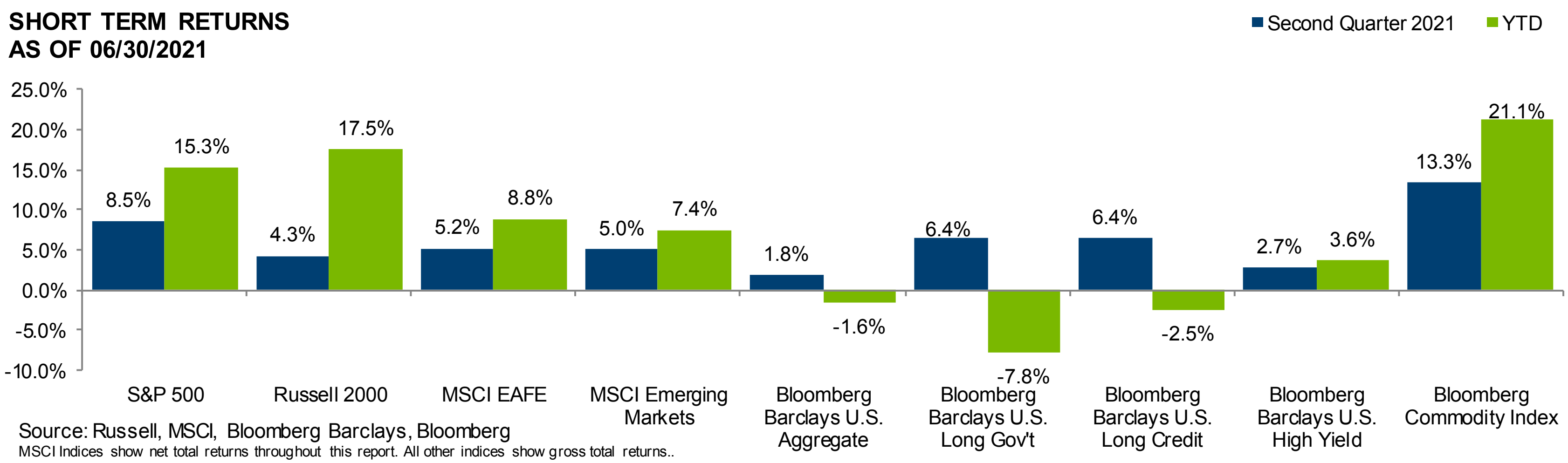
# Executive Summary

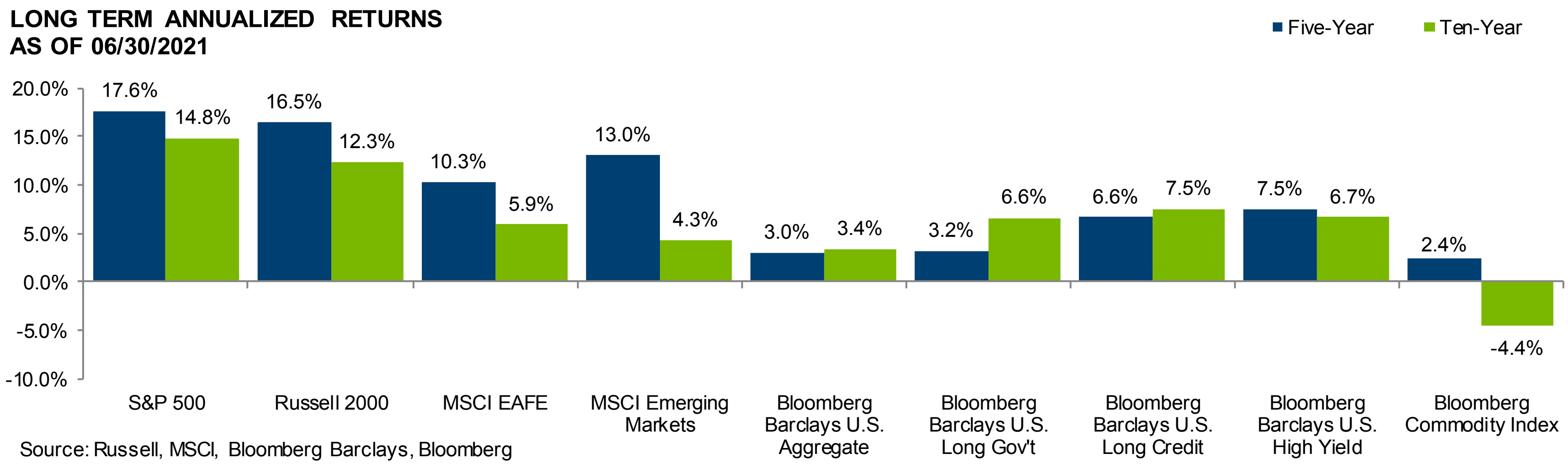
# Market Highlights

**SHORT TERM RETURNS**
**AS OF 06/30/2021**




Source: Russell, MSCI, Bloomberg Barclays, Bloomberg
MSCI Indices show net total returns throughout this report. All other indices show gross total returns..

**LONG TERM ANNUALIZED RETURNS**
**AS OF 06/30/2021**




Source: Russell, MSCI, Bloomberg Barclays, Bloomberg

# Market Highlights

## Returns of the Major Capital Markets

Period Ending 06/30/2021

| | Second Quarter | YTD | 1-Year | 3-Year[1] | 5-Year[1] | 10-Year[1] |
|---|---|---|---|---|---|---|
| **Equity** | | | | | | |
| MSCI All Country World IMI | 7.18% | 12.68% | 40.94% | 14.24% | 14.55% | 9.90% |
| MSCI All Country World | 7.39% | 12.30% | 39.26% | 14.57% | 14.61% | 9.90% |
| Dow Jones U.S. Total Stock Market | 8.29% | 15.27% | 44.29% | 18.69% | 17.86% | 14.66% |
| Russell 3000 | 8.24% | 15.11% | 44.16% | 18.73% | 17.89% | 14.70% |
| S&P 500 | 8.55% | 15.25% | 40.79% | 18.67% | 17.65% | 14.84% |
| Russell 2000 | 4.29% | 17.54% | 62.03% | 13.52% | 16.47% | 12.34% |
| MSCI All Country World ex-U.S. IMI | 5.60% | 9.58% | 37.18% | 9.42% | 11.20% | 5.65% |
| MSCI All Country World ex-U.S. | 5.48% | 9.16% | 35.72% | 9.38% | 11.08% | 5.45% |
| MSCI EAFE | 5.17% | 8.83% | 32.35% | 8.27% | 10.28% | 5.89% |
| MSCI EAFE (Local Currency) | 4.79% | 12.75% | 27.08% | 7.53% | 10.01% | 8.09% |
| MSCI Emerging Markets | 5.05% | 7.45% | 40.90% | 11.27% | 13.03% | 4.28% |
| **Equity Factors** | | | | | | |
| MSCI World Minimum Volatility (USD) | 5.96% | 7.43% | 19.13% | 10.68% | 9.13% | 10.33% |
| MSCI World High Dividend Yield | 4.41% | 11.08% | 28.42% | 10.21% | 9.73% | 8.66% |
| MSCI World Quality | 10.85% | 14.17% | 37.98% | 21.00% | 19.04% | 14.53% |
| MSCI World Momentum | 6.95% | 7.46% | 32.26% | 17.52% | 18.05% | 14.52% |
| MSCI World Enhanced Value | 2.78% | 16.85% | 38.41% | 6.51% | 10.42% | 7.26% |
| MSCI World Equal Weighted | 5.78% | 12.39% | 40.50% | 10.90% | 12.62% | 9.17% |
| MSCI World Index Growth | 10.95% | 11.27% | 40.00% | 21.54% | 19.94% | 13.89% |
| **Fixed Income** | | | | | | |
| Bloomberg Barclays Global Aggregate | 1.31% | -3.21% | 2.63% | 4.23% | 2.34% | 2.05% |
| Bloomberg Barclays U.S. Aggregate | 1.83% | -1.60% | -0.33% | 5.34% | 3.03% | 3.39% |
| Bloomberg Barclays U.S. Long Gov't | 6.43% | -7.82% | -10.42% | 7.97% | 3.18% | 6.62% |
| Bloomberg Barclays U.S. Long Credit | 6.45% | -2.49% | 4.32% | 10.73% | 6.65% | 7.55% |
| Bloomberg Barclays U.S. Long Gov't/Credit | 6.44% | -4.64% | -1.86% | 9.92% | 5.45% | 7.30% |
| Bloomberg Barclays U.S. TIPS | 3.25% | 1.73% | 6.51% | 6.53% | 4.17% | 3.40% |
| Bloomberg Barclays U.S. High Yield | 2.74% | 3.62% | 15.37% | 7.45% | 7.48% | 6.66% |
| Bloomberg Barclays Global Treasury ex U.S. | 0.63% | -5.33% | 2.86% | 2.80% | 1.05% | 0.80% |
| JP Morgan EMBI Global (Emerging Markets) | 3.93% | -1.00% | 6.81% | 6.48% | 4.44% | 5.34% |
| **Commodities** | | | | | | |
| Bloomberg Commodity Index | 13.30% | 21.15% | 45.61% | 3.90% | 2.40% | -4.44% |
| Goldman Sachs Commodity Index | 15.72% | 31.40% | 57.37% | -2.72% | 1.73% | -6.48% |
| **Hedge Funds** | | | | | | |
| HFRI Fund-Weighted Composite[2] | 4.02% | 10.03% | 27.43% | 8.69% | 7.93% | 5.12% |
| HFRI Fund of Funds[2] | 2.68% | 4.75% | 18.07% | 6.25% | 6.09% | 3.84% |
| **Real Estate** | | | | | | |
| NAREIT U.S. Equity REITS | 12.02% | 21.96% | 38.02% | 10.10% | 6.31% | 9.41% |
| NCREIF NFI - ODCE | 3.93% | 6.10% | 8.02% | 5.52% | 6.57% | 9.60% |
| FTSE Global Core Infrastructure Index | 2.81% | 8.39% | 20.44% | 10.30% | 9.22% | 9.60% |
| **Private Equity** | | | | | | |
| Burgiss Private iQ Global Private Equity[3] | | | 27.32% | 17.72% | 16.13% | 13.88% |

MSCI Indices show net total returns throughout this report. All other indices show gross total returns.
[1] Periods are annualized.
[2] Latest 5 months of HFR data are estimated by HFR and may change in the future.
[3] Burgiss Private iQ Global Private Equity data is as at December 31, 2020





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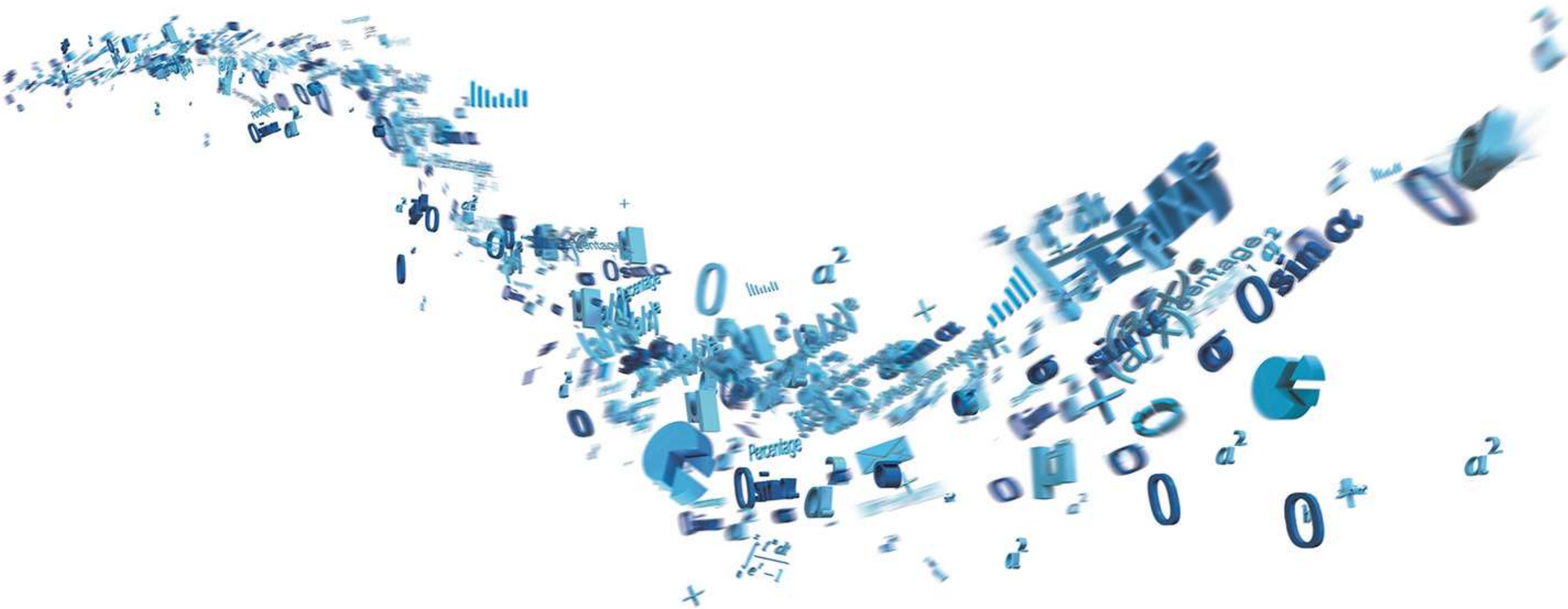
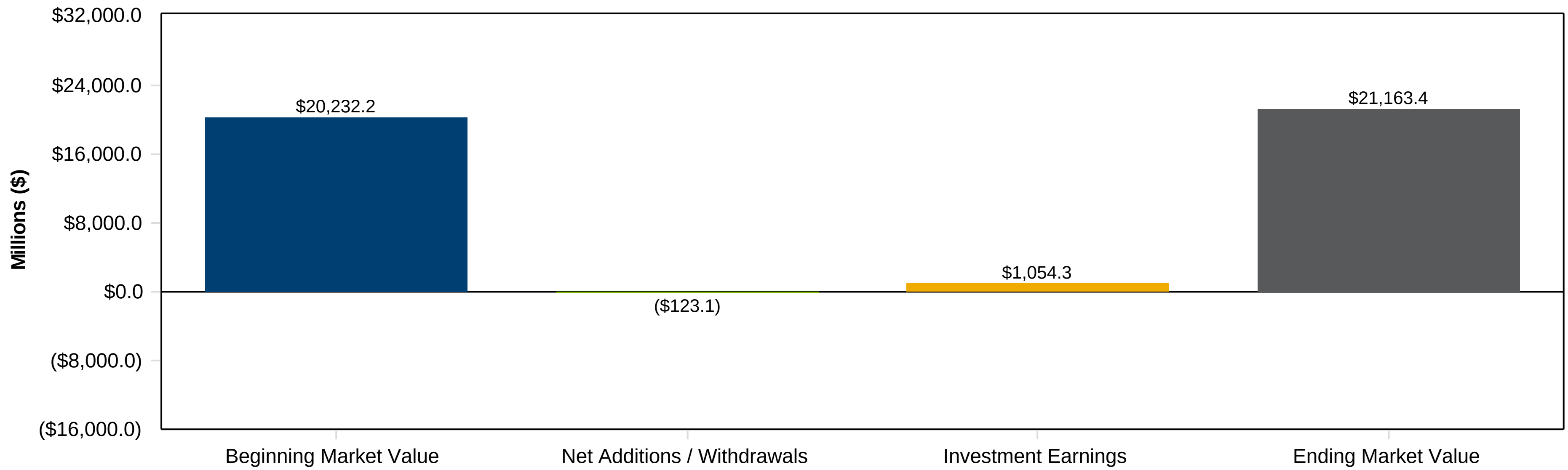


## Total Fund

# Total Plan Asset Summary

## Change in Market Value
## From April 1, 2021 to June 30, 2021




## Summary of Cash Flow

| | 1 Quarter | Fiscal YTD | 1 Year |
|---|---|---|---|
| Beginning Market Value | 20,232,207,027 | 16,663,156,052 | 16,663,156,052 |
| + Additions / Withdrawals | -123,126,450 | -748,163,567 | -748,163,567 |
| + Investment Earnings | 1,054,335,034 | 5,248,423,126 | 5,248,423,126 |
| **= Ending Market Value** | **21,163,415,611** | **21,163,415,611** | **21,163,415,611** |





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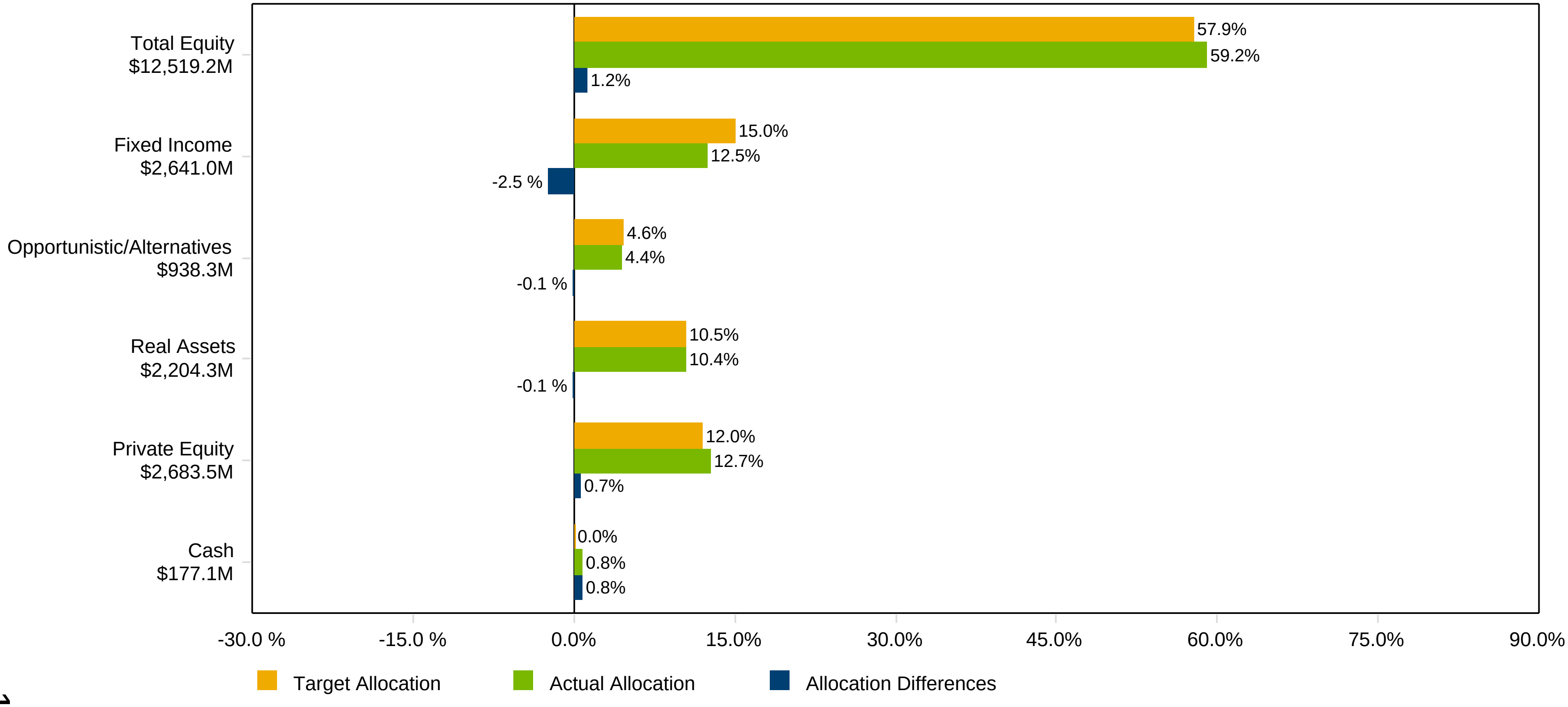
## Asset Allocation Compliance

| | Market Value ($M) | Current Allocation (%) | Target Allocation (%) | Minimum Allocation (%) | Maximum Allocation (%) |
|---|---|---|---|---|---|
| Total Fund | 21,163.4 | 100.00 | 100.00 | N/A | N/A |
| Total Equity | 12,519.2 | 59.15 | 57.92 | 50.00 | 60.00 |
| Fixed Income | 2,641.0 | 12.48 | 15.00 | 13.00 | 17.00 |
| Opportunistic/Alternatives | 938.3 | 4.43 | 4.58 | 0.00 | 7.00 |
| Real Assets | 2,204.3 | 10.42 | 10.50 | 10.00 | 15.00 |
| Private Equity | 2,683.5 | 12.68 | 12.00 | 9.50 | 14.50 |
| Cash | 177.1 | 0.84 | 0.00 | 0.00 | 5.00 |

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*Market values and allocation percentages may not add to the sum total due to rounding.



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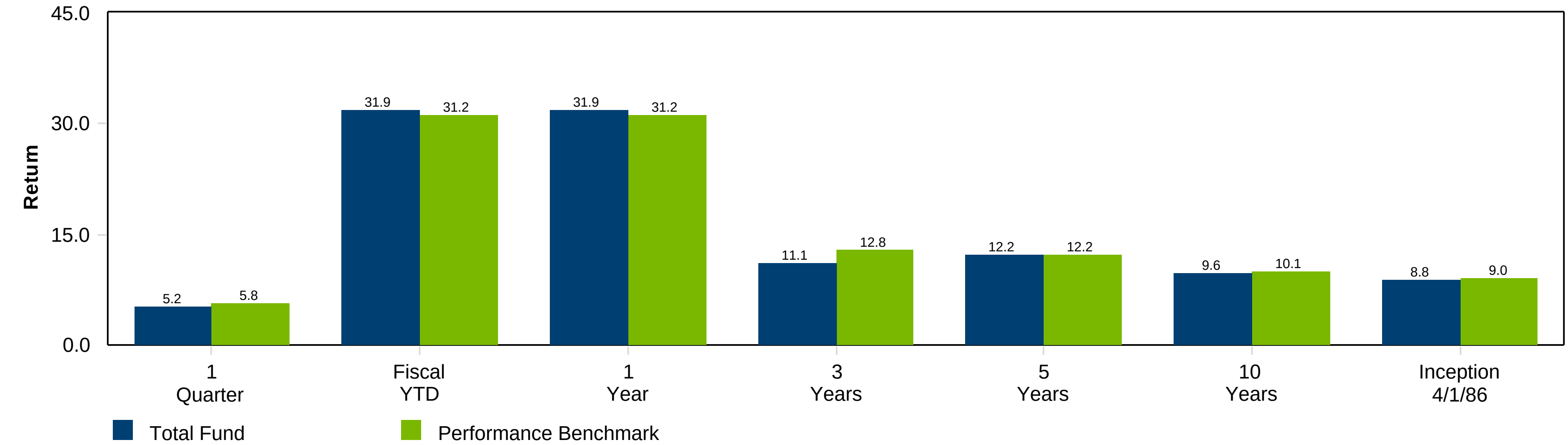
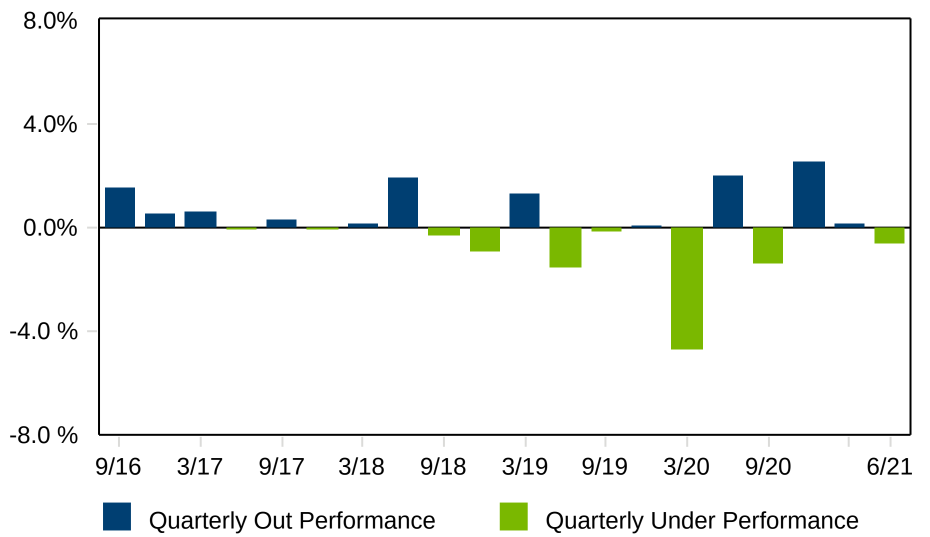
# Total Plan Performance Summary

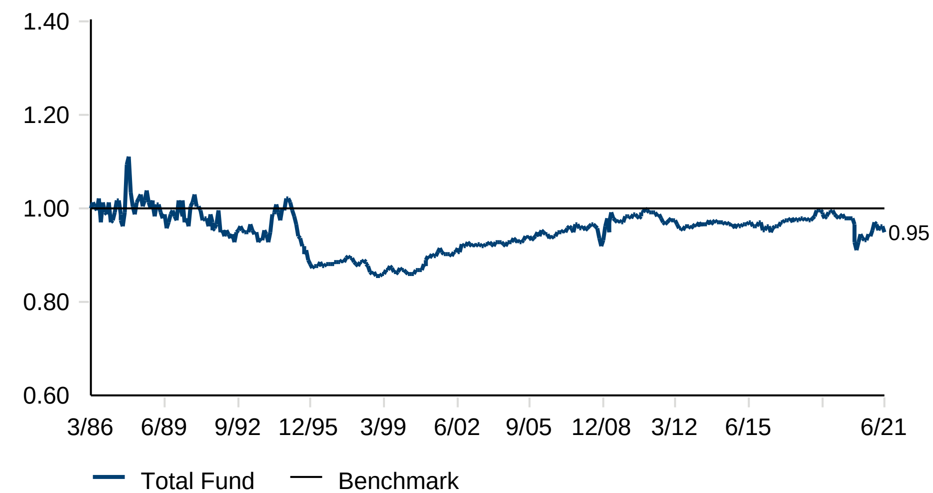
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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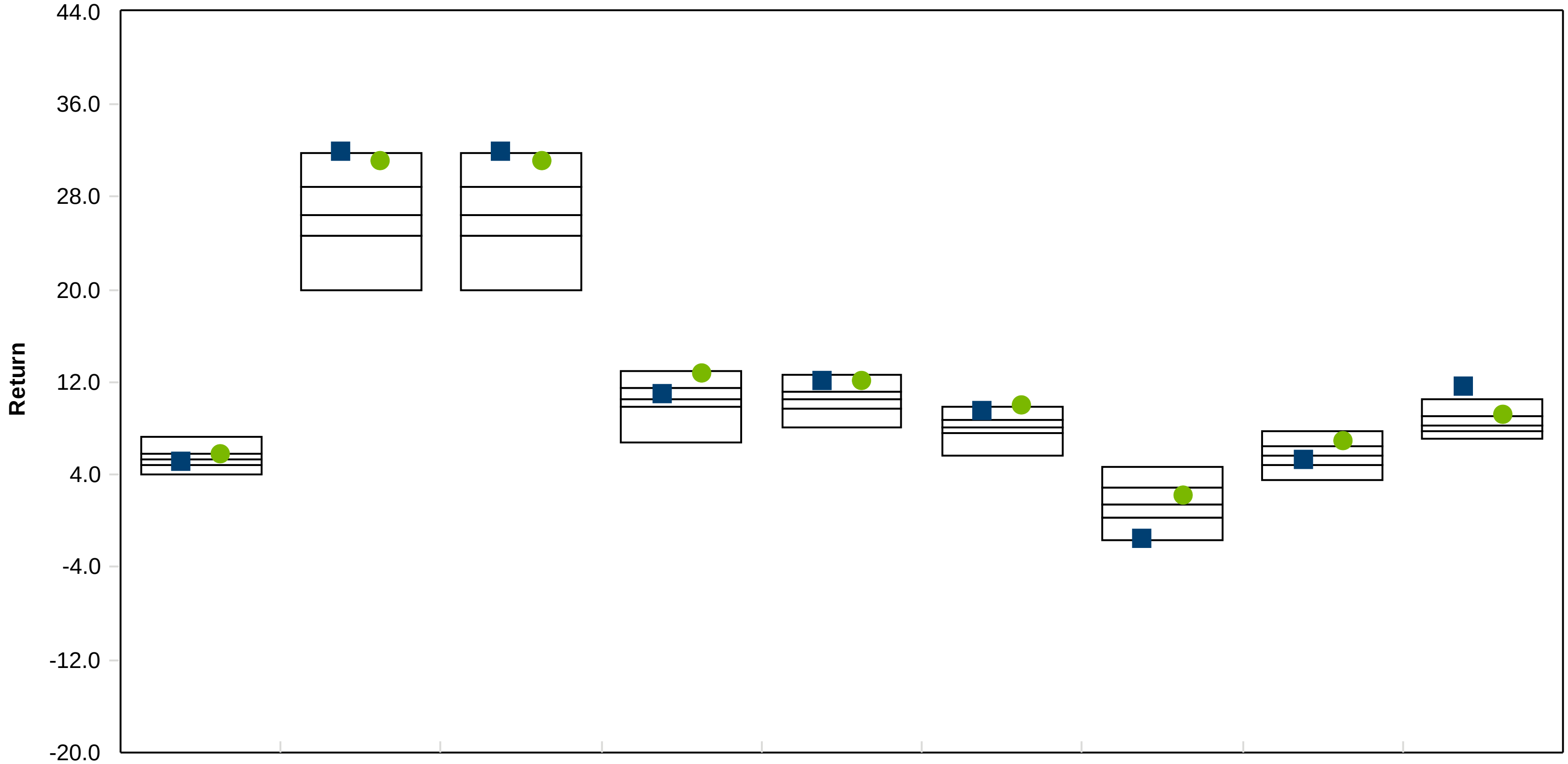
Empower Results®

## Plan Sponsor Peer Group Analysis

**All Public Plans > $1B-Total Fund**




| | 1 Quarter | Fiscal YTD | 1 Year | 3 Years | 5 Years | 10 Years | Fiscal Year 2020 | Fiscal Year 2019 | Fiscal Year 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Total Fund | 5.2 (61) | 31.9 (5) | 31.9 (5) | 11.1 (36) | 12.2 (7) | 9.6 (9) | -1.4 (94) | 5.3 (63) | 11.7 (3) |
| ● Performance Benchmark | 5.8 (29) | 31.2 (11) | 31.2 (11) | 12.8 (6) | 12.2 (7) | 10.1 (4) | 2.3 (36) | 7.0 (10) | 9.2 (21) |
| 5th Percentile | 7.3 | 31.9 | 31.9 | 12.9 | 12.6 | 9.9 | 4.7 | 7.7 | 10.6 |
| 1st Quartile | 5.9 | 28.8 | 28.8 | 11.6 | 11.2 | 8.8 | 2.9 | 6.5 | 9.1 |
| Median | 5.3 | 26.5 | 26.5 | 10.6 | 10.5 | 8.1 | 1.4 | 5.7 | 8.3 |
| 3rd Quartile | 4.8 | 24.6 | 24.6 | 9.9 | 9.8 | 7.6 | 0.3 | 4.9 | 7.8 |
| 95th Percentile | 4.0 | 20.0 | 20.0 | 6.8 | 8.1 | 5.6 | -1.6 | 3.5 | 7.2 |
| Population | 93 | 92 | 92 | 85 | 84 | 78 | 102 | 62 | 37 |

Parentheses contain percentile rankings.

## As of June 30, 2021

# Asset Allocation & Performance

| | Allocation | | | Performance(%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % | Policy(%) | 1 Quarter | Fiscal YTD | 1 Year | 3 Years | 5 Years | 10 Years | Since Inception | Inception Date |
| Total Fund | 21,163,415,611 | 100.0 | 100.0 | 5.2 | 31.9 | 31.9 | 11.1 | 12.2 | 9.6 | 8.8 | 04/01/1986 |
| *Performance Benchmark* | | | | *5.8* | *31.2* | *31.2* | *12.8* | *12.2* | *10.1* | *9.0* | |
| Total Equity | 12,519,175,041 | 59.2 | 57.7 | 5.9 | 47.4 | 47.4 | 12.8 | 14.7 | 10.8 | 11.2 | 07/01/2015 |
| *Total Equity Performance Benchmark* | | | | *7.5* | *42.0* | *42.0* | *15.6* | *15.6* | *11.8* | *12.5* | |
| Fixed Income | 2,640,993,010 | 12.5 | 15.0 | 1.1 | 3.1 | 3.1 | 5.3 | 4.5 | 4.2 | 5.4 | 07/01/1992 |
| *Performance Benchmark* | | | | *2.0* | *1.1* | *1.1* | *5.6* | *3.5* | *3.7* | *5.6* | |
| Opportunistic/Alternatives | 938,262,736 | 4.4 | 4.7 | 3.4 | 10.4 | 10.4 | 1.4 | 2.3 | 3.7 | 3.4 | 05/01/2011 |
| *Custom Alternatives Benchmark* | | | | *2.3* | *11.7* | *11.7* | *3.6* | *3.4* | *2.4* | *2.3* | |
| Real Assets | 2,204,340,090 | 10.4 | 10.6 | 2.4 | 4.7 | 4.7 | 4.7 | 6.2 | | 7.6 | 07/01/2013 |
| *Total Real Assets Benchmark* | | | | *1.7* | *2.4* | *2.4* | *4.0* | *5.0* | | *7.2* | |
| Real Estate | 1,360,734,734 | 6.4 | | 1.6 | 0.8 | 0.8 | 2.8 | 5.2 | 8.1 | 8.3 | 12/01/1998 |
| *NFI-ODCE (Net)* | | | | *1.9* | *1.5* | *1.5* | *4.0* | *5.3* | *8.7* | *8.6* | |
| Timber | 302,683,639 | 1.4 | | 2.0 | 4.9 | 4.9 | 5.5 | 5.1 | 3.5 | 7.0 | 06/01/1998 |
| *Timberland Property Benchmark* | | | | *0.8* | *1.6* | *1.6* | *1.6* | *2.2* | *3.5* | | |
| Agriculture | 213,183,400 | 1.0 | | 3.1 | 6.0 | 6.0 | 3.8 | 3.8 | | 5.4 | 09/01/2011 |
| *Agriculture Benchmark* | | | | *0.9* | *4.1* | *4.1* | *4.2* | *4.1* | | | |
| Infrastructure | 327,738,318 | 1.5 | | 4.3 | 21.2 | 21.2 | 14.2 | | | 14.2 | 07/01/2018 |
| *CPI + 5%* | | | | *3.8* | *10.6* | *10.6* | *7.7* | | | *7.7* | |
| Private Equity | 2,683,520,281 | 12.7 | 12.0 | 6.7 | 33.3 | 33.3 | 16.4 | 17.6 | 15.3 | 12.9 | 03/01/1997 |
| *Private Equity Policy* | | | | *7.0* | *65.9* | *65.9* | *19.4* | *18.9* | *16.0* | *11.5* | |
| Cash | 177,124,451 | 0.8 | 0.0 | | | | | | | | |

*The Real Assets and Private Equity market values, returns and their benchmark returns are shown on a one-quarter lag. Market values have been adjusted for current quarter cash flows.
*The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 151 of this report.
*The inception date above for infrastructure reflects the inception date for the calculation and reporting of time-weighted returns. The Infrastructure program began in July 2014 and the full history of Infrastructure returns are included in Total Real Assets and Total Fund performance.
*Market values and allocation percentages may not add to the sum total due to rounding.

As of June 30, 2021

## Asset Allocation & Performance

| | Allocation | | Performance(%) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % | 1 Quarter | | Fiscal YTD | | 1 Year | | 3 Years | | 5 Years | | 10 Years | | Since Inception | | Inception Date |
| Total Fund | 21,163,415,611 | 100.0 | 5.2 | (61) | 31.9 | (5) | 31.9 | (5) | 11.1 | (36) | 12.2 | (7) | 9.6 | (9) | 8.8 | | 04/01/1986 |
| *Performance Benchmark* | | | *5.8* | *(29)* | *31.2* | *(11)* | *31.2* | *(11)* | *12.8* | *(6)* | *12.2* | *(7)* | *10.1* | *(4)* | *9.0* | | |
| Total Equity | 12,519,175,041 | 59.2 | 5.9 | (66) | 47.4 | (23) | 47.4 | (23) | 12.8 | (57) | 14.7 | (46) | 10.8 | (43) | 11.2 | (47) | 07/01/2015 |
| *Total Equity Performance Benchmark* | | | *7.5* | *(40)* | *42.0* | *(41)* | *42.0* | *(41)* | *15.6* | *(39)* | *15.6* | *(35)* | *11.8* | *(32)* | *12.5* | *(32)* | |
| Jacobs Levy 130/30 | 932,929,849 | 4.4 | 7.2 | (40) | 50.3 | (41) | 50.3 | (41) | 16.7 | (42) | 18.9 | (28) | 16.3 | (13) | 11.9 | (24) | 01/01/2008 |
| *Russell 3000 Index* | | | *8.2* | *(28)* | *44.2* | *(56)* | *44.2* | *(56)* | *18.7* | *(31)* | *17.9* | *(33)* | *14.7* | *(28)* | *10.7* | *(39)* | |
| Kennedy Capital Management | 775,272,311 | 3.7 | 5.4 | (23) | 72.4 | (30) | 72.4 | (30) | 10.0 | (48) | 13.2 | (43) | 11.7 | (28) | 12.7 | (7) | 01/01/1994 |
| *Russell 2000 Value Index* | | | *4.6* | *(34)* | *73.3* | *(28)* | *73.3* | *(28)* | *10.3* | *(42)* | *13.6* | *(36)* | *10.8* | *(50)* | *10.2* | *(88)* | |
| Stephens | 658,653,704 | 3.1 | 6.6 | (31) | 40.2 | (89) | 40.2 | (89) | 17.9 | (66) | 20.2 | (64) | 13.4 | (85) | 11.9 | (71) | 08/01/2006 |
| *Russell 2000 Growth Index* | | | *3.9* | *(76)* | *51.4* | *(64)* | *51.4* | *(64)* | *15.9* | *(79)* | *18.8* | *(76)* | *13.5* | *(83)* | *11.3* | *(79)* | |
| Voya Absolute Return | 778,351,262 | 3.7 | 6.8 | (51) | 41.9 | (41) | 41.9 | (41) | 13.9 | (53) | 14.3 | (53) | 13.2 | (19) | 11.7 | (28) | 10/01/2008 |
| *Performance Benchmark* | | | *7.4* | *(41)* | *39.3* | *(55)* | *39.3* | *(55)* | *14.6* | *(47)* | *14.6* | *(48)* | *13.0* | *(20)* | *11.7* | *(28)* | |
| Allianz (Nicholas Applegate) | 1,059,920,880 | 5.0 | 3.8 | (85) | 47.3 | (48) | 47.3 | (48) | 25.8 | (8) | 21.8 | (17) | 14.1 | (35) | 11.8 | (20) | 12/01/1998 |
| *Performance Benchmark* | | | *3.9* | *(84)* | *45.7* | *(52)* | *45.7* | *(52)* | *21.9* | *(19)* | *18.9* | *(28)* | *12.8* | *(49)* | *9.4* | *(62)* | |
| Pershing Square International | 1,238,401 | 0.0 | 0.0 | (99) | 29.0 | (96) | 29.0 | (96) | 29.2 | (4) | 19.1 | (27) | 10.7 | (81) | 12.0 | (40) | 07/01/2008 |
| *Dow Jones U.S. Total Stock Market Index* | | | *8.3* | *(27)* | *44.3* | *(55)* | *44.3* | *(55)* | *18.7* | *(31)* | *17.9* | *(33)* | *14.7* | *(28)* | *12.2* | *(38)* | |
| Pershing Square Holdings | 260,292,839 | 1.2 | 3.0 | (93) | 57.0 | (26) | 57.0 | (26) | 37.7 | (2) | 22.4 | (15) | | | 9.9 | (92) | 01/01/2013 |
| *Dow Jones U.S. Total Stock Market Index* | | | *8.3* | *(27)* | *44.3* | *(55)* | *44.3* | *(55)* | *18.7* | *(31)* | *17.9* | *(33)* | | | *16.1* | *(29)* | |
| Trian Partners | 87,142,119 | 0.4 | 6.8 | | 33.4 | | 33.4 | | 13.8 | | 10.7 | | | | 10.3 | | 11/01/2015 |
| *S&P 500 Index* | | | *8.5* | | *40.8* | | *40.8* | | *18.7* | | *17.6* | | | | *15.9* | | |
| Trian Co-Investments | 103,866,691 | 0.5 | 3.8 | | 34.5 | | 34.5 | | 14.1 | | | | | | 7.7 | | 01/01/2017 |
| *S&P 500 Index* | | | *8.5* | | *40.8* | | *40.8* | | *18.7* | | | | | | *17.8* | | |
| SSgA Global Index | 1,274,744,454 | 6.0 | 7.2 | (42) | 41.3 | (44) | 41.3 | (44) | 14.6 | (46) | 14.9 | (44) | 10.3 | (51) | 8.0 | (48) | 04/01/2008 |
| *MSCI AC World IMI (Net)* | | | *7.2* | *(44)* | *40.9* | *(46)* | *40.9* | *(46)* | *14.2* | *(50)* | *14.5* | *(49)* | *9.9* | *(58)* | *7.7* | *(59)* | |

# Asset Allocation & Performance

| | Allocation | | Performance(%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % | 1 Quarter | Fiscal YTD | 1 Year | 3 Years | 5 Years | 10 Years | Since Inception | Inception Date |
| BlackRock MSCI ACWI IMI Fund | 1,123,563,322 | 5.3 | 7.2 (43) | 41.4 (44) | 41.4 (44) | 14.5 (48) | 14.7 (46) | 10.2 (52) | 10.2 (52) | 07/01/2011 |
| *MSCI AC World IMI (Net)* | | | *7.2 (44)* | *40.9 (46)* | *40.9 (46)* | *14.2 (50)* | *14.5 (49)* | *9.9 (58)* | *9.9 (58)* | |
| Wellington Global Perspectives | 760,943,627 | 3.6 | 5.1 (73) | 60.0 (8) | 60.0 (8) | 10.8 (69) | 14.4 (50) | 11.4 (33) | 14.6 (22) | 07/01/2009 |
| *Performance Benchmark* | | | *5.7 (67)* | *54.1 (13)* | *54.1 (13)* | *12.2 (61)* | *14.1 (54)* | *9.9 (58)* | *12.7 (40)* | |
| T. Rowe Price Global Equity | 1,685,824,730 | 8.0 | 6.3 (57) | 52.0 (15) | 52.0 (15) | 26.3 (5) | 25.8 (4) | 17.1 (5) | 16.6 (7) | 09/01/2009 |
| *MSCI AC World Index (Net)* | | | *7.4 (41)* | *39.3 (55)* | *39.3 (55)* | *14.6 (47)* | *14.6 (48)* | *9.9 (58)* | *10.7 (64)* | |
| *MSCI AC World Index Growth (net)* | | | *10.0 (17)* | *39.7 (52)* | *39.7 (52)* | *20.4 (16)* | *19.2 (19)* | *12.7 (24)* | *13.4 (28)* | |
| Lazard | 847,141,585 | 4.0 | 3.6 (92) | 47.5 (23) | 47.5 (23) | 15.5 (39) | 16.4 (30) | 10.0 (55) | 11.3 (51) | 09/01/2009 |
| *MSCI AC World Index (Net)* | | | *7.4 (41)* | *39.3 (55)* | *39.3 (55)* | *14.6 (47)* | *14.6 (48)* | *9.9 (58)* | *10.7 (64)* | |
| D.E. Shaw | 953,643,380 | 4.5 | 6.6 (55) | 38.0 (60) | 38.0 (60) | 12.3 (60) | 14.4 (51) | 11.6 (33) | 12.1 (39) | 09/01/2009 |
| *MSCI World Index (Net)* | | | *7.7 (37)* | *39.0 (56)* | *39.0 (56)* | *15.0 (44)* | *14.8 (46)* | *10.7 (46)* | *11.2 (53)* | |
| GMO Global All Country Equity | 564,967,976 | 2.7 | 4.5 (82) | 40.6 (47) | 40.6 (47) | 12.4 (60) | 12.7 (62) | | 7.2 (76) | 07/01/2014 |
| *MSCI AC World Index (Net)* | | | *7.4 (41)* | *39.3 (55)* | *39.3 (55)* | *14.6 (47)* | *14.6 (48)* | | *9.7 (47)* | |
| *MSCI AC World Index Value (Net)* | | | *4.8 (77)* | *38.4 (58)* | *38.4 (58)* | *8.4 (84)* | *9.8 (80)* | | *5.6 (88)* | |
| Harris Global Equity | 650,603,068 | 3.1 | 5.9 (64) | 56.6 (11) | 56.6 (11) | 12.7 (58) | 15.9 (32) | | 9.0 (58) | 06/01/2014 |
| *MSCI World Index (Net)* | | | *7.7 (37)* | *39.0 (56)* | *39.0 (56)* | *15.0 (44)* | *14.8 (46)* | | *10.3 (42)* | |
| *MSCI World Value (Net)* | | | *4.7 (80)* | *37.9 (60)* | *37.9 (60)* | *8.4 (83)* | *9.8 (80)* | | *6.1 (87)* | |
| Fixed Income | 2,640,993,010 | 12.5 | 1.1 | 3.1 | 3.1 | 5.3 | 4.5 | 4.2 | 5.4 | 07/01/1992 |
| *Performance Benchmark* | | | *2.0* | *1.1* | *1.1* | *5.6* | *3.5* | *3.7* | *5.6* | |
| BlackRock | 281,102,376 | 1.3 | 2.0 (41) | 0.9 (72) | 0.9 (72) | 5.9 (40) | 3.5 (53) | 3.9 (46) | 4.6 (39) | 10/01/2003 |
| *Performance Benchmark* | | | *2.0 (42)* | *1.1 (68)* | *1.1 (68)* | *5.6 (45)* | *3.5 (53)* | *3.7 (49)* | *4.4 (45)* | |
| Loomis Sayles | 501,350,024 | 2.4 | 2.8 (20) | 9.3 (20) | 9.3 (20) | 8.1 (13) | 6.8 (11) | 6.4 (13) | 8.3 (7) | 09/01/2008 |
| *Performance Benchmark* | | | *2.5 (25)* | *4.9 (33)* | *4.9 (33)* | *6.6 (29)* | *4.8 (28)* | *4.8 (30)* | *5.7 (26)* | |
| Putnam | 385,150,000 | 1.8 | -1.5 (94) | 4.0 (82) | 4.0 (82) | 2.6 (76) | 3.9 (60) | 2.2 (62) | 2.9 | 08/01/2008 |
| *LIBOR* | | | *0.1 (89)* | *0.2 (89)* | *0.2 (89)* | *1.6 (85)* | *1.5 (82)* | *0.9 (81)* | *0.9* | |
| SSgA Aggregate Bond Index | 468,812,605 | 2.2 | 1.8 (47) | -0.3 (93) | -0.3 (93) | 5.4 (50) | 3.0 (61) | 3.4 (57) | 3.6 (59) | 06/01/2010 |
| *Barclays Aggregate Index* | | | *1.8 (47)* | *-0.3 (93)* | *-0.3 (93)* | *5.3 (50)* | *3.0 (61)* | *3.4 (58)* | *3.6 (59)* | |
| Wellington Global Total Return | 354,484,487 | 1.7 | -0.4 (90) | 1.7 (87) | 1.7 (87) | 3.0 (72) | 2.7 (78) | | 2.1 (72) | 05/01/2014 |
| *BofA Merrill Lynch 3 Month US T-Bill* | | | *0.0 (89)* | *0.1 (89)* | *0.1 (89)* | *1.3 (86)* | *1.2 (84)* | | *0.8 (78)* | |
| Reams Core Plus Bond Fund | 397,061,910 | 1.9 | 2.2 (36) | 2.1 (53) | 2.1 (53) | 8.5 (10) | 5.0 (27) | | 4.6 (26) | 05/01/2014 |
| *Barclays Aggregate Index* | | | *1.8 (47)* | *-0.3 (93)* | *-0.3 (93)* | *5.3 (50)* | *3.0 (61)* | | *3.4 (54)* | |
| BRS Recycling Tax Credit | 176,000,000 | 0.8 | | | | | | | | |
| BRS Recycling Tax Credit Phase 2 | 77,031,608 | 0.4 | | | | | | | | |

As of June 30, 2021

# Asset Allocation & Performance

| | Allocation | | Performance(%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % | 1 Quarter | Fiscal YTD | 1 Year | 3 Years | 5 Years | 10 Years | Since Inception | Inception Date |
| Opportunistic/Alternatives | 938,262,736 | 4.4 | 3.4 | 10.4 | 10.4 | 1.4 | 2.3 | 3.7 | 3.4 | 05/01/2011 |
| *Custom Alternatives Benchmark* | | | *2.3* | *11.7* | *11.7* | *3.6* | *3.4* | *2.4* | *2.3* | |
| Anchorage | 90,753,854 | 0.4 | 10.5 | 23.9 | 23.9 | 5.9 | 6.0 | 6.5 | 6.1 | 05/01/2011 |
| *Credit Suisse Event Driven* | | | *3.6* | *27.5* | *27.5* | *6.5* | *6.5* | *3.8* | *3.5* | |
| York | 12,859,435 | 0.1 | 15.7 | 5.3 | 5.3 | -18.4 | -7.0 | -2.0 | -2.2 | 05/01/2011 |
| *Credit Suisse Event Driven* | | | *3.6* | *27.5* | *27.5* | *6.5* | *6.5* | *3.8* | *3.5* | |
| Capula | 80,311,097 | 0.4 | 0.0 | 2.5 | 2.5 | 6.2 | 6.0 | 6.0 | 6.0 | 05/01/2011 |
| *HFRI Macro (Total) Index* | | | *4.0* | *15.0* | *15.0* | *5.9* | *3.2* | *2.1* | *1.6* | |
| Graham | 72,683,157 | 0.3 | 0.1 | 27.4 | 27.4 | 7.1 | 4.9 | 4.5 | 3.6 | 05/01/2011 |
| *HFRI Macro (Total) Index* | | | *4.0* | *15.0* | *15.0* | *5.9* | *3.2* | *2.1* | *1.6* | |
| Circumference Group Core Value | 38,071,892 | 0.2 | 5.2 | 27.9 | 27.9 | 11.3 | 12.8 | | 11.3 | 08/01/2015 |
| *Russell 2000 Index* | | | *4.3* | *62.0* | *62.0* | *13.5* | *16.5* | | *12.6* | |
| Aeolus Keystone Fund | 225,867,341 | 1.1 | 0.7 | -0.2 | -0.2 | -0.4 | -2.1 | | -1.2 | 12/01/2015 |
| *Citigroup 3 Month T-Bill* | | | *0.0* | *0.1* | *0.1* | *1.3* | *1.1* | | *1.0* | |
| *Eurekahedge ILS Advisers Index* | | | *1.6* | *4.0* | *4.0* | *0.4* | *-0.2* | | *0.2* | |
| Nephila Rubik Holdings | 40,956,738 | 0.2 | 0.1 | -9.6 | -9.6 | -4.6 | -3.9 | | -3.8 | 06/01/2016 |
| *Citigroup 3 Month T-Bill* | | | *0.0* | *0.1* | *0.1* | *1.3* | *1.1* | | *1.1* | |
| *Eurekahedge ILS Advisers Index* | | | *1.6* | *4.0* | *4.0* | *0.4* | *-0.2* | | *-0.1* | |
| Parametric Global Defensive Equity Fund | 194,673,005 | 0.9 | 4.1 | 22.6 | 22.6 | 6.9 | | | 6.5 | 05/01/2017 |
| *Performance Benchmark* | | | *3.7* | *18.5* | *18.5* | *8.2* | | | *7.4* | |
| *MSCI AC World Index* | | | *7.5* | *39.9* | *39.9* | *15.1* | | | *14.3* | |
| Man Alternative Risk Premia | 93,569,778 | 0.4 | 4.8 | 2.8 | 2.8 | -1.2 | | | -1.9 | 06/01/2018 |
| *SG Multi Alternative Risk Premia Index* | | | *2.1* | *3.1* | *3.1* | *-2.9* | | | *-3.0* | |
| CFM ISD Fund 1.5x | 88,516,439 | 0.4 | 6.7 | 18.3 | 18.3 | -3.5 | | | -3.5 | 07/01/2018 |
| *SG Multi Alternative Risk Premia Index* | | | *2.1* | *3.1* | *3.1* | *-2.9* | | | *-2.9* | |



Empower Results®

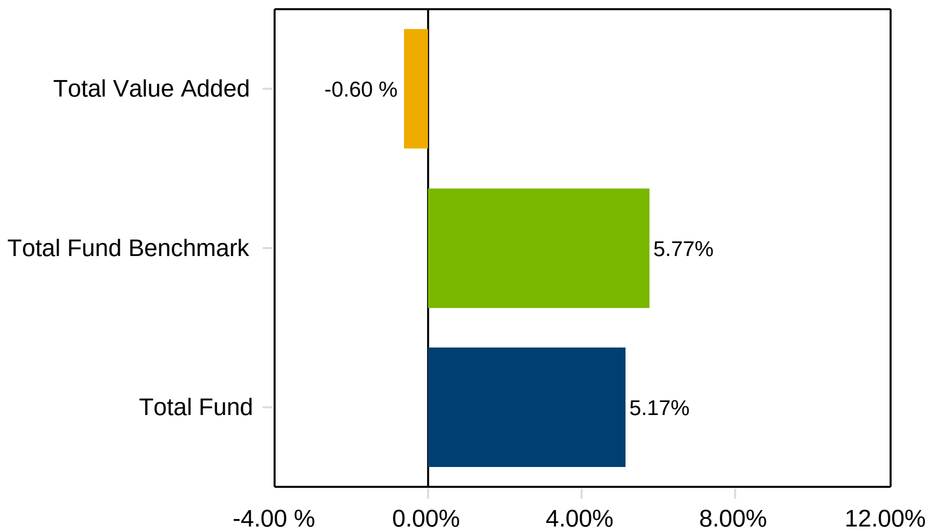
## Asset Allocation & Performance

| | Allocation | | Performance(%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % | 1 Quarter | Fiscal YTD | 1 Year | 3 Years | 5 Years | 10 Years | Since Inception | Inception Date |
| Real Assets | 2,204,340,090 | 10.4 | 2.4 | 4.7 | 4.7 | 4.7 | 6.2 | | 7.6 | 07/01/2013 |
| *Total Real Assets Benchmark* | | | *1.7* | *2.4* | *2.4* | *4.0* | *5.0* | | *7.2* | |
| Real Estate | 1,360,734,734 | 6.4 | 1.6 | 0.8 | 0.8 | 2.8 | 5.2 | 8.1 | 8.3 | 12/01/1998 |
| *NFI-ODCE (Net)* | | | *1.9* | *1.5* | *1.5* | *4.0* | *5.3* | *8.7* | *8.6* | |
| Timber | 302,683,639 | 1.4 | 2.0 | 4.9 | 4.9 | 5.5 | 5.1 | 3.5 | 7.0 | 06/01/1998 |
| *Timberland Property Benchmark* | | | *0.8* | *1.6* | *1.6* | *1.6* | *2.2* | *3.5* | | |
| BTG Timber Separate Account | 105,444,978 | 0.5 | | | | | | | | |
| BTG U.S. Timberland Fund, L.P. | 197,238,661 | 0.9 | | | | | | | | |
| Agriculture | 213,183,400 | 1.0 | 3.1 | 6.0 | 6.0 | 3.8 | 3.8 | | 5.4 | 09/01/2011 |
| *Agriculture Benchmark* | | | *0.9* | *4.1* | *4.1* | *4.2* | *4.1* | | | |
| HFMS Farmland | 157,957,359 | 0.7 | 4.0 | 7.0 | 7.0 | 3.9 | 3.7 | | 5.4 | 09/01/2011 |
| *HFMS custom NCREIF Farmland Index* | | | *0.9* | *4.4* | *4.4* | *4.6* | *4.0* | | | |
| UBS Agrivest Core Farmland Fund | 55,226,041 | 0.3 | 0.7 | 3.5 | 3.5 | 3.5 | 4.0 | | 4.4 | 07/01/2015 |
| *UBS Agrivest custom NCREIF Farmland Index* | | | *0.9* | *4.2* | *4.2* | *5.0* | *5.1* | | *5.6* | |
| Infrastructure | 327,738,318 | 1.5 | 4.3 | 21.2 | 21.2 | 14.2 | | | 14.2 | 07/01/2018 |
| *CPI + 5%* | | | *3.8* | *10.6* | *10.6* | *7.7* | | | *7.7* | |
| Private Equity | 2,683,520,281 | 12.7 | 6.7 | 33.3 | 33.3 | 16.4 | 17.6 | 15.3 | 12.9 | 04/01/1997 |
| *Private Equity Policy* | | | *7.0* | *65.9* | *65.9* | *19.4* | *18.9* | *16.0* | *11.6* | |
| Cash | 177,124,451 | 0.8 | | | | | | | | |

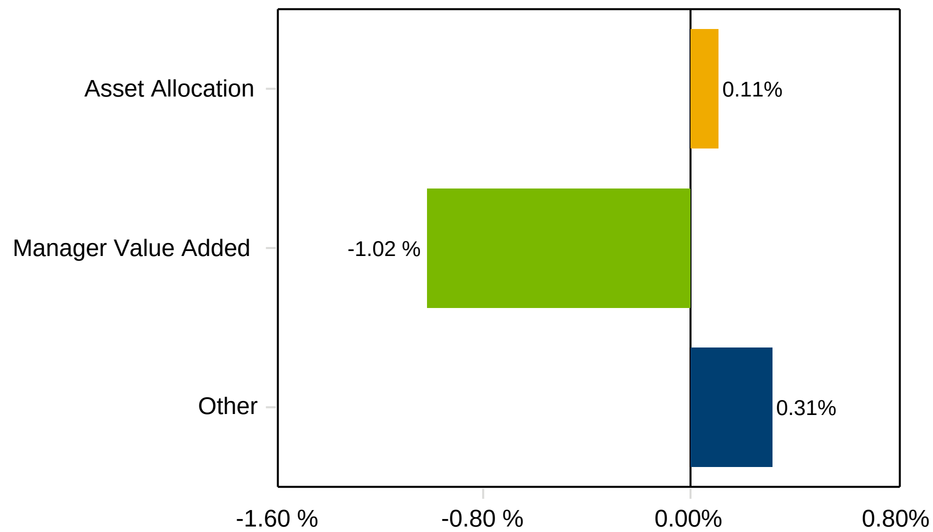
*The Real Assets and Private Equity market values, returns and their benchmark returns are shown on a one-quarter lag. Market values have been adjusted for current quarter cash flows.
*The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 151 of this report.
*The inception date above for infrastructure reflects the inception date for the calculation and reporting of time-weighted returns. The Infrastructure program began in July 2014 and the full history of Infrastructure returns are included in Total Real Assets and Total Fund performance.
*The BRS Recycling Tax Credit represents an annual income stream of $16 million dollars over the next 14 years, which ATRS purchased for approximately $162 million. This represents an approximate 9.9% yield for the 2017 fiscal year. The value shown above represents the year-end market value in accordance with GASB Statement 72, representing the 14 years of annual income, and has been incorporated into Total Fixed Income and Total Fund performance.
*ATRS made a total commitment of $100 million to the Trian Co-Investments Fund. As of 3/31/2021, there was an unfunded commitment value equal to $18,287,776.

# Total Fund Attribution

## Total Fund Performance

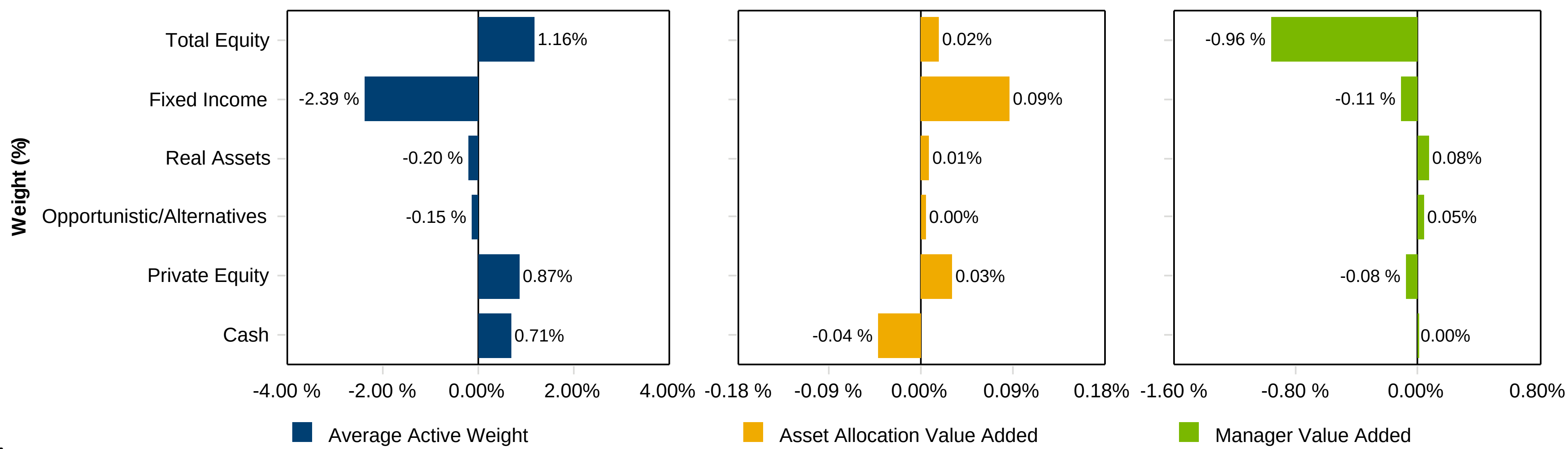



## Total Value Added:-0.60 %




## Total Asset Allocation:0.11%

## Total Manager Value Added:-1.02 %



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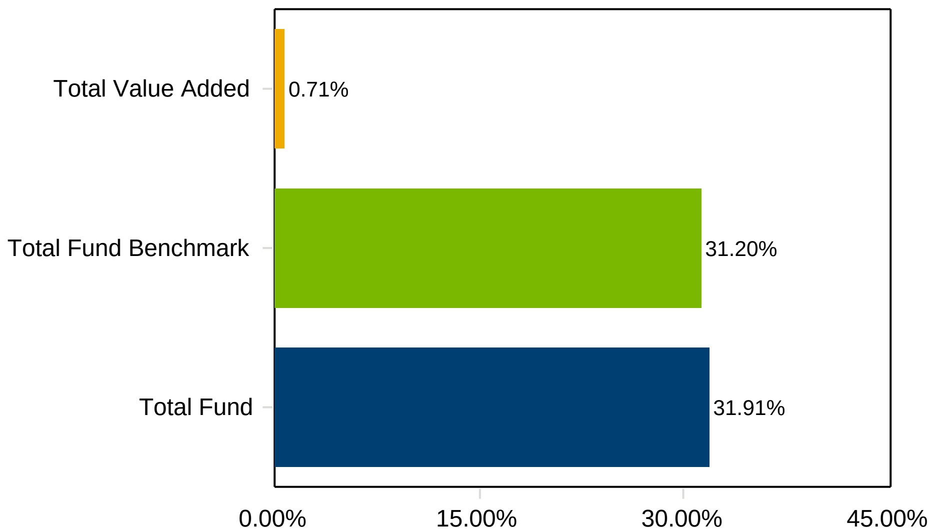
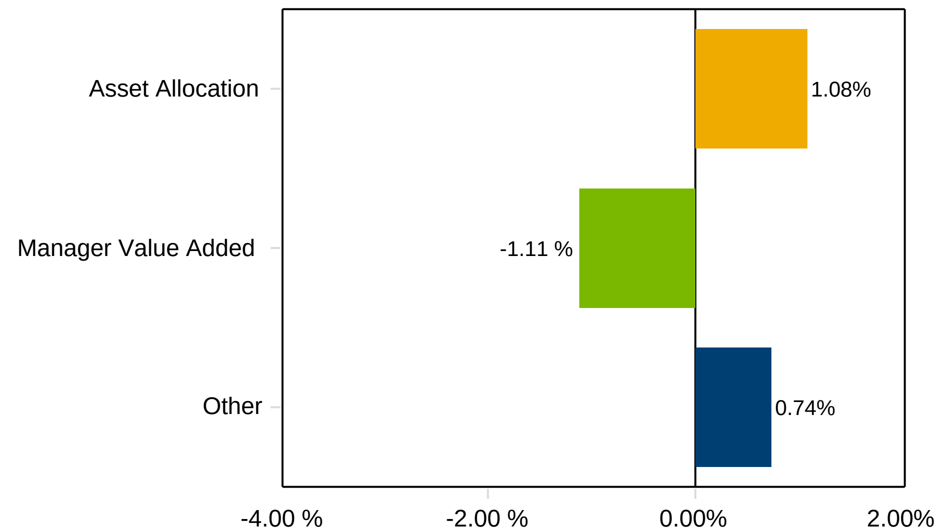
# Total Fund Attribution

## Total Fund Performance

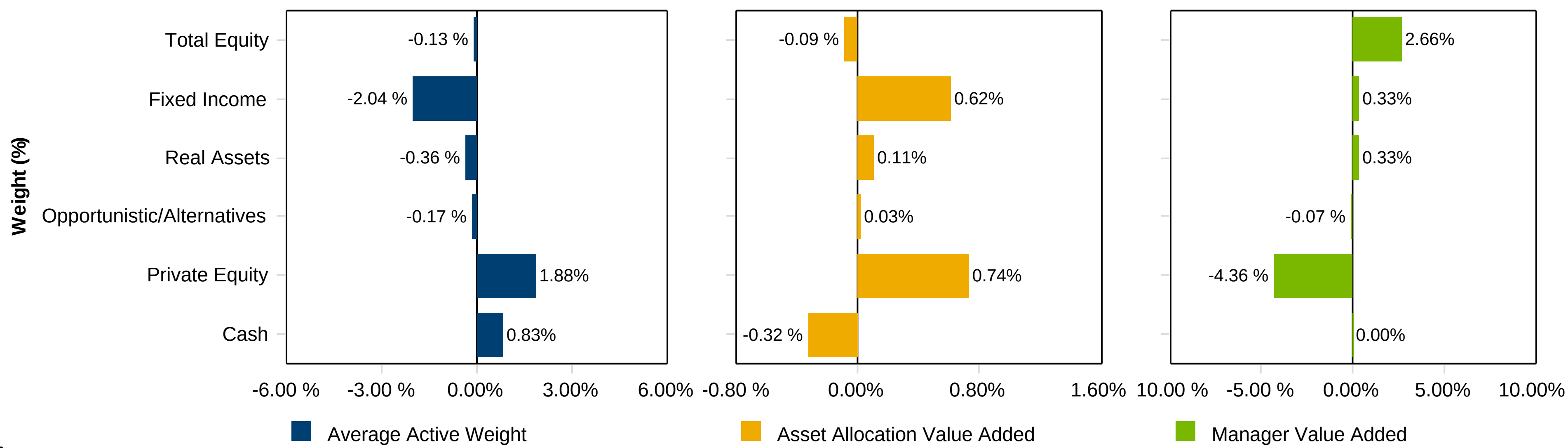



## Total Value Added:0.71%




## Total Asset Allocation:1.08%

## Total Manager Value Added:-1.11 %

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## As of June 30, 2021

# Calendar Year Performance

| | Performance(%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Fiscal Year 2020 | Fiscal Year 2019 | Fiscal Year 2018 | Fiscal Year 2017 | Fiscal Year 2016 | Fiscal Year 2015 | Fiscal Year 2014 | Fiscal Year 2013 | Fiscal Year 2012 | Fiscal Year 2011 |
| Total Fund | -1.4 (94) | 5.3 (63) | 11.7 (3) | 16.1 (1) | -0.5 (79) | 5.2 (7) | 19.0 (5) | 14.3 (11) | -1.0 (97) | 22.4 (39) |
| *Performance Benchmark* | *2.3 (36)* | *7.0 (10)* | *9.2 (21)* | *13.2 (32)* | *1.8 (3)* | *5.2 (7)* | *18.3 (12)* | *13.5 (20)* | *2.1 (12)* | *21.9 (51)* |
| Total Equity | -6.4 (77) | 4.1 (58) | 13.4 (30) | 22.1 (29) | -4.8 (57) | 4.1 (32) | 25.5 (34) | 20.3 (31) | -6.3 (58) | 31.5 (47) |
| *Total Equity Performance Benchmark* | *2.7 (45)* | *5.9 (48)* | *12.2 (36)* | *19.0 (47)* | *-1.5 (38)* | *3.6 (35)* | *23.9 (48)* | *18.9 (42)* | *-1.8 (28)* | *31.2 (49)* |
| Jacobs Levy 130/30 | 0.2 (46) | 5.5 (50) | 19.9 (23) | 24.6 (18) | 8.3 (4) | 14.2 (7) | 24.3 (53) | 22.4 (49) | 1.4 (41) | 43.2 (16) |
| *Russell 3000 Index* | *6.5 (32)* | *9.0 (32)* | *14.8 (45)* | *18.5 (56)* | *2.1 (22)* | *7.3 (43)* | *25.2 (44)* | *21.5 (56)* | *3.8 (25)* | *32.4 (57)* |
| Kennedy Capital Management | -16.2 (51) | -7.8 (67) | 12.2 (51) | 24.2 (35) | -4.9 (61) | 2.7 (52) | 29.4 (9) | 34.4 (6) | -4.2 (69) | 33.9 (55) |
| *Russell 2000 Value Index* | *-17.5 (60)* | *-6.2 (58)* | *13.1 (42)* | *24.9 (29)* | *-2.6 (39)* | *0.8 (66)* | *22.5 (72)* | *24.8 (62)* | *-1.4 (35)* | *31.4 (72)* |
| Stephens | 7.8 (49) | 8.4 (32) | 29.5 (27) | 18.3 (82) | -7.8 (43) | 5.1 (88) | 18.4 (78) | 18.7 (87) | 3.0 (11) | 46.7 (35) |
| *Russell 2000 Growth Index* | *3.5 (58)* | *-0.5 (78)* | *21.9 (64)* | *24.4 (45)* | *-10.8 (61)* | *12.3 (38)* | *24.7 (37)* | *23.7 (57)* | *-2.7 (41)* | *43.5 (56)* |
| Voya Absolute Return | 0.1 (56) | 4.0 (58) | 9.9 (55) | 20.3 (38) | 1.9 (21) | 7.8 (11) | 26.9 (24) | 19.7 (37) | 6.0 (8) | 30.5 (55) |
| *Performance Benchmark* | *2.1 (48)* | *5.7 (50)* | *10.7 (50)* | *18.8 (48)* | *1.1 (24)* | *7.4 (11)* | *24.6 (40)* | *20.6 (30)* | *5.4 (8)* | *30.7 (53)* |
| Allianz (Nicholas Applegate) | 20.1 (11) | 12.5 (15) | 16.4 (36) | 15.9 (73) | -7.1 (77) | 4.4 (66) | 23.1 (65) | 19.4 (70) | -2.4 (65) | 29.7 (74) |
| *Performance Benchmark* | *15.3 (16)* | *7.8 (38)* | *12.0 (63)* | *16.8 (68)* | *-4.7 (64)* | *3.5 (72)* | *24.4 (52)* | *18.6 (76)* | *-3.2 (71)* | *22.5 (96)* |
| Pershing Square International | 28.0 (4) | 30.7 (1) | 2.8 (97) | 8.2 (95) | -33.2 (100) | 12.9 (11) | 29.1 (16) | 17.3 (80) | 0.8 (45) | 26.8 (87) |
| *Dow Jones U.S. Total Stock Market Index* | *6.4 (32)* | *8.9 (33)* | *14.8 (45)* | *18.5 (56)* | *2.0 (22)* | *7.2 (44)* | *25.0 (46)* | *21.5 (56)* | *4.0 (24)* | *32.4 (56)* |
| Pershing Square Holdings | 36.5 (2) | 21.7 (2) | -2.7 (100) | 8.3 (95) | -49.1 (100) | 15.2 (5) | 30.4 (11) | | | |
| *Dow Jones U.S. Total Stock Market Index* | *6.4 (32)* | *8.9 (33)* | *14.8 (45)* | *18.5 (56)* | *2.0 (22)* | *7.2 (44)* | *25.0 (46)* | | | |
| Trian Partners | -2.3 | 13.1 | 2.8 | 9.5 | | | | | | |
| *S&P 500 Index* | *7.5* | *10.4* | *14.4* | *17.9* | | | | | | |
| SSgA Global Index | 1.6 (49) | 4.8 (54) | 11.4 (43) | 19.4 (43) | -3.4 (48) | 1.2 (55) | 23.8 (49) | 17.5 (52) | -6.6 (59) | 31.4 (47) |
| *MSCI AC World IMI (Net)* | *1.2 (51)* | *4.6 (56)* | *11.1 (45)* | *19.0 (47)* | *-3.9 (50)* | *0.8 (58)* | *23.4 (52)* | *17.1 (56)* | *-6.9 (61)* | *31.0 (51)* |

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Empower Results®

## As of June 30, 2021

# Calendar Year Performance

| | Performance(%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Fiscal Year 2020** | **Fiscal Year 2019** | **Fiscal Year 2018** | **Fiscal Year 2017** | **Fiscal Year 2016** | **Fiscal Year 2015** | **Fiscal Year 2014** | **Fiscal Year 2013** | **Fiscal Year 2012** | **Fiscal Year 2011** |
| BlackRock MSCI ACWI IMI Fund | 1.5 (50) | 4.5 (56) | 11.4 (43) | 19.1 (46) | -3.4 (48) | 1.2 (55) | 23.9 (48) | 17.7 (51) | -6.6 (59) | |
| *MSCI AC World IMI (Net)* | *1.2 (51)* | *4.6 (56)* | *11.1 (45)* | *19.0 (47)* | *-3.9 (50)* | *0.8 (58)* | *23.4 (52)* | *17.1 (56)* | *-6.9 (61)* | |
| Wellington Global Perspectives | -11.7 (89) | -3.8 (90) | 15.7 (20) | 24.8 (16) | -4.2 (52) | -1.4 (72) | 33.1 (4) | 30.7 (5) | -9.1 (74) | 45.8 (3) |
| *Performance Benchmark* | *-5.5 (75)* | *-3.0 (87)* | *13.8 (28)* | *20.5 (37)* | *-4.7 (56)* | *1.5 (53)* | *26.0 (31)* | *20.6 (30)* | *-9.9 (78)* | *35.8 (21)* |
| T. Rowe Price Global Equity | 22.8 (6) | 8.0 (35) | 21.3 (8) | 28.8 (8) | -0.6 (33) | 7.5 (11) | 32.0 (6) | 18.2 (47) | -7.7 (63) | 28.2 (71) |
| *MSCI AC World Index (Net)* | *2.1 (48)* | *5.7 (50)* | *10.7 (50)* | *18.8 (48)* | *-3.7 (49)* | *0.7 (59)* | *22.9 (54)* | *16.6 (61)* | *-6.5 (59)* | *30.1 (57)* |
| *MSCI AC World Index Growth (net)* | *16.6 (11)* | *7.2 (41)* | *16.1 (19)* | *18.6 (50)* | *-2.7 (44)* | *4.9 (25)* | *23.1 (53)* | *15.4 (68)* | *-5.3 (50)* | *32.0 (43)* |
| Lazard | 1.6 (49) | 2.7 (67) | 9.8 (55) | 26.2 (13) | -10.7 (89) | 7.3 (11) | 23.3 (52) | 15.8 (66) | -11.4 (84) | 29.6 (60) |
| *MSCI AC World Index (Net)* | *2.1 (48)* | *5.7 (50)* | *10.7 (50)* | *18.8 (48)* | *-3.7 (49)* | *0.7 (59)* | *22.9 (54)* | *16.6 (61)* | *-6.5 (59)* | *30.1 (57)* |
| D.E. Shaw | 0.1 (56) | 2.6 (67) | 15.8 (20) | 19.2 (45) | 0.0 (28) | 3.9 (33) | 25.6 (33) | 19.3 (41) | -1.9 (29) | 31.1 (50) |
| *MSCI World Index (Net)* | *2.8 (45)* | *6.3 (45)* | *11.1 (46)* | *18.2 (51)* | *-2.8 (44)* | *1.4 (53)* | *24.0 (47)* | *18.6 (45)* | *-5.0 (48)* | *30.5 (55)* |
| GMO Global All Country Equity | -2.3 | 3.5 | 6.8 | 20.0 | -6.5 | -4.5 | | | | |
| *MSCI AC World Index (Net)* | *2.1* | *5.7* | *10.7* | *18.8* | *-3.7* | *0.7* | | | | |
| *MSCI AC World Index Value (Net)* | *-11.8* | *4.3* | *5.4* | *19.0* | *-4.8* | *-3.4* | | | | |
| Harris Global Equity | -6.6 | -2.0 | 5.0 | 38.9 | -12.8 | 0.7 | | | | |
| *MSCI World Index (Net)* | *2.8* | *6.3* | *11.1* | *18.2* | *-2.8* | *1.4* | | | | |
| *MSCI World Value (Net)* | *-11.3* | *4.2* | *5.6* | *18.7* | *-3.7* | *-2.9* | | | | |
| Fixed Income | 6.4 | 6.4 | 1.3 | 5.2 | 3.5 | 1.0 | 6.1 | 3.8 | 5.2 | 7.3 |
| *Performance Benchmark* | *7.9* | *8.1* | *-0.3* | *0.9* | *5.8* | *1.6* | *5.2* | *0.2* | *7.4* | *4.8* |
| BlackRock | 9.0 (17) | 8.0 (25) | -0.3 (77) | 0.3 (69) | 6.0 (48) | 2.4 (15) | 5.2 (49) | 0.3 (64) | 8.0 (28) | 6.3 (37) |
| *Performance Benchmark* | *7.9 (27)* | *8.1 (23)* | *-0.3 (75)* | *0.9 (55)* | *5.8 (50)* | *1.6 (36)* | *5.2 (49)* | *0.2 (67)* | *7.4 (37)* | *4.8 (51)* |
| Loomis Sayles | 7.6 (30) | 7.4 (36) | 1.8 (26) | 8.1 (16) | 1.9 (68) | 1.1 (55) | 12.0 (9) | 10.7 (7) | 4.4 (70) | 15.7 (9) |
| *Performance Benchmark* | *6.6 (38)* | *8.2 (20)* | *0.5 (49)* | *4.0 (27)* | *5.0 (34)* | *1.0 (60)* | *6.8 (33)* | *2.8 (30)* | *8.4 (23)* | *7.8 (28)* |
| Putnam | 0.1 (55) | 3.7 (32) | 4.1 (36) | 7.9 (29) | -3.6 (70) | -0.7 (53) | 3.7 (71) | 5.5 (29) | -1.8 (62) | 4.6 (55) |
| *LIBOR* | *2.1 (35)* | *2.6 (41)* | *1.5 (59)* | *0.8 (83)* | *0.4 (42)* | *0.2 (42)* | *0.3 (85)* | *0.4 (83)* | *0.4 (49)* | *0.4 (88)* |
| SSgA Aggregate Bond Index | 8.7 (20) | 7.9 (26) | -0.4 (78) | -0.3 (82) | 6.0 (22) | 1.9 (27) | 4.3 (60) | -0.6 (84) | 7.4 (36) | 3.9 (65) |
| *Barclays Aggregate Index* | *8.7 (19)* | *7.9 (26)* | *-0.4 (78)* | *-0.3 (83)* | *6.0 (22)* | *1.9 (28)* | *4.4 (59)* | *-0.7 (86)* | *7.5 (35)* | *3.9 (64)* |
| Wellington Global Total Return | 2.1 (36) | 5.3 (14) | 5.1 (32) | -0.7 (85) | 1.3 (32) | 0.5 (38) | | | | |
| *BofA Merrill Lynch 3 Month US T-Bill* | *1.6 (41)* | *2.3 (45)* | *1.4 (60)* | *0.5 (83)* | *0.2 (42)* | *0.0 (45)* | | | | |
| Reams Core Plus Bond Fund | 15.3 | 8.6 | 0.0 | 0.0 | 6.1 | 1.5 | | | | |
| *Barclays Aggregate Index* | *8.7* | *7.9* | *-0.4* | *-0.3* | *6.0* | *1.9* | | | | |
| BRS Recycling Tax Credit | | | | | | | | | | |
| BRS Recycling Tax Credit Phase 2 | | | | | | | | | | |

As of June 30, 2021

## Calendar Year Performance

| | Performance(%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Fiscal Year 2020 | Fiscal Year 2019 | Fiscal Year 2018 | Fiscal Year 2017 | Fiscal Year 2016 | Fiscal Year 2015 | Fiscal Year 2014 | Fiscal Year 2013 | Fiscal Year 2012 | Fiscal Year 2011 |
| Opportunistic/Alternatives | -5.3 | -0.2 | 0.6 | 6.8 | -1.7 | 5.8 | 10.2 | 12.9 | -1.0 | |
| *Custom Alternatives Benchmark* | *-2.5* | *2.1* | *3.4* | *2.8* | *-3.7* | *1.7* | *6.3* | *7.1* | *-3.9* | |
| Anchorage | -5.4 | 1.4 | 6.2 | 5.9 | -3.9 | 3.8 | 18.9 | 19.4 | -1.0 | |
| *Credit Suisse Event Driven* | *-6.9* | *1.9* | *3.8* | *9.3* | *-10.4* | *-2.0* | *14.1* | *14.5* | *-7.2* | |
| York | -45.2 | -5.9 | 12.2 | 14.3 | -12.9 | -7.2 | 22.4 | 19.4 | -0.8 | |
| *Credit Suisse Event Driven* | *-6.9* | *1.9* | *3.8* | *9.3* | *-10.4* | *-2.0* | *14.1* | *14.5* | *-7.2* | |
| Capula | 9.8 | 6.3 | 3.8 | 7.8 | 6.1 | 8.9 | 7.9 | 4.0 | 3.4 | |
| *HFRI Macro (Total) Index* | *0.8* | *2.4* | *1.1* | *-2.4* | *1.8* | *4.2* | *1.5* | *-0.1* | *-2.8* | |
| Graham | -5.6 | 2.1 | 6.5 | -3.2 | -1.0 | 23.9 | 2.7 | 5.9 | -8.3 | |
| *HFRI Macro (Total) Index* | *0.8* | *2.4* | *1.1* | *-2.4* | *1.8* | *4.2* | *1.5* | *-0.1* | *-2.8* | |
| Circumference Group Core Value | 5.0 | 2.7 | 15.9 | 14.0 | | | | | | |
| *Russell 2000 Index* | *-6.6* | *-3.3* | *17.6* | *24.6* | | | | | | |
| Aeolus Keystone Fund | 5.1 | -5.8 | -17.9 | 11.2 | | | | | | |
| *Citigroup 3 Month T-Bill* | *1.6* | *2.3* | *1.3* | *0.5* | | | | | | |
| *Eurekahedge ILS Advisers Index* | *2.9* | *-5.5* | *-6.6* | *5.0* | | | | | | |
| Nephila Rubik Holdings | 3.1 | -6.9 | -7.7 | 2.2 | | | | | | |
| *Citigroup 3 Month T-Bill* | *1.6* | *2.3* | *1.3* | *0.5* | | | | | | |
| *Eurekahedge ILS Advisers Index* | *2.9* | *-5.5* | *-6.6* | *5.0* | | | | | | |
| Parametric Global Defensive Equity Fund | -4.2 | 3.9 | 5.8 | | | | | | | |
| *Performance Benchmark* | *2.4* | *4.4* | *6.0* | | | | | | | |
| *MSCI AC World Index* | *2.6* | *6.3* | *11.3* | | | | | | | |
| Man Alternative Risk Premia | -7.9 | 1.8 | | | | | | | | |
| *SG Multi Alternative Risk Premia Index* | *-11.6* | *0.4* | | | | | | | | |
| CFM ISD Fund 1.5x | -26.1 | 2.8 | | | | | | | | |
| *SG Multi Alternative Risk Premia Index* | *-11.6* | *0.4* | | | | | | | | |

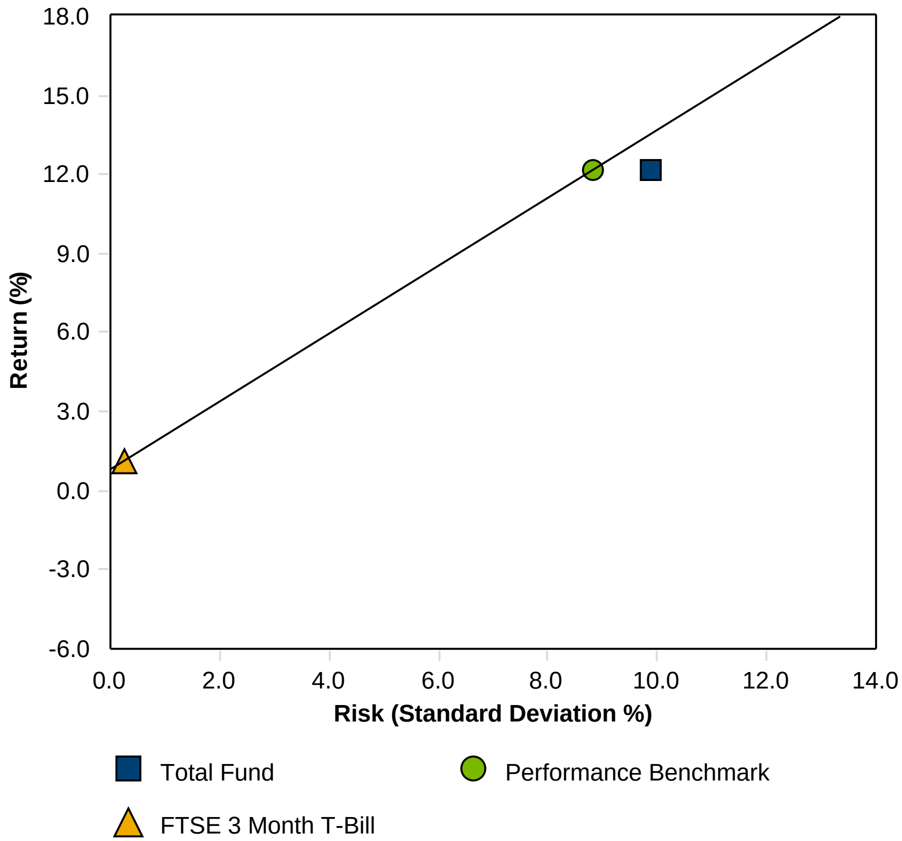
## Calendar Year Performance

| | Performance(%) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Fiscal Year 2020 | Fiscal Year 2019 | Fiscal Year 2018 | Fiscal Year 2017 | Fiscal Year 2016 | Fiscal Year 2015 | Fiscal Year 2014 | Fiscal Year 2013 | Fiscal Year 2012 | Fiscal Year 2011 |
| Real Assets | 3.9 | 5.6 | 9.4 | 7.5 | 9.5 | 11.7 | 9.0 | | | |
| *Total Real Assets Benchmark* | *4.1* | *5.7* | *6.2* | *6.6* | *10.0* | *11.5* | *11.4* | | | |
| Real Estate | 2.0 | 5.7 | 11.1 | 6.9 | 12.0 | 13.4 | 12.1 | 7.9 | 9.8 | 17.7 |
| *NFI-ODCE (Net)* | *3.9* | *6.5* | *7.1* | *7.4* | *12.6* | *12.4* | *12.7* | *10.5* | *13.4* | *16.0* |
| Timber | 12.2 | -0.3 | 1.2 | 8.0 | 0.4 | 9.4 | -1.1 | 6.8 | -5.3 | 4.8 |
| *Timberland Property Benchmark* | *3.1* | *0.1* | *2.6* | *3.7* | *2.5* | *10.5* | *7.7* | *6.9* | *-2.9* | *-0.4* |
| BTG Timber Separate Account | | | | | | | | | | |
| BTG U.S. Timberland Fund, L.P. | | | | | | | | | | |
| Agriculture | 1.8 | 3.5 | 3.3 | 4.3 | 9.8 | 2.5 | 11.0 | 11.5 | | |
| *Agriculture Benchmark* | *3.3* | *5.4* | *3.5* | *4.5* | *5.6* | *6.5* | *12.8* | *20.9* | | |
| HFMS Farmland | 1.4 | 3.4 | 2.9 | 3.9 | 10.7 | 2.5 | 11.0 | 11.5 | | |
| *HFMS custom NCREIF Farmland Index* | *4.6* | *4.9* | *2.0* | *4.0* | *4.8* | *6.5* | *12.8* | *20.9* | | |
| UBS Agrivest Core Farmland Fund | 3.1 | 4.0 | 4.5 | 5.0 | 6.2 | | | | | |
| *UBS Agrivest custom NCREIF Farmland Index* | *4.7* | *6.2* | *5.0* | *5.5* | *8.4* | | | | | |
| Infrastructure | 7.2 | 14.6 | | | | | | | | |
| *CPI + 5%* | *5.7* | *6.7* | | | | | | | | |
| Private Equity | 4.9 | 12.8 | 22.3 | 16.7 | 7.7 | 11.9 | 20.6 | 12.5 | 12.5 | 16.0 |
| *Private Equity Policy* | *-7.5* | *10.8* | *16.1* | *20.4* | *1.6* | *14.5* | *25.0* | *16.8* | *9.4* | *20.1* |
| Cash | 3.8 | 6.5 | 1.2 | 5.0 | 3.2 | | | | | |

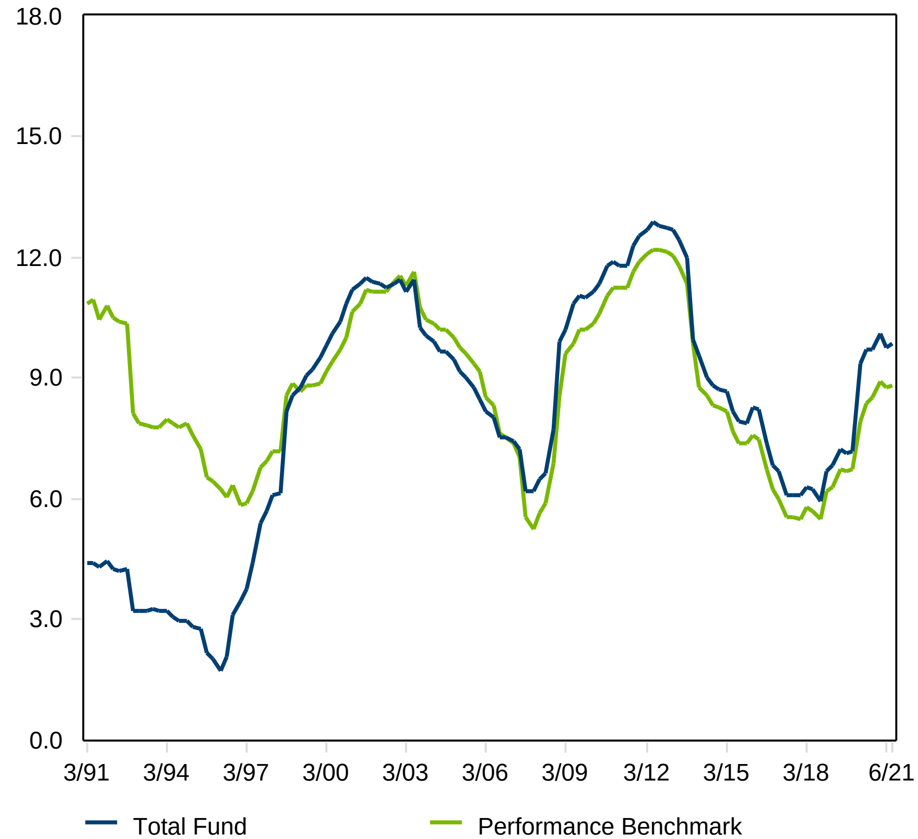
*The Real Assets and Private Equity returns and their benchmark returns are shown on a one-quarter lag.
*The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 151 of this report.
*The inception date above for infrastructure reflects the inception date for the calculation and reporting of time-weighted returns. The Infrastructure program began in July 2014 and the full history of Infrastructure returns are included in Total Real Assets and Total Fund performance.
*The BRS Recycling Tax Credit represents an annual income stream of $16 million dollars over the next 14 years, which ATRS purchased for approximately $162 million. This represents an approximate 9.9% yield for the 2017 fiscal year. The value shown above represents the year-end market value in accordance with GASB Statement 72, representing the 14 years of annual income, and has been incorporated into Total Fixed Income and Total Fund performance.

# Total Fund Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 5 Years Standard Deviation




## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Fund | 0.09 | 3.08 | 0.03 | 0.91 | 1.10 | -0.65 | 1.06 | 12.17 | 9.86 | 0.95 |
| Performance Benchmark | 0.00 | 0.00 | N/A | 1.00 | 1.21 | 0.00 | 1.00 | 12.18 | 8.84 | 1.00 |
| FTSE 3 Month T-Bill | -10.80 | 8.90 | -1.21 | 0.06 | N/A | 1.22 | -0.01 | 1.14 | 0.25 | -0.24 |



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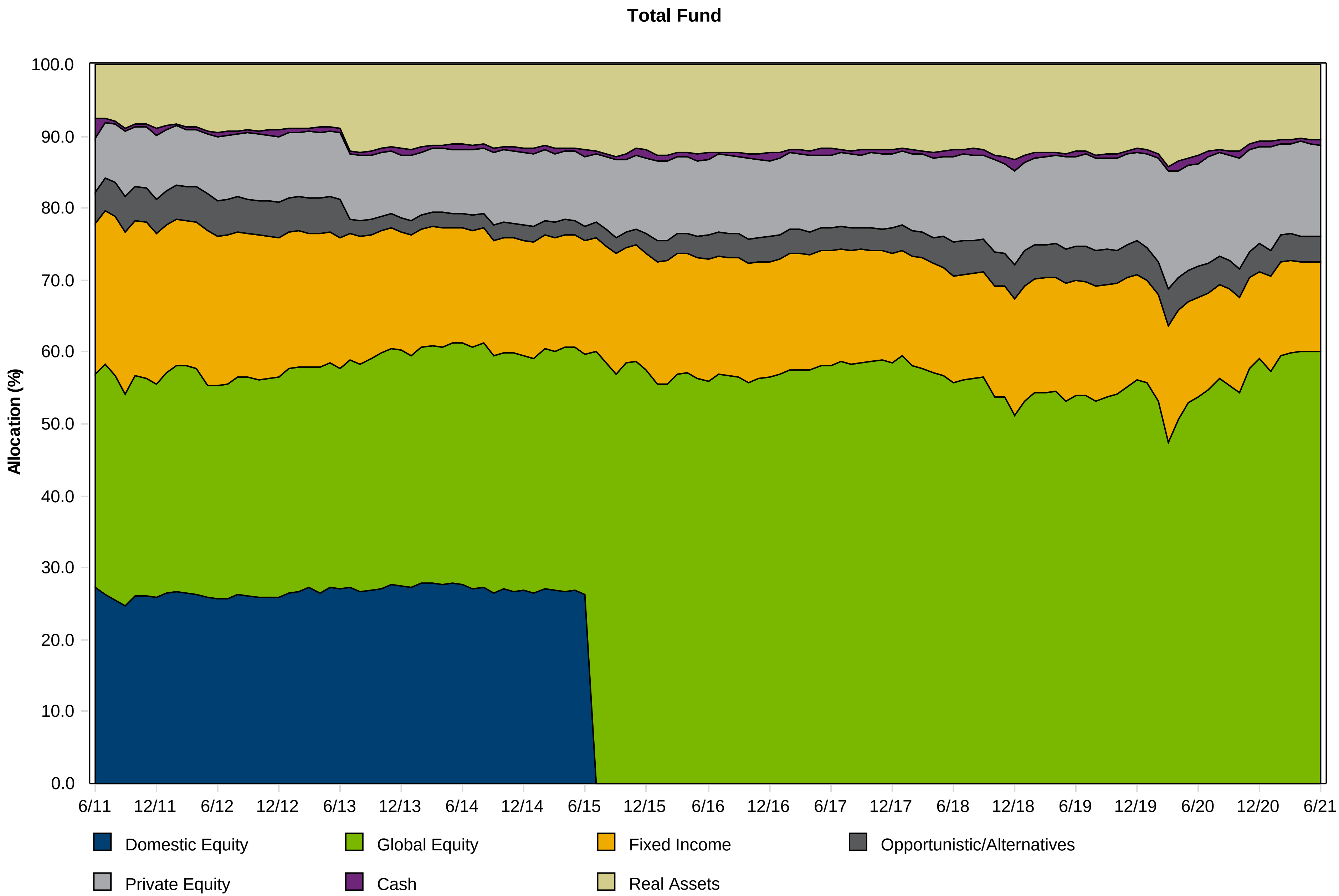
## Historical Asset Allocation by Segment

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| Asset Allocation as of 6/30/2021 | | | | | | | | | Values in $1,000 |
|---|---|---|---|---|---|---|---|---|---|
| | Total Equity | U.S. Bond | Real Estate | Private Equity | Cash | Total | Percent of Total | Interim Policy | Long-Term Target |
| Jacobs Levy 130/30 | $932,929.8 | -- | -- | -- | -- | $932,929.8 | 4.41% | | |
| Kennedy Capital Management | $775,272.3 | -- | -- | -- | -- | $775,272.3 | 3.66% | | |
| Stephens | $658,653.7 | -- | -- | -- | -- | $658,653.7 | 3.11% | | |
| Voya Absolute Return | $778,351.3 | -- | -- | -- | -- | $778,351.3 | 3.68% | | |
| Allianz (Nicholas Applegate) | $1,059,920.9 | -- | -- | -- | -- | $1,059,920.9 | 5.01% | | |
| Pershing Square International | $1,238.4 | -- | -- | -- | -- | $1,238.4 | 0.01% | | |
| Pershing Square Holdings | $260,292.8 | -- | -- | -- | -- | $260,292.8 | 1.23% | | |
| SSgA Global Index | $1,274,744.5 | -- | -- | -- | -- | $1,274,744.5 | 6.02% | | |
| BlackRock MSCI ACWI IMI Fund | $1,123,563.3 | -- | -- | -- | -- | $1,123,563.3 | 5.31% | | |
| Wellington Global Perspectives | $760,943.6 | -- | -- | -- | -- | $760,943.6 | 3.60% | | |
| T. Rowe Price Global Equity | $1,685,824.7 | -- | -- | -- | -- | $1,685,824.7 | 7.97% | | |
| Lazard | $847,141.6 | -- | -- | -- | -- | $847,141.6 | 4.00% | | |
| D.E. Shaw | $953,643.4 | -- | -- | -- | -- | $953,643.4 | 4.51% | | |
| GMO Global All Country Equity | $564,968.0 | -- | -- | -- | -- | $564,968.0 | 2.67% | | |
| Harris Global Equity | $650,603.1 | -- | -- | -- | -- | $650,603.1 | 3.07% | | |
| Trian Partners | $87,142.1 | -- | -- | -- | -- | $87,142.1 | 0.41% | | |
| Trian Partners Co-Investments | $103,866.7 | -- | -- | -- | -- | $103,866.7 | 0.49% | | |
| Capital Guardian & Knight Vinke | $74.8 | -- | -- | -- | -- | $74.8 | 0.00% | | |
| **Total Equity** | | | | | | $12,519,175.0 | 59.15% | 57.92% | 53.00% |
| BlackRock | -- | $281,102.4 | -- | -- | -- | $281,102.4 | 1.33% | | |
| Loomis Sayles | -- | $501,350.0 | -- | -- | -- | $501,350.0 | 2.37% | | |
| Putnam | -- | $385,150.0 | -- | -- | -- | $385,150.0 | 1.82% | | |
| SSgA Aggregate Bond Index | -- | $468,812.6 | -- | -- | -- | $468,812.6 | 2.22% | | |
| Wellington Global Total Return | -- | $354,484.5 | -- | -- | -- | $354,484.5 | 1.67% | | |
| Reams Core Plus Bond Fund | -- | $397,061.9 | -- | -- | -- | $397,061.9 | 1.88% | | |
| BRS Recycling Tax Credit | -- | $176,000.0 | -- | -- | -- | $176,000.0 | 0.83% | | |
| BRS Recycling Tax Credit Phase 2 | -- | $77,031.6 | -- | -- | -- | $77,031.6 | 0.36% | | |
| **Total Fixed Income** | | | | | | $2,640,993.0 | 12.48% | 15.00% | 15.00% |
| Anchorage | -- | -- | -- | $90,753.9 | -- | $90,753.9 | 0.43% | | |
| Capula | -- | -- | -- | $80,311.1 | -- | $80,311.1 | 0.38% | | |
| Graham | -- | -- | -- | $72,683.2 | -- | $72,683.2 | 0.34% | | |
| York | -- | -- | -- | $12,859.4 | -- | $12,859.4 | 0.06% | | |
| Circumference Group Core Value | -- | -- | -- | $38,071.9 | -- | $38,071.9 | 0.18% | | |
| Aeolus Keystone Fund | -- | -- | -- | $225,867.3 | -- | $225,867.3 | 1.07% | | |
| Nephila Rubik Holdings | -- | -- | -- | $40,956.7 | -- | $40,956.7 | 0.19% | | |
| Parametric Global Defensive Equity | -- | -- | -- | $194,673.0 | -- | $194,673.0 | 0.92% | | |
| Man Alternative Risk Premia | -- | -- | -- | $93,569.8 | -- | $93,569.8 | 0.44% | | |
| CFM ISD Fund 1.5x | -- | -- | -- | $88,516.4 | -- | $88,516.4 | 0.42% | | |
| **Total Opportunistic/Alternatives** | | | | | | $938,262.7 | 4.43% | 4.58% | 5.00% |
| **Real Estate** | | | $1,360,734.7 | | | $1,360,734.7 | 6.43% | | |
| **Timber** | | | $302,683.6 | | | $302,683.6 | 1.43% | | |
| **Agriculture** | | | $213,183.4 | | | $213,183.4 | 1.01% | | |
| **Infrastructure** | | | $327,738.3 | | | $327,738.3 | 1.55% | | |
| **Total Real Assets** | | | | | | $2,204,340.1 | 10.42% | 10.50% | 15.00% |
| **Total Private Equity** | | | | $2,683,520.3 | | $2,683,520.3 | 12.68% | 12.00% | 12.00% |
| **Total Cash** | | | | | $177,124.5 | $177,124.5 | 0.84% | 0.00% | 0.00% |
| **Total Fund** | **$12,519,175.0** | **$2,640,993.0** | **$2,204,340.1** | **$3,621,783.0** | **$177,124.5** | **$21,163,415.6** | **100.00%** | **100.00%** | **100.00%** |

*Note: The market values for the Real Assets and Private Equity investments shown above are lagged one quarter and adjusted for the current quarter's cash flows.
Market values and allocation percentages may not add to the sum total due to rounding.



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| Asset Allocation as of 6/30/2021 | | | | | | | Values in $1,000 |
|---|---|---|---|---|---|---|---|
| | Real Estate | Percent of Real Estate | Percent of Total Fund | | Real Estate | Percent of Real Estate | Percent of Total Fund |
| Almanac Realty Securities Fund V | $97.9 | 0.01% | 0.00% | LaSalle Income & Growth Fund VI | $5,267.9 | 0.39% | 0.02% |
| Almanac Realty Securities Fund VI | $3,610.0 | 0.27% | 0.02% | LaSalle Income & Growth Fund VII | $14,415.0 | 1.06% | 0.07% |
| Almanac Realty Securities Fund VII | $15,589.3 | 1.15% | 0.07% | LaSalle Income & Growth Fund VIII | $11,625.6 | 0.85% | 0.05% |
| Almanac Realty Securities Fund VIII | $8,921.1 | 0.66% | 0.04% | Lone Star Real Estate Fund IV | $6,993.8 | 0.51% | 0.03% |
| American Center | $27,412.6 | 2.01% | 0.13% | Long Wharf Real Estate Partners V | $20,042.8 | 1.47% | 0.09% |
| AR Insurance | $2,236.7 | 0.16% | 0.01% | Long Wharf Real Estate Partners VI | $12,247.1 | 0.90% | 0.06% |
| AR Teachers Retirement Building | $5,397.5 | 0.40% | 0.03% | Metropolitan RE Co-Investments | $10,517.3 | 0.77% | 0.05% |
| Blackstone Real Estate Partners VII | $19,301.4 | 1.42% | 0.09% | Met Life Commercial Mtg Inc Fund | $48,535.6 | 3.57% | 0.23% |
| Blackstone RE Europe VI | $18,213.1 | 1.34% | 0.09% | New Boston Fund VII | $2,611.3 | 0.19% | 0.01% |
| Carlyle Realty Partners VII | $10,082.1 | 0.74% | 0.05% | O'Connor NAPP II | $8,555.0 | 0.63% | 0.04% |
| Carlyle Realty VIII | $9,014.7 | 0.66% | 0.04% | PRISA | $273,148.8 | 20.07% | 1.29% |
| CBREI SP U.S. Opportunity V | $779.5 | 0.06% | 0.00% | Recoveries Land | $70.0 | 0.01% | 0.00% |
| CBREI SP VIII | $21,613.2 | 1.59% | 0.10% | Rockwood Capital RE Partners IX | $5,637.3 | 0.41% | 0.03% |
| CBREI SP IX | $11,583.1 | 0.85% | 0.05% | Rockwood Capital RE XI | $15,579.5 | 1.14% | 0.07% |
| Cerberus Institutional RE Partners III | $11,149.4 | 0.82% | 0.05% | Rose Law Firm | $4,295.0 | 0.32% | 0.02% |
| Chenal Retirement Village | $0.0 | 0.00% | 0.00% | Texarkana DHS | $1,627.7 | 0.12% | 0.01% |
| Calmwater | $21,130.8 | 1.55% | 0.10% | Torchlight Debt Opportunity Fund IV | $4,806.6 | 0.35% | 0.02% |
| Fletcher Properties | $1,162.2 | 0.09% | 0.01% | Torchlight Debt Opportunity Fund V | $5,920.6 | 0.44% | 0.03% |
| FPA Core Plus IV | $29,496.3 | 2.17% | 0.14% | Torchlight Debt Opportunity Fund VI | $24,633.9 | 1.81% | 0.12% |
| Harbert European Real Estate | $19,154.7 | 1.41% | 0.09% | Torchlight Debt Opportunity Fund VII | $10,159.7 | 0.75% | 0.05% |
| Heitman European Property IV | $1,530.7 | 0.11% | 0.01% | UBS Trumbull Property Fund | $182,820.6 | 13.44% | 0.86% |
| JP Morgan Strategic Property Fund | $281,361.0 | 20.68% | 1.33% | UBS Trumbull Property Income Fund | $51,689.0 | 3.80% | 0.24% |
| Kayne Anderson V | $25,907.7 | 1.90% | 0.12% | Victory | $32,775.7 | 2.41% | 0.15% |
| Kayne Anderson VI | $2,000.0 | 0.15% | 0.01% | Walton Street Real Estate Debt II | $11,970.6 | 0.88% | 0.06% |
| Landmark Fund VI | $1,637.0 | 0.12% | 0.01% | West Mphs. DHS | $2,330.4 | 0.17% | 0.01% |
| Landmark Real Estate VIII | $8,186.1 | 0.60% | 0.04% | Westbrook IX | $10,020.9 | 0.74% | 0.05% |
| LaSalle Asia Opportunity Fund IV | $2,379.5 | 0.17% | 0.01% | Westbrook Real Estate Fund X | $12,607.4 | 0.93% | 0.06% |
| LaSalle Asia Opportunity Fund V | $10,881.9 | 0.80% | 0.05% | | | | |
| | | | | **Total Real Estate** | **$1,360,734.7** | **100.00%** | **6.43%** |

*Note: The market values for the real estate investments shown above are lagged one quarter and adjusted for the current quarter's cash flows.
Market values and allocation percentages may not add to the sum total due to rounding.

| Asset Allocation as of 6/30/2021 | | | | | | | Values in $1,000 |
|---|---|---|---|---|---|---|---|
| | Private Equity | Percent of Private Equity | Percent of Total Fund | | Private Equity | Percent of Private Equity | Percent of Total Fund |
| Arlington Capital IV | $30,211.6 | 1.13% | 0.14% | JF Lehman III | $15,103.2 | 0.56% | 0.07% |
| Arlington Capital V | $10,615.6 | 0.40% | 0.05% | JF Lehman IV | $36,726.1 | 1.37% | 0.17% |
| Advent GPE VI | $3,988.6 | 0.15% | 0.02% | JF Lehman V | $13,292.1 | 0.50% | 0.06% |
| Altus Capital II | $7,642.7 | 0.28% | 0.04% | KPS III | $188.3 | 0.01% | 0.00% |
| American Industrial Partners VI | $21,991.7 | 0.82% | 0.10% | KPS IV | $26,374.4 | 0.98% | 0.12% |
| American Industrial Partners VII | $12,881.2 | 0.48% | 0.06% | KPS X | $6,829.7 | 0.25% | 0.03% |
| Altaris Constellation Partners | $26,835.2 | 1.00% | 0.13% | KPS Mid-Cap | $5,756.9 | 0.21% | 0.03% |
| Altaris Health Partners IV | $23,842.8 | 0.89% | 0.11% | Levine Leichtman V | $15,285.4 | 0.57% | 0.07% |
| Atlas Capital II | $13,075.0 | 0.49% | 0.06% | Lime Rock III | $12,299.6 | 0.46% | 0.06% |
| Audax Mezzanine III | $2,687.5 | 0.10% | 0.01% | LLR III | $4,400.9 | 0.16% | 0.02% |
| Big River - Equity | $767.2 | 0.03% | 0.00% | LLR VI | $3,231.7 | 0.12% | 0.02% |
| Big River - Holdings Note 2023 | -$5,904.0 | -0.22% | -0.03% | Mason Wells III | $1,737.9 | 0.06% | 0.01% |
| Big River - Holdings Note 3/16/23 | $5,899.3 | 0.22% | 0.03% | NGP IX | $1,630.7 | 0.06% | 0.01% |
| Bison V | $28,712.0 | 1.07% | 0.14% | NGP X | $4,569.8 | 0.17% | 0.02% |
| Boston Ventures VII | $5,451.4 | 0.20% | 0.03% | NGP XI | $21,413.9 | 0.80% | 0.10% |
| Boston Ventures IX | $30,395.7 | 1.13% | 0.14% | NGP XII | $16,739.4 | 0.62% | 0.08% |
| Boston Ventures X | $5,073.6 | 0.19% | 0.02% | One Rock Capital Partners II | $35,761.3 | 1.33% | 0.17% |
| BV VIII | $18,221.3 | 0.68% | 0.09% | PineBridge | $6,183.2 | 0.23% | 0.03% |
| Castlelake II | $17,875.1 | 0.67% | 0.08% | Riverside IV | $235.8 | 0.01% | 0.00% |
| Castlelake III | $17,652.2 | 0.66% | 0.08% | Riverside V | $25,822.6 | 0.96% | 0.12% |
| Clearlake V | $40,962.8 | 1.53% | 0.19% | Riverside VI | $12,695.1 | 0.47% | 0.06% |
| Clearlake VI | $16,224.3 | 0.60% | 0.08% | Siris III | $17,874.6 | 0.67% | 0.08% |
| Court Square III | $35,945.2 | 1.34% | 0.17% | Siris IV | $17,212.7 | 0.64% | 0.08% |
| CSFB-ATRS 2005-1 Series | $51,742.2 | 1.93% | 0.24% | SK Capital V | $20,602.9 | 0.77% | 0.10% |
| CSFB-ATRS 2006-1 Series | $64,511.1 | 2.40% | 0.30% | Sycamore Partners II | $11,484.8 | 0.43% | 0.05% |
| Diamond State Ventures II | $2,442.2 | 0.09% | 0.01% | Sycamore Partners III | $6,976.4 | 0.26% | 0.03% |
| Doughty Hanson Tech I | $422.1 | 0.02% | 0.00% | TA XI | $37,533.4 | 1.40% | 0.18% |
| DW Healthcare III | $14,632.9 | 0.55% | 0.07% | Tennenbaum VI | $12,638.6 | 0.47% | 0.06% |
| DW Healthcare IV | $28,565.7 | 1.06% | 0.13% | Thoma Bravo Discover | $20,323.1 | 0.76% | 0.10% |
| DW Healthcare V | $8,309.5 | 0.31% | 0.04% | Thoma Bravo Discover II | $23,413.5 | 0.87% | 0.11% |
| EnCap IX | $9,639.0 | 0.36% | 0.05% | Thoma Bravo Discover III | $6,911.6 | 0.26% | 0.03% |
| EnCap VIII | $11,676.5 | 0.44% | 0.06% | Thoma Bravo Explore I | $4,955.4 | 0.18% | 0.02% |
| EnCap X | $22,072.3 | 0.82% | 0.10% | Thoma Bravo XI | $34,074.6 | 1.27% | 0.16% |
| EnCap XI | $11,235.6 | 0.42% | 0.05% | Thoma Bravo XII | $47,515.0 | 1.77% | 0.22% |
| Franklin Park Series | $1,041,961.9 | 38.83% | 4.92% | Thoma Bravo XIII | $35,808.7 | 1.33% | 0.17% |
| Greenbriar V | -$129.4 | 0.00% | 0.00% | Thoma Bravo XIV | $7,842.9 | 0.29% | 0.04% |
| GCG IV | $21,952.7 | 0.82% | 0.10% | Vista Equity III | $4,147.3 | 0.15% | 0.02% |
| GCG V | $4,084.5 | 0.15% | 0.02% | Vista Foundation II | $15,134.8 | 0.56% | 0.07% |
| GTLA Holdings | $40,000.0 | 1.49% | 0.19% | Vista Foundation III | $30,769.8 | 1.15% | 0.15% |
| Highland | $284,738.2 | 10.61% | 1.35% | Wellspring V | $12,901.9 | 0.48% | 0.06% |
| Insight Equity II | $19,201.0 | 0.72% | 0.09% | Wicks IV | $32,702.3 | 1.22% | 0.15% |
| Insight Mezzanine I | $1,724.1 | 0.06% | 0.01% | WNG II | $6,587.8 | 0.25% | 0.03% |
| | | | | **Total Private Equity** | **$2,683,520.3** | **100.00%** | **12.68%** |

*Note: The market values for the private equity investments shown above are lagged one quarter and adjusted for the current quarter's cash flows.
Market values and allocation percentages may not add to the sum total due to rounding.



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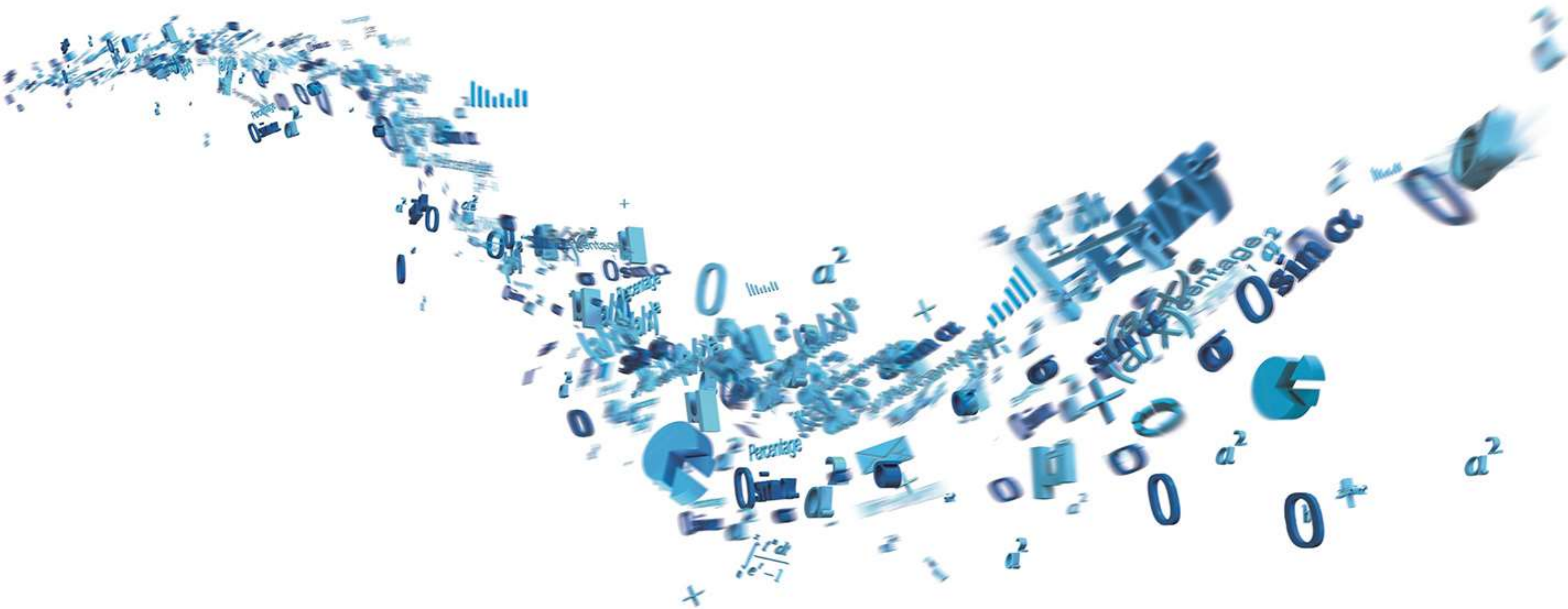
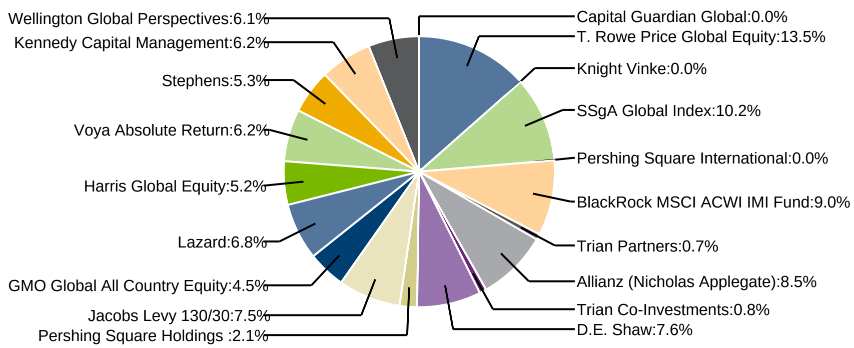


# Total Equity

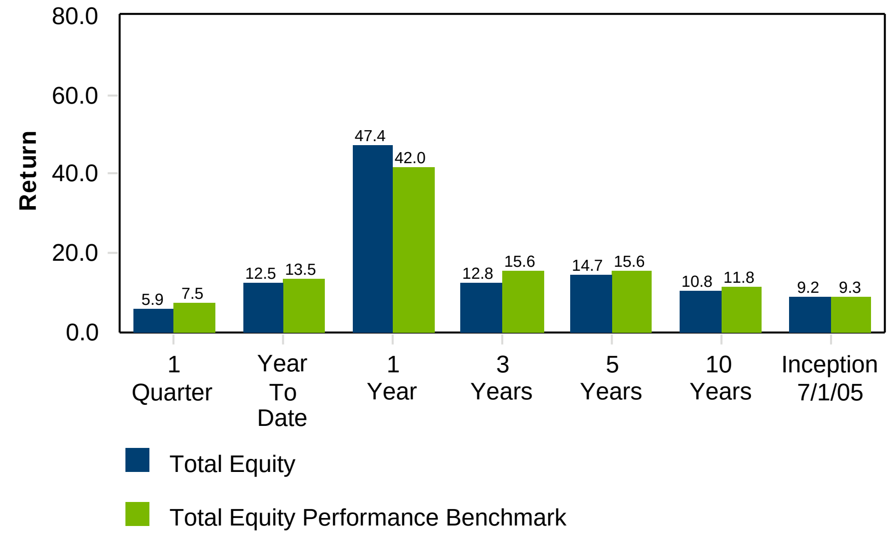
# Total Equity Portfolio Overview

## Current Allocation

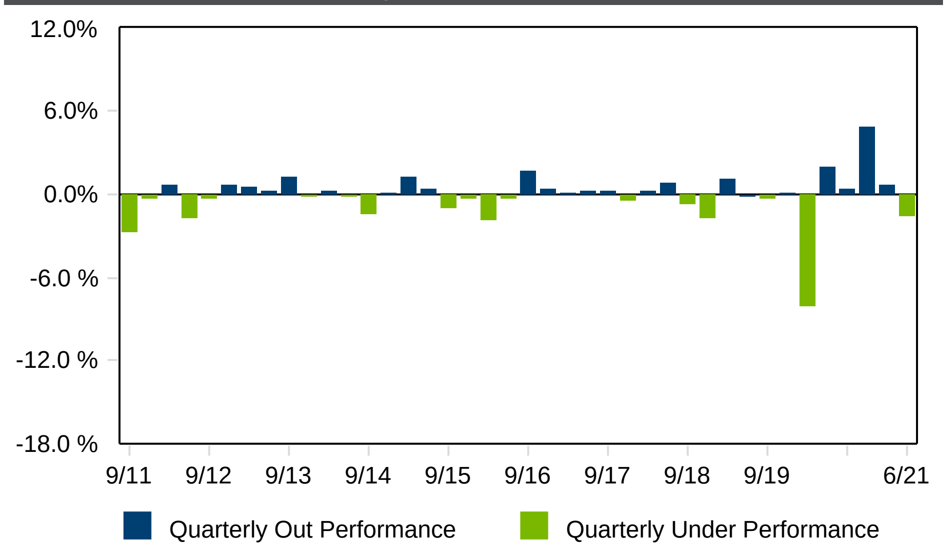
June 30, 2021 : $12,519M



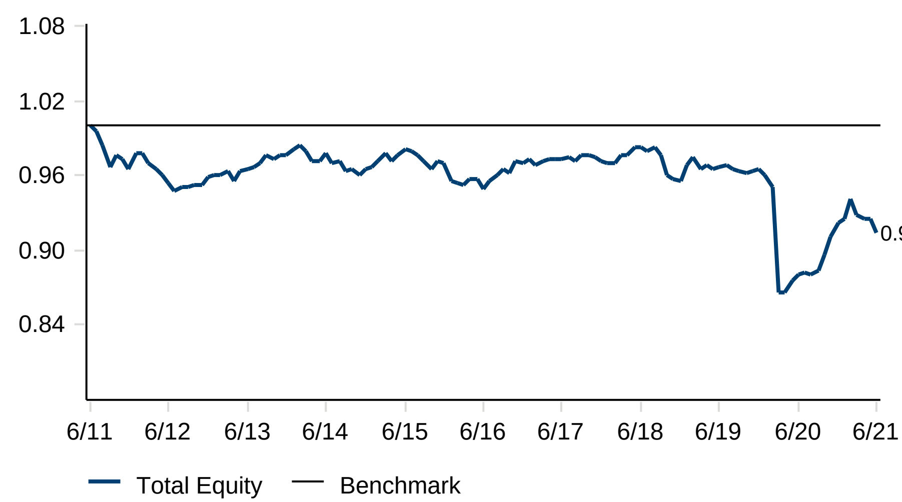

## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - 10 Years

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*The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 151 of this report.

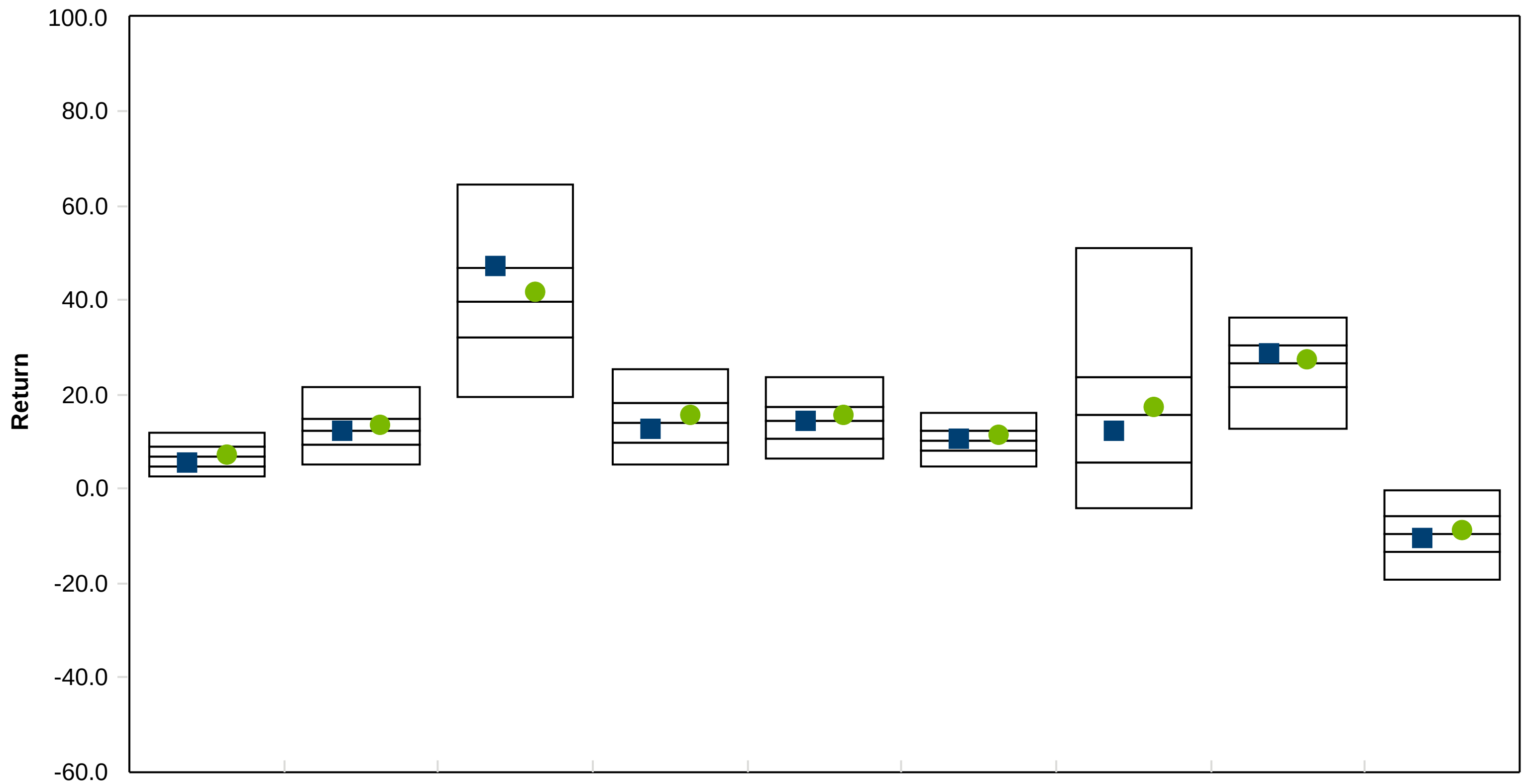


Empower Results®

As of June 30, 2021

## Peer Group Analysis

IM Global Equity (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Total Equity | 5.9 (66) | 12.5 (47) | 47.4 (24) | 12.8 (58) | 14.7 (46) | 10.8 (43) | 12.4 (60) | 29.0 (37) | -10.2 (58) |
| ● Total Equity Performance Benchmark | 7.5 (40) | 13.5 (35) | 42.0 (42) | 15.6 (39) | 15.6 (36) | 11.8 (32) | 17.6 (43) | 27.8 (44) | -8.7 (46) |
| 5th Percentile | 11.8 | 21.7 | 64.8 | 25.4 | 24.0 | 16.1 | 51.0 | 36.3 | -0.2 |
| 1st Quartile | 9.0 | 14.9 | 47.1 | 18.1 | 17.4 | 12.5 | 23.9 | 30.6 | -5.9 |
| Median | 6.7 | 12.3 | 39.9 | 14.2 | 14.5 | 10.4 | 15.9 | 26.6 | -9.4 |
| 3rd Quartile | 5.0 | 9.5 | 32.4 | 9.8 | 10.8 | 8.4 | 5.6 | 21.7 | -13.1 |
| 95th Percentile | 2.9 | 5.3 | 19.6 | 5.1 | 6.4 | 4.9 | -4.1 | 12.7 | -19.0 |
| Population | 338 | 338 | 334 | 321 | 290 | 181 | 370 | 400 | 411 |

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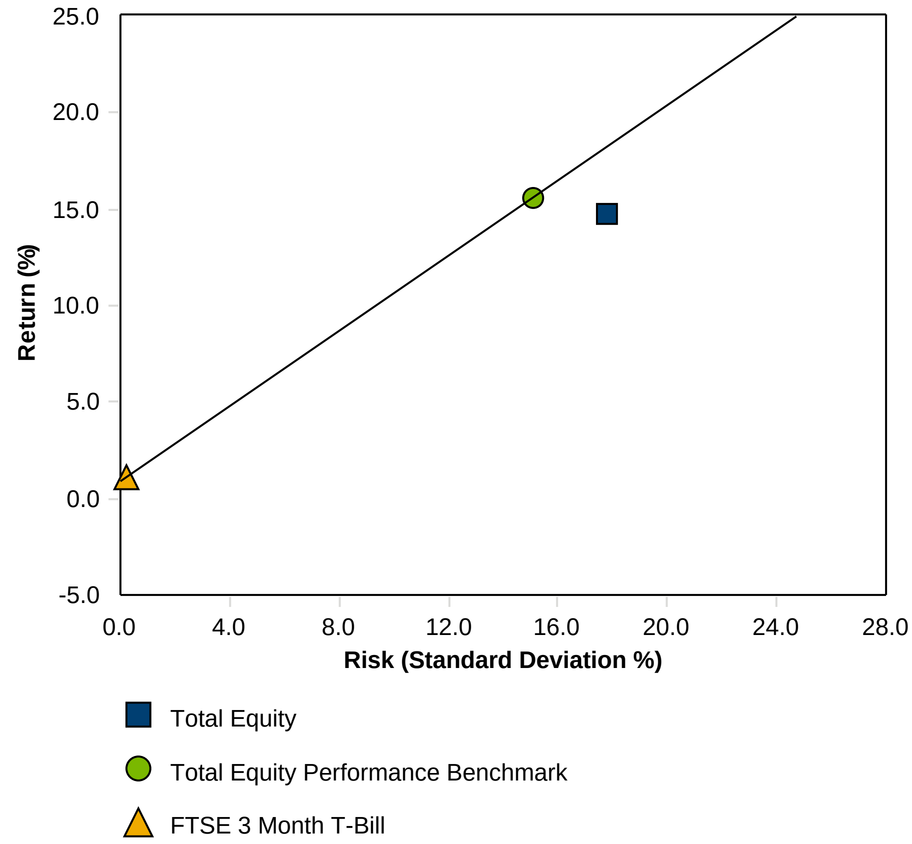
Parentheses contain percentile rankings.



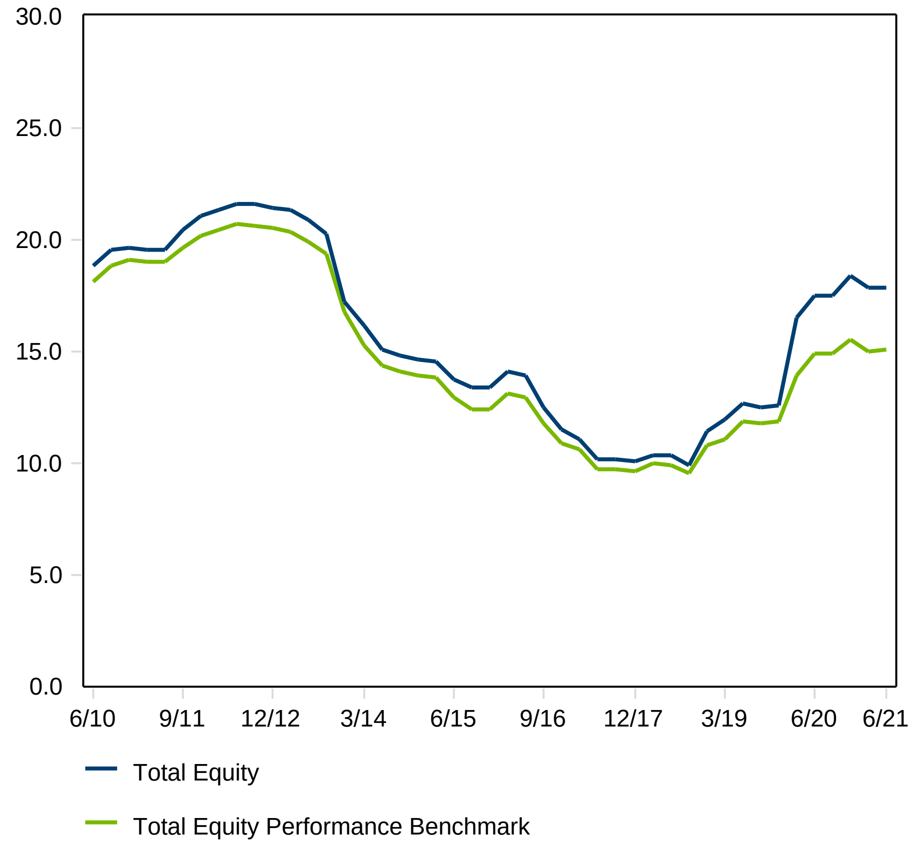
Empower Results®

# Total Equity Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 5 Years Standard Deviation



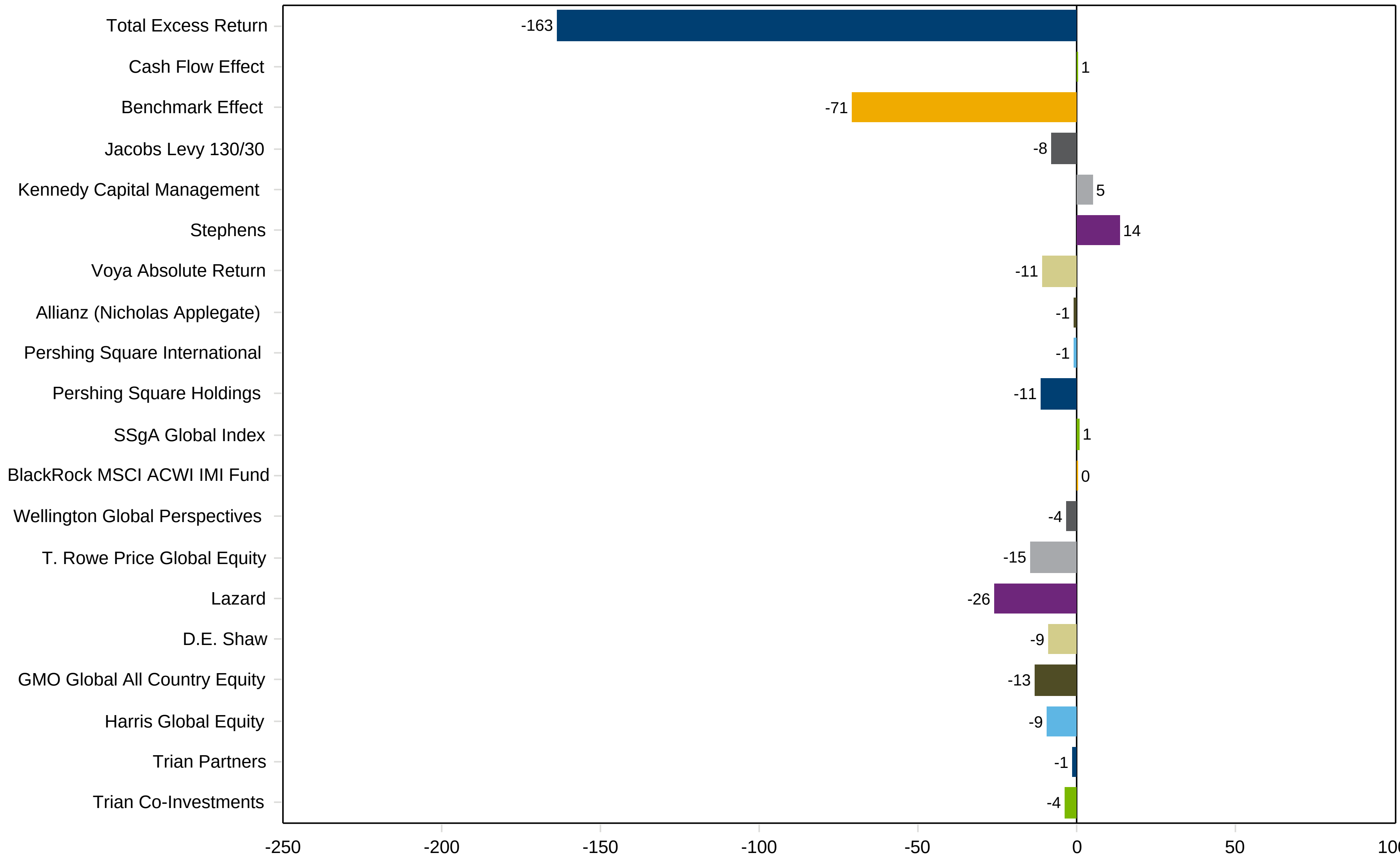

## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Equity | -0.24 | 4.18 | -0.06 | 0.96 | 0.80 | -2.75 | 1.16 | 14.73 | 17.83 | 0.98 |
| Total Equity Performance Benchmark | 0.00 | 0.00 | N/A | 1.00 | 0.96 | 0.00 | 1.00 | 15.58 | 15.06 | 1.00 |
| FTSE 3 Month T-Bill | -14.56 | 15.12 | -0.96 | 0.06 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.24 |

**Total Equity** **1 Quarter Ending June 30, 2021**

## Asset Class Attribution

### 1 Quarter



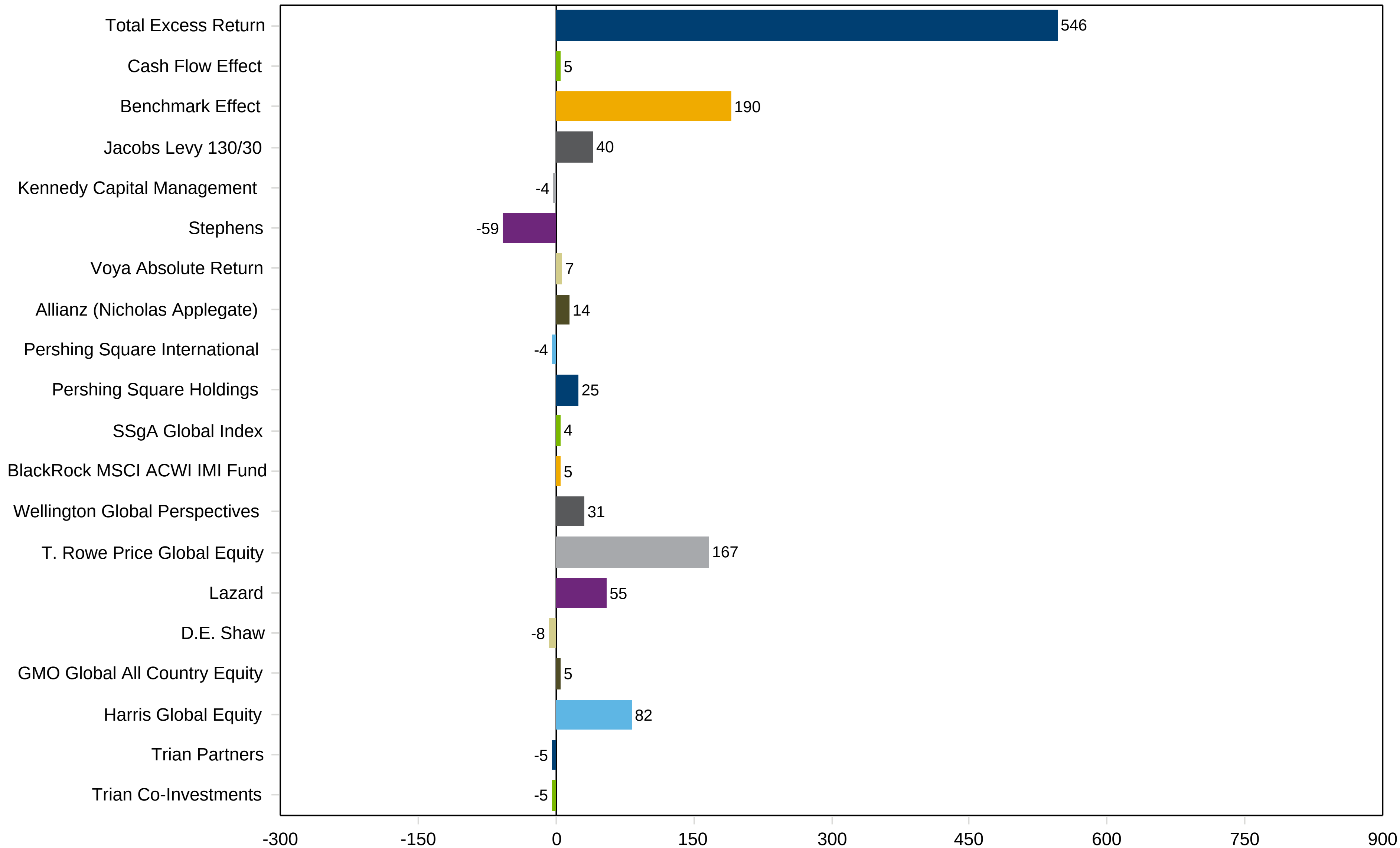



Empower Results®

**Total Equity** **1 Year Ending June 30, 2021**

## Asset Class Attribution

### 1 Year

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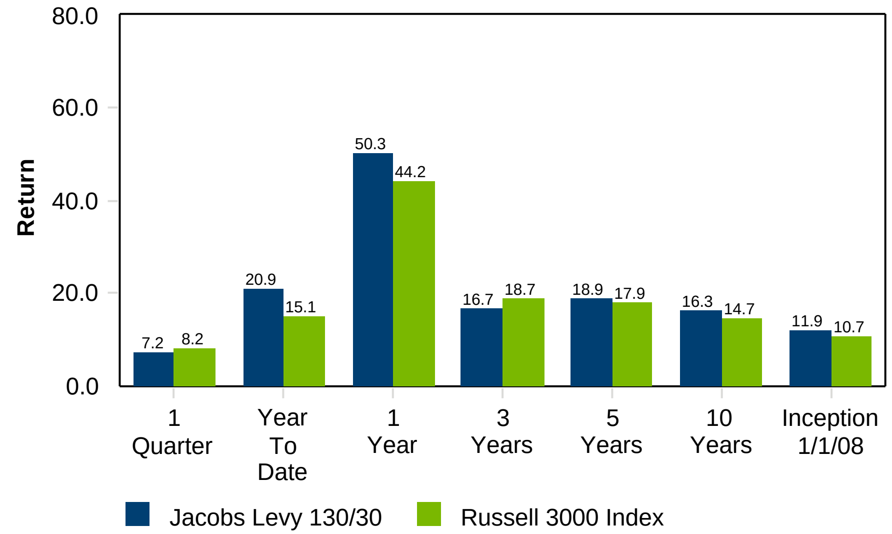
Empower Results®

# Jacobs Levy 130/30 Performance Summary

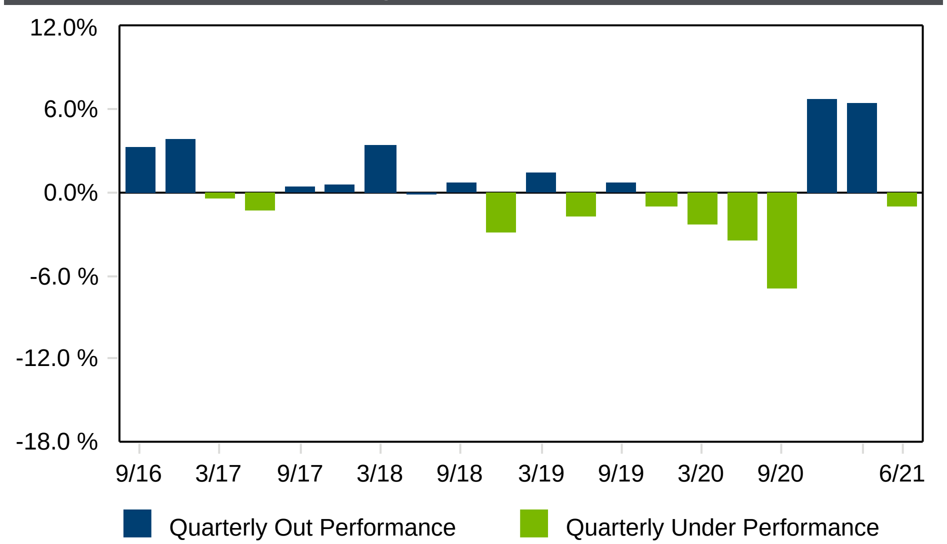
## Account Information

| | |
|---|---|
| Account Name: | Jacobs Levy 130/30 |
| Inception Date: | 12/31/2007 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Equity |
| Benchmark: | Russell 3000 Index |
| Peer Group: | IM U.S. Equity (SA+CF) |

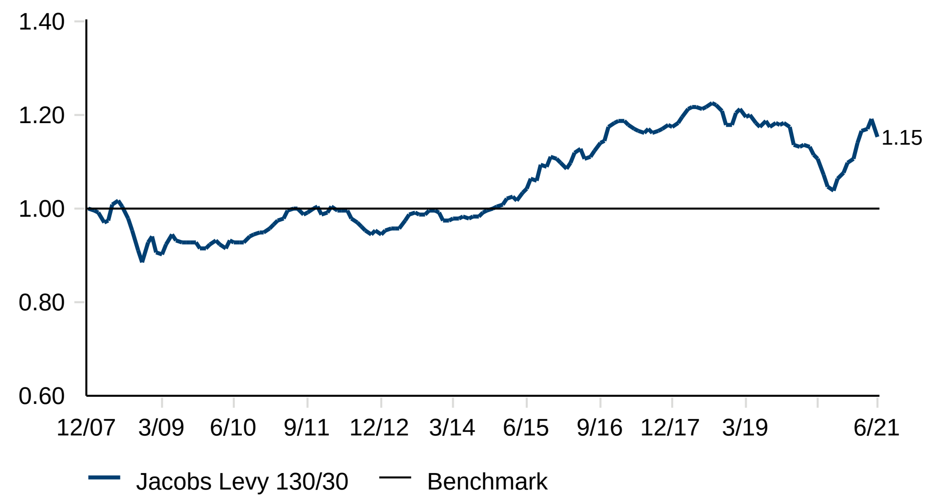
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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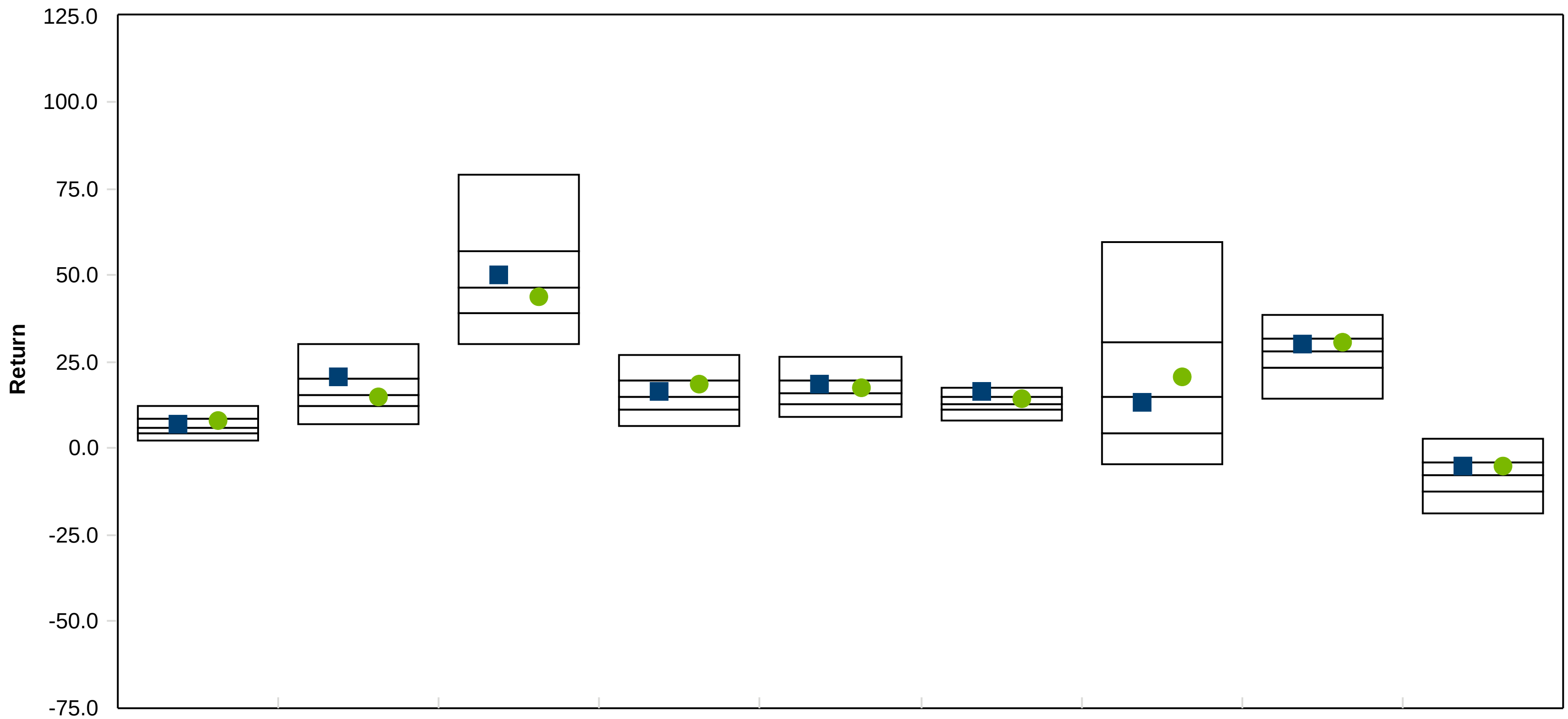
## Peer Group Analysis

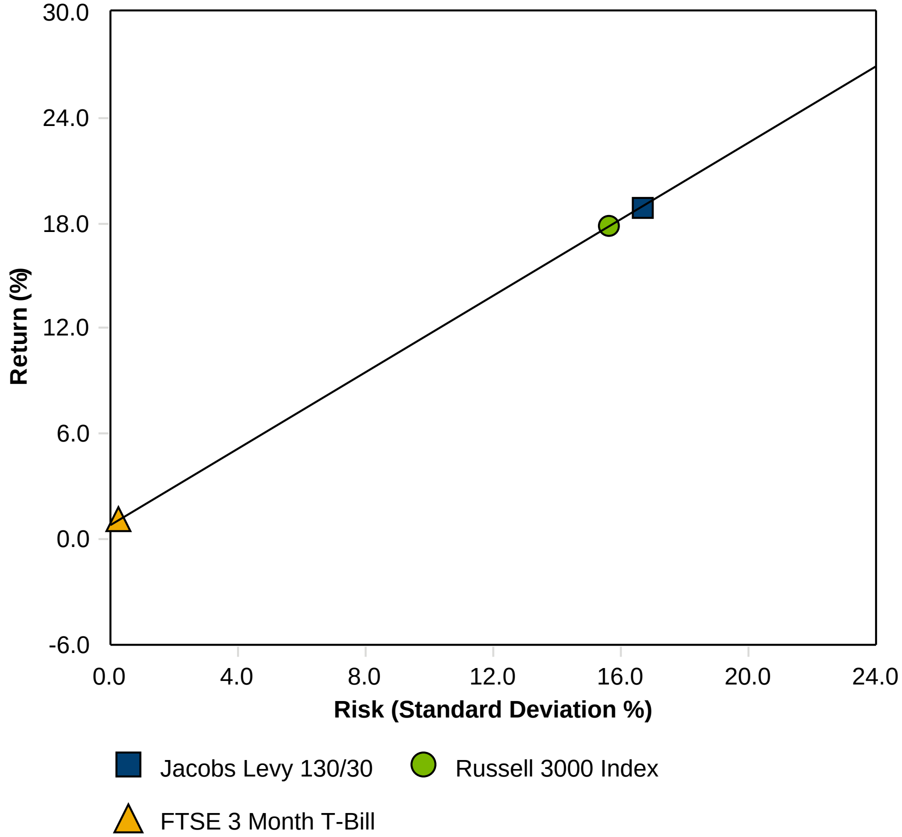



| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Jacobs Levy 130/30 | 7.2 (40) | 20.9 (23) | 50.3 (41) | 16.7 (42) | 18.9 (28) | 16.3 (13) | 13.2 (54) | 30.2 (35) | -4.7 (31) |
| ● Russell 3000 Index | 8.2 (28) | 15.1 (55) | 44.2 (56) | 18.7 (31) | 17.9 (33) | 14.7 (28) | 20.9 (38) | 31.0 (30) | -5.2 (35) |
| 5th Percentile | 12.4 | 30.1 | 79.1 | 27.3 | 26.4 | 17.9 | 59.8 | 38.9 | 2.7 |
| 1st Quartile | 8.5 | 20.4 | 57.3 | 20.0 | 19.5 | 14.9 | 30.9 | 31.8 | -3.8 |
| Median | 6.2 | 15.7 | 46.3 | 15.1 | 15.8 | 12.8 | 15.0 | 27.9 | -7.7 |
| 3rd Quartile | 4.5 | 12.4 | 39.5 | 11.2 | 12.6 | 11.1 | 4.6 | 23.4 | -12.5 |
| 95th Percentile | 2.3 | 6.9 | 30.0 | 6.4 | 9.0 | 8.3 | -4.4 | 14.2 | -18.9 |
| Population | 1,525 | 1,522 | 1,511 | 1,459 | 1,351 | 1,110 | 1,707 | 1,823 | 1,902 |

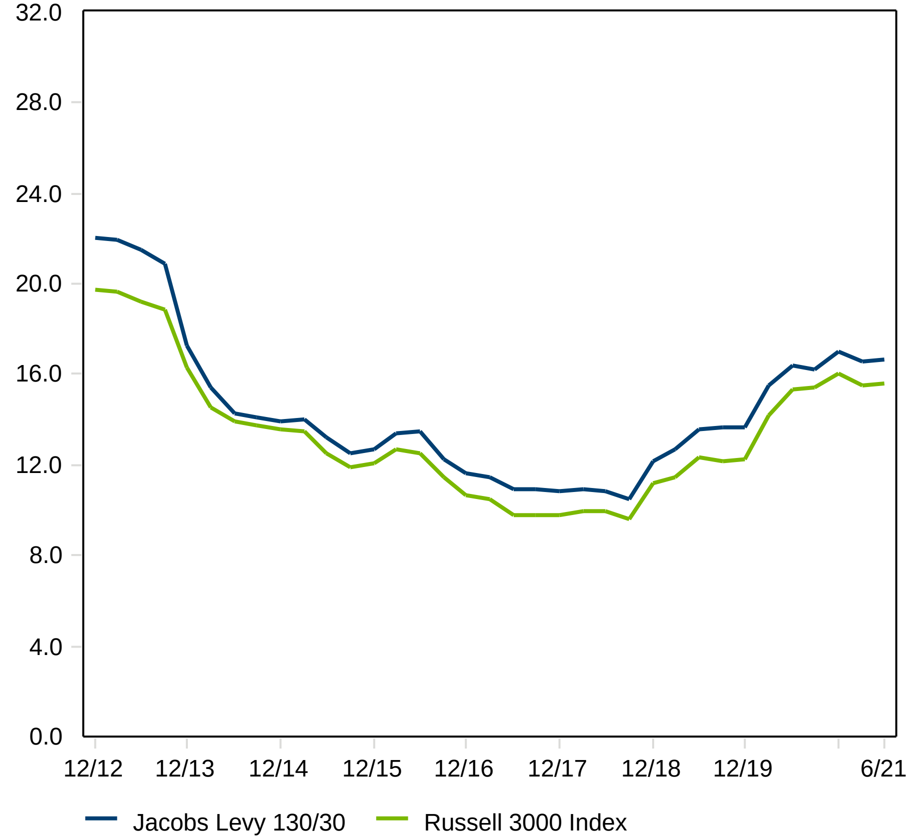
Parentheses contain percentile rankings.

## Jacobs Levy 130/30 Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 5 Years Standard Deviation




### 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Jacobs Levy 130/30 | 1.01 | 4.90 | 0.21 | 0.91 | 1.06 | 0.69 | 1.02 | 18.88 | 16.67 | 0.96 |
| Russell 3000 Index | 0.00 | 0.00 | N/A | 1.00 | 1.06 | 0.00 | 1.00 | 17.89 | 15.65 | 1.00 |
| FTSE 3 Month T-Bill | -16.65 | 15.70 | -1.06 | 0.04 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.21 |



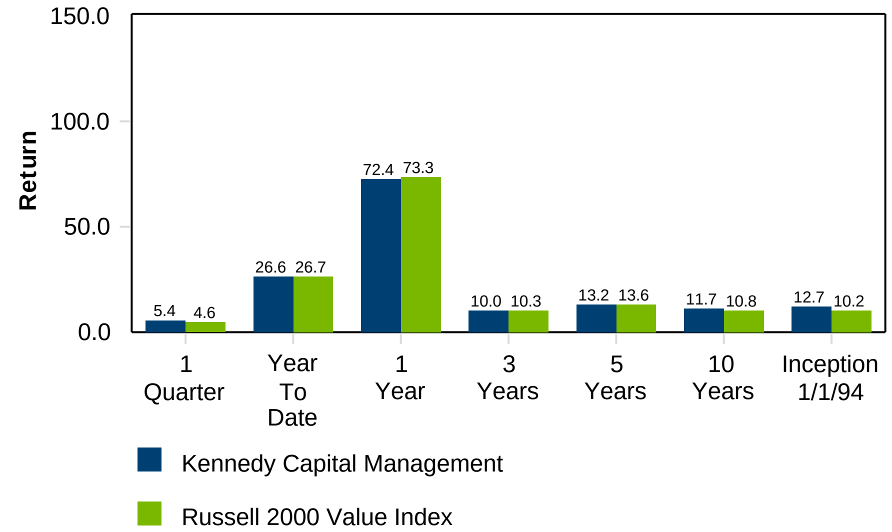
Empower Results®

# Kennedy Capital Management Performance Summary

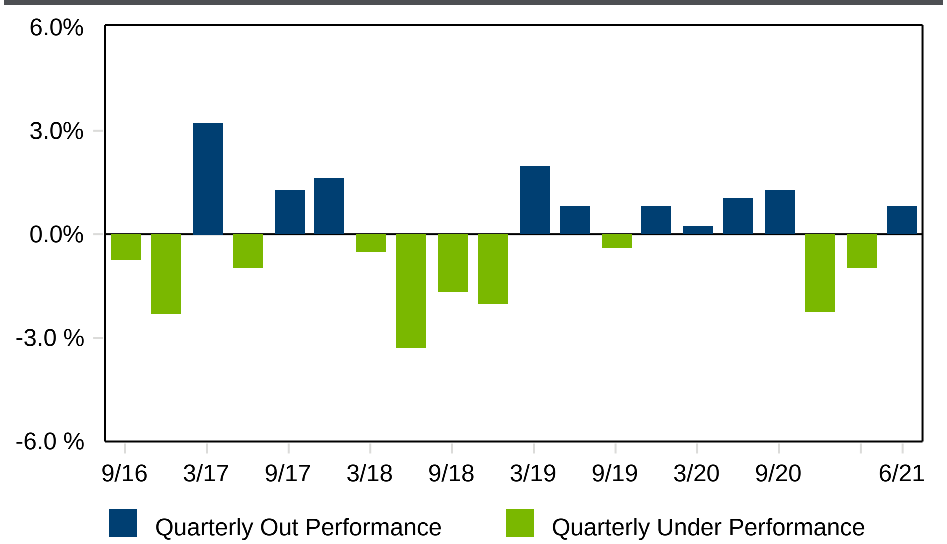
## Account Information

| | |
|---|---|
| Account Name: | Kennedy Capital Management |
| Inception Date: | 12/31/1993 |
| Account Structure: | Separate Account |
| Asset Class: | US Equity |
| Benchmark: | Russell 2000 Value Index |
| Peer Group: | IM U.S. Small Cap Value Equity (SA+CF) |

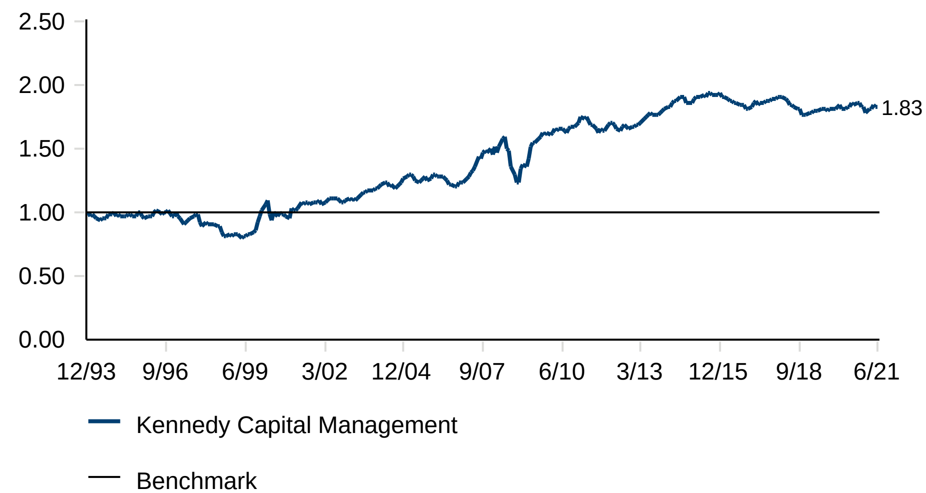
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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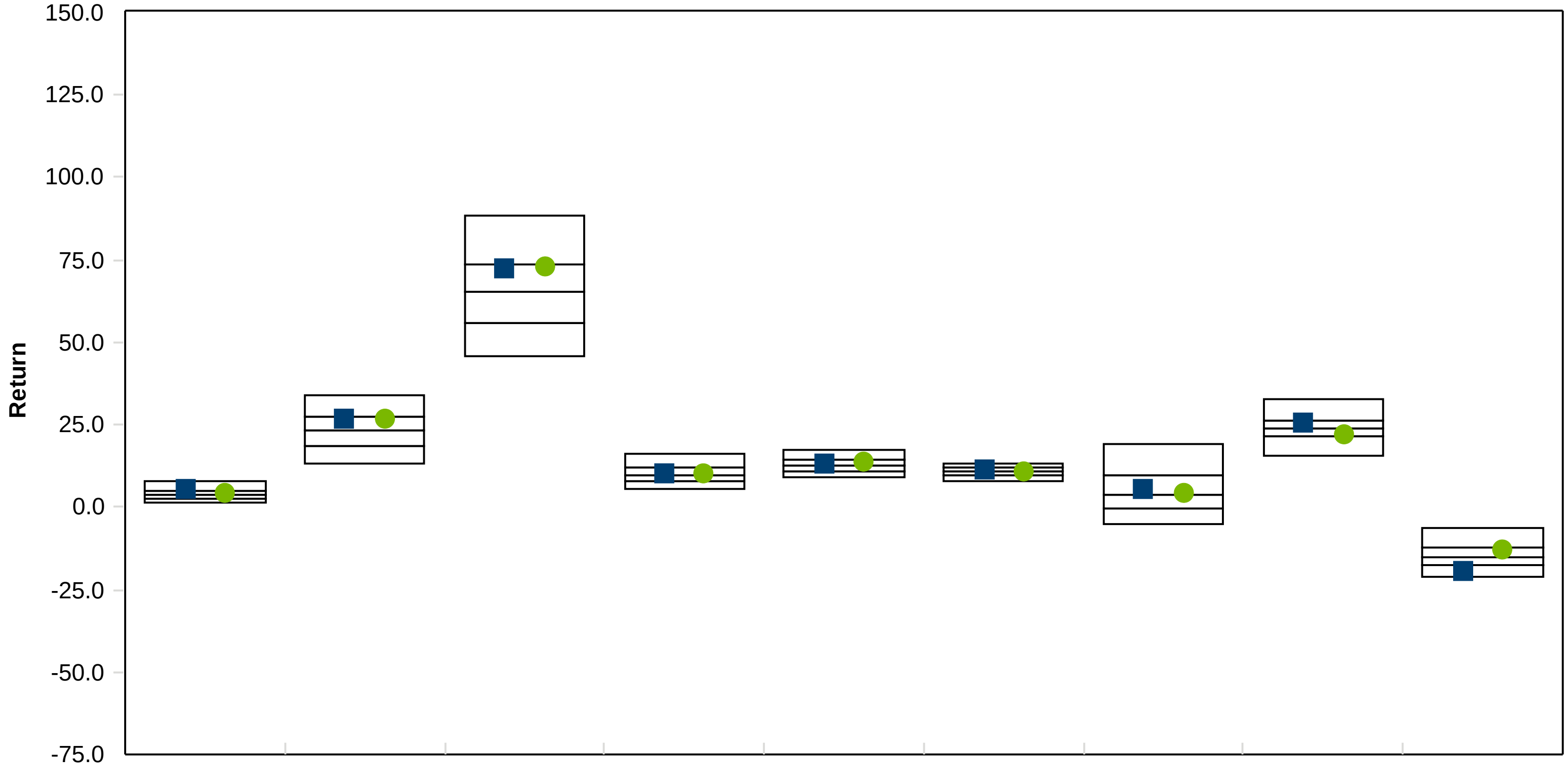
## Peer Group Analysis

IM U.S. Small Cap Value Equity (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Kennedy Capital Management | 5.4 (23) | 26.6 (32) | 72.4 (30) | 10.0 (48) | 13.2 (43) | 11.7 (28) | 5.4 (42) | 25.9 (30) | -19.4 (84) |
| ● Russell 2000 Value Index | 4.6 (34) | 26.7 (31) | 73.3 (28) | 10.3 (42) | 13.6 (36) | 10.8 (50) | 4.6 (47) | 22.4 (65) | -12.9 (32) |
| 5th Percentile | 7.6 | 33.9 | 88.5 | 16.4 | 17.4 | 13.1 | 19.2 | 32.8 | -6.4 |
| 1st Quartile | 5.2 | 27.6 | 73.7 | 11.8 | 14.3 | 11.8 | 9.9 | 26.2 | -12.1 |
| Median | 3.9 | 23.4 | 65.2 | 9.8 | 12.8 | 10.8 | 3.9 | 23.9 | -14.9 |
| 3rd Quartile | 2.7 | 18.7 | 55.7 | 7.7 | 11.0 | 9.9 | -0.2 | 21.4 | -17.8 |
| 95th Percentile | 1.1 | 13.3 | 45.6 | 5.4 | 9.0 | 7.9 | -5.4 | 15.8 | -21.4 |
| Population | 156 | 156 | 153 | 147 | 140 | 121 | 171 | 178 | 194 |

Parentheses contain percentile rankings.

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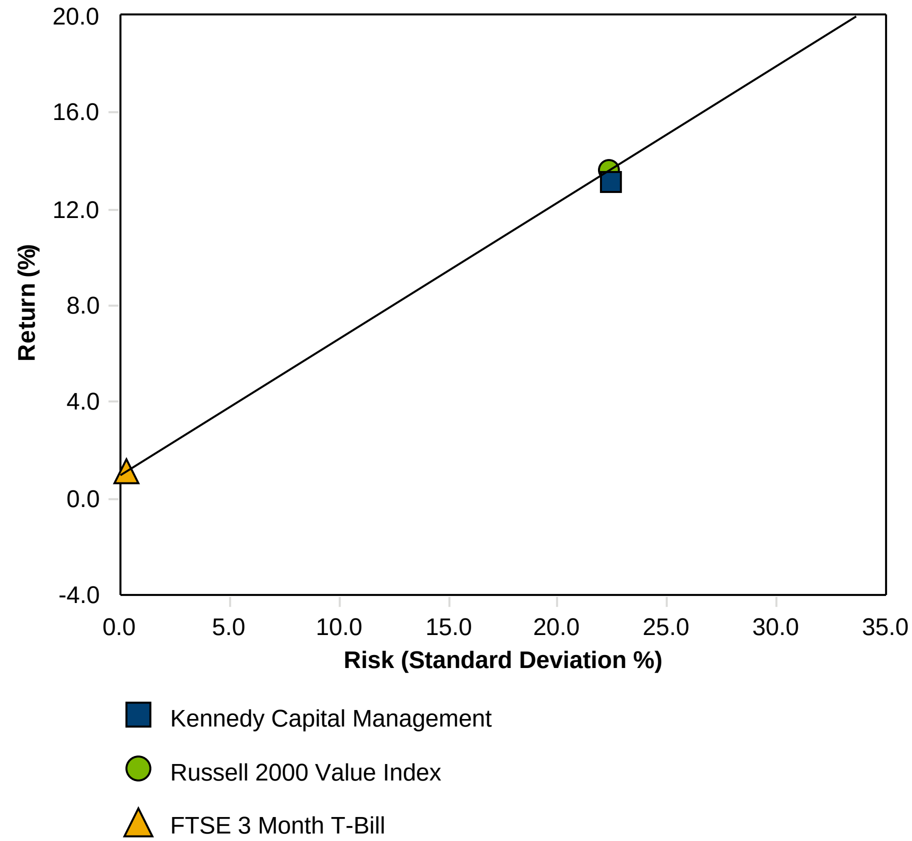
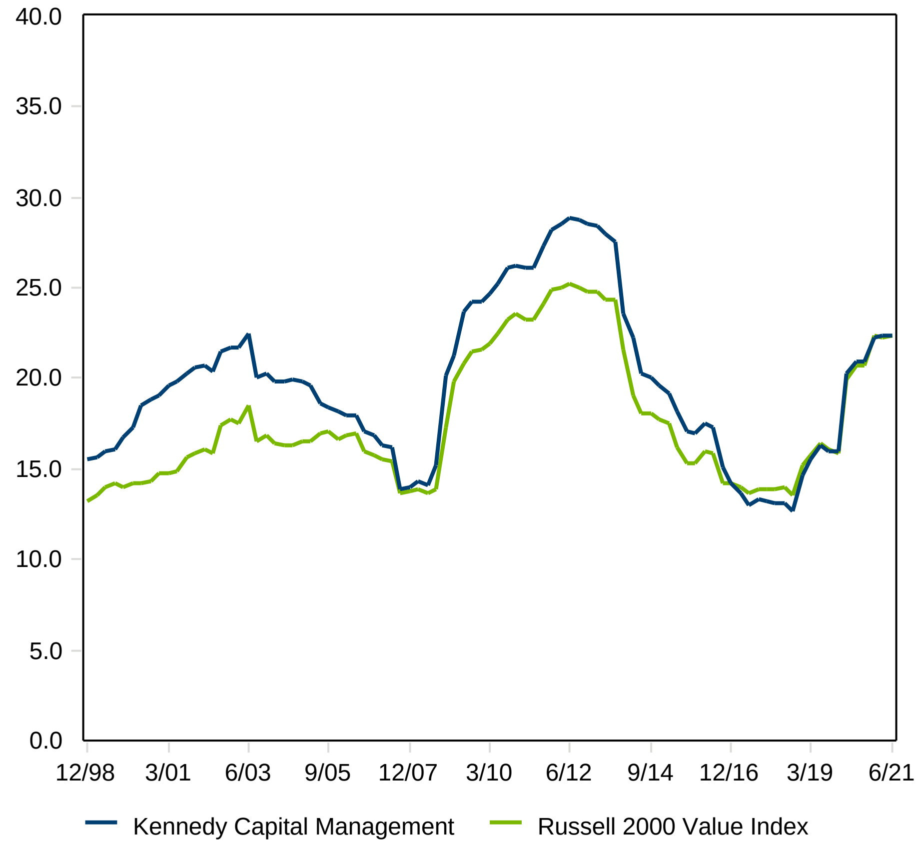
Empower Results®

# Kennedy Capital Management Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 5 Years Standard Deviation




## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Kennedy Capital Management | -0.36 | 3.35 | -0.11 | 0.98 | 0.62 | -0.25 | 0.99 | 13.16 | 22.42 | 0.99 |
| Russell 2000 Value Index | 0.00 | 0.00 | N/A | 1.00 | 0.64 | 0.00 | 1.00 | 13.62 | 22.32 | 1.00 |
| FTSE 3 Month T-Bill | -14.24 | 22.40 | -0.64 | 0.09 | N/A | 1.19 | 0.00 | 1.14 | 0.25 | -0.30 |

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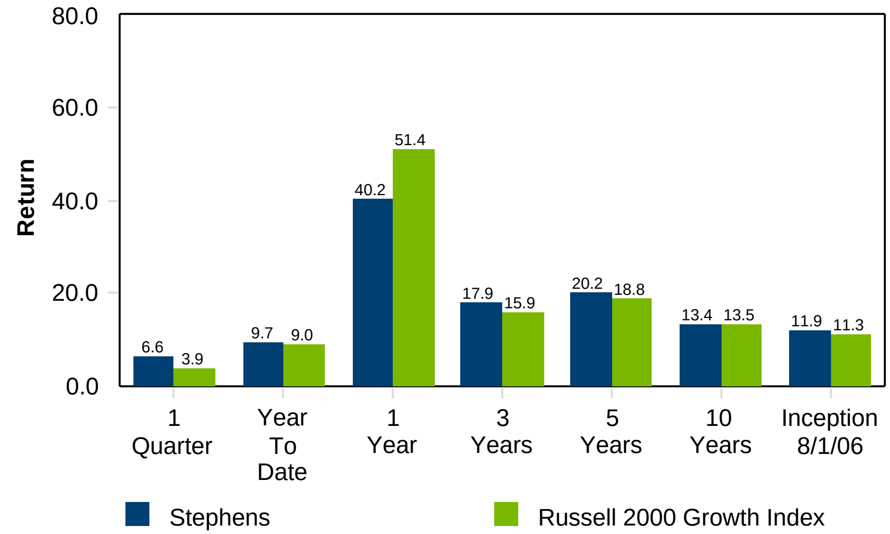
Empower Results®

# Stephens Performance Summary

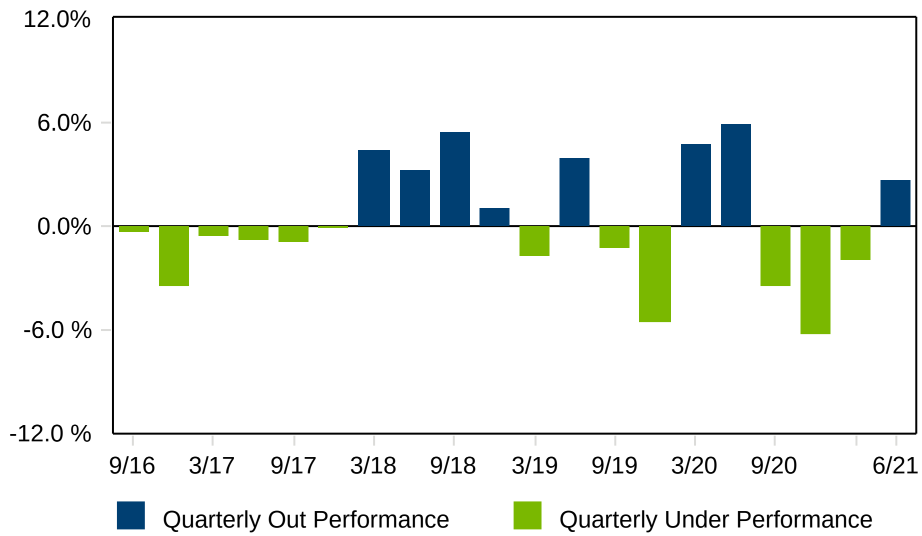
## Account Information

| | |
|---|---|
| Account Name: | Stephens |
| Inception Date: | 07/31/2006 |
| Account Structure: | Separate Account |
| Asset Class: | US Equity |
| Benchmark: | Russell 2000 Growth Index |
| Peer Group: | IM U.S. Small Cap Growth Equity (SA+CF) |

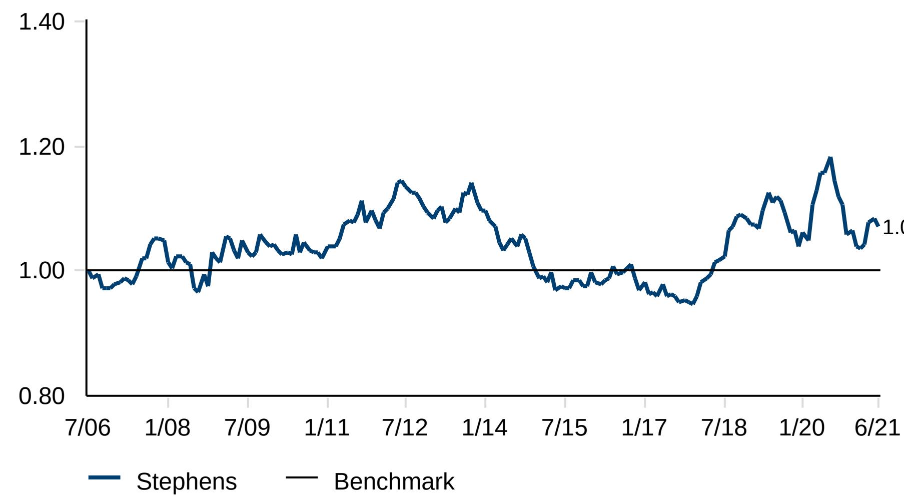
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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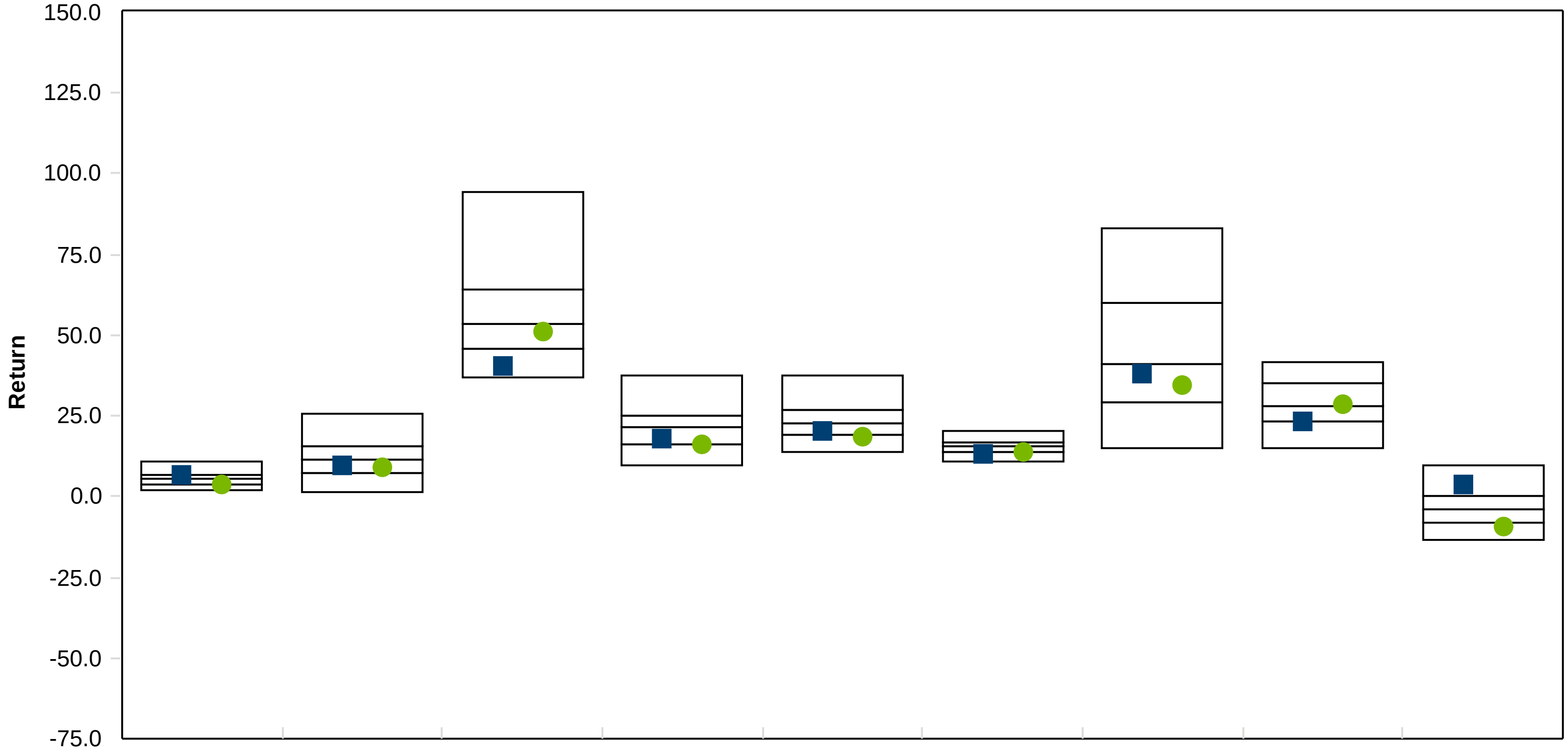
AON Empower Results®

## Peer Group Analysis

**IM U.S. Small Cap Growth Equity (SA+CF)**



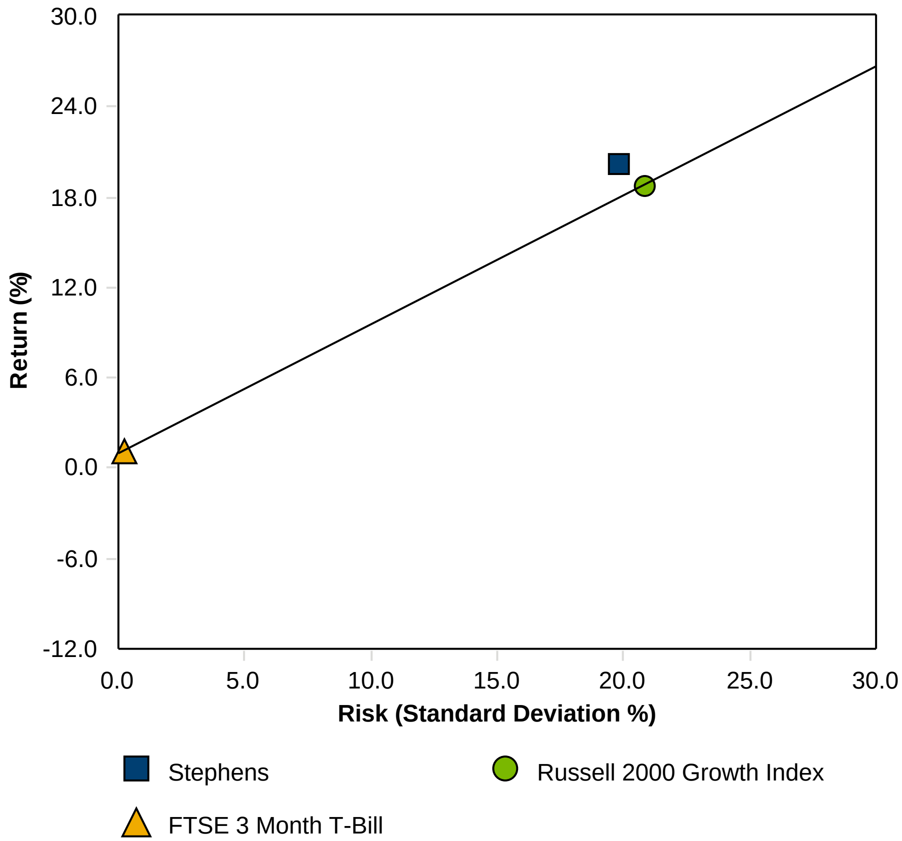

| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Stephens | 6.6 (31) | 9.7 (64) | 40.2 (89) | 17.9 (66) | 20.2 (64) | 13.4 (85) | 37.8 (59) | 23.2 (77) | 3.7 (13) |
| ● Russell 2000 Growth Index | 3.9 (76) | 9.0 (68) | 51.4 (64) | 15.9 (79) | 18.8 (76) | 13.5 (83) | 34.6 (65) | 28.5 (49) | -9.3 (80) |
| 5th Percentile | 10.9 | 25.4 | 94.4 | 37.3 | 37.8 | 20.5 | 83.0 | 41.5 | 9.4 |
| 1st Quartile | 7.0 | 15.7 | 63.9 | 24.8 | 26.6 | 16.6 | 59.9 | 35.1 | 0.4 |
| Median | 5.4 | 11.5 | 53.6 | 21.2 | 22.4 | 15.3 | 41.3 | 28.1 | -4.0 |
| 3rd Quartile | 4.0 | 7.6 | 45.6 | 16.3 | 18.9 | 14.1 | 29.1 | 23.5 | -7.9 |
| 95th Percentile | 1.8 | 1.5 | 37.0 | 9.4 | 13.6 | 10.9 | 15.2 | 15.2 | -13.6 |
| Population | 117 | 116 | 116 | 112 | 107 | 92 | 133 | 140 | 147 |

Parentheses contain percentile rankings.

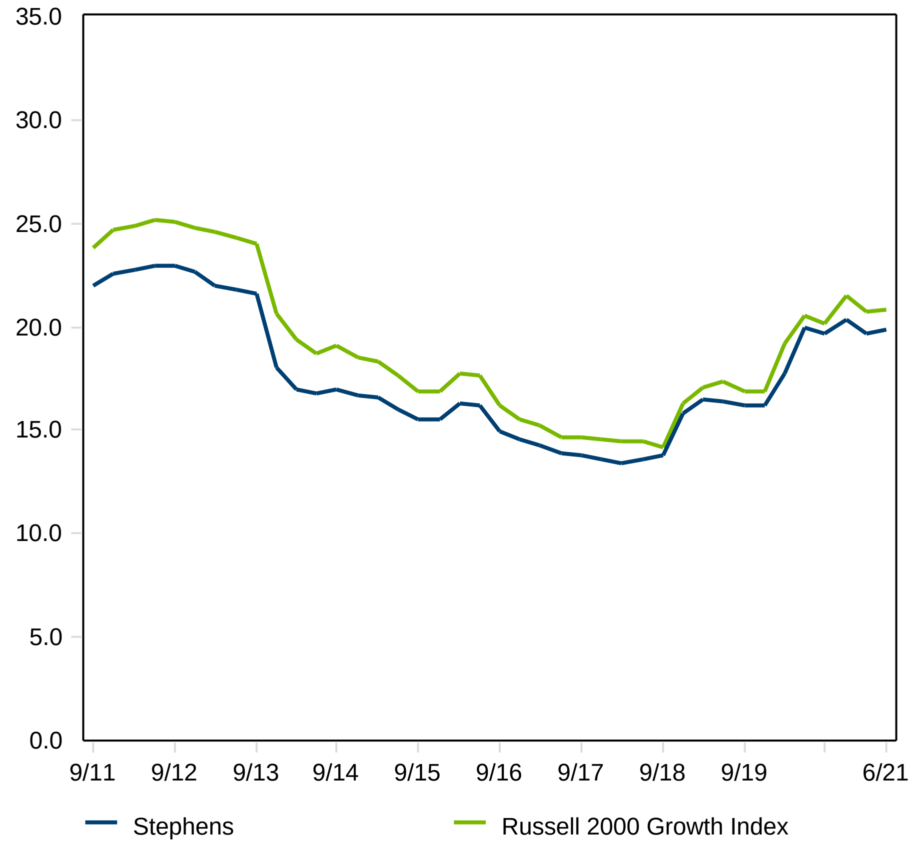
Empower Results®

# Stephens Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 5 Years Standard Deviation




## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Stephens | 1.01 | 6.39 | 0.16 | 0.91 | 0.97 | 2.87 | 0.91 | 20.22 | 19.82 | 0.95 |
| Russell 2000 Growth Index | 0.00 | 0.00 | N/A | 1.00 | 0.88 | 0.00 | 1.00 | 18.76 | 20.81 | 1.00 |
| FTSE 3 Month T-Bill | -18.35 | 20.87 | -0.88 | 0.06 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.24 |

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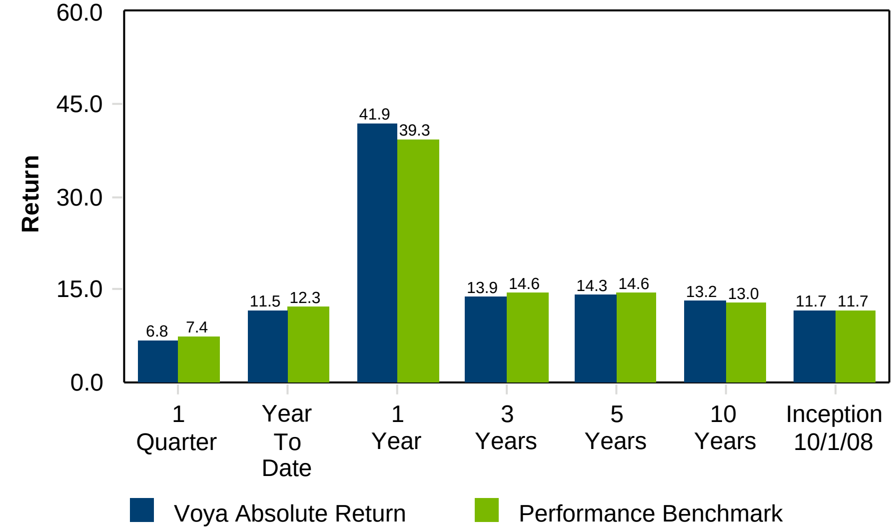
Empower Results®

# Voya Absolute Return Performance Summary

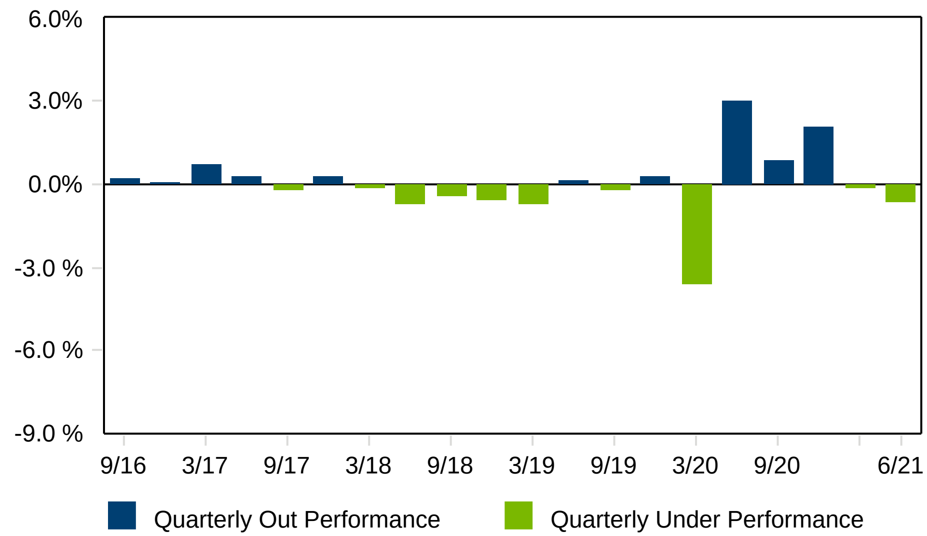
## Account Information

| | |
|---|---|
| Account Name: | Voya Absolute Return |
| Inception Date: | 09/30/2008 |
| Account Structure: | Commingled Fund |
| Asset Class: | Global Equity |
| Benchmark: | Performance Benchmark |
| Peer Group: | IM Global Equity (MF) |

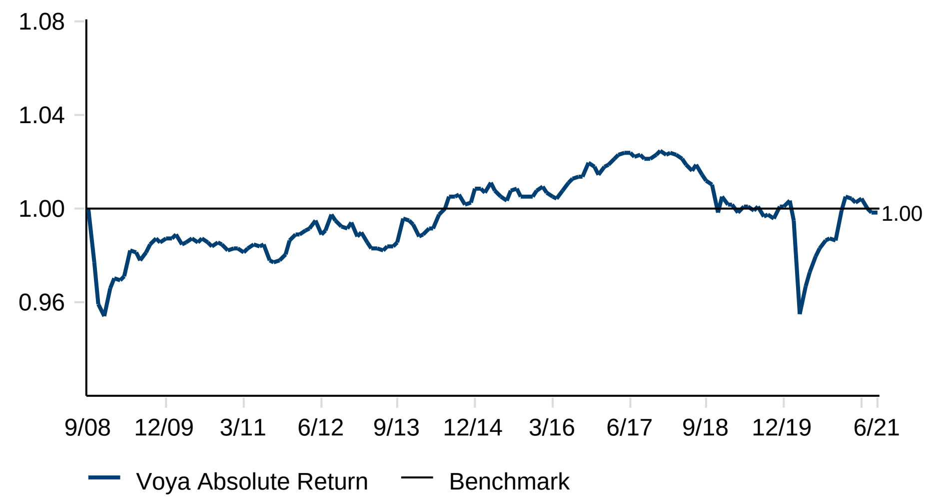
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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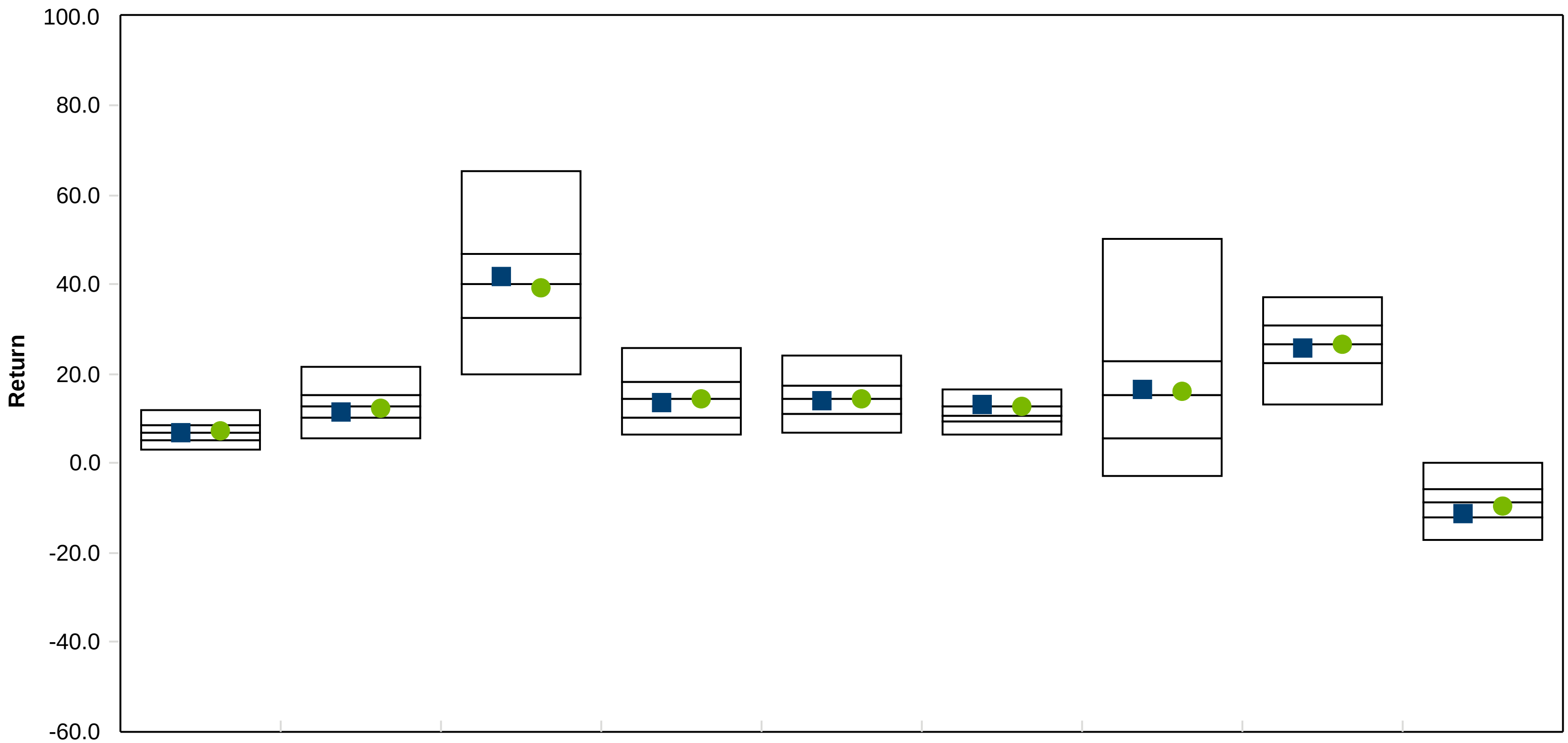
## Peer Group Analysis

### IM Global Equity (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Voya Absolute Return | 6.8 (52) | 11.5 (64) | 41.9 (42) | 13.9 (53) | 14.3 (55) | 13.2 (22) | 16.8 (45) | 26.0 (57) | -11.1 (69) |
| ● Performance Benchmark | 7.4 (40) | 12.3 (55) | 39.3 (56) | 14.6 (51) | 14.6 (51) | 13.0 (24) | 16.3 (47) | 26.6 (52) | -9.4 (57) |
| 5th Percentile | 11.8 | 21.9 | 65.3 | 25.8 | 24.2 | 16.8 | 50.5 | 37.3 | 0.2 |
| 1st Quartile | 8.5 | 15.2 | 46.8 | 18.2 | 17.6 | 12.9 | 23.0 | 31.0 | -5.5 |
| Median | 6.8 | 12.7 | 40.2 | 14.6 | 14.7 | 10.9 | 15.5 | 26.7 | -8.7 |
| 3rd Quartile | 5.2 | 10.3 | 32.5 | 10.5 | 11.1 | 9.4 | 5.7 | 22.3 | -12.1 |
| 95th Percentile | 3.0 | 5.7 | 20.0 | 6.4 | 7.0 | 6.5 | -2.7 | 13.2 | -17.1 |
| Population | 444 | 444 | 440 | 427 | 395 | 266 | 501 | 543 | 570 |

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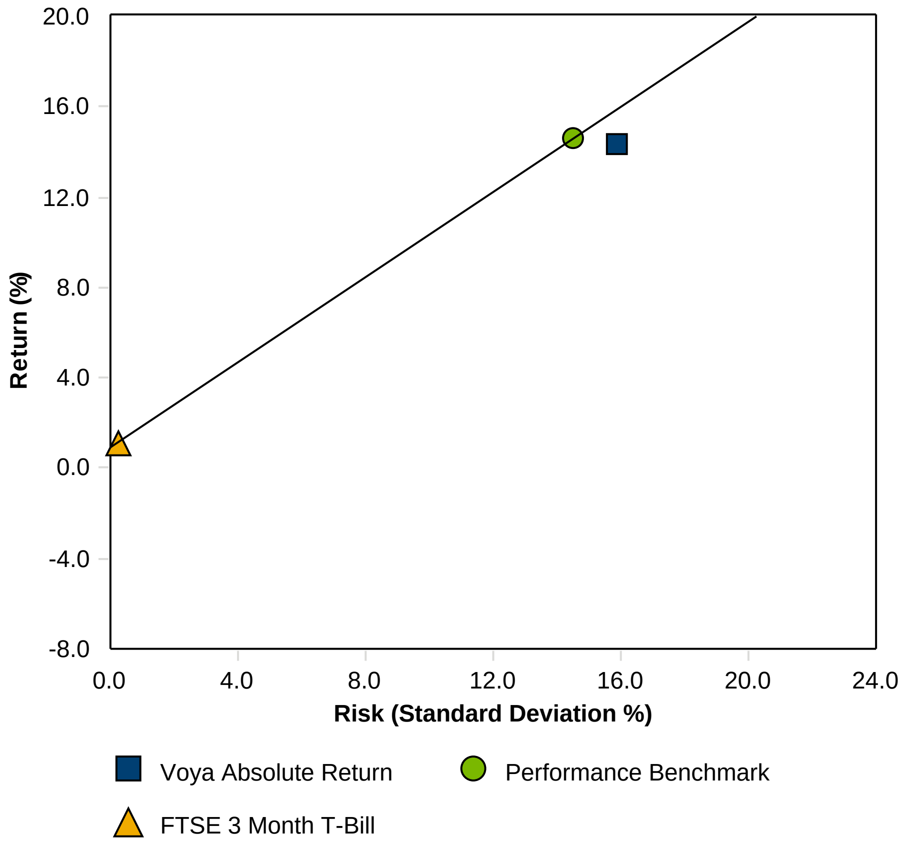
Parentheses contain percentile rankings.



Empower Results®

# Voya Absolute Return Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 5 Years Standard Deviation


## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Voya Absolute Return | -0.05 | 2.15 | -0.02 | 0.99 | 0.85 | -1.30 | 1.09 | 14.31 | 15.85 | 0.99 |
| Performance Benchmark | 0.00 | 0.00 | N/A | 1.00 | 0.93 | 0.00 | 1.00 | 14.61 | 14.52 | 1.00 |
| FTSE 3 Month T-Bill | -13.63 | 14.58 | -0.93 | 0.06 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.24 |

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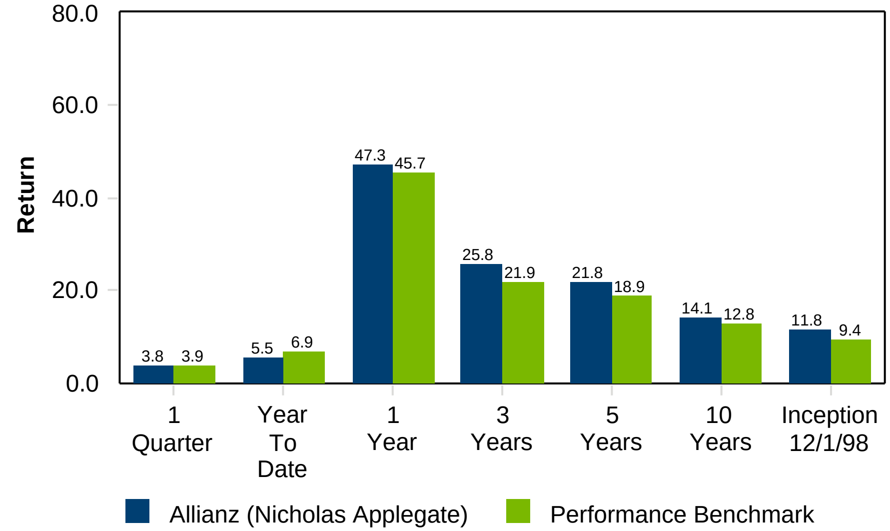
Empower Results®

# Allianz (Nicholas Applegate) Performance Summary

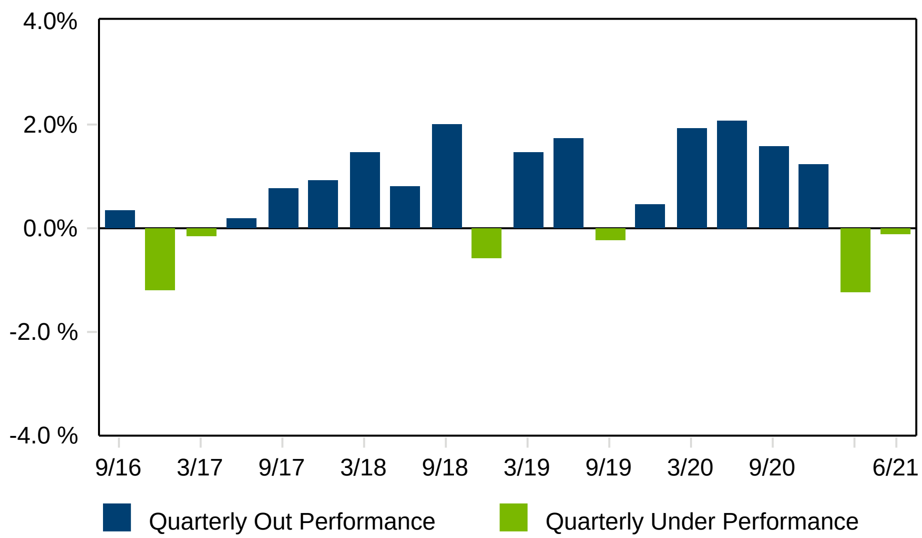
## Account Information

| | |
|---|---|
| Account Name: | Allianz (Nicholas Applegate) |
| Inception Date: | 11/30/1998 |
| Account Structure: | Separate Account |
| Asset Class: | US Equity |
| Benchmark: | Performance Benchmark |
| Peer Group: | IM U.S. Equity (SA+CF) |

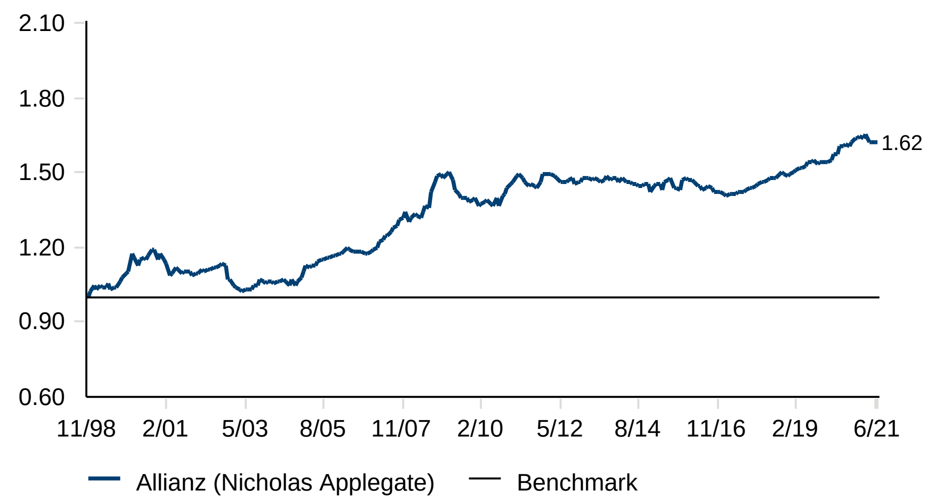
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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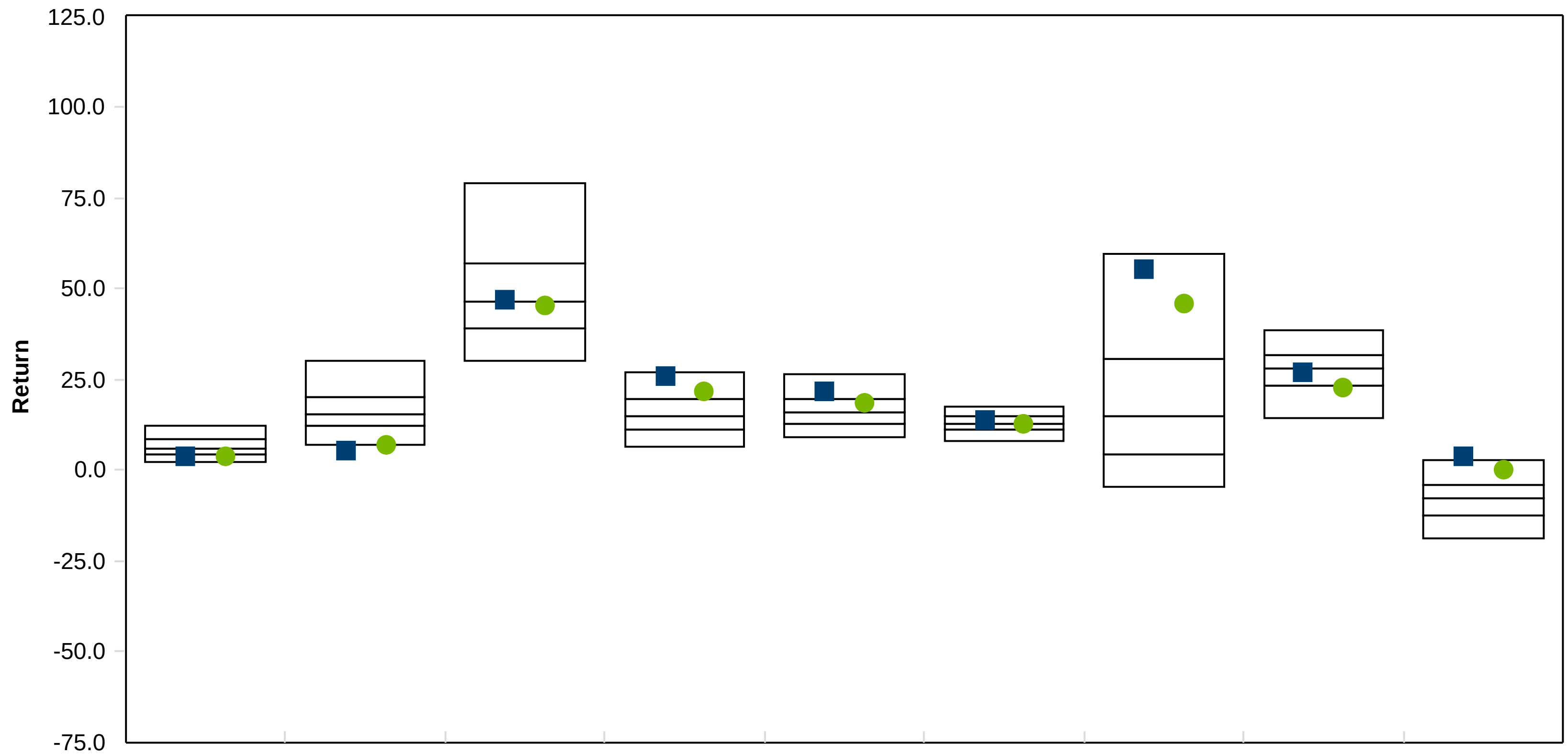
## Peer Group Analysis

**IM U.S. Equity (SA+CF)**




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Allianz (Nicholas Applegate) | 3.8 (85) | 5.5 (97) | 47.3 (48) | 25.8 (8) | 21.8 (17) | 14.1 (35) | 55.7 (6) | 27.0 (56) | 3.7 (5) |
| ● Performance Benchmark | 3.9 (84) | 6.9 (95) | 45.7 (52) | 21.9 (19) | 18.9 (28) | 12.8 (49) | 46.2 (10) | 23.1 (77) | 0.2 (11) |
| 5th Percentile | 12.4 | 30.1 | 79.1 | 27.3 | 26.4 | 17.9 | 59.8 | 38.9 | 2.7 |
| 1st Quartile | 8.5 | 20.4 | 57.3 | 20.0 | 19.5 | 14.9 | 30.9 | 31.8 | -3.8 |
| Median | 6.2 | 15.7 | 46.3 | 15.1 | 15.8 | 12.8 | 15.0 | 27.9 | -7.7 |
| 3rd Quartile | 4.5 | 12.4 | 39.5 | 11.2 | 12.6 | 11.1 | 4.6 | 23.4 | -12.5 |
| 95th Percentile | 2.3 | 6.9 | 30.0 | 6.4 | 9.0 | 8.3 | -4.4 | 14.2 | -18.9 |
| Population | 1,525 | 1,522 | 1,511 | 1,459 | 1,351 | 1,110 | 1,707 | 1,823 | 1,902 |

Parentheses contain percentile rankings.

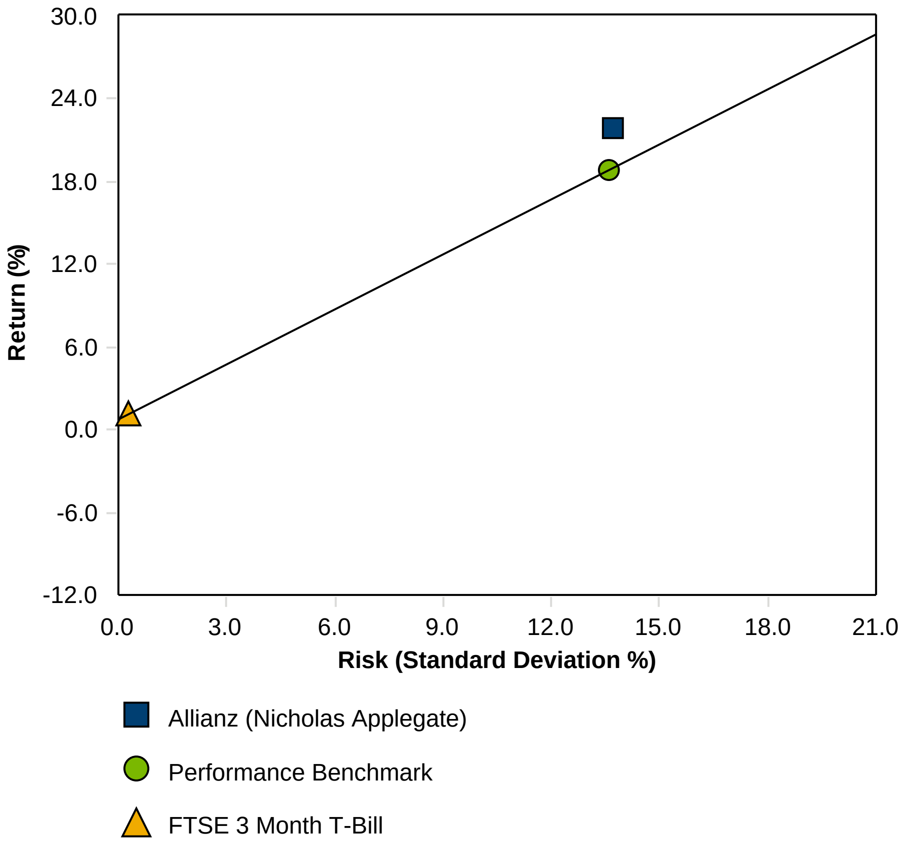




Empower Results®

## Allianz (Nicholas Applegate) Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 5 Years Standard Deviation


### 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Allianz (Nicholas Applegate) | 2.52 | 2.20 | 1.14 | 0.97 | 1.43 | 2.68 | 0.99 | 21.83 | 13.69 | 0.99 |
| Performance Benchmark | 0.00 | 0.00 | N/A | 1.00 | 1.26 | 0.00 | 1.00 | 18.85 | 13.61 | 1.00 |
| FTSE 3 Month T-Bill | -17.17 | 13.68 | -1.26 | 0.06 | N/A | 1.22 | 0.00 | 1.14 | 0.25 | -0.25 |

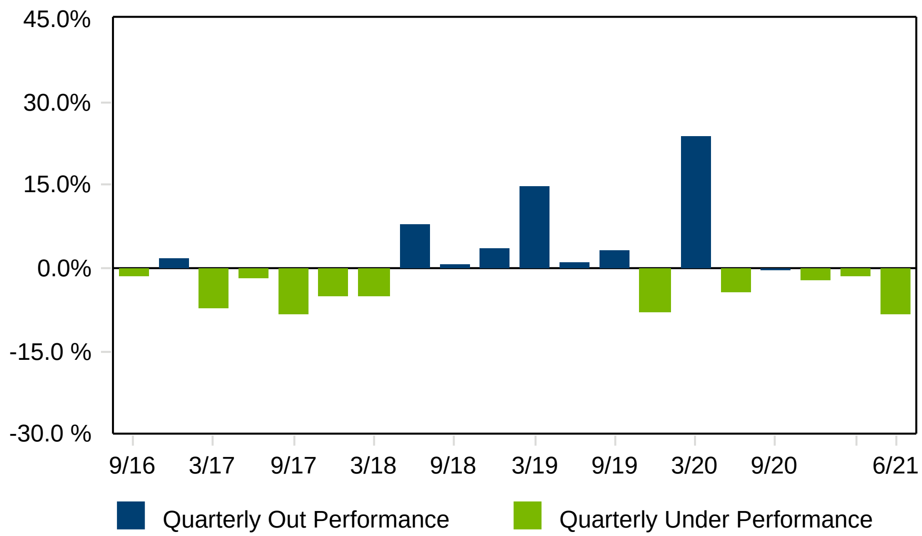
# Pershing Square International Performance Summary

## Account Information

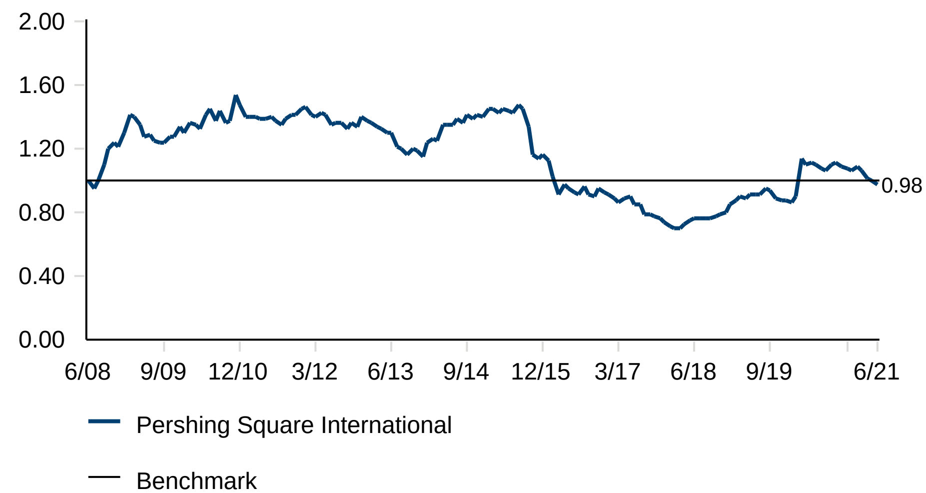
| | |
|---|---|
| Account Name: | Pershing Square International |
| Inception Date: | 06/30/2008 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Equity |
| Benchmark: | Dow Jones U.S. Total Stock Market Index |
| Peer Group: | IM U.S. Equity (SA+CF) |

## Return Summary


## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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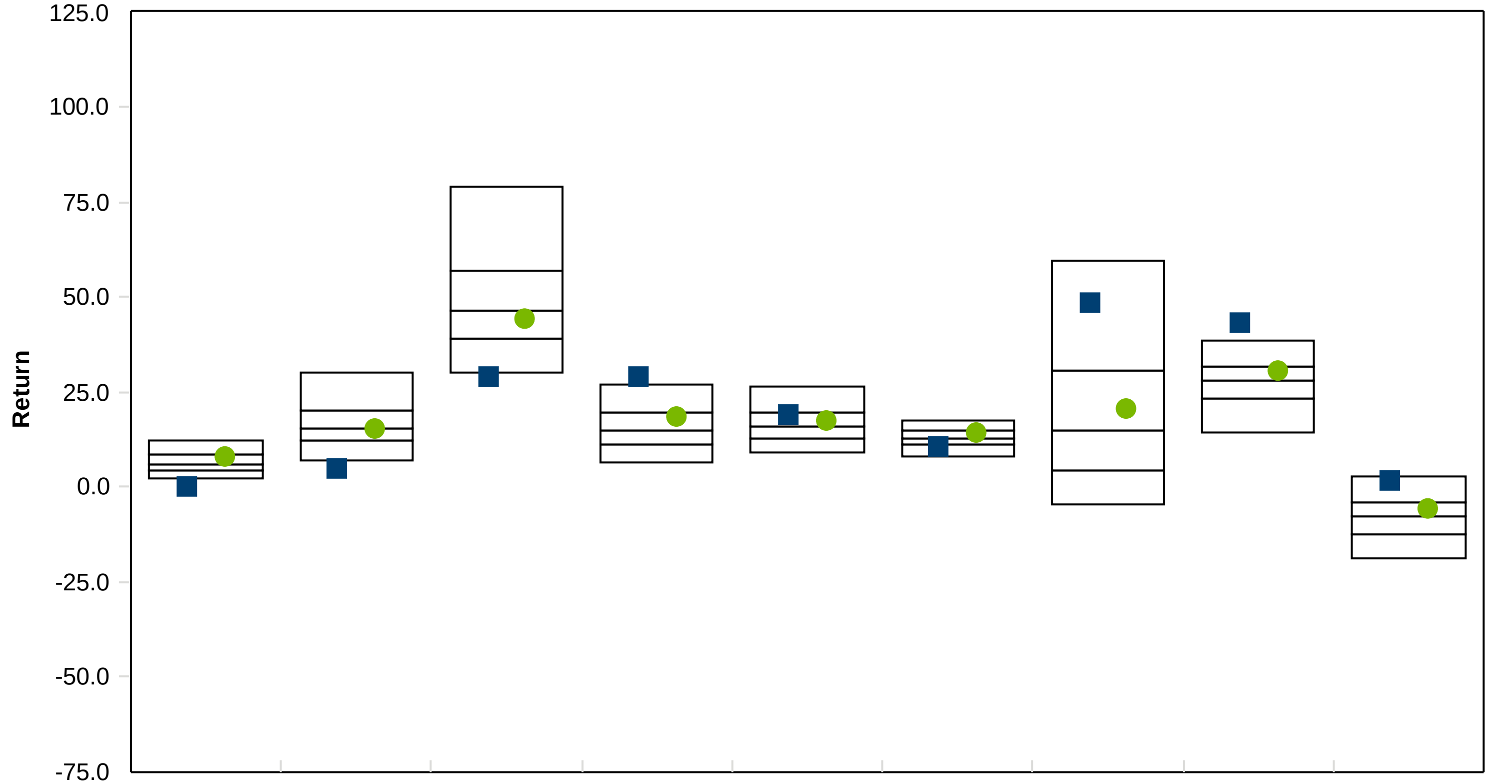
## Peer Group Analysis

### IM U.S. Equity (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Pershing Square International | 0.0 (99) | 4.9 (98) | 29.0 (96) | 29.2 (4) | 19.1 (27) | 10.7 (81) | 48.8 (9) | 43.5 (2) | 1.8 (7) |
| ● Dow Jones U.S. Total Stock Market Index | 8.3 (27) | 15.3 (53) | 44.3 (55) | 18.7 (31) | 17.9 (33) | 14.7 (28) | 20.8 (38) | 30.9 (31) | -5.3 (35) |
| 5th Percentile | 12.4 | 30.1 | 79.1 | 27.3 | 26.4 | 17.9 | 59.8 | 38.9 | 2.7 |
| 1st Quartile | 8.5 | 20.4 | 57.3 | 20.0 | 19.5 | 14.9 | 30.9 | 31.8 | -3.8 |
| Median | 6.2 | 15.7 | 46.3 | 15.1 | 15.8 | 12.8 | 15.0 | 27.9 | -7.7 |
| 3rd Quartile | 4.5 | 12.4 | 39.5 | 11.2 | 12.6 | 11.1 | 4.6 | 23.4 | -12.5 |
| 95th Percentile | 2.3 | 6.9 | 30.0 | 6.4 | 9.0 | 8.3 | -4.4 | 14.2 | -18.9 |
| Population | 1,525 | 1,522 | 1,511 | 1,459 | 1,351 | 1,110 | 1,707 | 1,823 | 1,902 |

Parentheses contain percentile rankings.





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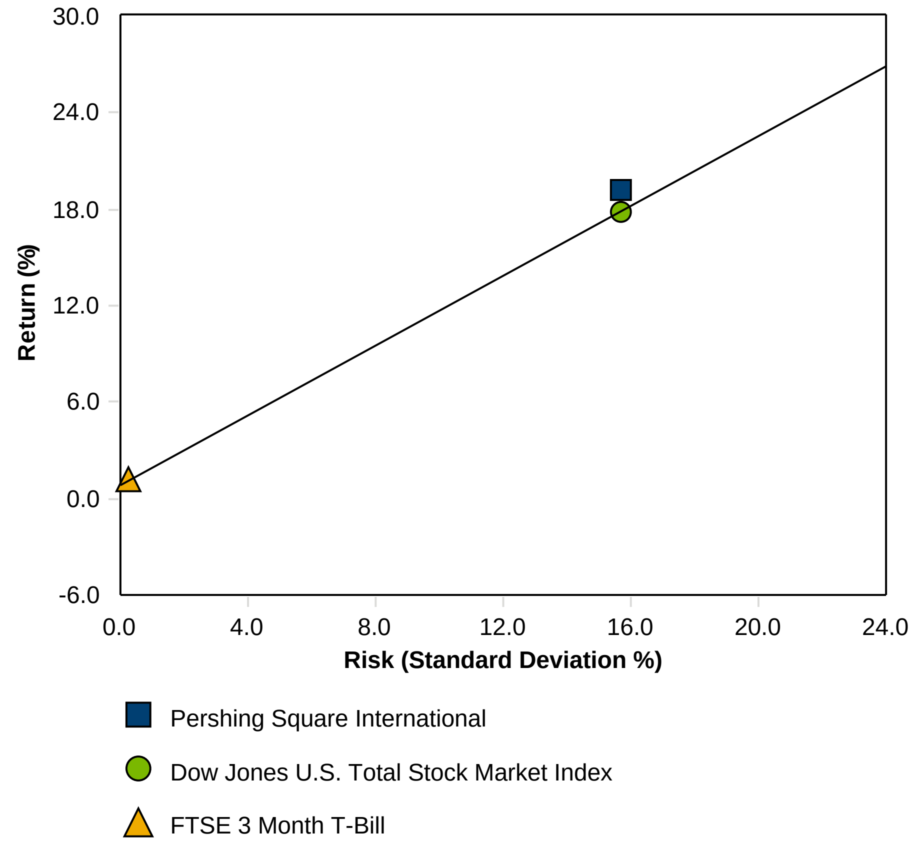
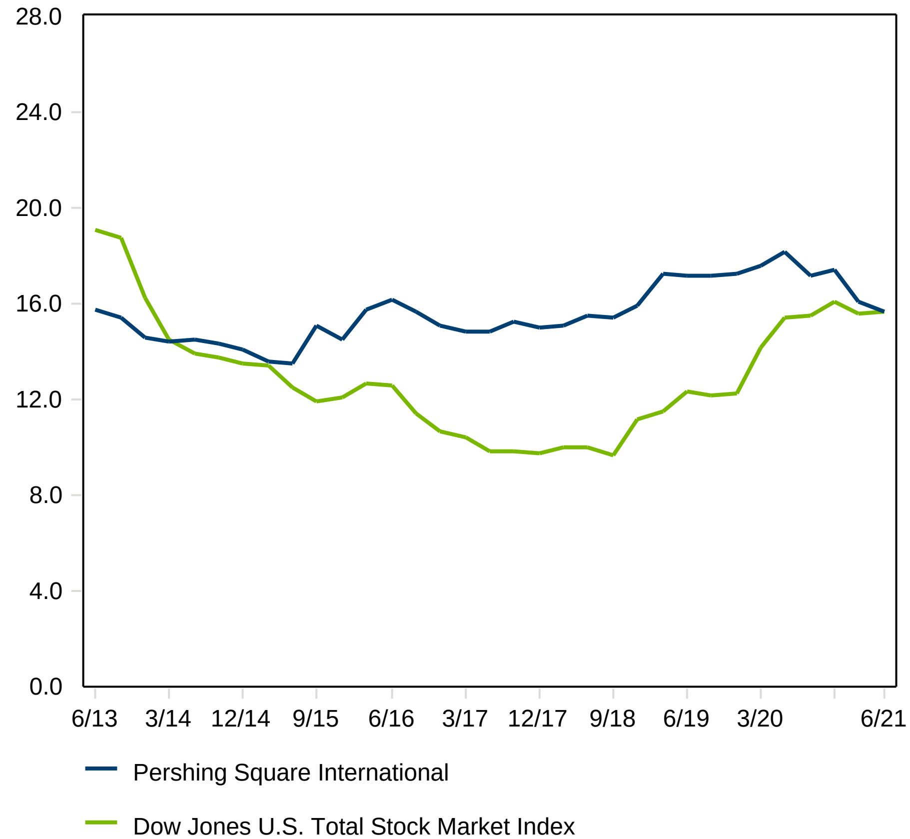
## Pershing Square International Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 5 Years Standard Deviation




### 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Pershing Square International | 1.07 | 14.46 | 0.07 | 0.33 | 1.13 | 8.94 | 0.58 | 19.14 | 15.70 | 0.57 |
| Dow Jones U.S. Total Stock Market Index | 0.00 | 0.00 | N/A | 1.00 | 1.06 | 0.00 | 1.00 | 17.86 | 15.67 | 1.00 |
| FTSE 3 Month T-Bill | -16.63 | 15.72 | -1.06 | 0.05 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.21 |



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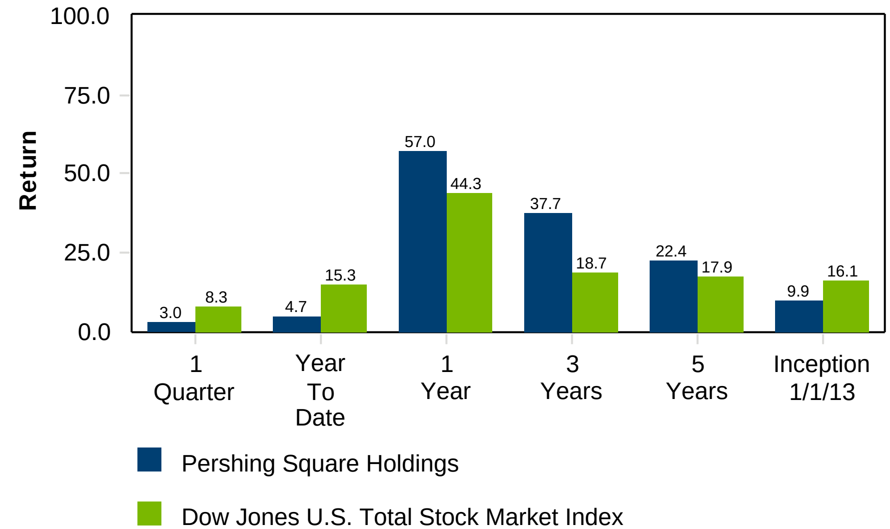
# Pershing Square Holdings Performance Summary

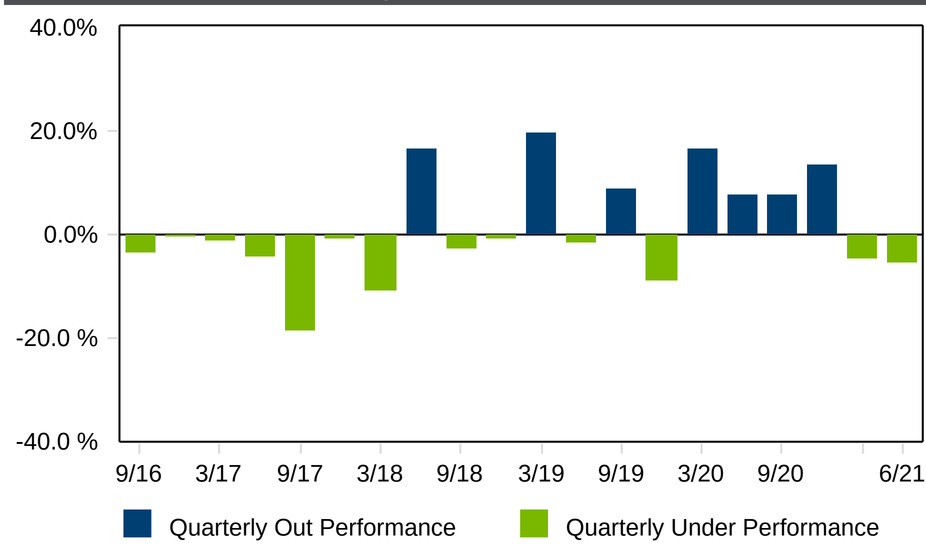
## Account Information

| | |
|---|---|
| Account Name: | Pershing Square Holdings |
| Inception Date: | 12/31/2012 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Equity |
| Benchmark: | Dow Jones U.S. Total Stock Market Index |
| Peer Group: | IM U.S. Equity (SA+CF) |

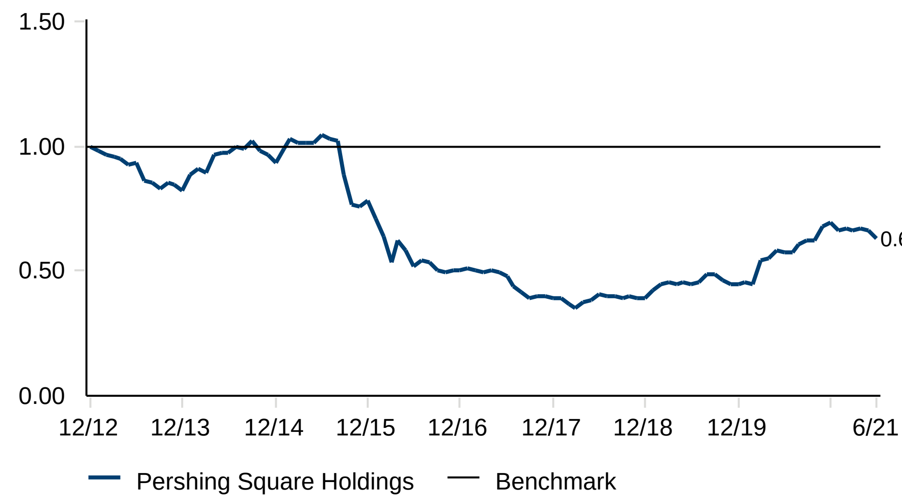
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception



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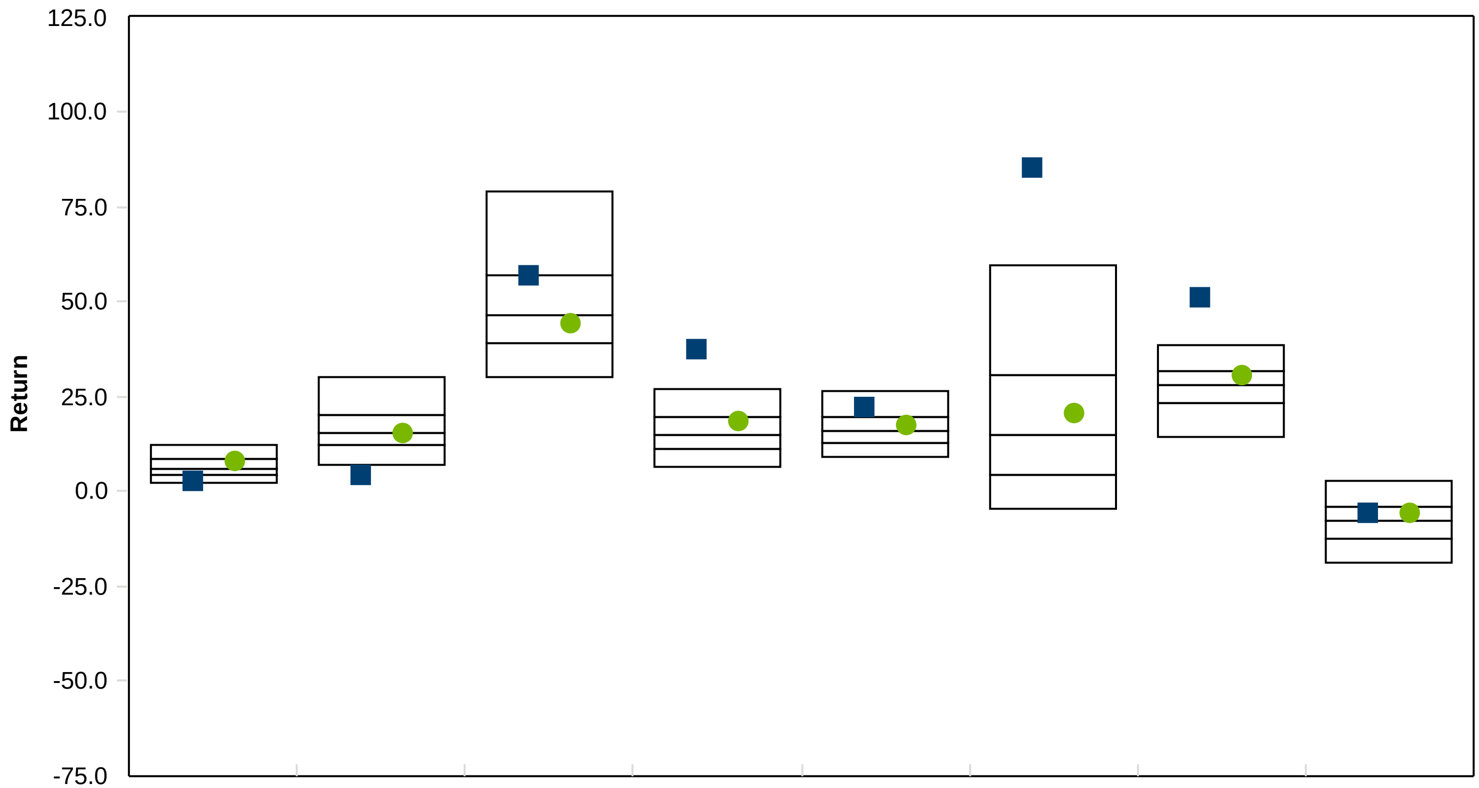
## Peer Group Analysis

### IM U.S. Equity (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|
| ■ Pershing Square Holdings | 3.0 (93) | 4.7 (98) | 57.0 (26) | 37.7 (2) | 22.4 (15) | 85.7 (2) | 51.3 (1) | -5.3 (36) |
| ● Dow Jones U.S. Total Stock Market Index | 8.3 (27) | 15.3 (53) | 44.3 (55) | 18.7 (31) | 17.9 (33) | 20.8 (38) | 30.9 (31) | -5.3 (35) |
| 5th Percentile | 12.4 | 30.1 | 79.1 | 27.3 | 26.4 | 59.8 | 38.9 | 2.7 |
| 1st Quartile | 8.5 | 20.4 | 57.3 | 20.0 | 19.5 | 30.9 | 31.8 | -3.8 |
| Median | 6.2 | 15.7 | 46.3 | 15.1 | 15.8 | 15.0 | 27.9 | -7.7 |
| 3rd Quartile | 4.5 | 12.4 | 39.5 | 11.2 | 12.6 | 4.6 | 23.4 | -12.5 |
| 95th Percentile | 2.3 | 6.9 | 30.0 | 6.4 | 9.0 | -4.4 | 14.2 | -18.9 |
| Population | 1,525 | 1,522 | 1,511 | 1,459 | 1,351 | 1,707 | 1,823 | 1,902 |

Parentheses contain percentile rankings.



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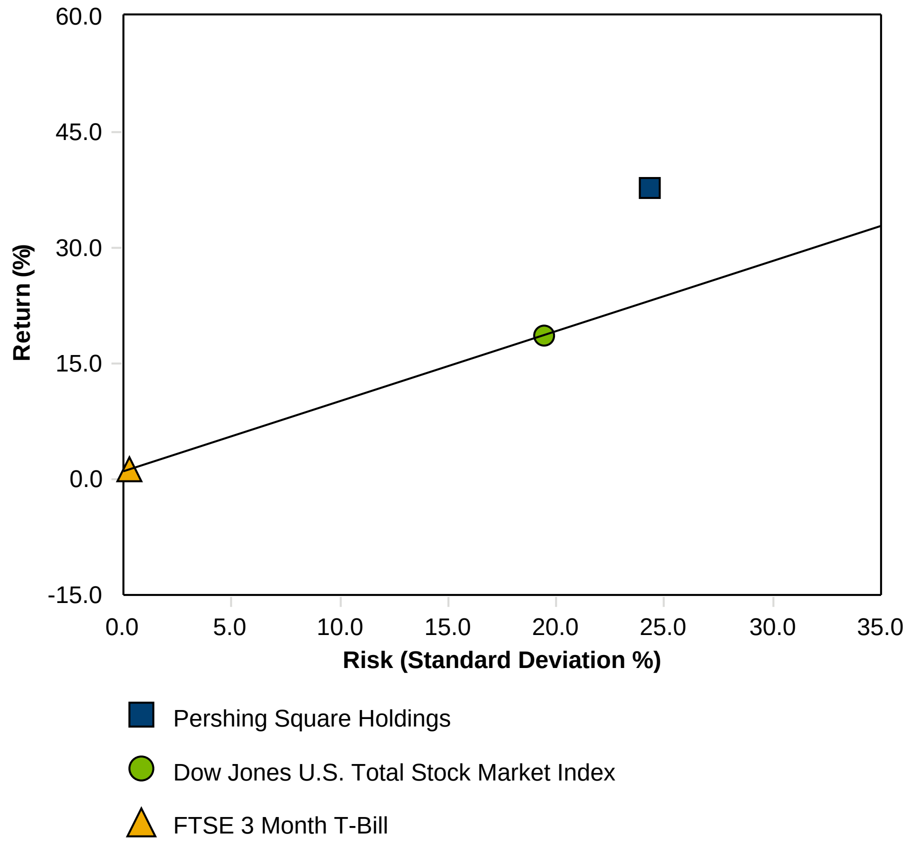
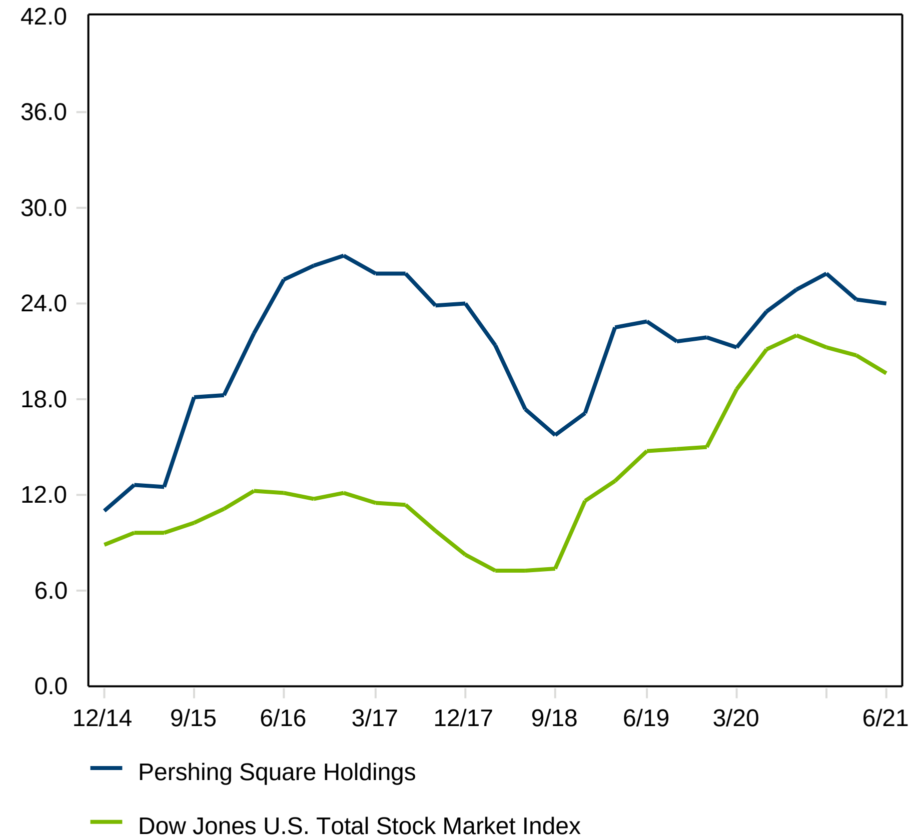
# Pershing Square Holdings Risk Profile

## Annualized Return vs. Annualized Standard Deviation 3 Years




## Rolling 2 Years Standard Deviation




## 3 Years Historical Statistics

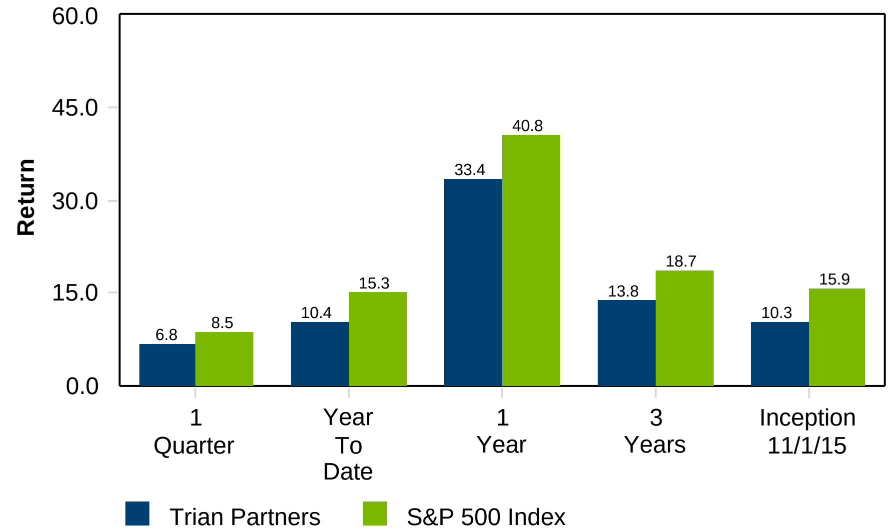
| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Pershing Square Holdings | 16.01 | 16.33 | 0.98 | 0.55 | 1.39 | 18.77 | 0.93 | 37.65 | 24.35 | 0.74 |
| Dow Jones U.S. Total Stock Market Index | 0.00 | 0.00 | N/A | 1.00 | 0.91 | 0.00 | 1.00 | 18.69 | 19.45 | 1.00 |
| FTSE 3 Month T-Bill | -17.81 | 19.52 | -0.91 | 0.06 | N/A | 1.38 | 0.00 | 1.31 | 0.29 | -0.24 |

# Trian Partners Performance Summary

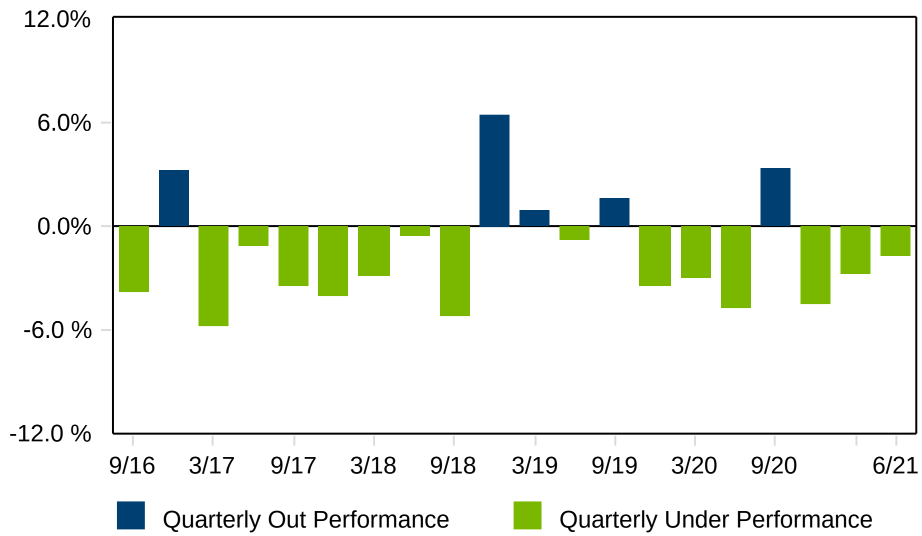
## Account Information

| | |
|---|---|
| Account Name: | Trian Partners |
| Inception Date: | 11/01/2015 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Equity |
| Benchmark: | S&P 500 Index |
| Peer Group: | |

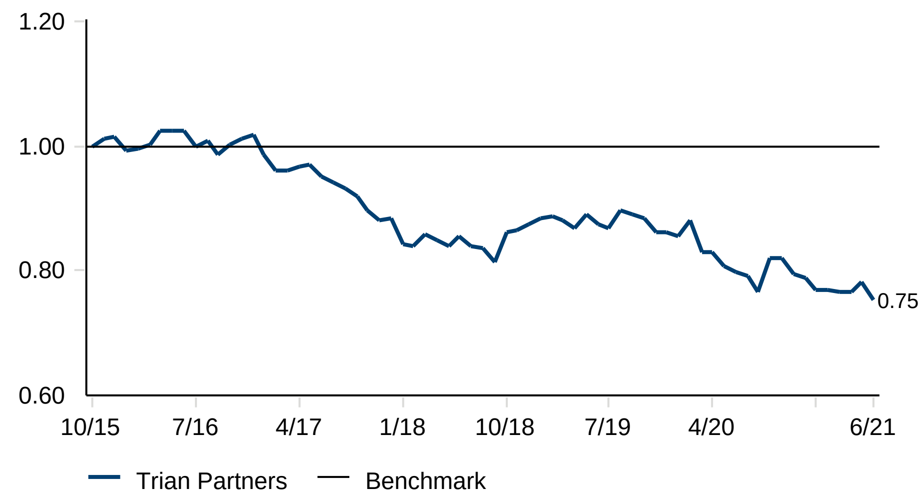
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception



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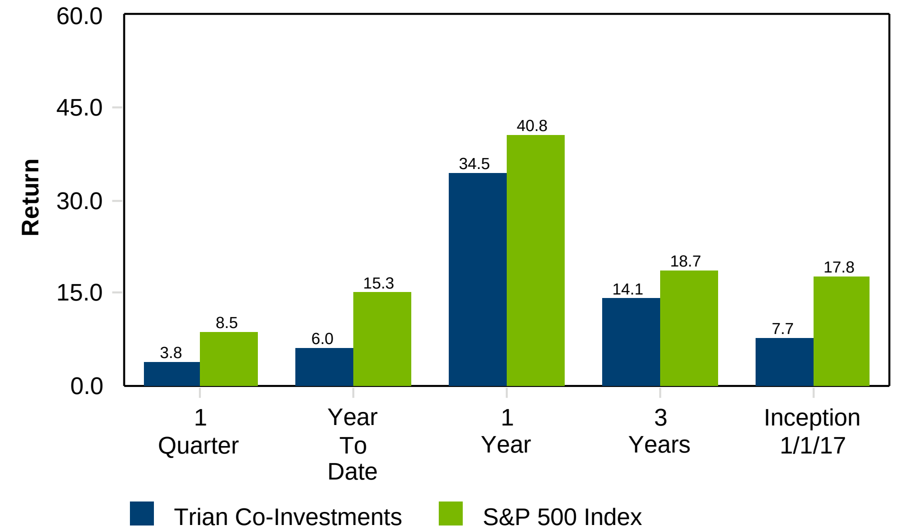
# Trian Co-Investments Performance Summary

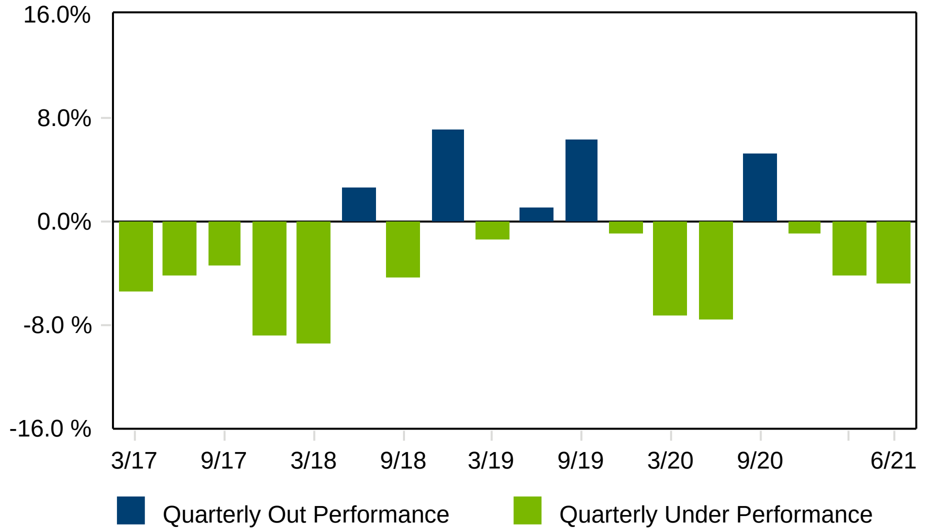
## Account Information

| | |
|---|---|
| Account Name: | Trian Co-Investments |
| Inception Date: | 01/01/2017 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Equity |
| Benchmark: | S&P 500 Index |
| Peer Group: | |

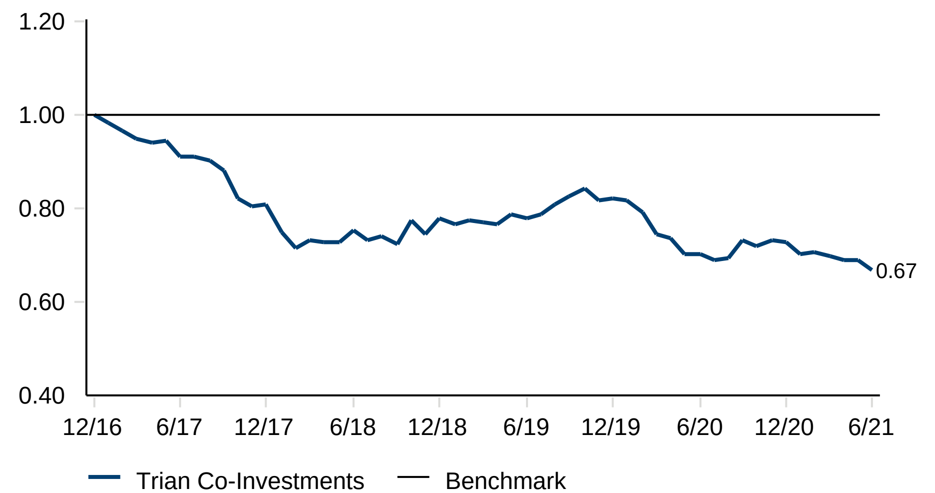
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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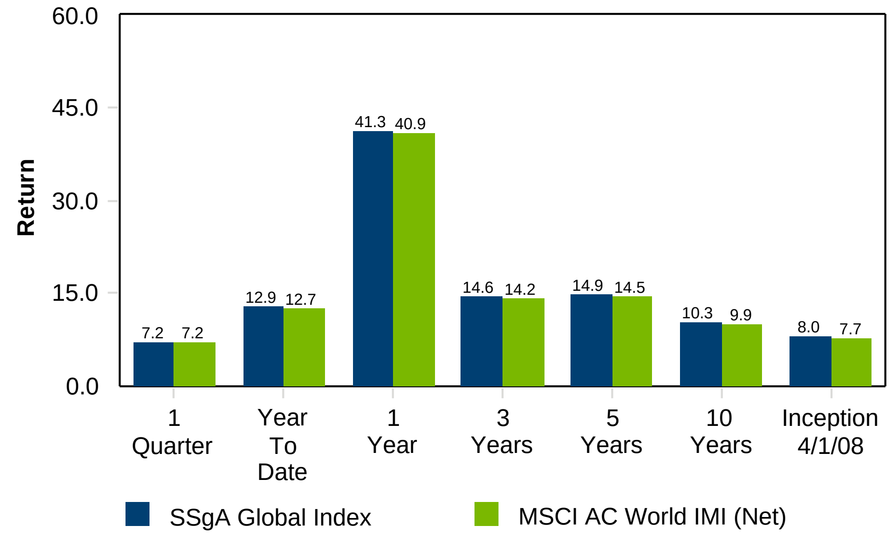
## SSgA Global Index Performance Summary

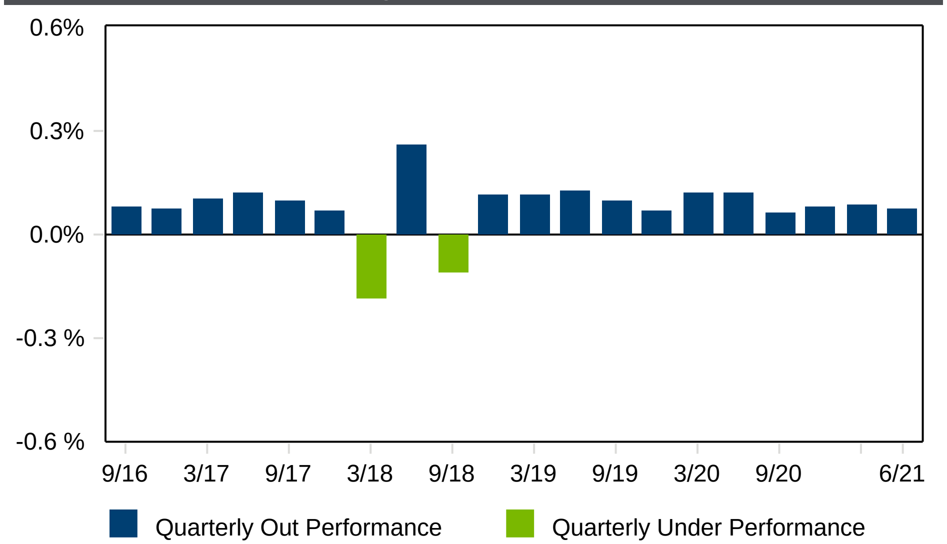
### Account Information

| | |
|---|---|
| Account Name: | SSgA Global Index |
| Inception Date: | 03/31/2008 |
| Account Structure: | Commingled Fund |
| Asset Class: | Global Equity |
| Benchmark: | MSCI AC World IMI (Net) |
| Peer Group: | IM Global Equity (SA+CF) |

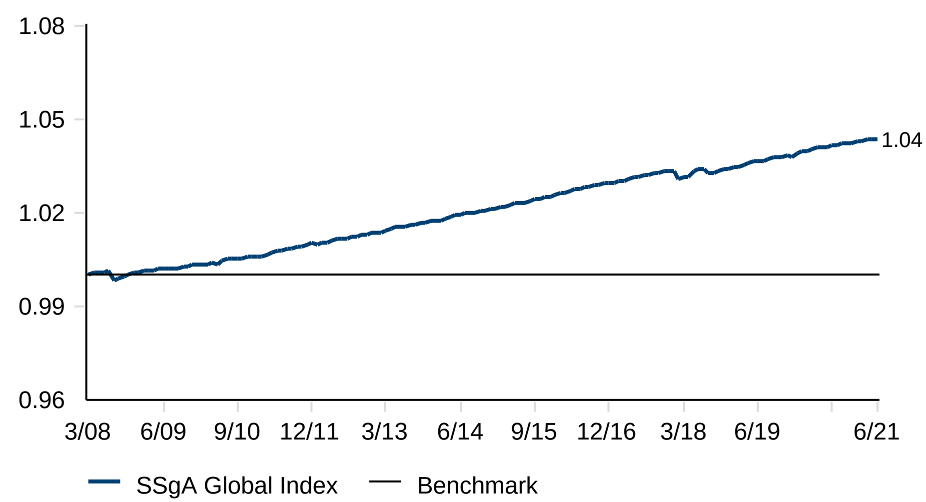
### Return Summary




### Quarterly Excess Performance

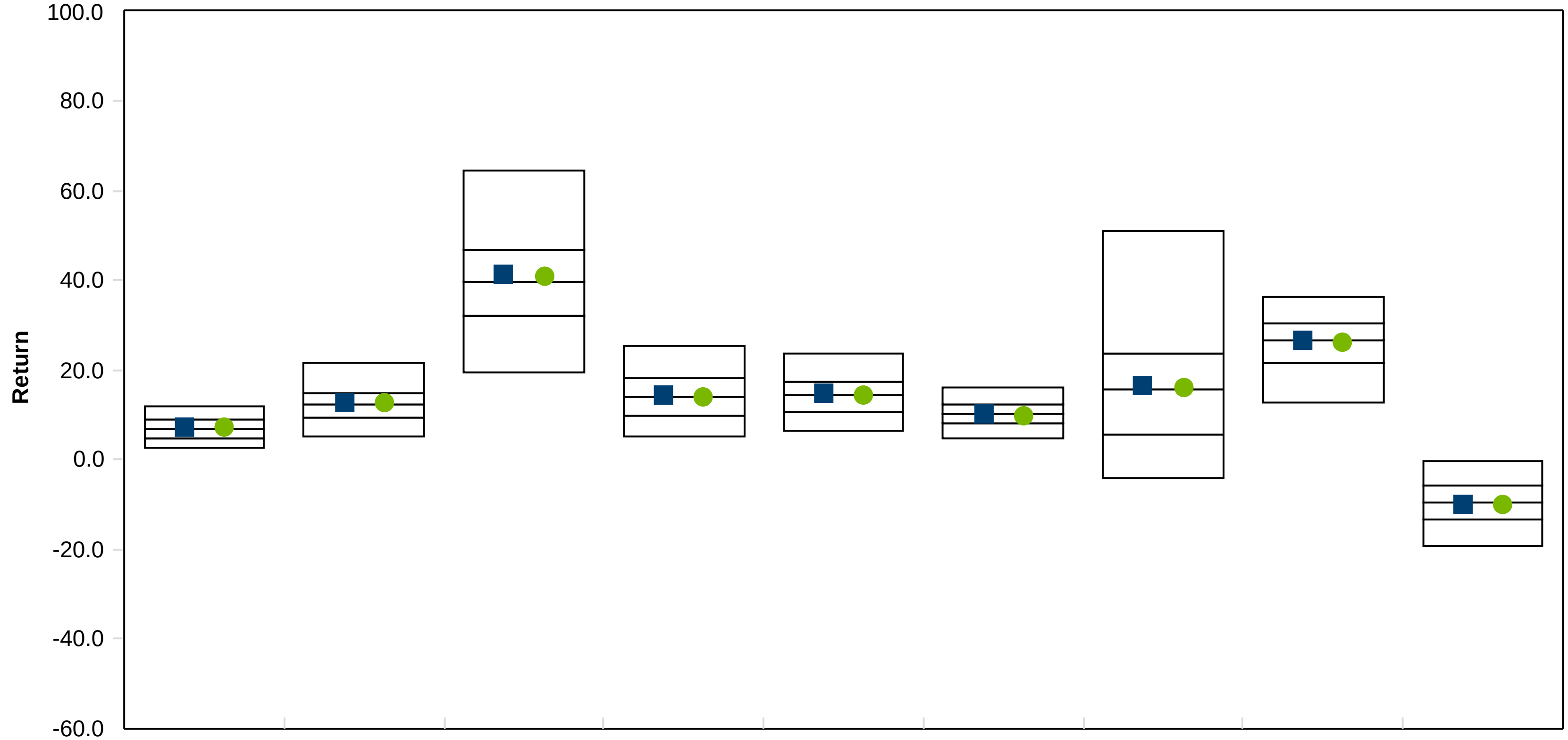



### Ratio of Cumulative Wealth - Since Inception



## Peer Group Analysis

### IM Global Equity (SA+CF)




| | 1 Quarter | | Year To Date | | 1 Year | | 3 Years | | 5 Years | | 10 Years | | 2020 | | 2019 | | 2018 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ■ SSgA Global Index | 7.2 | (42) | 12.9 | (43) | 41.3 | (45) | 14.6 | (47) | 14.9 | (45) | 10.3 | (51) | 16.7 | (47) | 26.8 | (49) | -10.0 | (57) |
| ● MSCI AC World IMI (Net) | 7.2 | (44) | 12.7 | (45) | 40.9 | (46) | 14.2 | (50) | 14.5 | (50) | 9.9 | (58) | 16.3 | (49) | 26.4 | (52) | -10.1 | (58) |
| 5th Percentile | 11.8 | | 21.7 | | 64.8 | | 25.4 | | 24.0 | | 16.1 | | 51.0 | | 36.3 | | -0.2 | |
| 1st Quartile | 9.0 | | 14.9 | | 47.1 | | 18.1 | | 17.4 | | 12.5 | | 23.9 | | 30.6 | | -5.9 | |
| Median | 6.7 | | 12.3 | | 39.9 | | 14.2 | | 14.5 | | 10.4 | | 15.9 | | 26.6 | | -9.4 | |
| 3rd Quartile | 5.0 | | 9.5 | | 32.4 | | 9.8 | | 10.8 | | 8.4 | | 5.6 | | 21.7 | | -13.1 | |
| 95th Percentile | 2.9 | | 5.3 | | 19.6 | | 5.1 | | 6.4 | | 4.9 | | -4.1 | | 12.7 | | -19.0 | |
| Population | 338 | | 338 | | 334 | | 321 | | 290 | | 181 | | 370 | | 400 | | 411 | |

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Parentheses contain percentile rankings.



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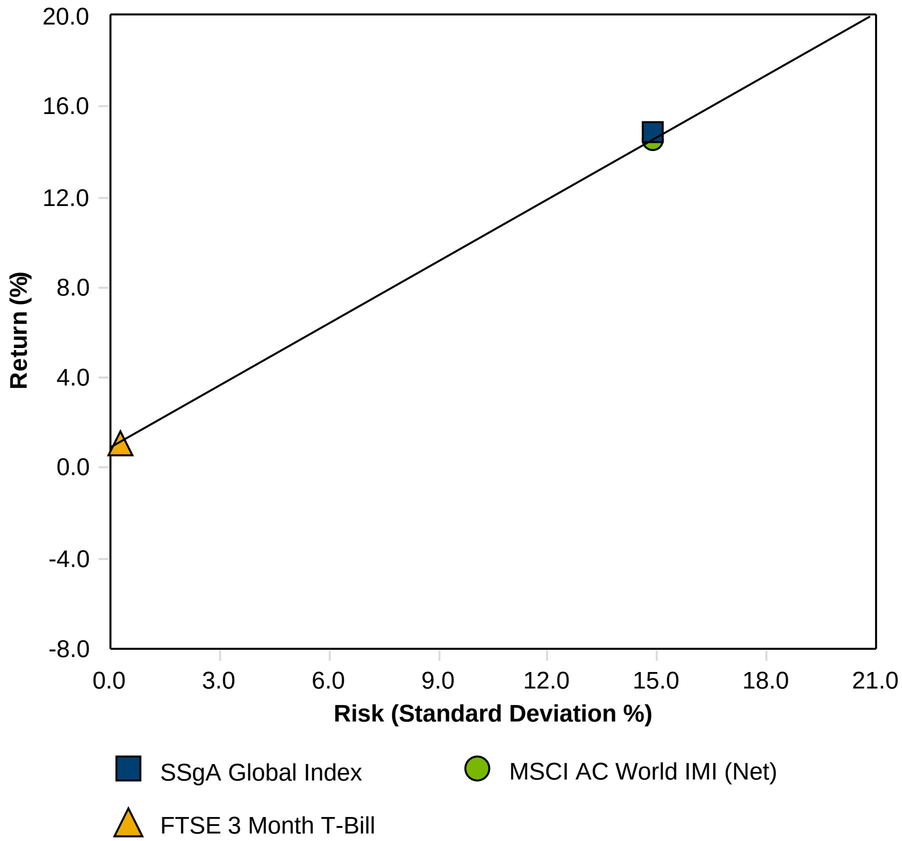
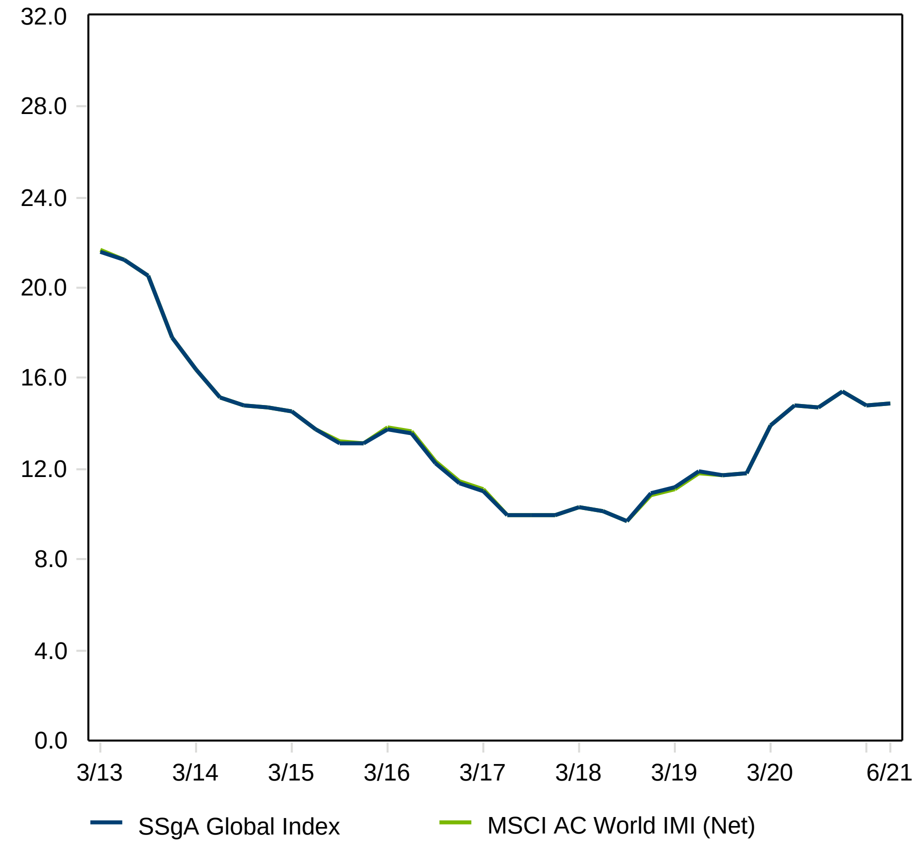
## SSgA Global Index Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 5 Years Standard Deviation




### 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| SSgA Global Index | 0.31 | 0.17 | 1.78 | 1.00 | 0.93 | 0.31 | 1.00 | 14.90 | 14.88 | 1.00 |
| MSCI AC World IMI (Net) | 0.00 | 0.00 | N/A | 1.00 | 0.91 | 0.00 | 1.00 | 14.55 | 14.88 | 1.00 |
| FTSE 3 Month T-Bill | -13.63 | 14.95 | -0.91 | 0.06 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.25 |

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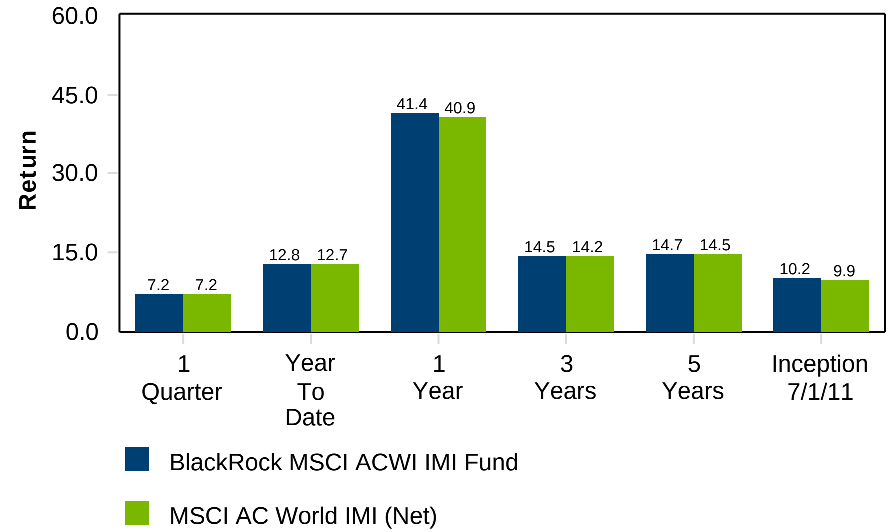
# BlackRock MSCI ACWI IMI Fund Performance Summary

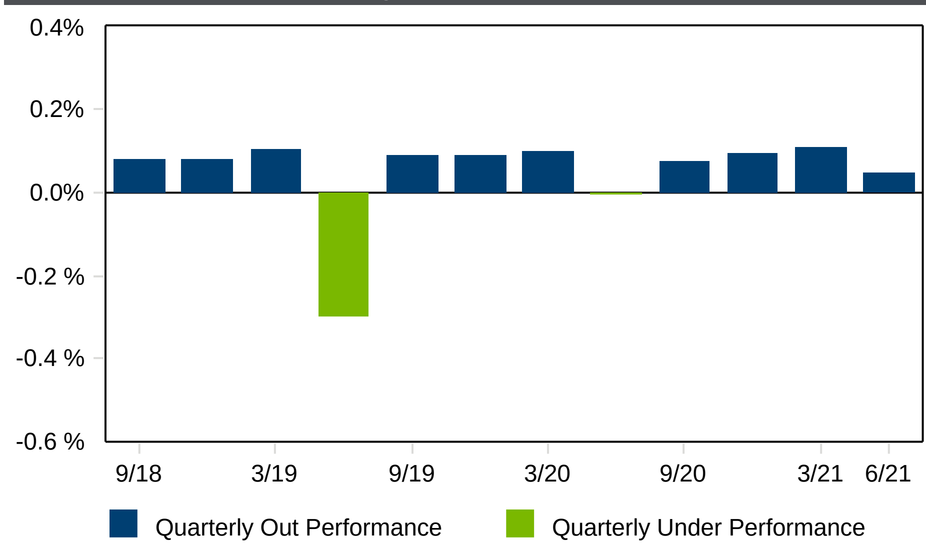
## Account Information

| | |
|---|---|
| Account Name: | BlackRock MSCI ACWI IMI Fund |
| Inception Date: | 06/30/2011 |
| Account Structure: | Commingled Fund |
| Asset Class: | Global Equity |
| Benchmark: | MSCI AC World IMI (Net) |
| Peer Group: | IM Global Equity (SA+CF) |

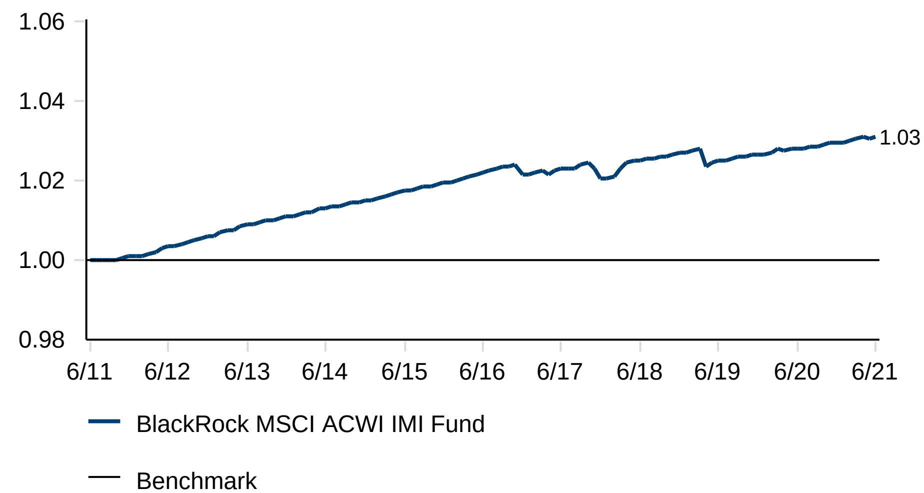
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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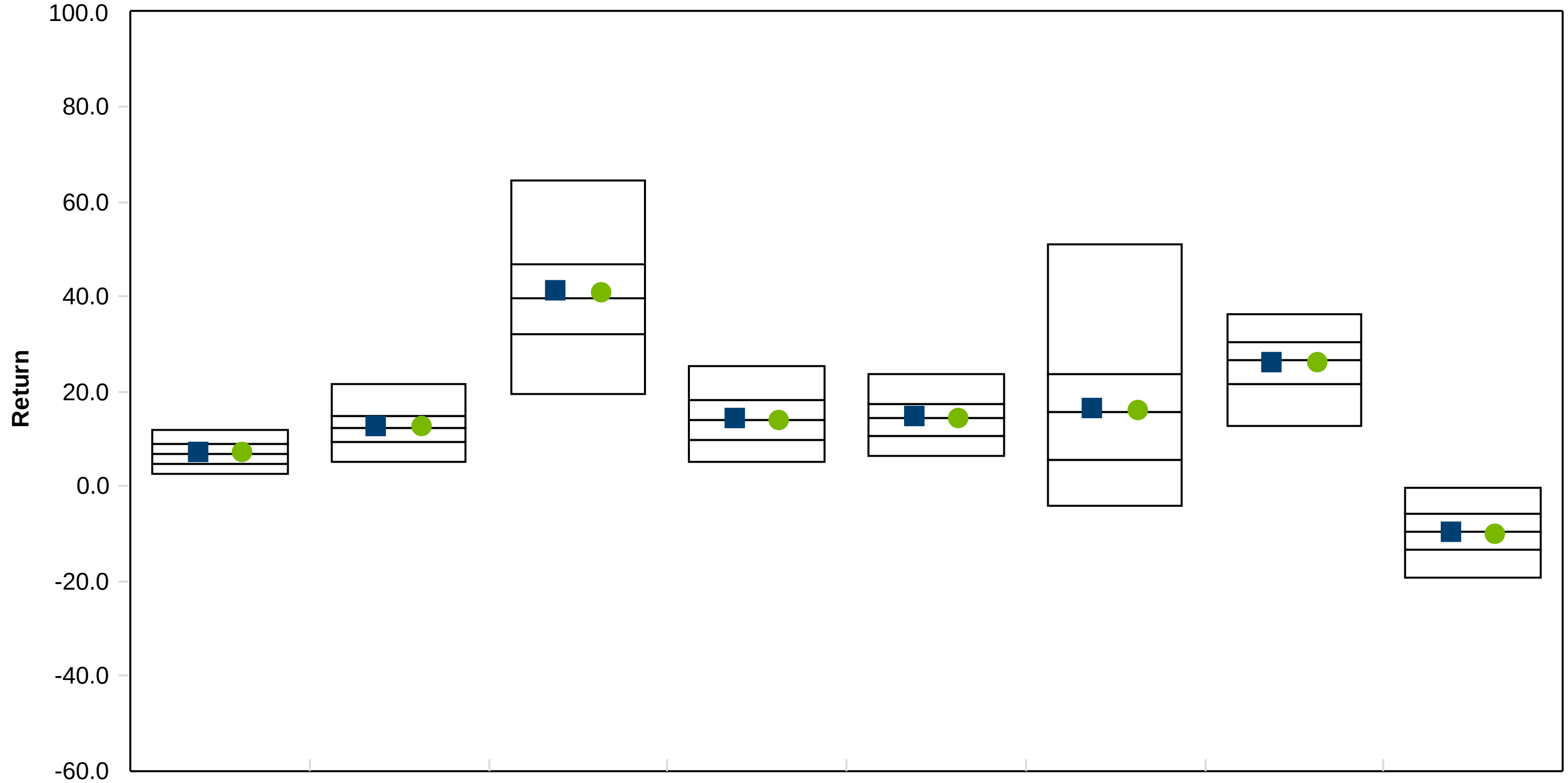
## Peer Group Analysis

### IM Global Equity (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|
| ■ BlackRock MSCI ACWI IMI Fund | 7.2 (42) | 12.8 (43) | 41.4 (45) | 14.5 (48) | 14.7 (46) | 16.6 (47) | 26.3 (52) | -9.5 (52) |
| ● MSCI AC World IMI (Net) | 7.2 (44) | 12.7 (45) | 40.9 (46) | 14.2 (50) | 14.5 (50) | 16.3 (49) | 26.4 (52) | -10.1 (58) |
| 5th Percentile | 11.8 | 21.7 | 64.8 | 25.4 | 24.0 | 51.0 | 36.3 | -0.2 |
| 1st Quartile | 9.0 | 14.9 | 47.1 | 18.1 | 17.4 | 23.9 | 30.6 | -5.9 |
| Median | 6.7 | 12.3 | 39.9 | 14.2 | 14.5 | 15.9 | 26.6 | -9.4 |
| 3rd Quartile | 5.0 | 9.5 | 32.4 | 9.8 | 10.8 | 5.6 | 21.7 | -13.1 |
| 95th Percentile | 2.9 | 5.3 | 19.6 | 5.1 | 6.4 | -4.1 | 12.7 | -19.0 |
| Population | 338 | 338 | 334 | 321 | 290 | 370 | 400 | 411 |

Parentheses contain percentile rankings.

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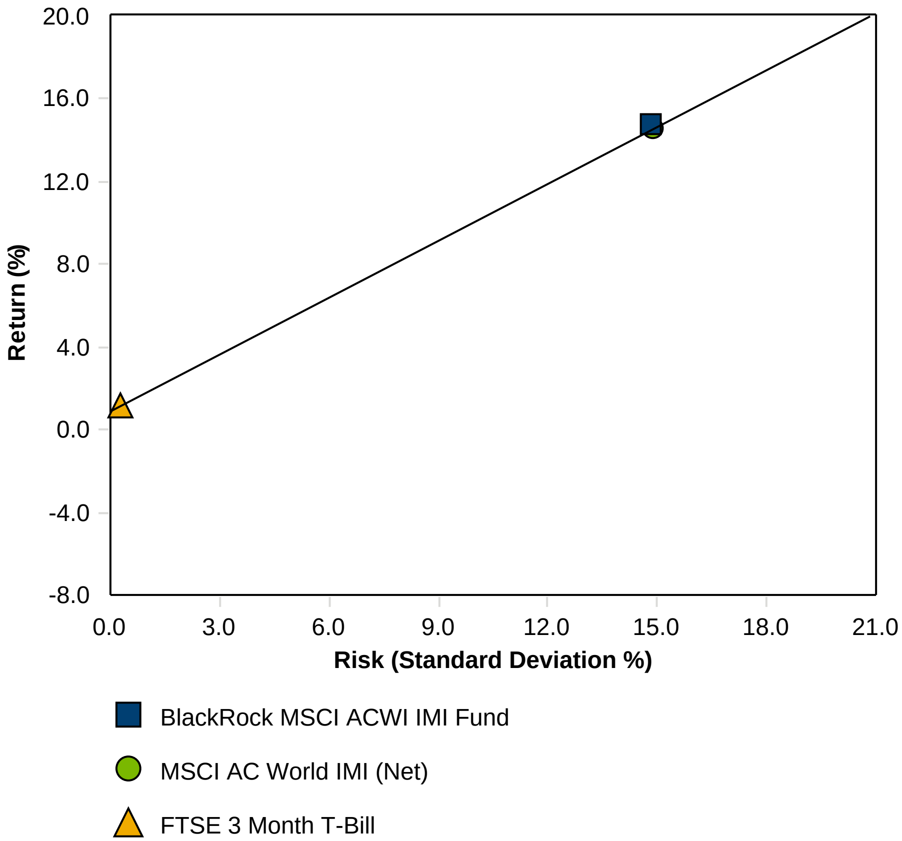
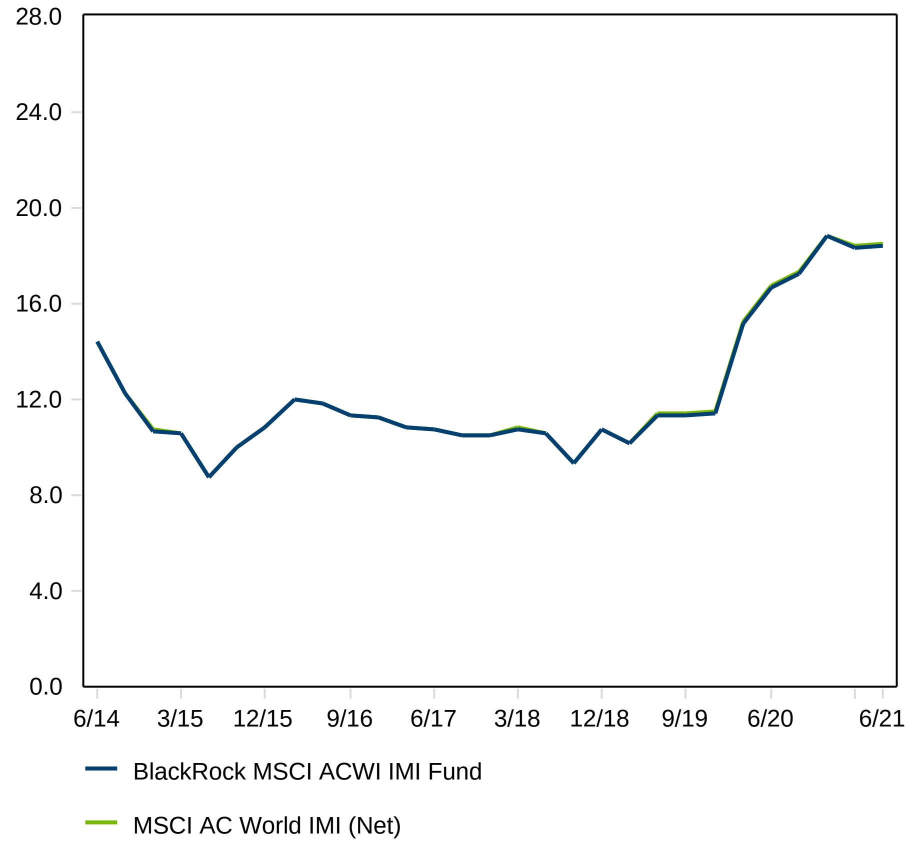
Empower Results®

# BlackRock MSCI ACWI IMI Fund Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 3 Years Standard Deviation




## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| BlackRock MSCI ACWI IMI Fund | 0.17 | 0.32 | 0.54 | 1.00 | 0.93 | 0.22 | 1.00 | 14.75 | 14.84 | 1.00 |
| MSCI AC World IMI (Net) | 0.00 | 0.00 | N/A | 1.00 | 0.91 | 0.00 | 1.00 | 14.55 | 14.88 | 1.00 |
| FTSE 3 Month T-Bill | -13.63 | 14.95 | -0.91 | 0.06 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.25 |

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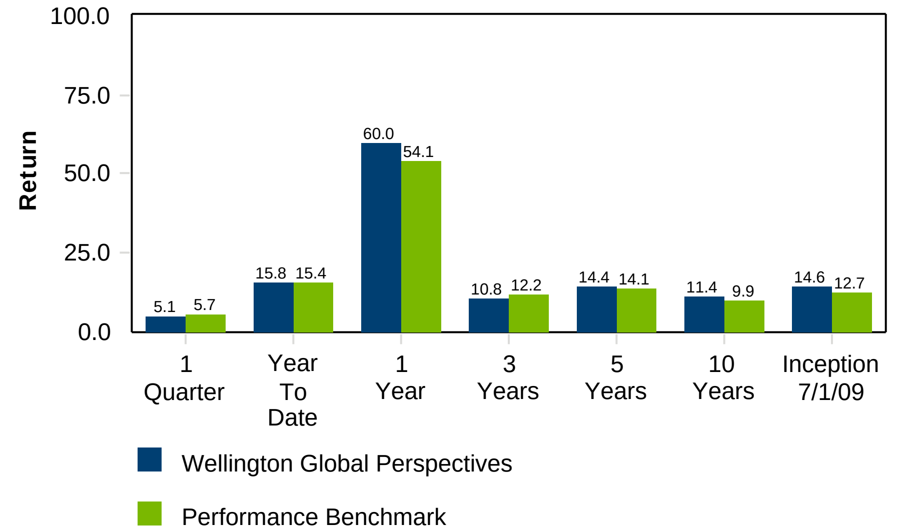
# Wellington Global Perspectives Performance Summary

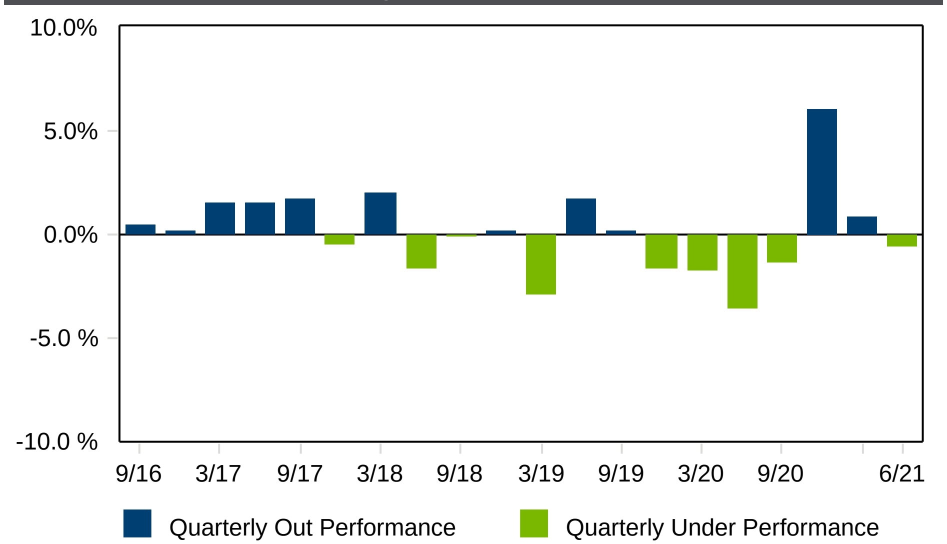
## Account Information

| | |
|---|---|
| Account Name: | Wellington Global Perspectives |
| Inception Date: | 06/30/2009 |
| Account Structure: | Separate Account |
| Asset Class: | Global Equity |
| Benchmark: | Performance Benchmark |
| Peer Group: | IM Global Equity (SA+CF) |

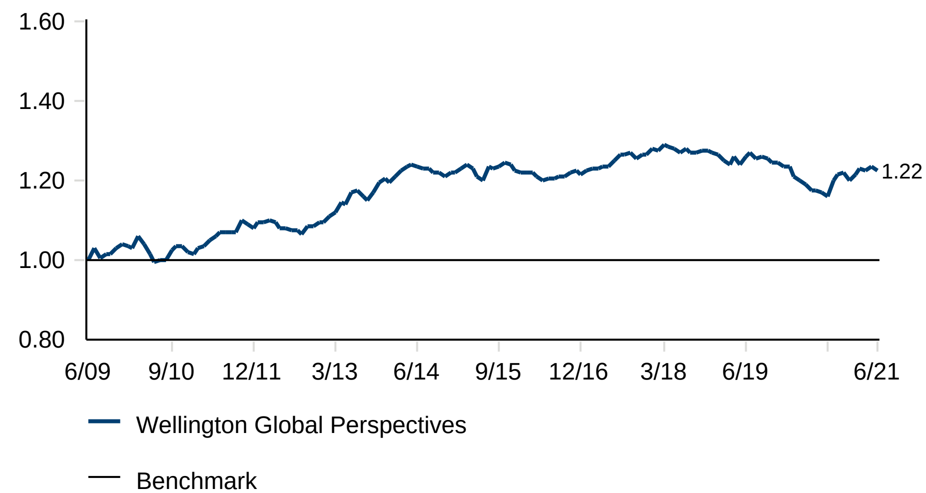
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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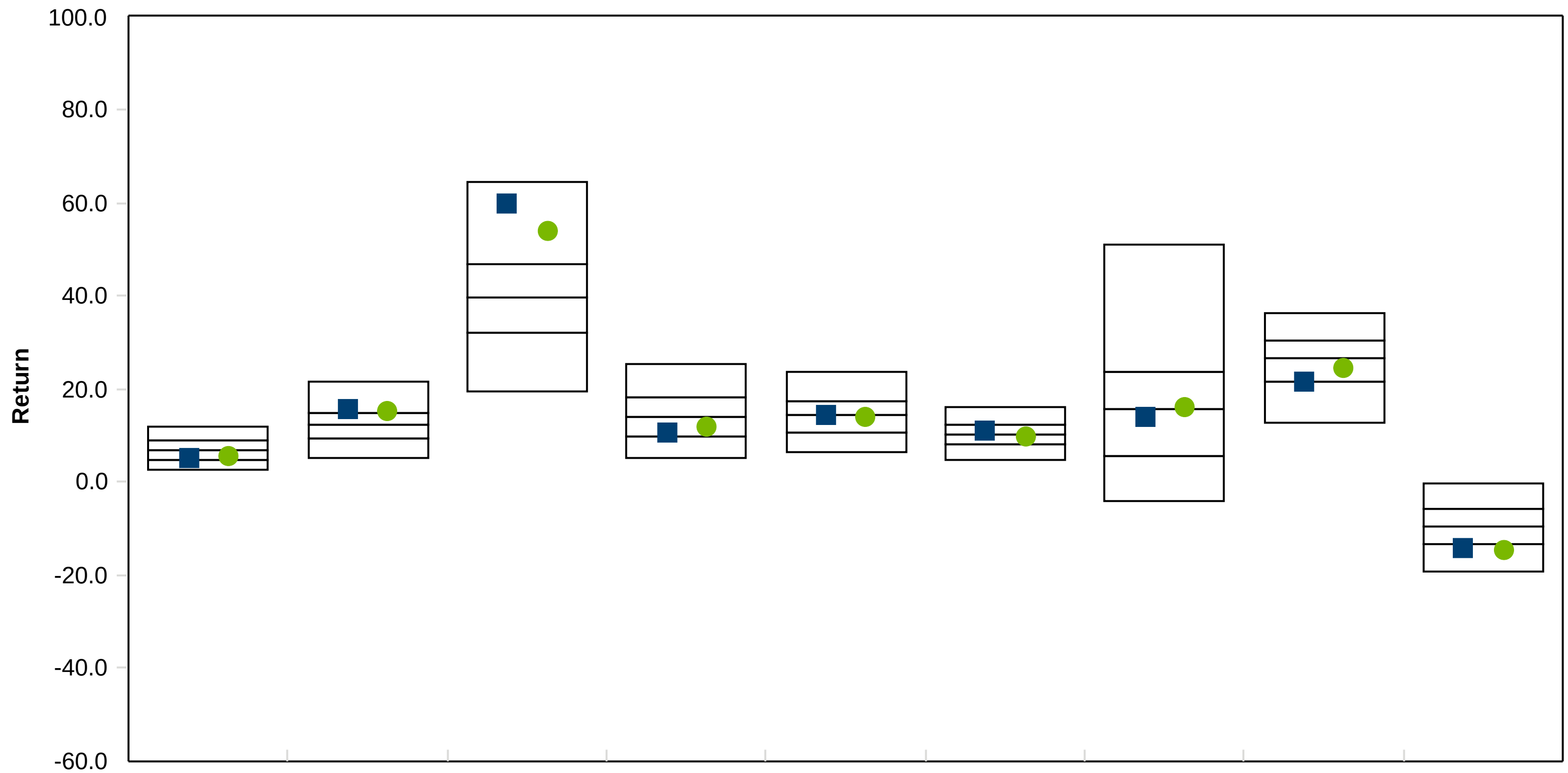
## Peer Group Analysis

### IM Global Equity (SA+CF)



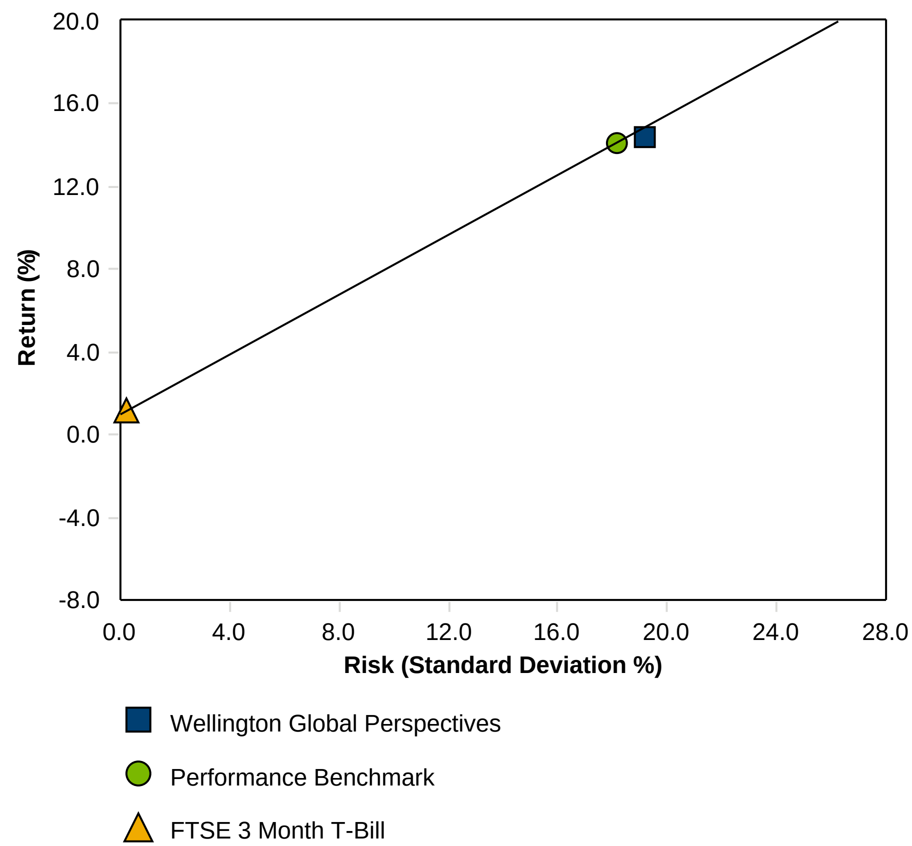

| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Wellington Global Perspectives | 5.1 (74) | 15.8 (21) | 60.0 (8) | 10.8 (69) | 14.4 (51) | 11.4 (33) | 14.1 (55) | 21.9 (75) | -14.0 (81) |
| ● Performance Benchmark | 5.7 (68) | 15.4 (22) | 54.1 (13) | 12.2 (61) | 14.1 (54) | 9.9 (58) | 16.3 (48) | 24.7 (64) | -14.4 (82) |
| 5th Percentile | 11.8 | 21.7 | 64.8 | 25.4 | 24.0 | 16.1 | 51.0 | 36.3 | -0.2 |
| 1st Quartile | 9.0 | 14.9 | 47.1 | 18.1 | 17.4 | 12.5 | 23.9 | 30.6 | -5.9 |
| Median | 6.7 | 12.3 | 39.9 | 14.2 | 14.5 | 10.4 | 15.9 | 26.6 | -9.4 |
| 3rd Quartile | 5.0 | 9.5 | 32.4 | 9.8 | 10.8 | 8.4 | 5.6 | 21.7 | -13.1 |
| 95th Percentile | 2.9 | 5.3 | 19.6 | 5.1 | 6.4 | 4.9 | -4.1 | 12.7 | -19.0 |
| Population | 338 | 338 | 334 | 321 | 290 | 181 | 370 | 400 | 411 |

Parentheses contain percentile rankings.

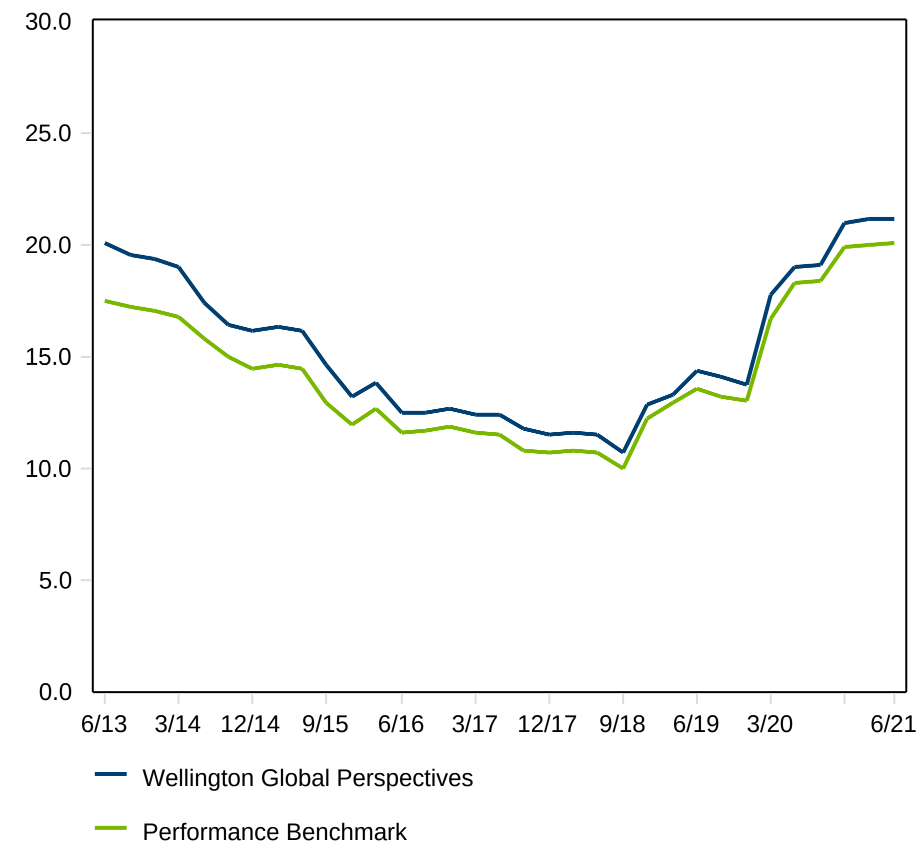
Empower Results®

# Wellington Global Perspectives Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 4 Years Standard Deviation




## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Wellington Global Perspectives | 0.46 | 3.30 | 0.14 | 0.97 | 0.74 | -0.11 | 1.04 | 14.44 | 19.15 | 0.99 |
| Performance Benchmark | 0.00 | 0.00 | N/A | 1.00 | 0.76 | 0.00 | 1.00 | 14.13 | 18.18 | 1.00 |
| FTSE 3 Month T-Bill | -13.84 | 18.26 | -0.76 | 0.09 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.29 |



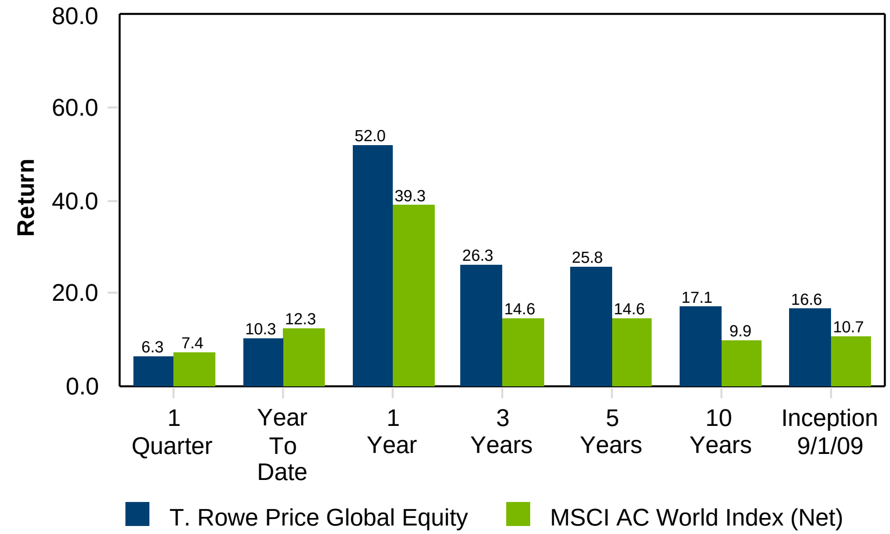
Empower Results®

# T. Rowe Price Global Equity Performance Summary

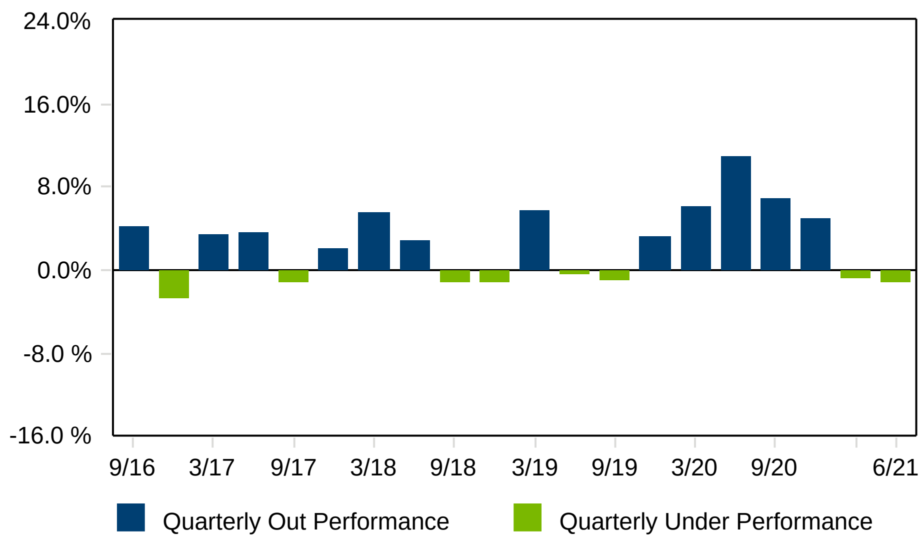
## Account Information

| | |
|---|---|
| Account Name: | T. Rowe Price Global Equity |
| Inception Date: | 08/31/2009 |
| Account Structure: | Separate Account |
| Asset Class: | Global Equity |
| Benchmark: | MSCI AC World Index (Net) |
| Peer Group: | IM Global Equity (SA+CF) |

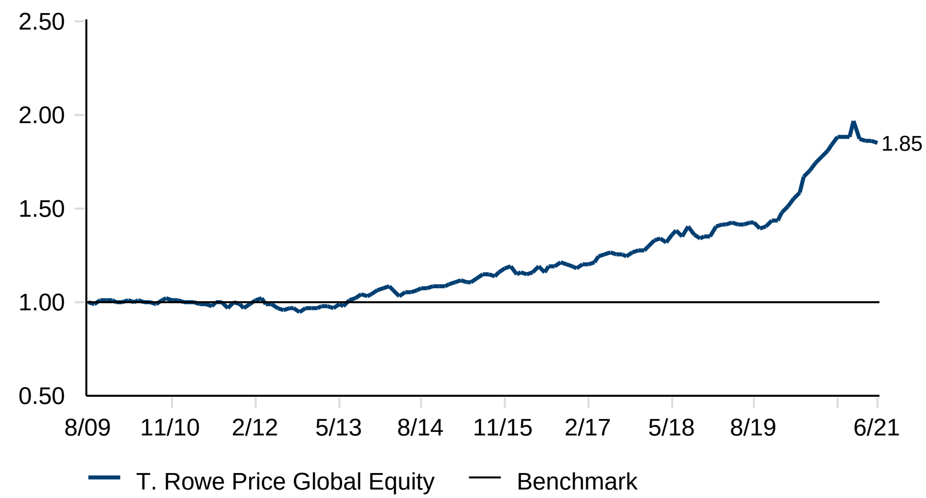
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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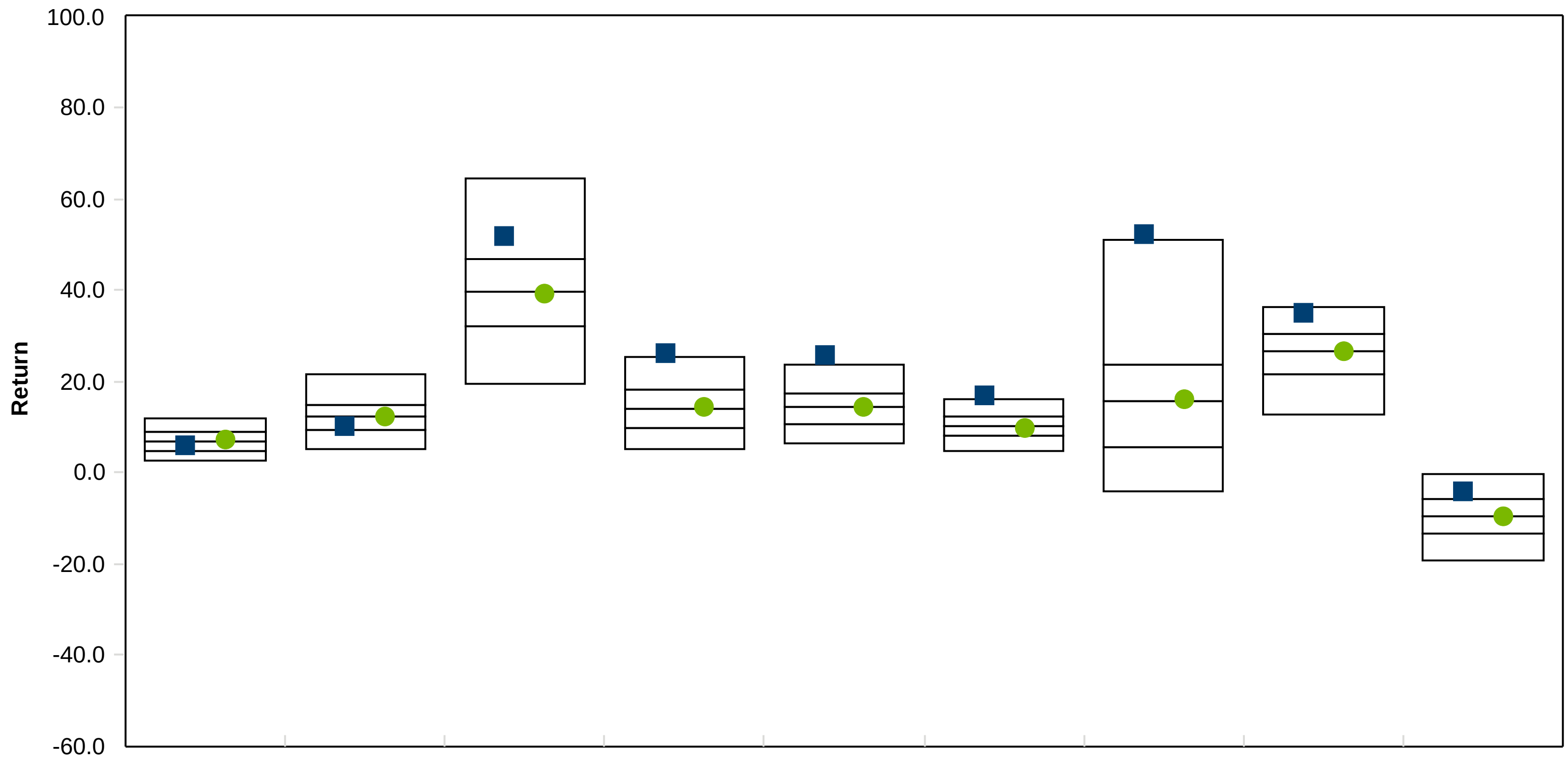
## Peer Group Analysis

IM Global Equity (SA+CF)

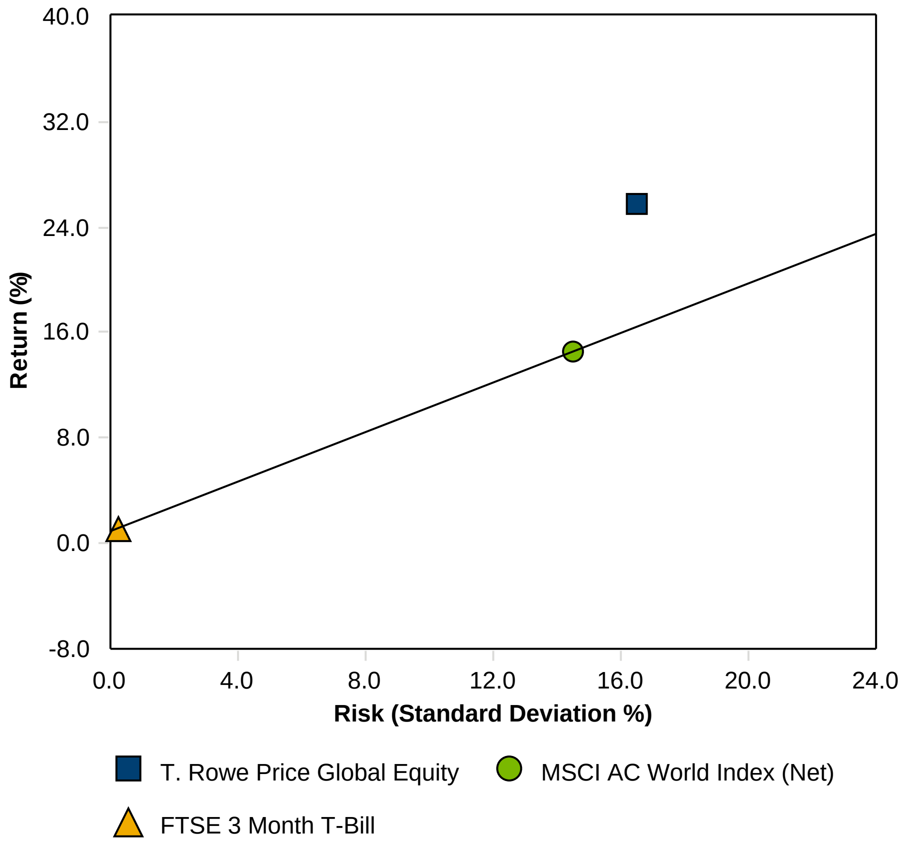



| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ T. Rowe Price Global Equity | 6.3 (57) | 10.3 (70) | 52.0 (15) | 26.3 (5) | 25.8 (4) | 17.1 (5) | 52.2 (5) | 35.2 (10) | -4.0 (17) |
| ● MSCI AC World Index (Net) | 7.4 (41) | 12.3 (50) | 39.3 (55) | 14.6 (47) | 14.6 (48) | 9.9 (58) | 16.3 (49) | 26.6 (50) | -9.4 (50) |
| 5th Percentile | 11.8 | 21.7 | 64.8 | 25.4 | 24.0 | 16.1 | 51.0 | 36.3 | -0.2 |
| 1st Quartile | 9.0 | 14.9 | 47.1 | 18.1 | 17.4 | 12.5 | 23.9 | 30.6 | -5.9 |
| Median | 6.7 | 12.3 | 39.9 | 14.2 | 14.5 | 10.4 | 15.9 | 26.6 | -9.4 |
| 3rd Quartile | 5.0 | 9.5 | 32.4 | 9.8 | 10.8 | 8.4 | 5.6 | 21.7 | -13.1 |
| 95th Percentile | 2.9 | 5.3 | 19.6 | 5.1 | 6.4 | 4.9 | -4.1 | 12.7 | -19.0 |
| Population | 338 | 338 | 334 | 321 | 290 | 181 | 370 | 400 | 411 |

Parentheses contain percentile rankings.

## T. Rowe Price Global Equity Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 3 Years Standard Deviation


### 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| T. Rowe Price Global Equity | 9.72 | 6.28 | 1.55 | 0.86 | 1.41 | 9.32 | 1.05 | 25.79 | 16.50 | 0.93 |
| MSCI AC World Index (Net) | 0.00 | 0.00 | N/A | 1.00 | 0.93 | 0.00 | 1.00 | 14.61 | 14.52 | 1.00 |
| FTSE 3 Month T-Bill | -13.63 | 14.58 | -0.93 | 0.06 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.24 |

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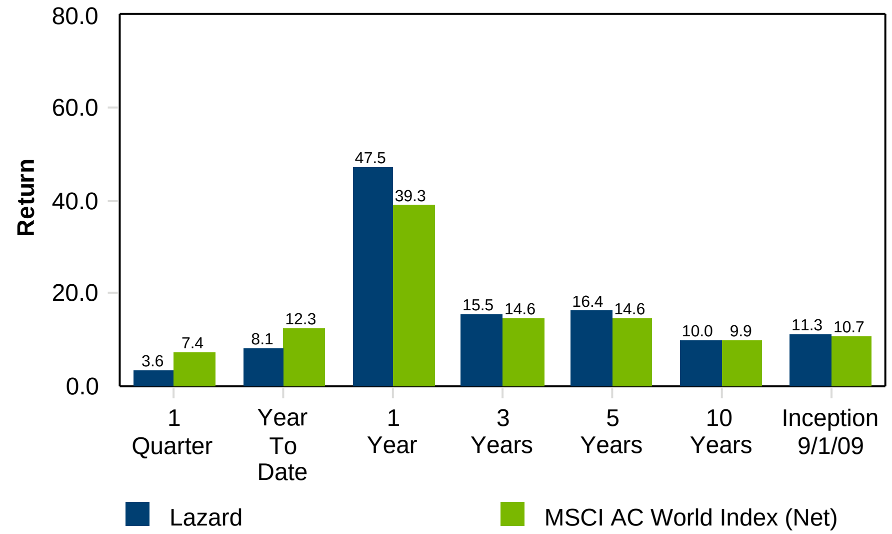
# Lazard Performance Summary

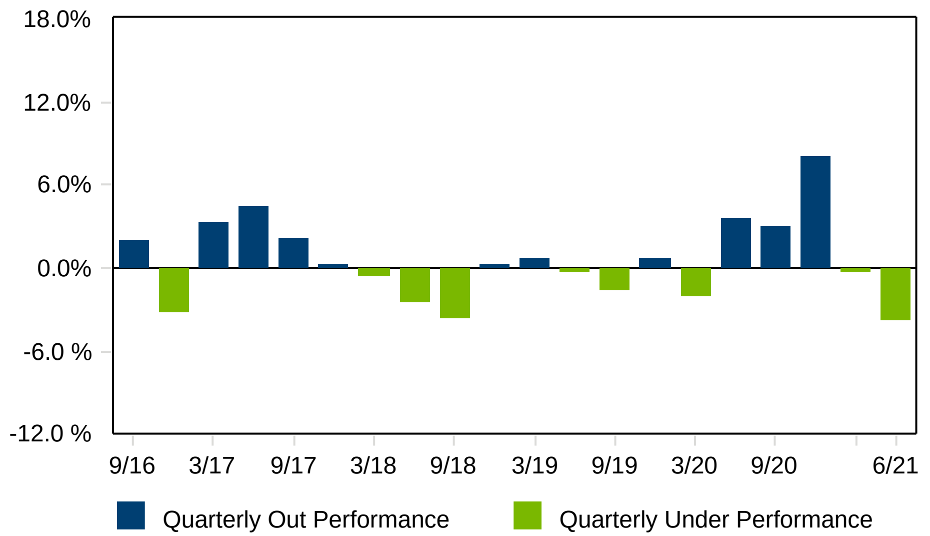
## Account Information

| | |
|---|---|
| Account Name: | Lazard |
| Inception Date: | 08/31/2009 |
| Account Structure: | Separate Account |
| Asset Class: | Global Equity |
| Benchmark: | MSCI AC World Index (Net) |
| Peer Group: | IM Global Equity (SA+CF) |

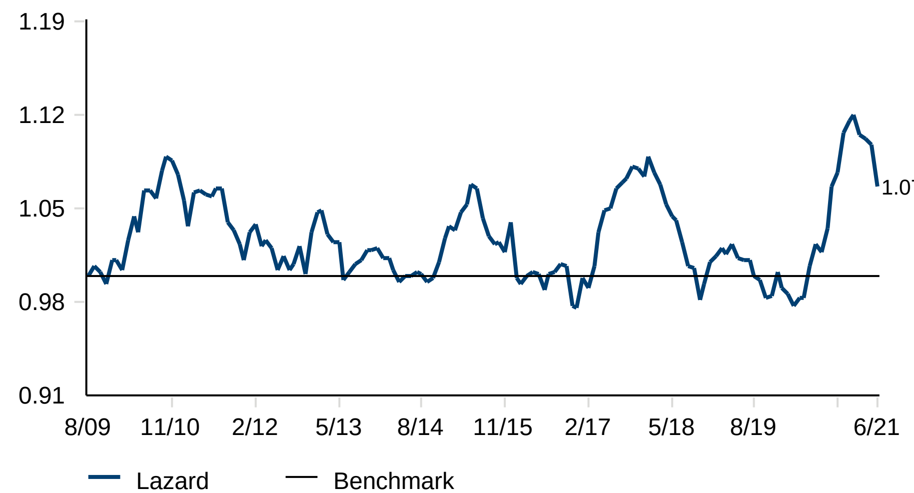
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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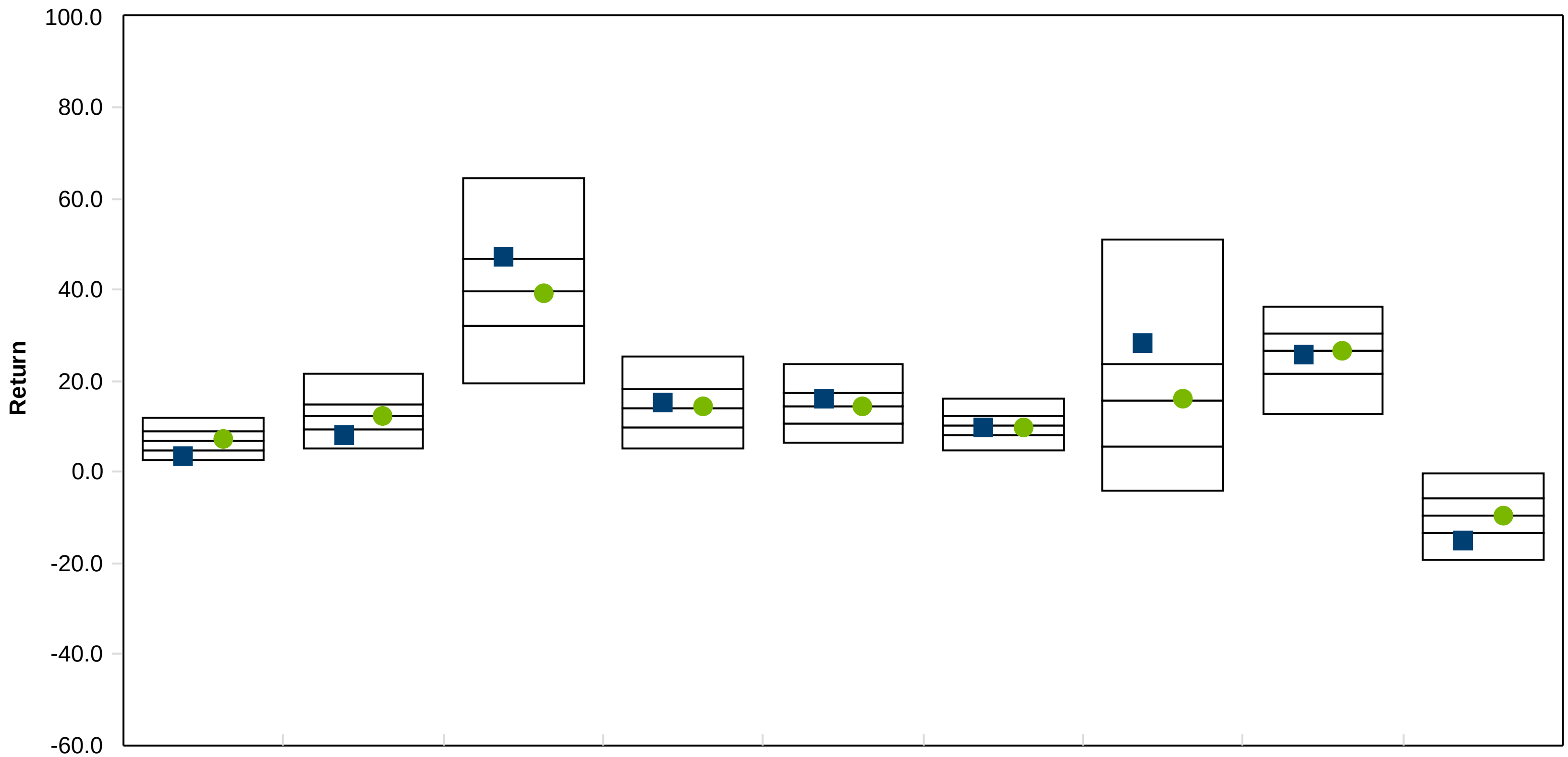
## Peer Group Analysis

### IM Global Equity (SA+CF)

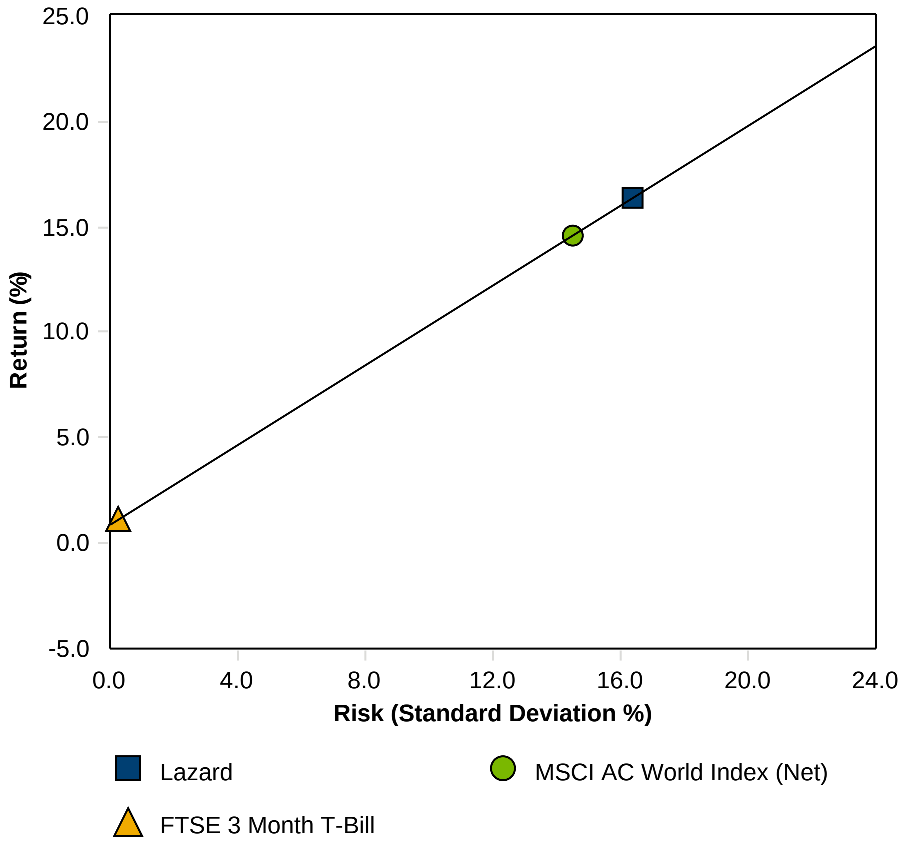



| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Lazard | 3.6 (92) | 8.1 (85) | 47.5 (24) | 15.5 (39) | 16.4 (30) | 10.0 (55) | 28.4 (21) | 25.7 (56) | -14.9 (85) |
| ● MSCI AC World Index (Net) | 7.4 (41) | 12.3 (50) | 39.3 (55) | 14.6 (47) | 14.6 (48) | 9.9 (58) | 16.3 (49) | 26.6 (50) | -9.4 (50) |
| 5th Percentile | 11.8 | 21.7 | 64.8 | 25.4 | 24.0 | 16.1 | 51.0 | 36.3 | -0.2 |
| 1st Quartile | 9.0 | 14.9 | 47.1 | 18.1 | 17.4 | 12.5 | 23.9 | 30.6 | -5.9 |
| Median | 6.7 | 12.3 | 39.9 | 14.2 | 14.5 | 10.4 | 15.9 | 26.6 | -9.4 |
| 3rd Quartile | 5.0 | 9.5 | 32.4 | 9.8 | 10.8 | 8.4 | 5.6 | 21.7 | -13.1 |
| 95th Percentile | 2.9 | 5.3 | 19.6 | 5.1 | 6.4 | 4.9 | -4.1 | 12.7 | -19.0 |
| Population | 338 | 338 | 334 | 321 | 290 | 181 | 370 | 400 | 411 |

Parentheses contain percentile rankings.

# Lazard Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 3 Years Standard Deviation


## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Lazard | 1.82 | 4.66 | 0.39 | 0.92 | 0.94 | 0.58 | 1.08 | 16.37 | 16.37 | 0.96 |
| MSCI AC World Index (Net) | 0.00 | 0.00 | N/A | 1.00 | 0.93 | 0.00 | 1.00 | 14.61 | 14.52 | 1.00 |
| FTSE 3 Month T-Bill | -13.63 | 14.58 | -0.93 | 0.06 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.24 |



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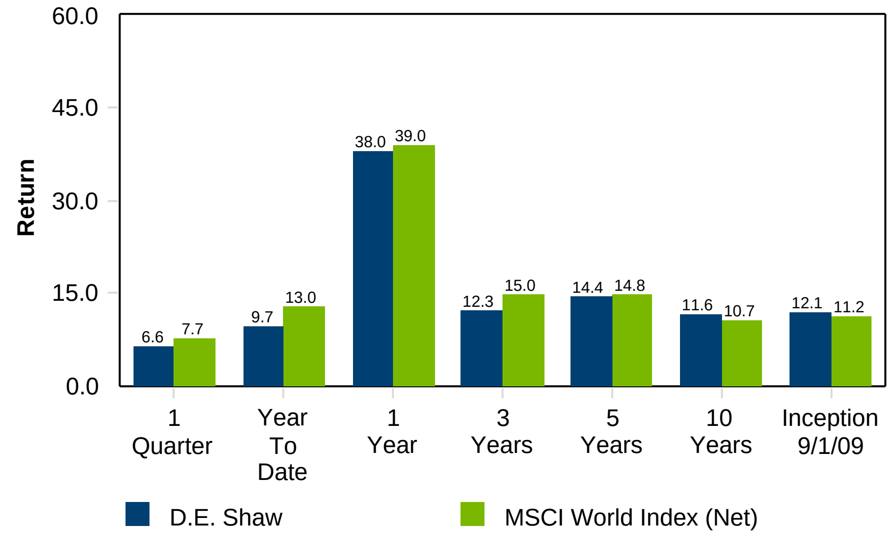
# D.E. Shaw Performance Summary

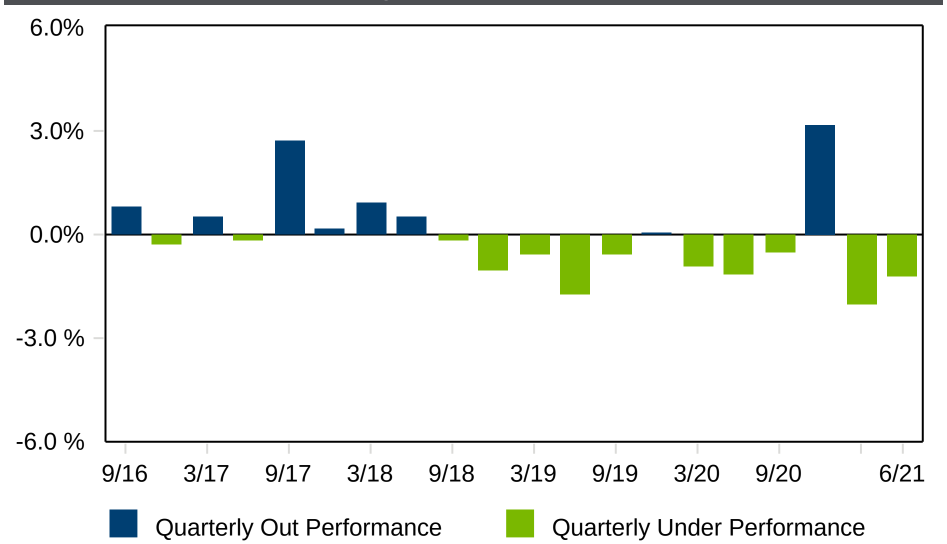
## Account Information

| | |
|---|---|
| Account Name: | D.E. Shaw |
| Inception Date: | 08/31/2009 |
| Account Structure: | Commingled Fund |
| Asset Class: | Global Equity |
| Benchmark: | MSCI World Index (Net) |
| Peer Group: | IM Global Equity (SA+CF) |

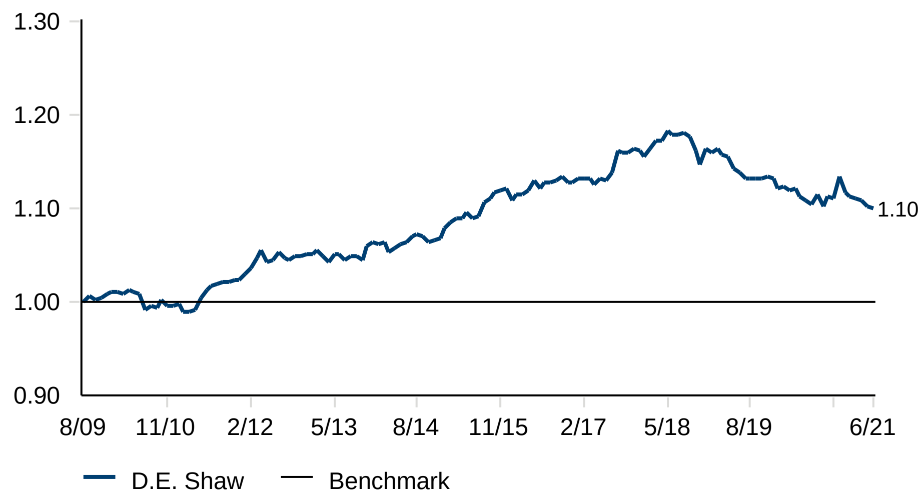
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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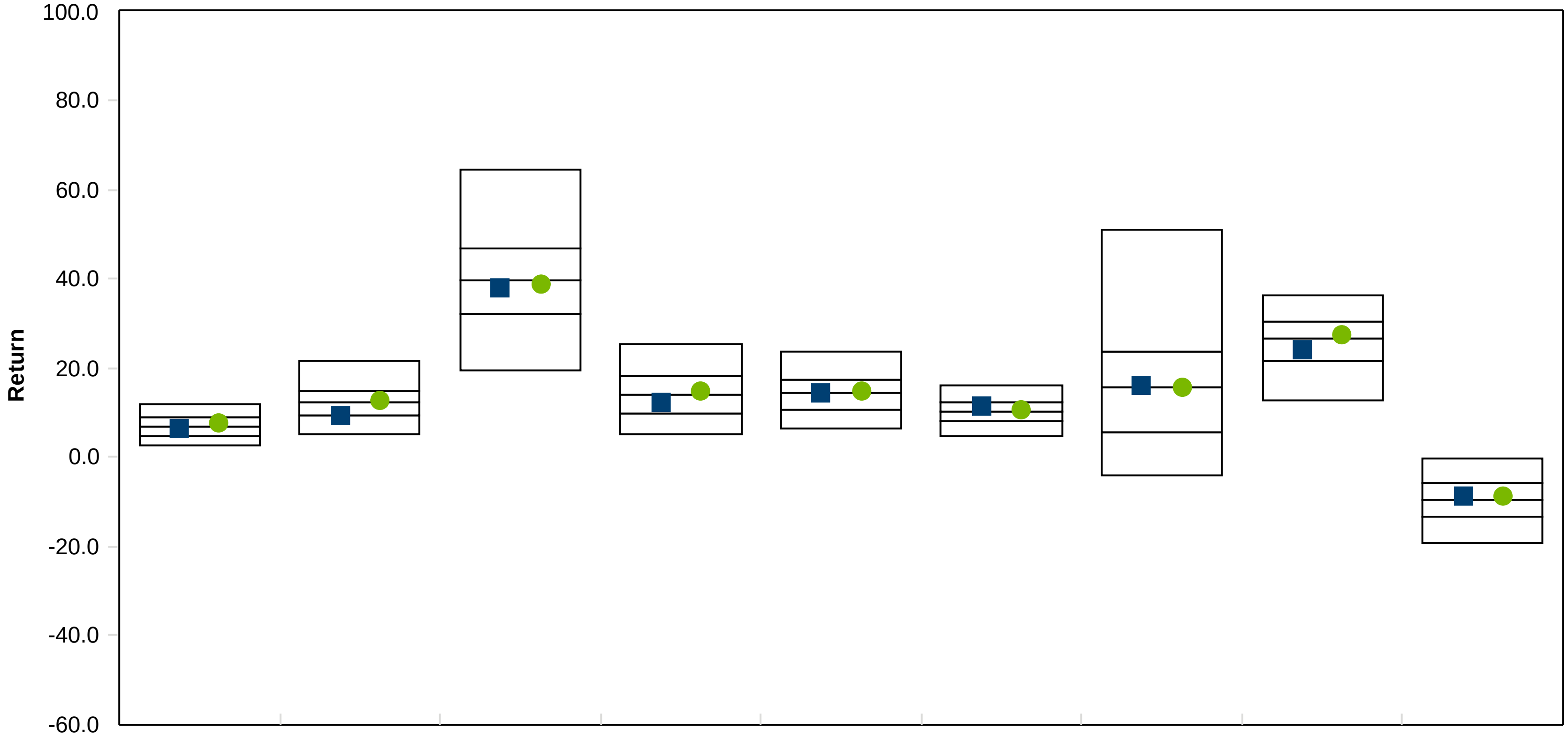
## Peer Group Analysis

### IM Global Equity (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ D.E. Shaw | 6.6 (54) | 9.7 (74) | 38.0 (60) | 12.3 (61) | 14.4 (51) | 11.6 (33) | 16.1 (50) | 24.2 (65) | -8.6 (45) |
| ● MSCI World Index (Net) | 7.7 (36) | 13.0 (41) | 39.0 (56) | 15.0 (45) | 14.8 (46) | 10.7 (46) | 15.9 (50) | 27.7 (44) | -8.7 (46) |
| 5th Percentile | 11.8 | 21.7 | 64.8 | 25.4 | 24.0 | 16.1 | 51.0 | 36.3 | -0.2 |
| 1st Quartile | 9.0 | 14.9 | 47.1 | 18.1 | 17.4 | 12.5 | 23.9 | 30.6 | -5.9 |
| Median | 6.7 | 12.3 | 39.9 | 14.2 | 14.5 | 10.4 | 15.9 | 26.6 | -9.4 |
| 3rd Quartile | 5.0 | 9.5 | 32.4 | 9.8 | 10.8 | 8.4 | 5.6 | 21.7 | -13.1 |
| 95th Percentile | 2.9 | 5.3 | 19.6 | 5.1 | 6.4 | 4.9 | -4.1 | 12.7 | -19.0 |
| Population | 338 | 338 | 334 | 321 | 290 | 181 | 370 | 400 | 411 |

Parentheses contain percentile rankings.





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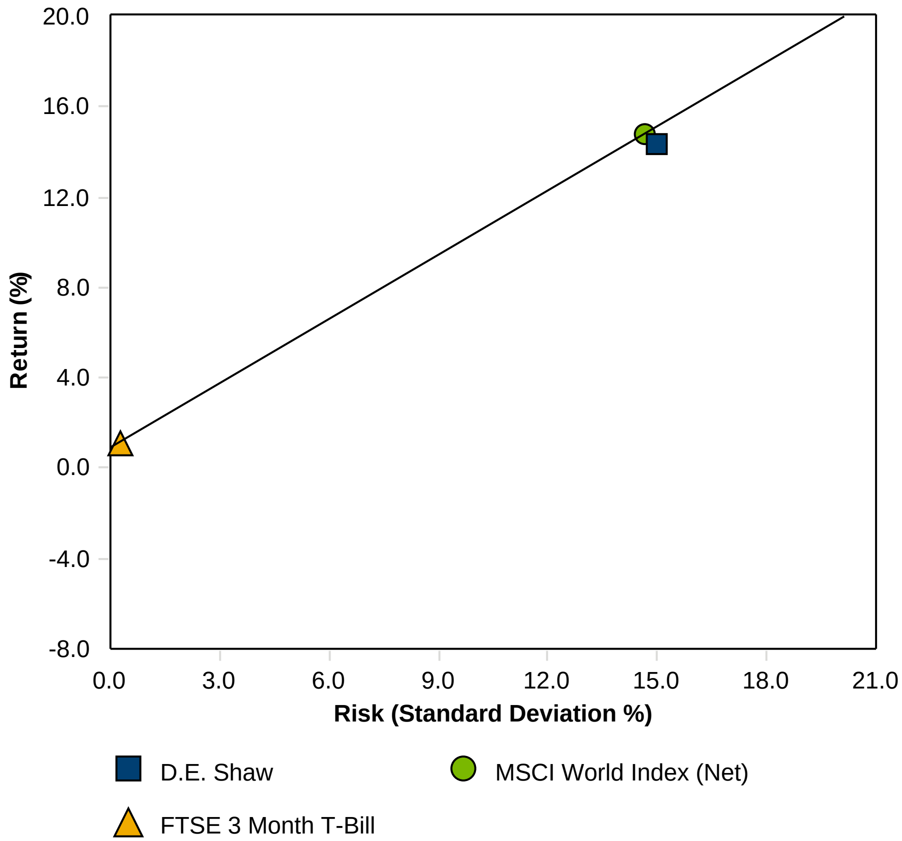
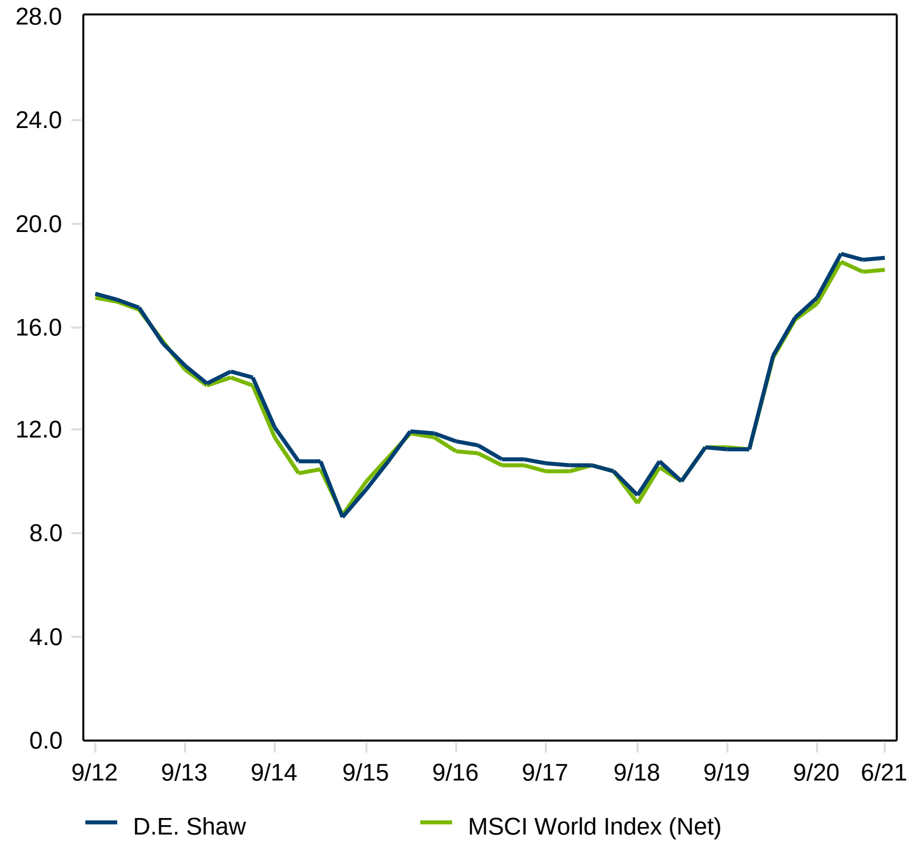
# D.E. Shaw Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 3 Years Standard Deviation




## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| D.E. Shaw | -0.35 | 2.40 | -0.15 | 0.97 | 0.90 | -0.45 | 1.01 | 14.38 | 14.97 | 0.99 |
| MSCI World Index (Net) | 0.00 | 0.00 | N/A | 1.00 | 0.94 | 0.00 | 1.00 | 14.83 | 14.68 | 1.00 |
| FTSE 3 Month T-Bill | -13.84 | 14.74 | -0.94 | 0.05 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.23 |

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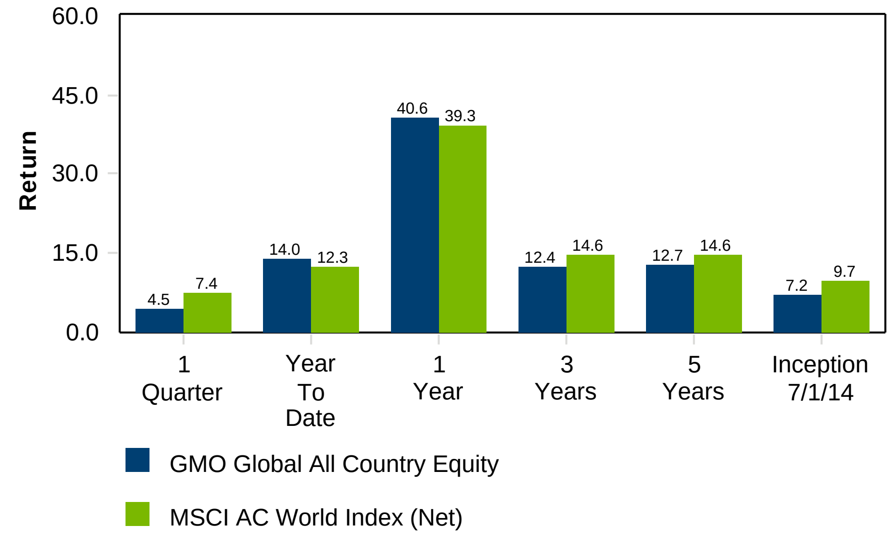
# GMO Global All Country Equity Performance Summary

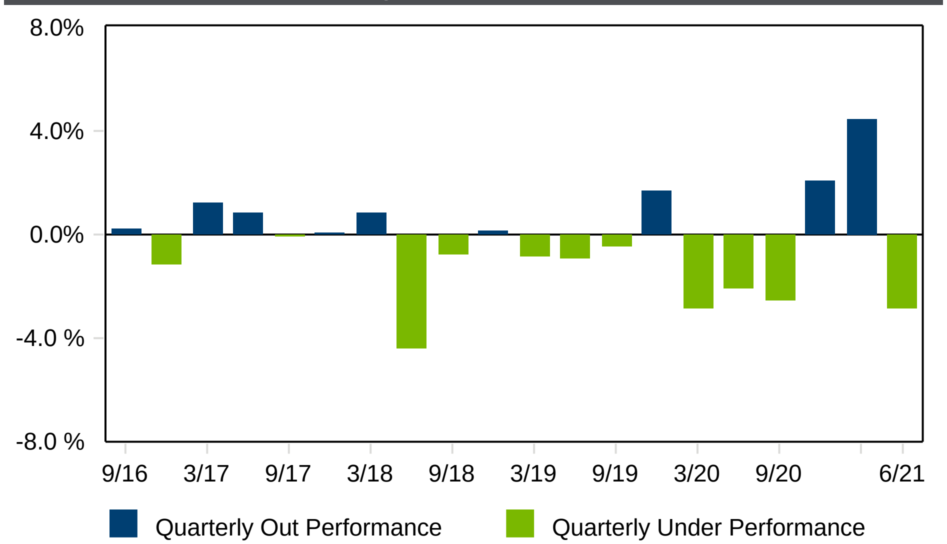
## Account Information as of 06/30/21

| | |
|---|---|
| Product Name : | GMO:Global Eq All;III (GMGEX) |
| Fund Family : | Grantham Mayo Van Otterloo & Co LLC |
| Ticker : | GMGEX |
| Peer Group : | IM Global Multi-Cap Core Equity (MF) |
| Benchmark : | MSCI AC World Index (Net) |
| Fund Inception : | 11/26/1996 |
| Portfolio Manager : | Team Managed |
| Total Assets : | $1,749.80 Million |
| Total Assets Date : | 05/31/2021 |
| Gross Expense : | 0.59% |
| Net Expense : | 0.58% |
| Turnover : | 20% |

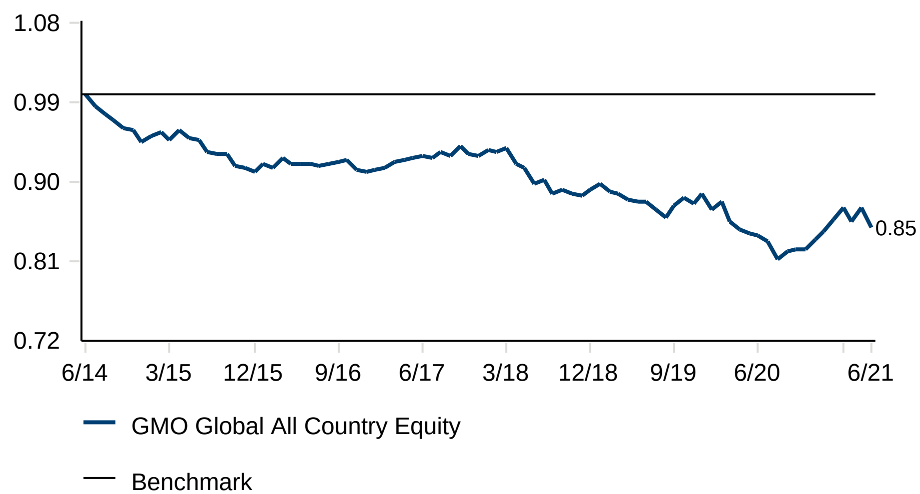
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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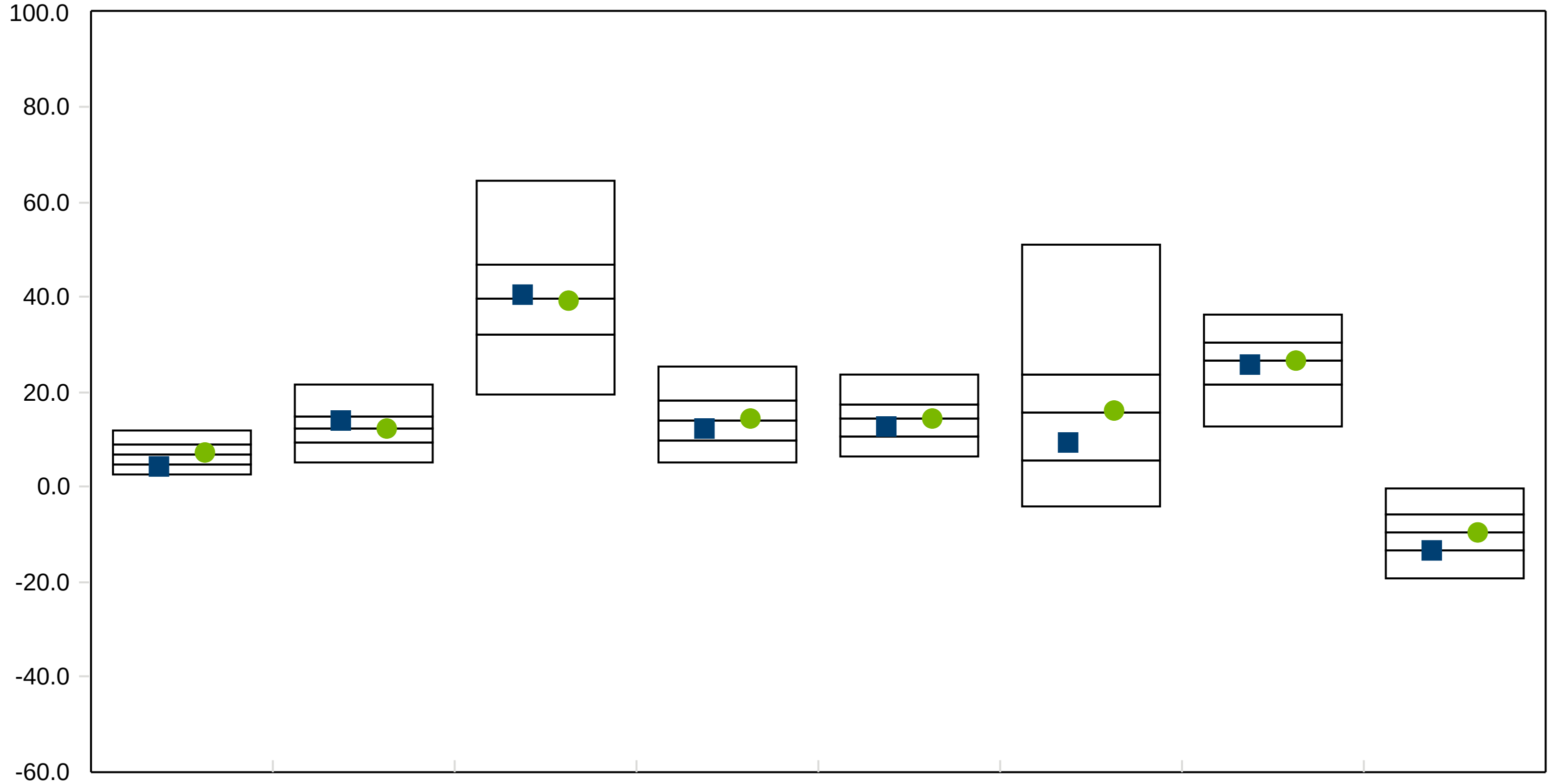
## Peer Group Analysis

### IM Global Equity (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|
| ■ GMO Global All Country Equity | 4.5 (83) | 14.0 (31) | 40.6 (48) | 12.4 (60) | 12.7 (62) | 9.5 (67) | 25.8 (56) | -13.1 (76) |
| ● MSCI AC World Index (Net) | 7.4 (41) | 12.3 (50) | 39.3 (55) | 14.6 (47) | 14.6 (48) | 16.3 (49) | 26.6 (50) | -9.4 (50) |
| 5th Percentile | 11.8 | 21.7 | 64.8 | 25.4 | 24.0 | 51.0 | 36.3 | -0.2 |
| 1st Quartile | 9.0 | 14.9 | 47.1 | 18.1 | 17.4 | 23.9 | 30.6 | -5.9 |
| Median | 6.7 | 12.3 | 39.9 | 14.2 | 14.5 | 15.9 | 26.6 | -9.4 |
| 3rd Quartile | 5.0 | 9.5 | 32.4 | 9.8 | 10.8 | 5.6 | 21.7 | -13.1 |
| 95th Percentile | 2.9 | 5.3 | 19.6 | 5.1 | 6.4 | -4.1 | 12.7 | -19.0 |
| Population | 338 | 338 | 334 | 321 | 290 | 370 | 400 | 411 |

Parentheses contain percentile rankings.

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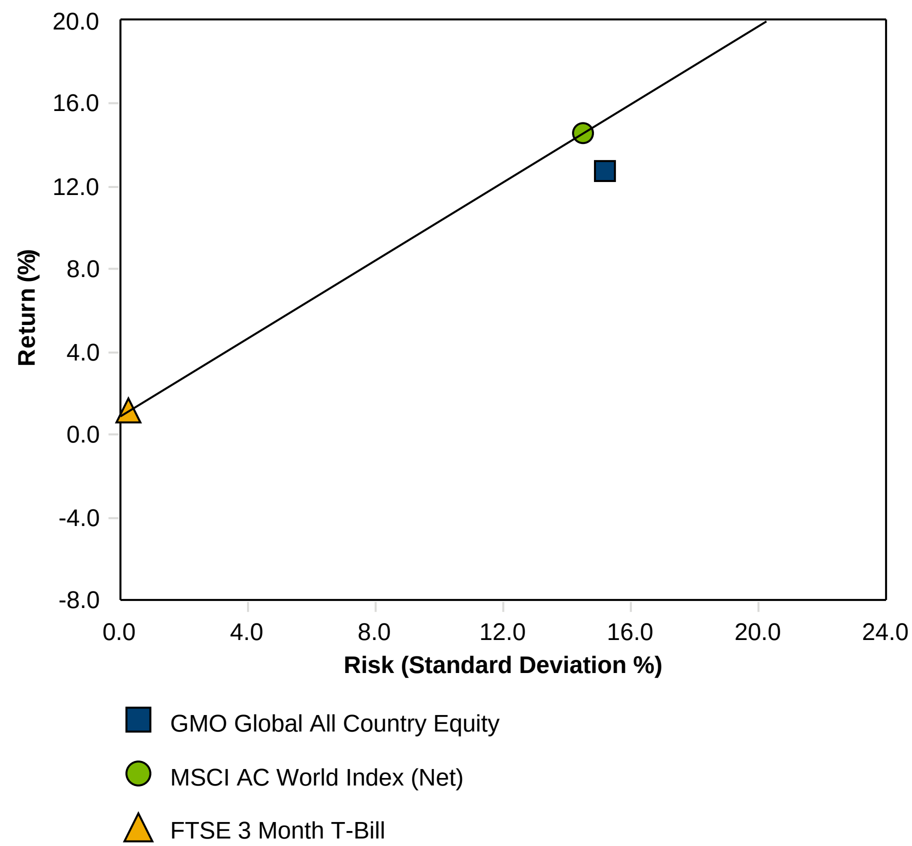
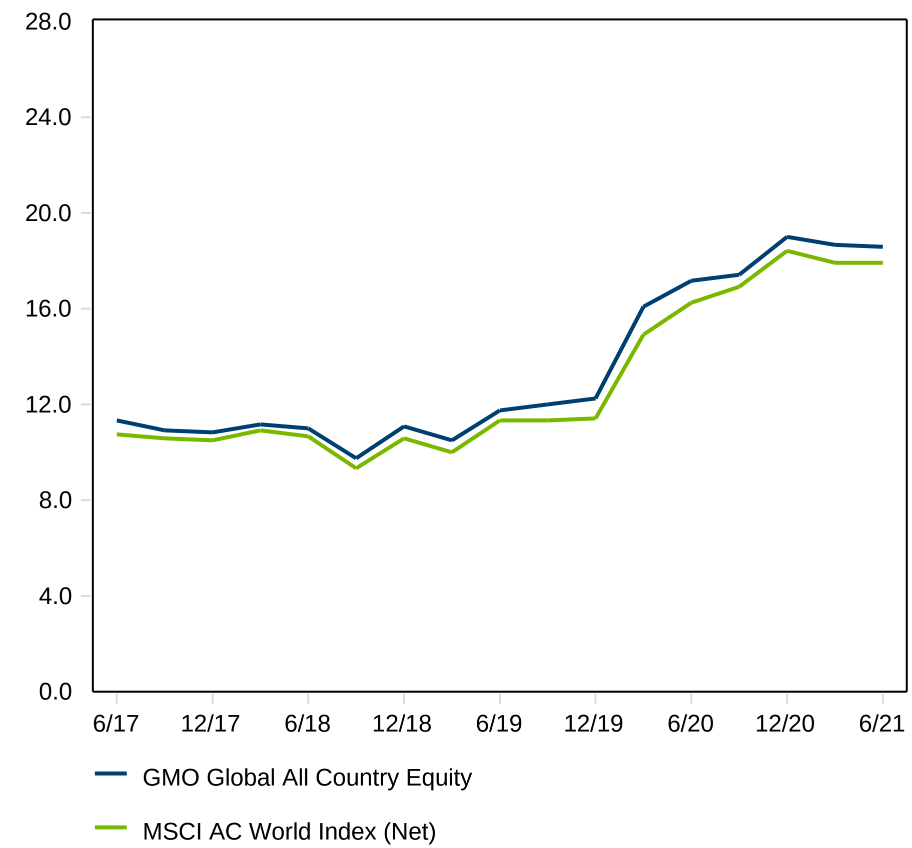
## GMO Global All Country Equity Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 3 Years Standard Deviation




### 5 Years Historical Statistics

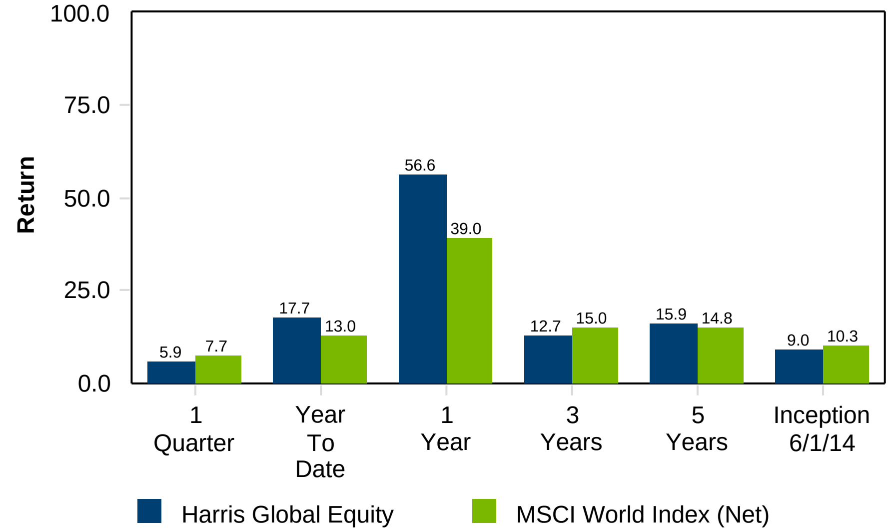
| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| GMO Global All Country Equity | -1.57 | 3.80 | -0.41 | 0.94 | 0.79 | -1.72 | 1.01 | 12.74 | 15.16 | 0.97 |
| MSCI AC World Index (Net) | 0.00 | 0.00 | N/A | 1.00 | 0.93 | 0.00 | 1.00 | 14.61 | 14.52 | 1.00 |
| FTSE 3 Month T-Bill | -13.63 | 14.58 | -0.93 | 0.06 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.24 |

# Harris Global Equity Performance Summary

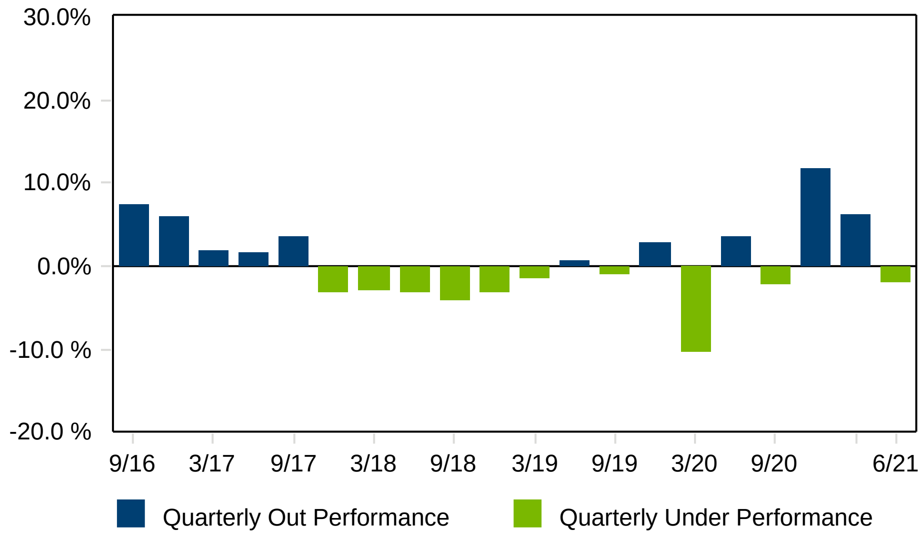
## Account Information

| | |
|---|---|
| Account Name: | Harris Global Equity |
| Inception Date: | 06/01/2014 |
| Account Structure: | Separate Account |
| Asset Class: | Global Equity |
| Benchmark: | MSCI World Index (Net) |
| Peer Group: | IM Global Equity (SA+CF) |

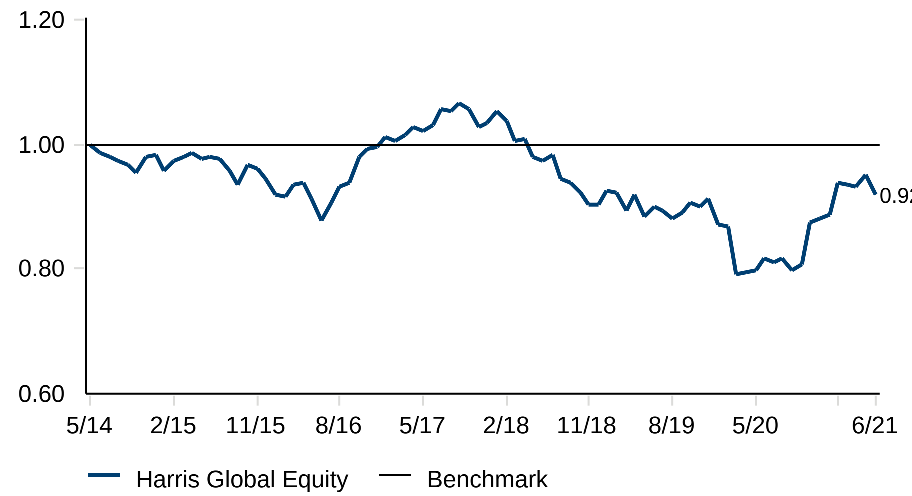
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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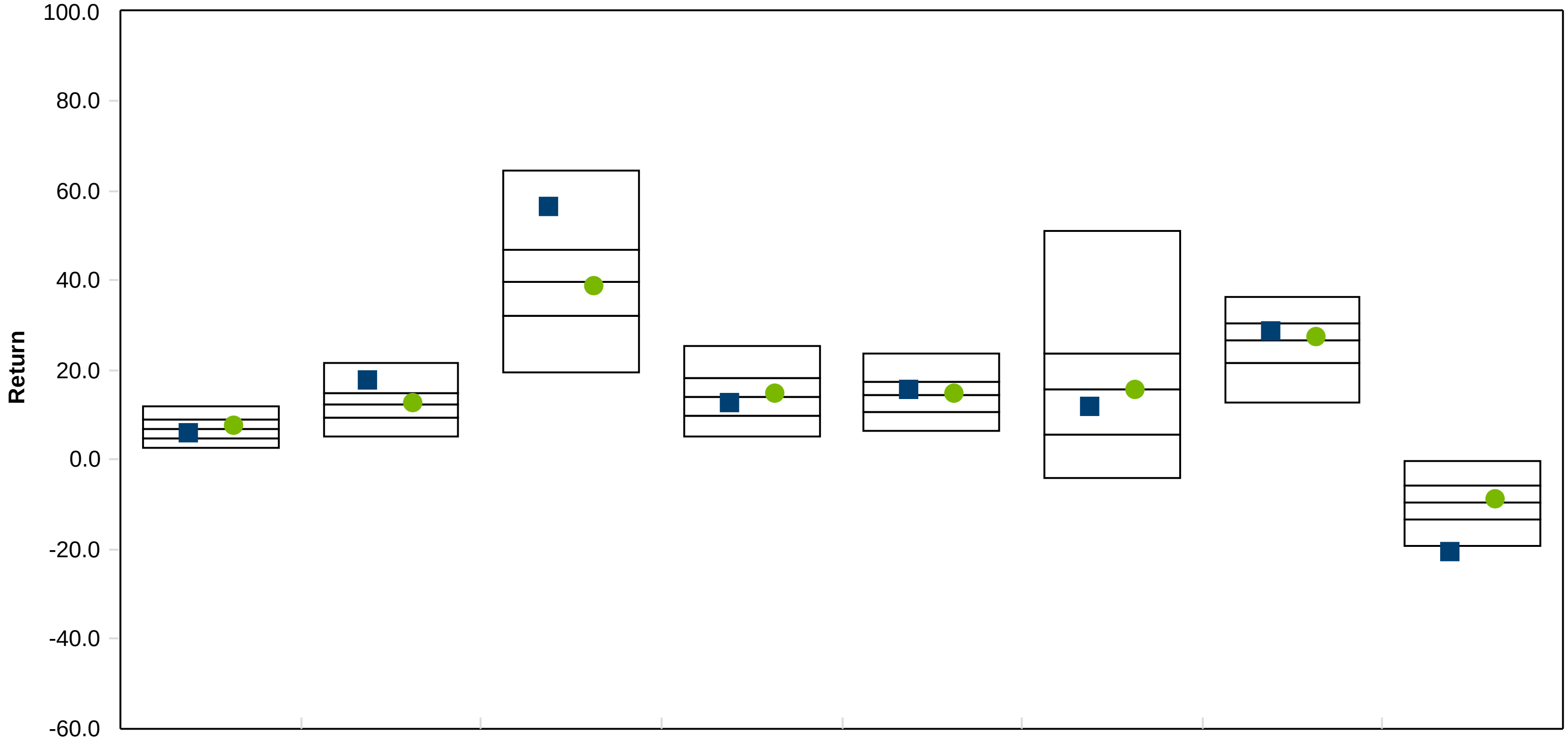
## Peer Group Analysis

### IM Global Equity (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|
| ■ Harris Global Equity | 5.9 (64) | 17.7 (14) | 56.6 (11) | 12.7 (58) | 15.9 (32) | 12.1 (60) | 28.9 (37) | -20.4 (97) |
| ● MSCI World Index (Net) | 7.7 (36) | 13.0 (41) | 39.0 (56) | 15.0 (45) | 14.8 (46) | 15.9 (50) | 27.7 (44) | -8.7 (46) |
| 5th Percentile | 11.8 | 21.7 | 64.8 | 25.4 | 24.0 | 51.0 | 36.3 | -0.2 |
| 1st Quartile | 9.0 | 14.9 | 47.1 | 18.1 | 17.4 | 23.9 | 30.6 | -5.9 |
| Median | 6.7 | 12.3 | 39.9 | 14.2 | 14.5 | 15.9 | 26.6 | -9.4 |
| 3rd Quartile | 5.0 | 9.5 | 32.4 | 9.8 | 10.8 | 5.6 | 21.7 | -13.1 |
| 95th Percentile | 2.9 | 5.3 | 19.6 | 5.1 | 6.4 | -4.1 | 12.7 | -19.0 |
| Population | 338 | 338 | 334 | 321 | 290 | 370 | 400 | 411 |

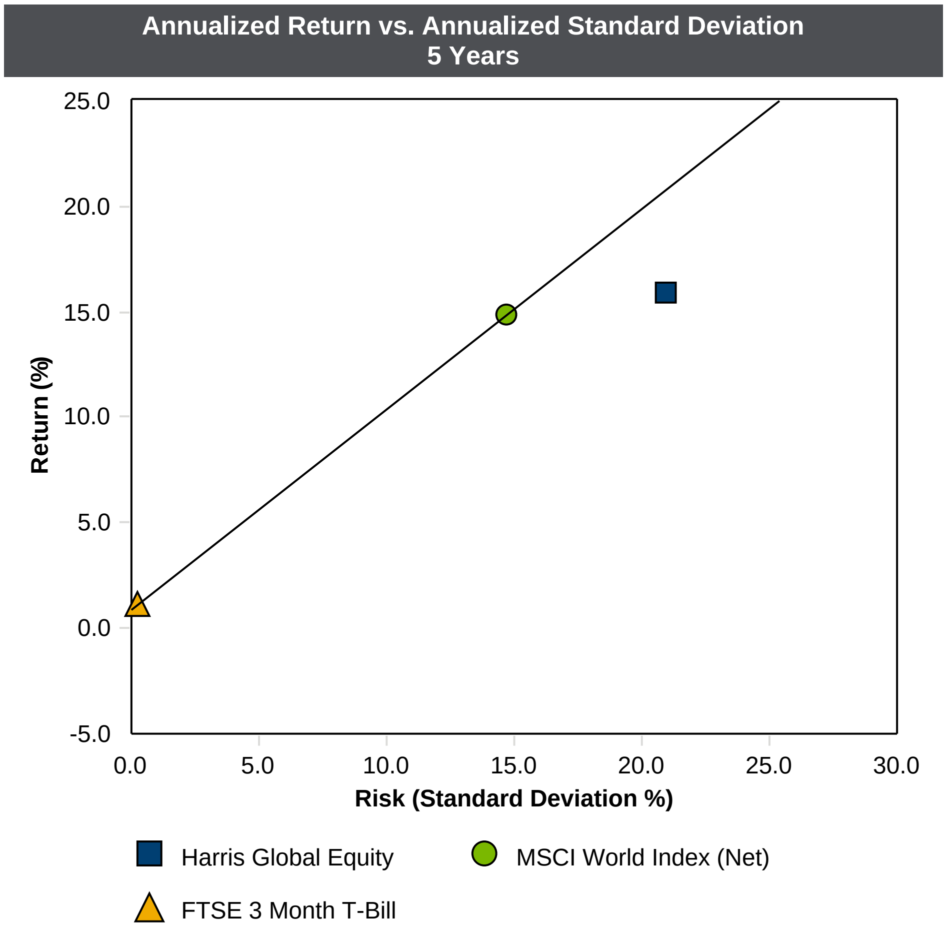
Parentheses contain percentile rankings.

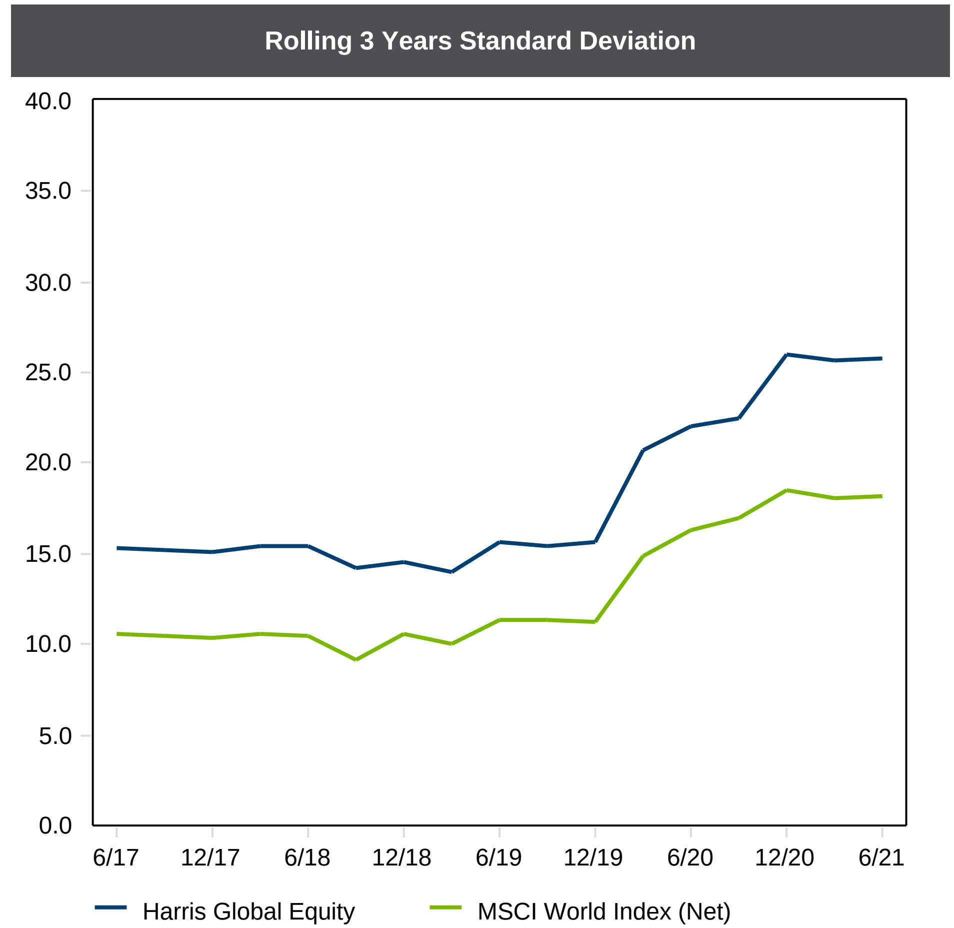




Empower Results®

# Harris Global Equity Risk Profile




## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Harris Global Equity | 2.04 | 8.90 | 0.23 | 0.87 | 0.76 | -2.93 | 1.33 | 15.89 | 20.95 | 0.93 |
| MSCI World Index (Net) | 0.00 | 0.00 | N/A | 1.00 | 0.94 | 0.00 | 1.00 | 14.83 | 14.68 | 1.00 |
| FTSE 3 Month T-Bill | -13.84 | 14.74 | -0.94 | 0.05 | N/A | 1.20 | 0.00 | 1.14 | 0.25 | -0.23 |

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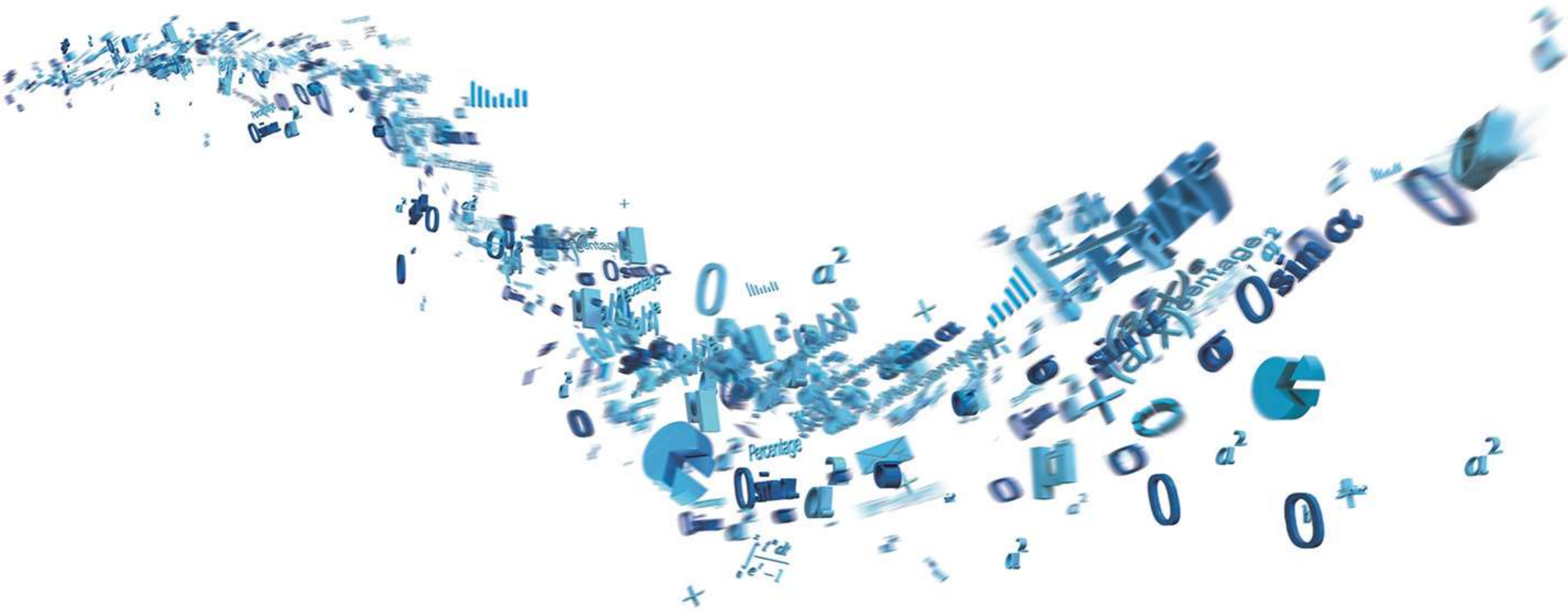
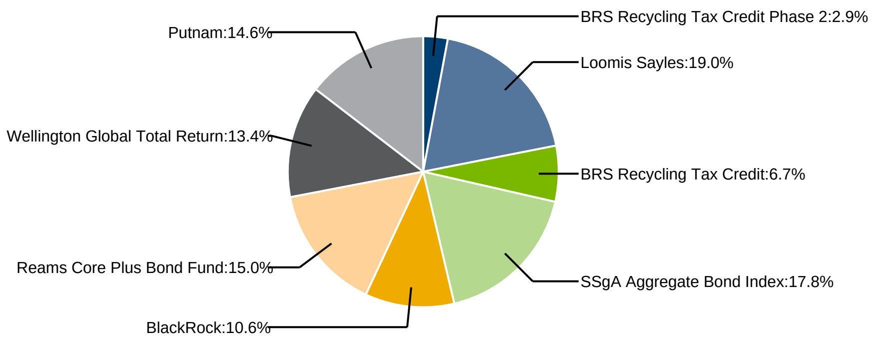


# Fixed Income

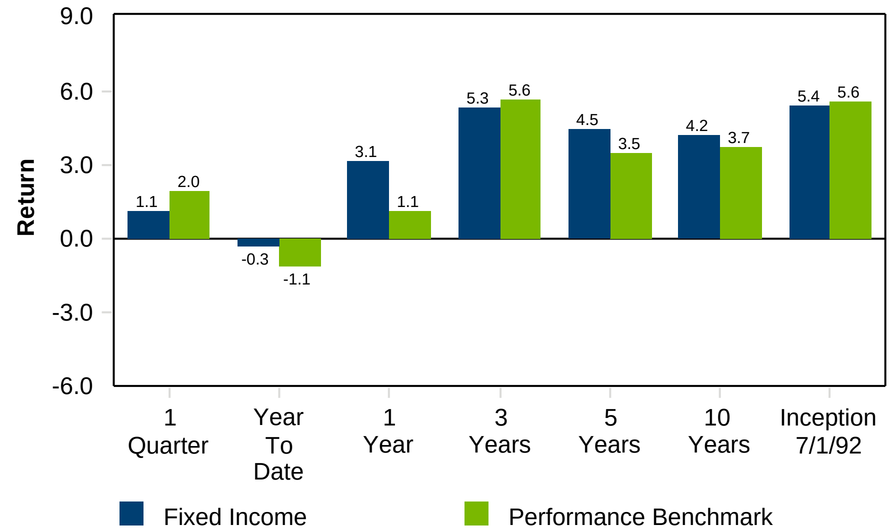
# Fixed Income Portfolio Overview

## Current Allocation

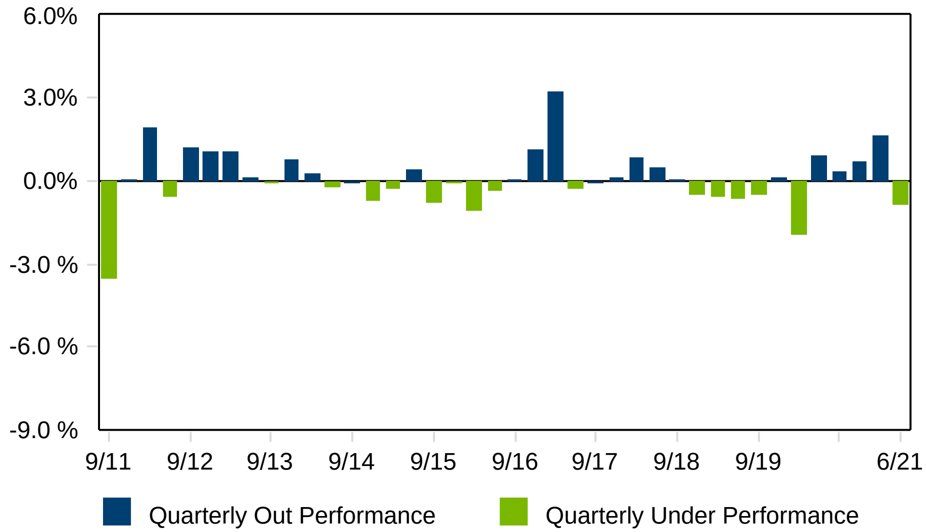
**June 30, 2021 : $2,641M**



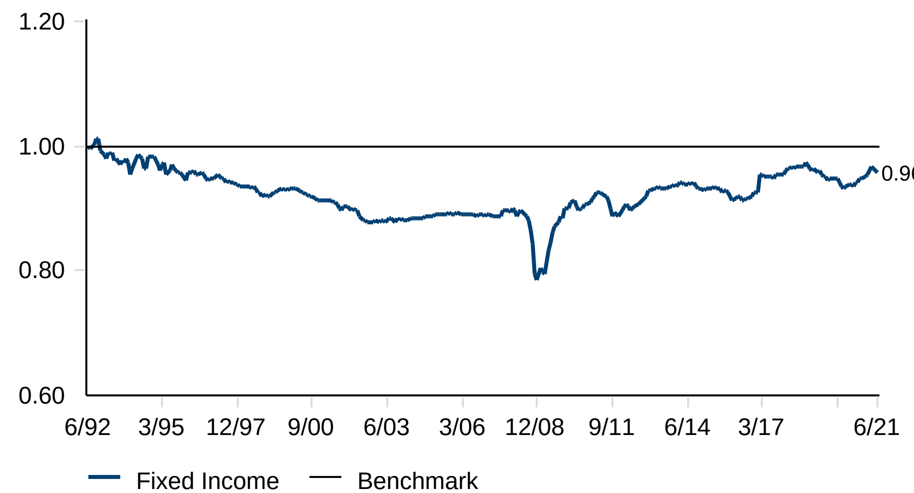

## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

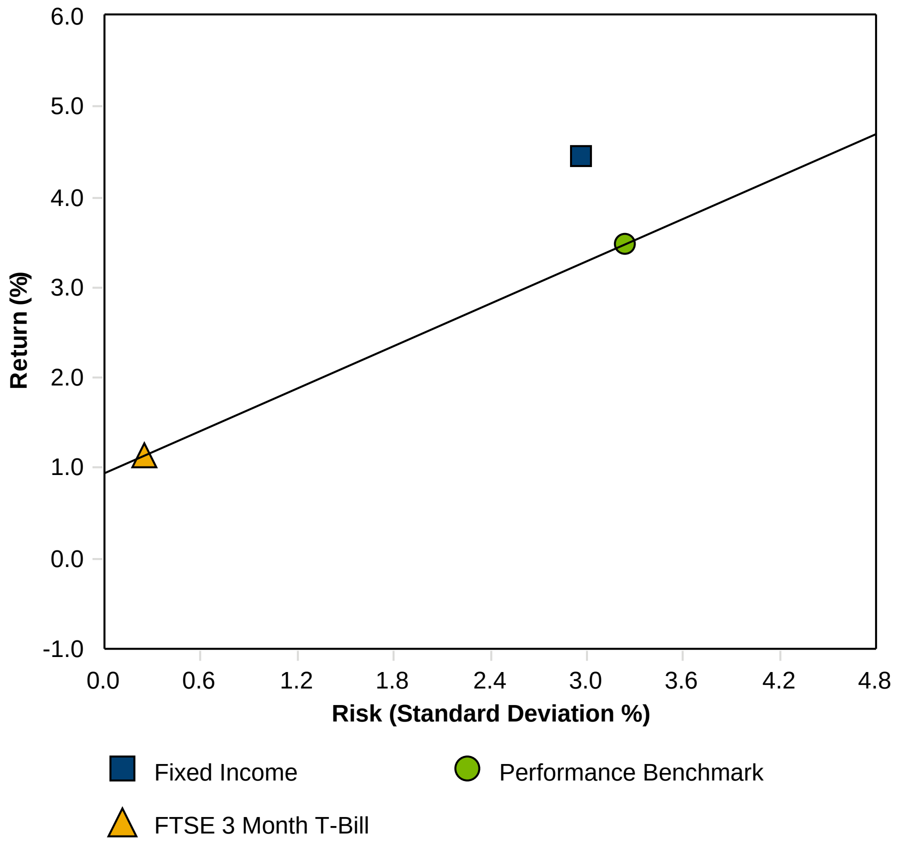




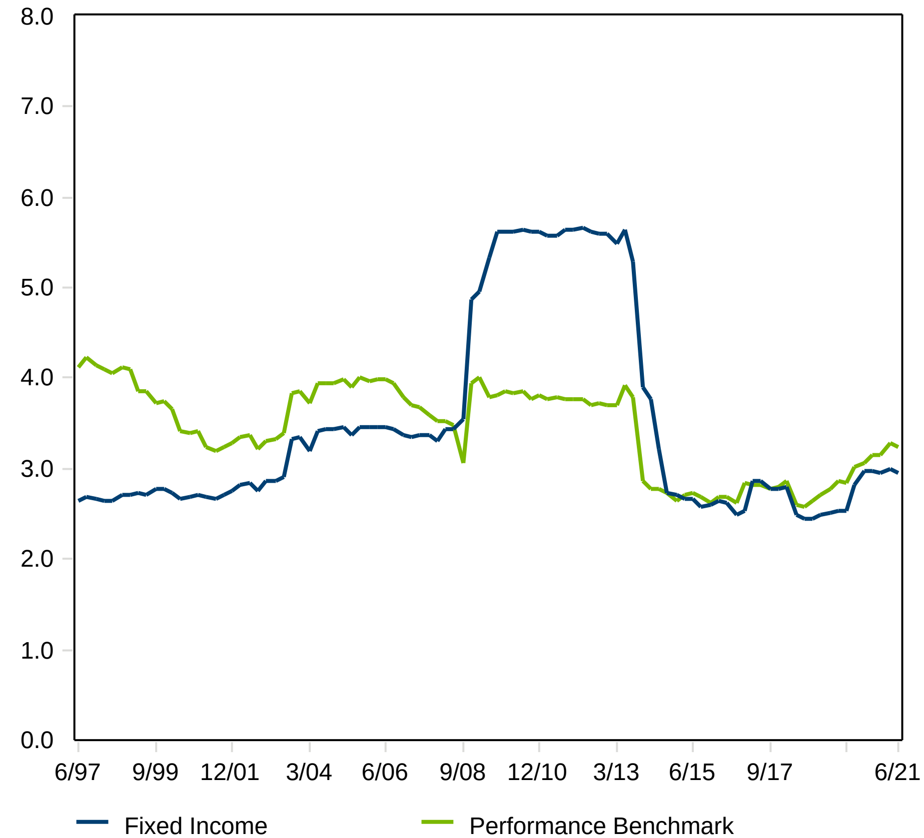

Empower Results®

# Fixed Income Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 5 Years Standard Deviation

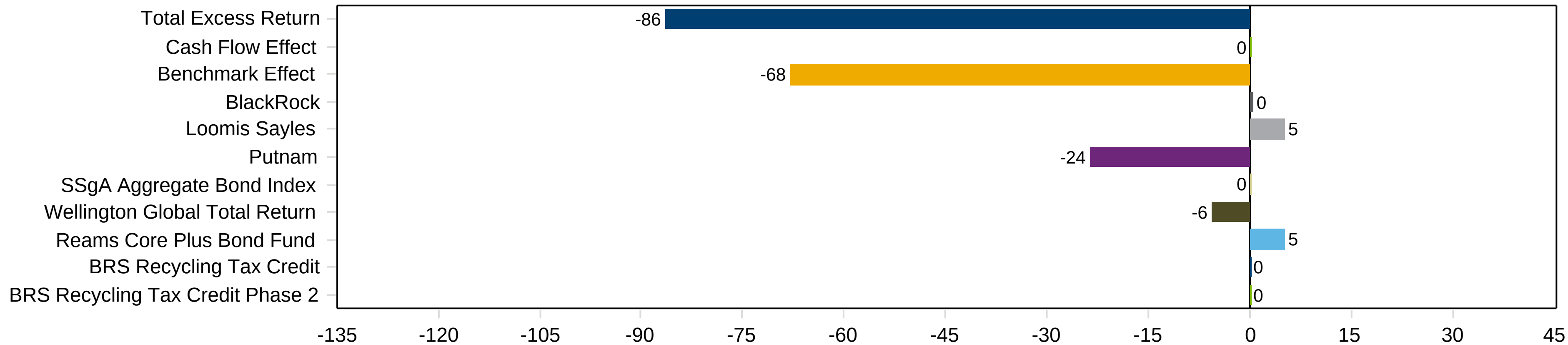



## 5 Years Historical Statistics

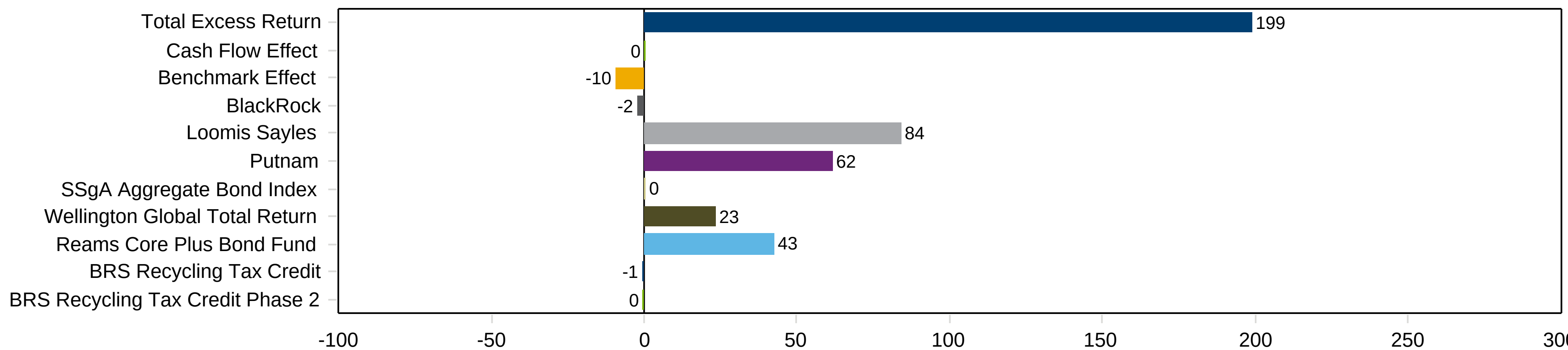
| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Fixed Income | 0.93 | 1.81 | 0.52 | 0.69 | 1.11 | 1.77 | 0.76 | 4.45 | 2.96 | 0.83 |
| Performance Benchmark | 0.00 | 0.00 | N/A | 1.00 | 0.73 | 0.00 | 1.00 | 3.48 | 3.23 | 1.00 |
| FTSE 3 Month T-Bill | -2.34 | 3.19 | -0.73 | 0.05 | N/A | 1.08 | 0.02 | 1.14 | 0.25 | 0.22 |

## Asset Class Attribution

### 1 Quarter




### 1 Year




*The BRS Recycling Tax Credit represents an annual income stream of $16 million dollars over the next 14 years, which ATRS purchased for approximately $162 million. This represents an approximate 9.9% yield for the 2017 fiscal year. The value shown above represents the year-end market value in accordance with GASB Statement 72, representing the 14 years of annual income, and has been incorporated into Total Fixed Income and Total Fund performance.





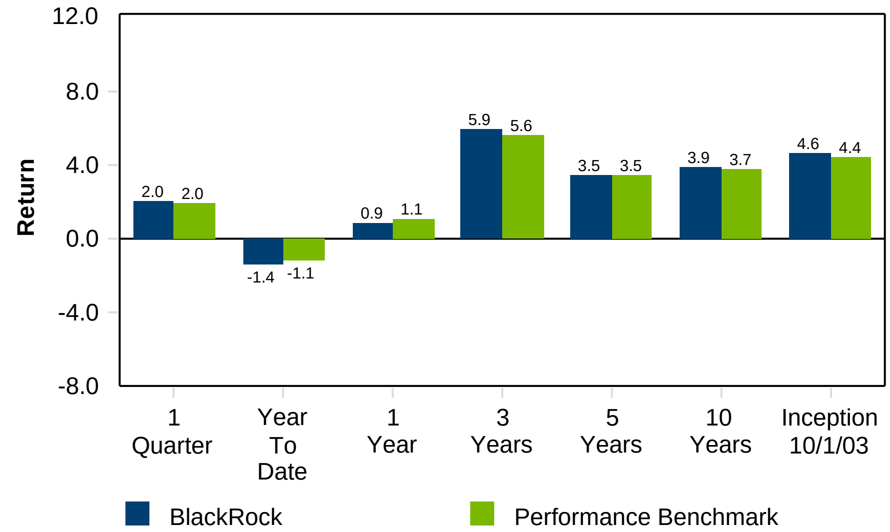
Empower Results®

# BlackRock Performance Summary

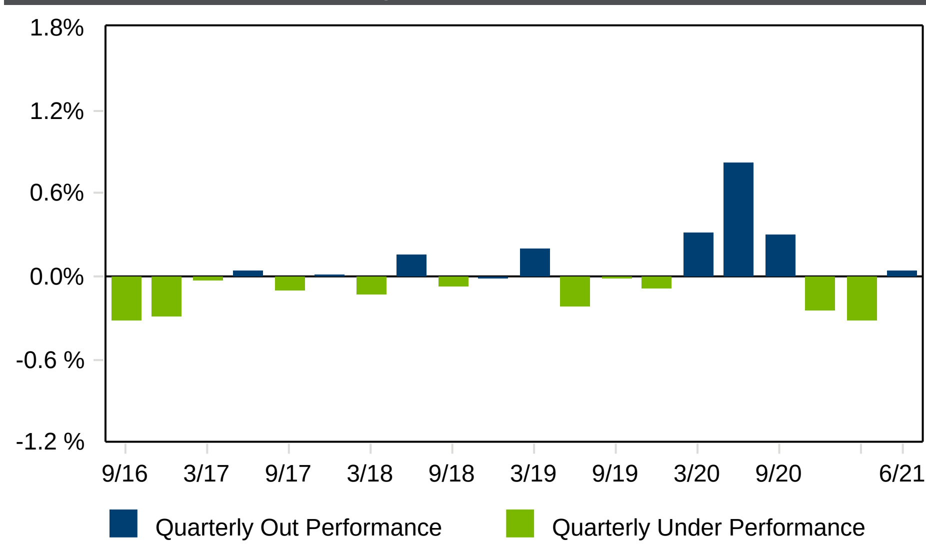
## Account Information

| | |
|---|---|
| Account Name: | BlackRock |
| Inception Date: | 09/30/2003 |
| Account Structure: | Separate Account |
| Asset Class: | US Fixed Income |
| Benchmark: | Performance Benchmark |
| Peer Group: | IM U.S. Fixed Income (SA+CF) |

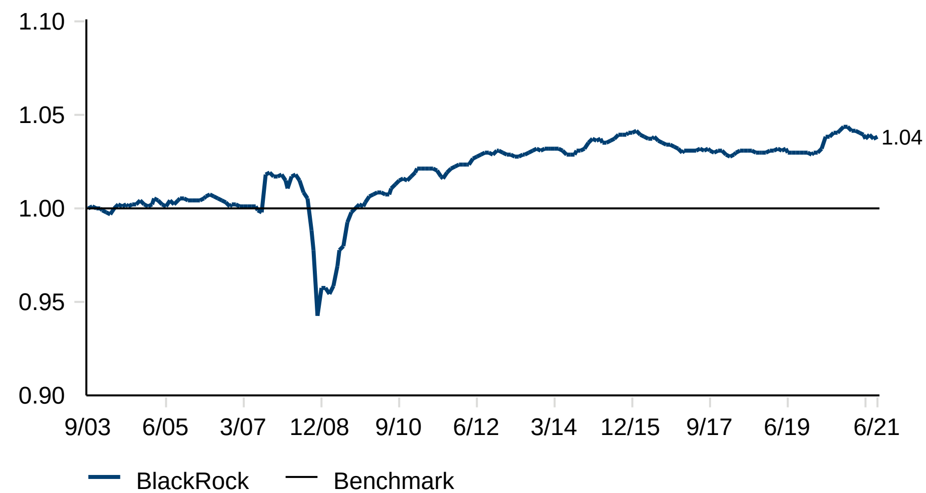
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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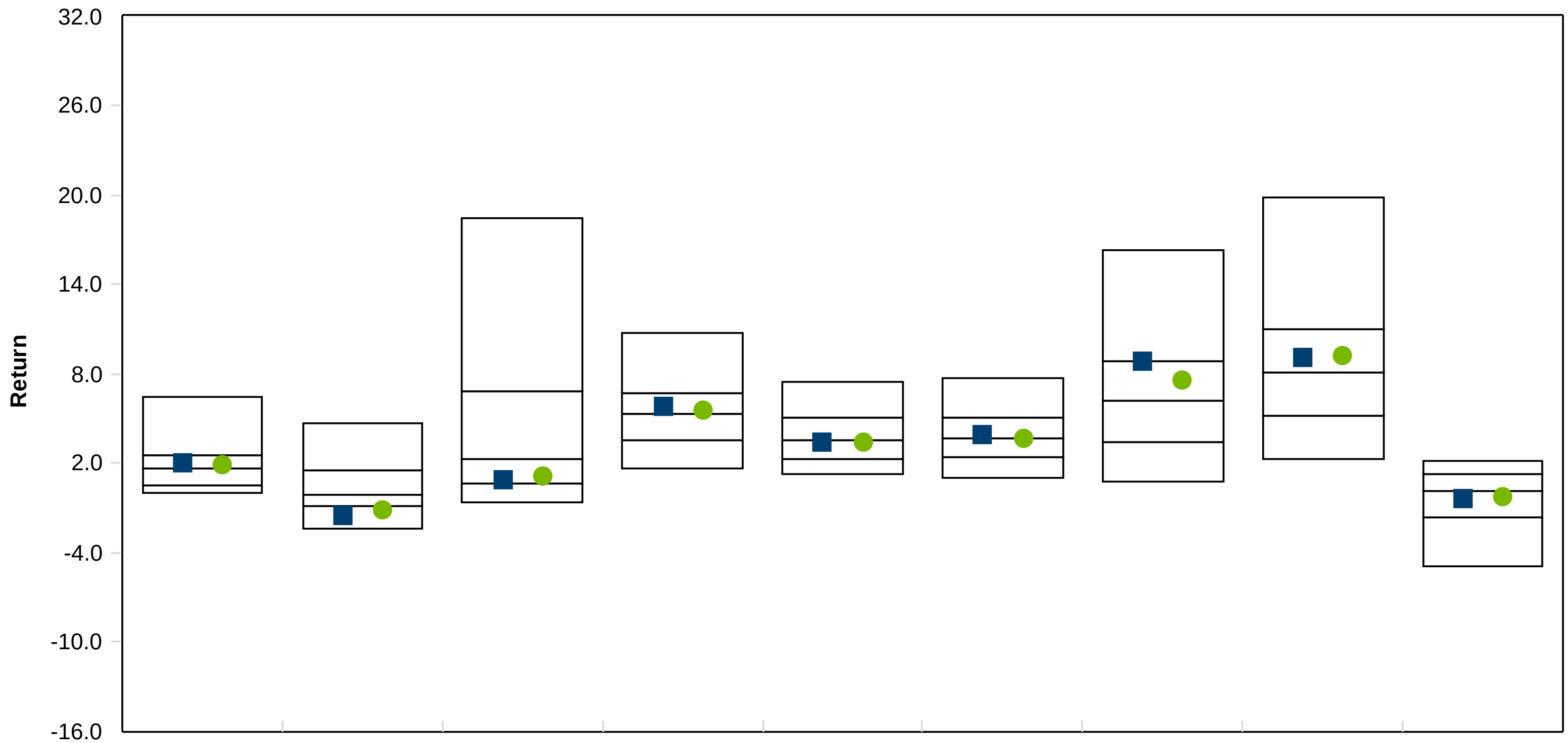
## Peer Group Analysis

**IM U.S. Fixed Income (SA+CF)**

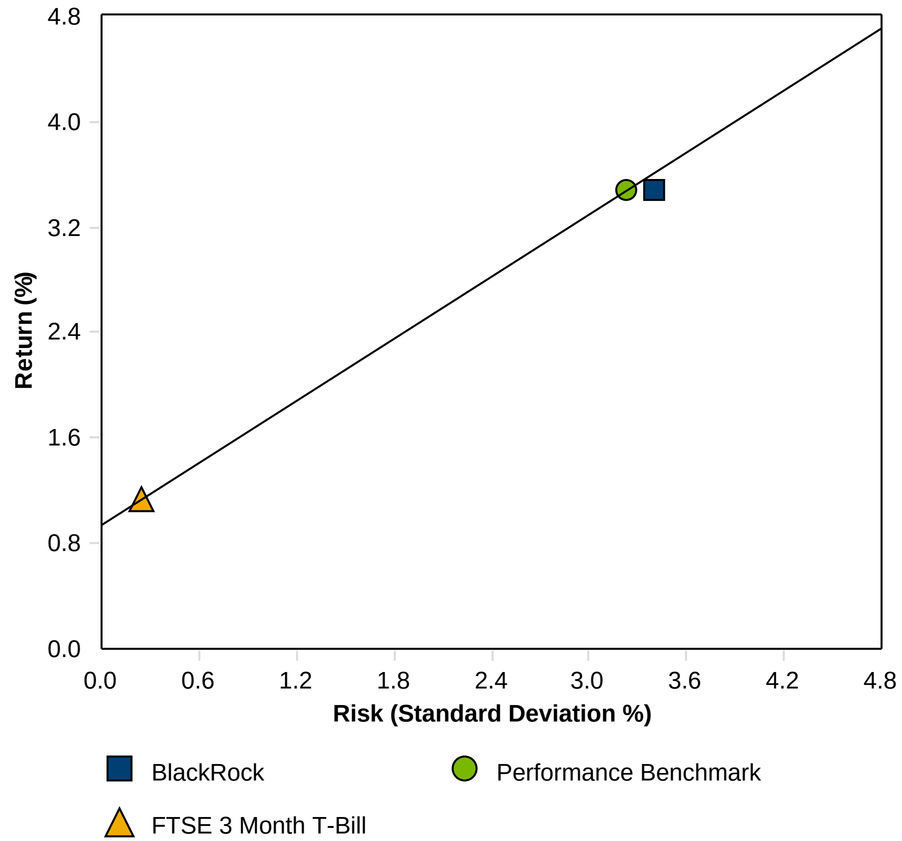



| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ BlackRock | 2.0 (41) | -1.4 (87) | 0.9 (72) | 5.9 (40) | 3.5 (53) | 3.9 (46) | 8.8 (26) | 9.2 (39) | -0.3 (59) |
| ● Performance Benchmark | 2.0 (42) | -1.1 (82) | 1.1 (68) | 5.6 (45) | 3.5 (53) | 3.7 (49) | 7.6 (37) | 9.3 (37) | -0.3 (58) |
| 5th Percentile | 6.5 | 4.7 | 18.5 | 10.8 | 7.5 | 7.7 | 16.3 | 19.8 | 2.2 |
| 1st Quartile | 2.5 | 1.6 | 6.9 | 6.7 | 5.1 | 5.2 | 8.8 | 11.1 | 1.3 |
| Median | 1.7 | 0.0 | 2.3 | 5.3 | 3.6 | 3.7 | 6.2 | 8.2 | 0.1 |
| 3rd Quartile | 0.6 | -0.9 | 0.6 | 3.5 | 2.3 | 2.4 | 3.5 | 5.2 | -1.6 |
| 95th Percentile | 0.0 | -2.3 | -0.6 | 1.7 | 1.3 | 1.0 | 0.8 | 2.4 | -4.9 |
| Population | 886 | 886 | 882 | 840 | 790 | 666 | 992 | 1,040 | 1,090 |

Parentheses contain percentile rankings.

# BlackRock Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 5 Years Standard Deviation


## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| BlackRock | 0.01 | 0.44 | 0.02 | 0.98 | 0.70 | -0.14 | 1.04 | 3.48 | 3.39 | 0.99 |
| Performance Benchmark | 0.00 | 0.00 | N/A | 1.00 | 0.73 | 0.00 | 1.00 | 3.48 | 3.23 | 1.00 |
| FTSE 3 Month T-Bill | -2.34 | 3.19 | -0.73 | 0.05 | N/A | 1.08 | 0.02 | 1.14 | 0.25 | 0.22 |





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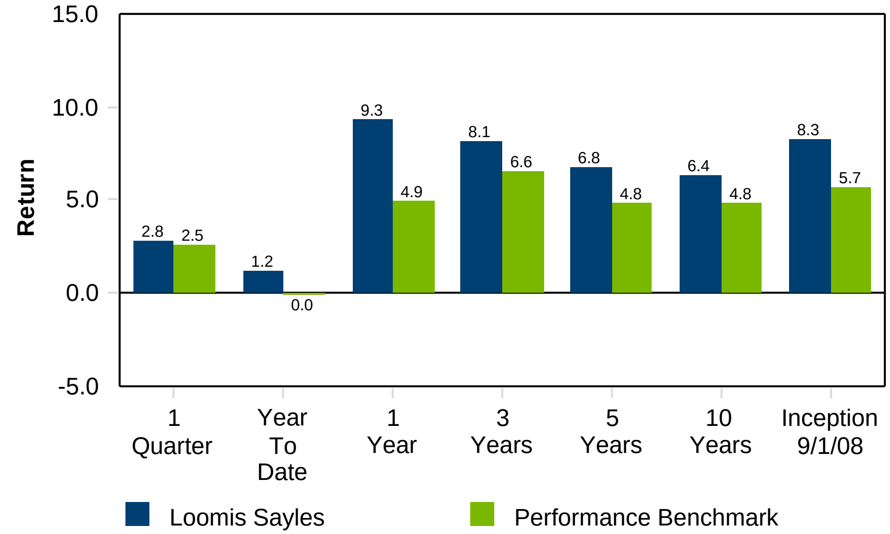
# Loomis Sayles Performance Summary

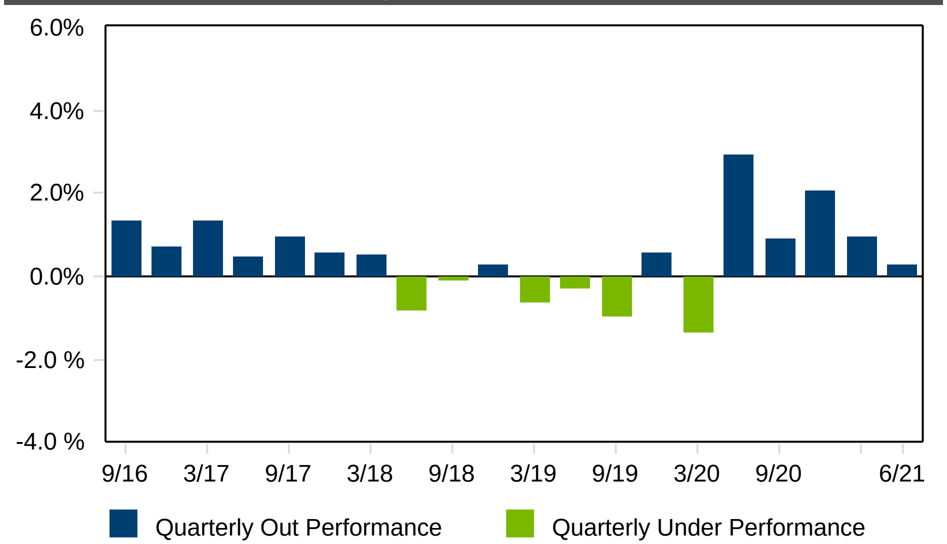
## Account Information

| | |
|---|---|
| Account Name: | Loomis Sayles |
| Inception Date: | 06/30/2008 |
| Account Structure: | Separate Account |
| Asset Class: | US Fixed Income |
| Benchmark: | Performance Benchmark |
| Peer Group: | IM U.S. Fixed Income (SA+CF) |

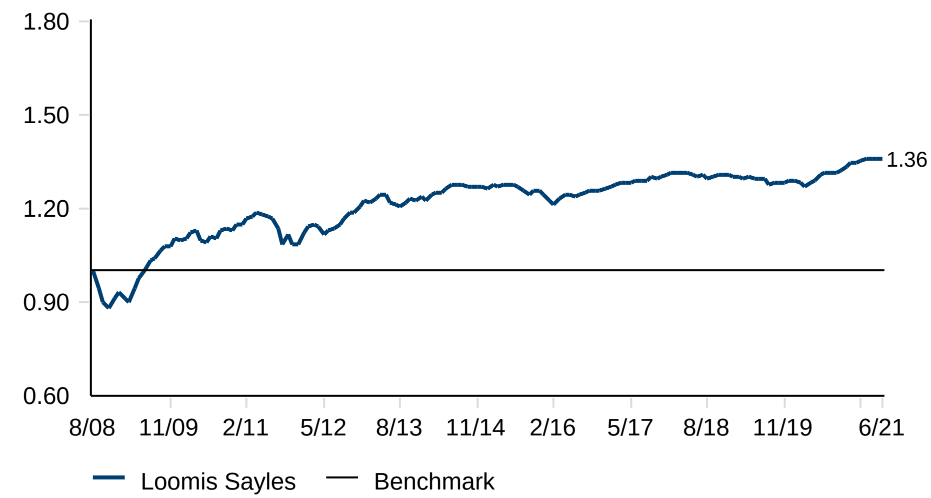
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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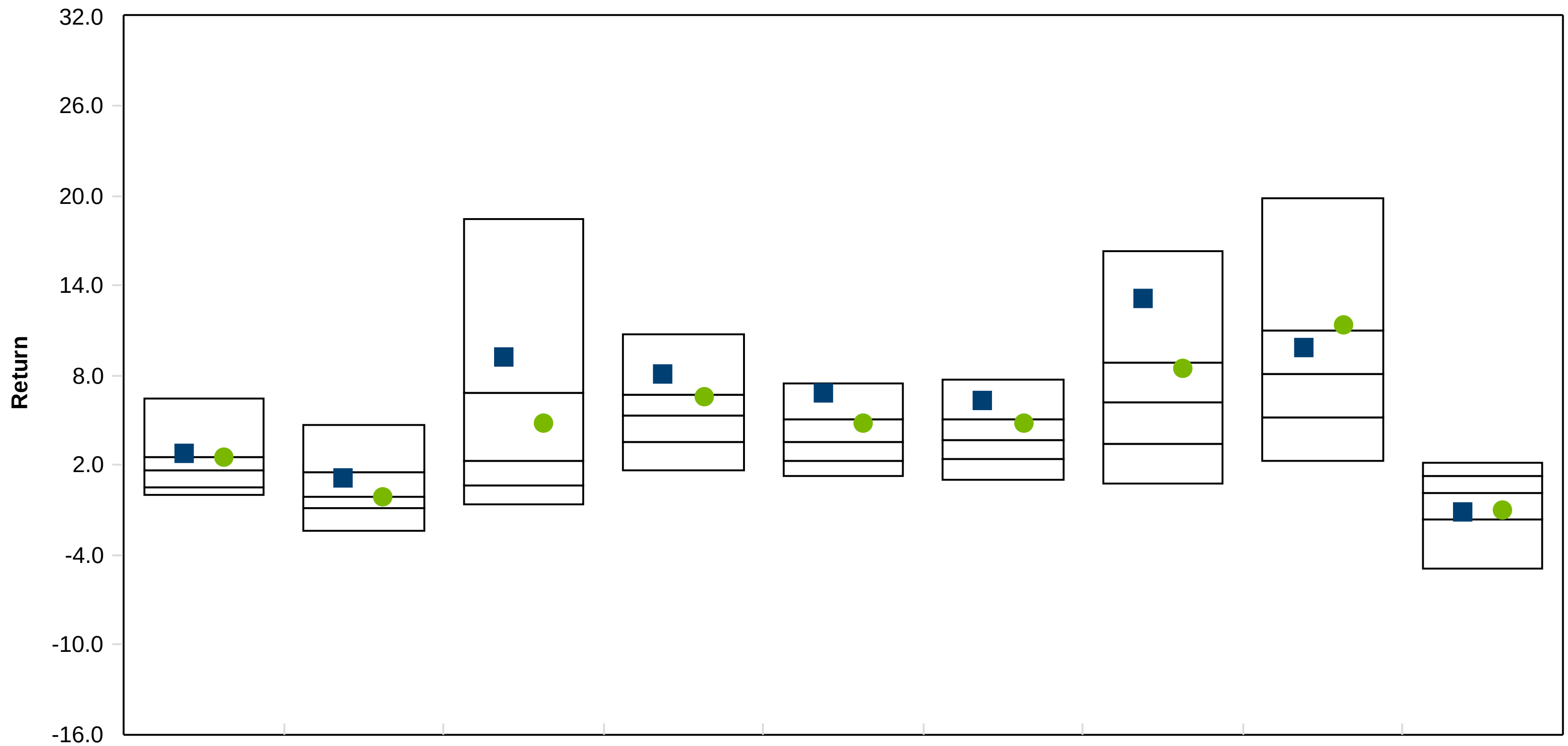
## Peer Group Analysis

**IM U.S. Fixed Income (SA+CF)**

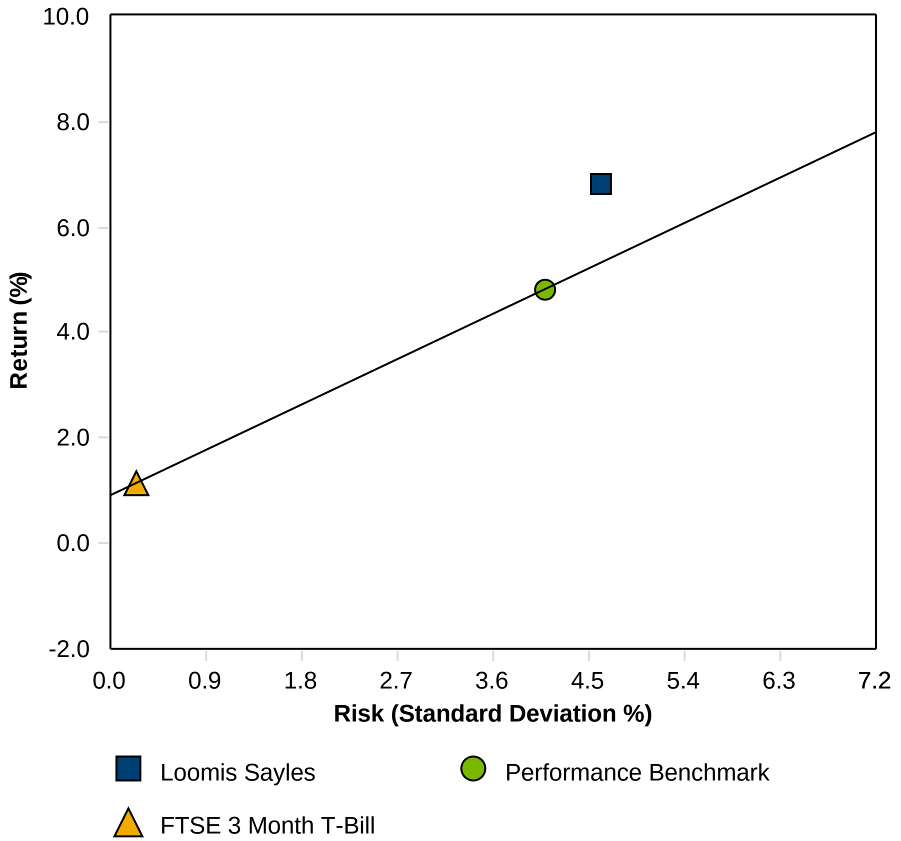



| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Loomis Sayles | 2.8 (20) | 1.2 (29) | 9.3 (20) | 8.1 (13) | 6.8 (11) | 6.4 (13) | 13.1 (9) | 10.0 (31) | -1.1 (71) |
| ● Performance Benchmark | 2.5 (25) | 0.0 (51) | 4.9 (33) | 6.6 (29) | 4.8 (28) | 4.8 (30) | 8.5 (27) | 11.4 (25) | -1.0 (69) |
| 5th Percentile | 6.5 | 4.7 | 18.5 | 10.8 | 7.5 | 7.7 | 16.3 | 19.8 | 2.2 |
| 1st Quartile | 2.5 | 1.6 | 6.9 | 6.7 | 5.1 | 5.2 | 8.8 | 11.1 | 1.3 |
| Median | 1.7 | 0.0 | 2.3 | 5.3 | 3.6 | 3.7 | 6.2 | 8.2 | 0.1 |
| 3rd Quartile | 0.6 | -0.9 | 0.6 | 3.5 | 2.3 | 2.4 | 3.5 | 5.2 | -1.6 |
| 95th Percentile | 0.0 | -2.3 | -0.6 | 1.7 | 1.3 | 1.0 | 0.8 | 2.4 | -4.9 |
| Population | 886 | 886 | 882 | 840 | 790 | 666 | 992 | 1,040 | 1,090 |

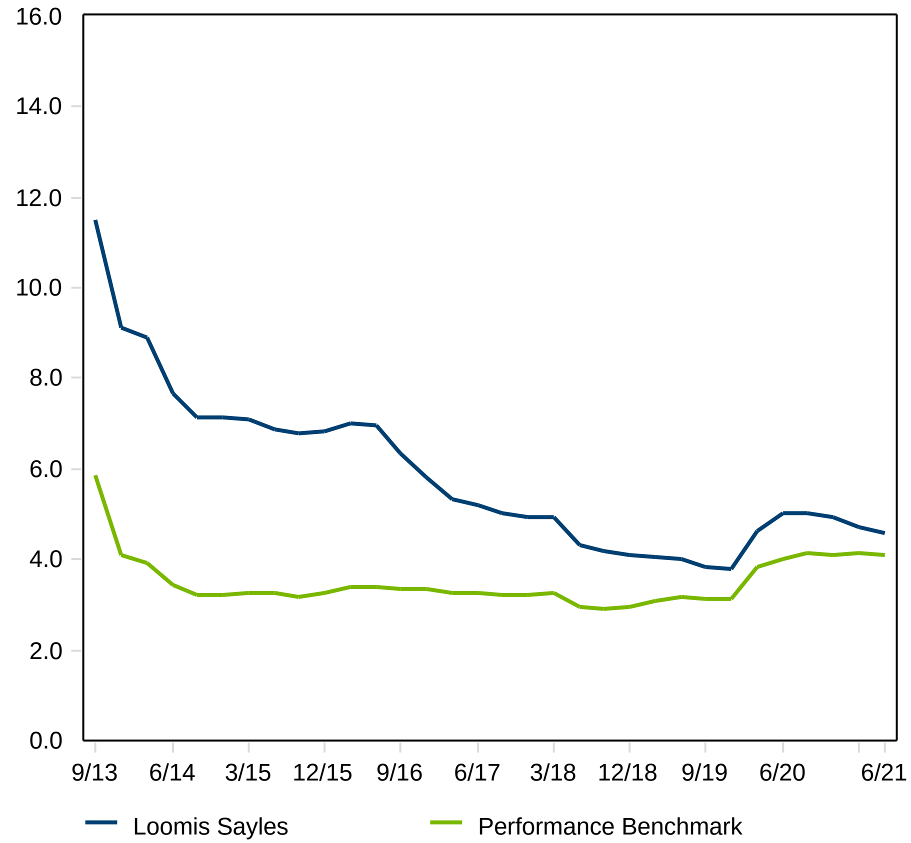
Parentheses contain percentile rankings.

# Loomis Sayles Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 5 Years Standard Deviation




## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Loomis Sayles | 1.92 | 1.58 | 1.21 | 0.88 | 1.20 | 1.65 | 1.06 | 6.82 | 4.60 | 0.94 |
| Performance Benchmark | 0.00 | 0.00 | N/A | 1.00 | 0.90 | 0.00 | 1.00 | 4.82 | 4.09 | 1.00 |
| FTSE 3 Month T-Bill | -3.67 | 4.09 | -0.90 | 0.00 | N/A | 1.13 | 0.00 | 1.14 | 0.25 | 0.04 |

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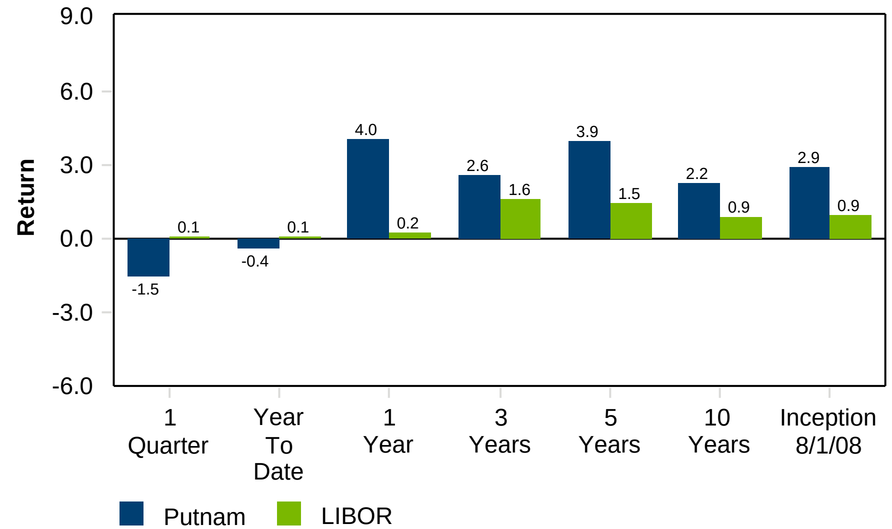
# Putnam Performance Summary

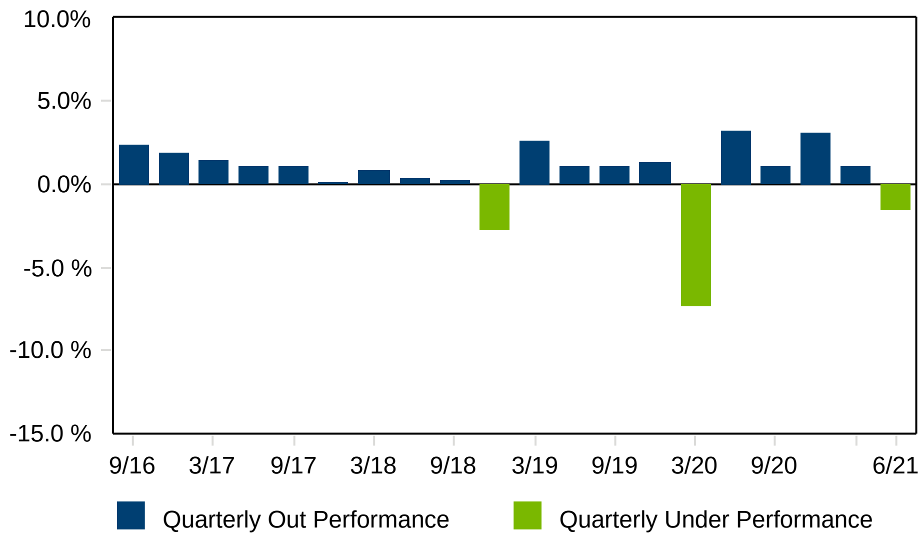
## Account Information

| | |
|---|---|
| Account Name: | Putnam |
| Inception Date: | 06/30/2008 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Fixed Income |
| Benchmark: | LIBOR |
| Peer Group: | IM U.S. Fixed Income (SA+CF) |

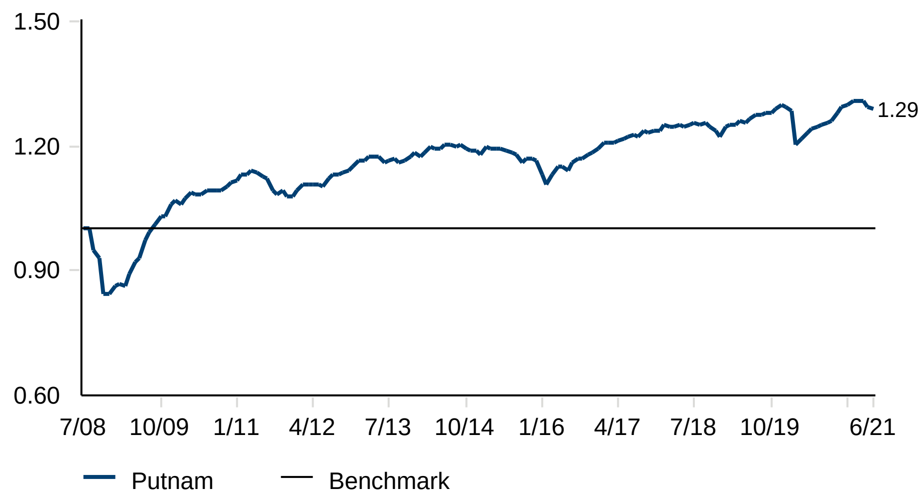
## Return Summary




## Quarterly Excess Performance

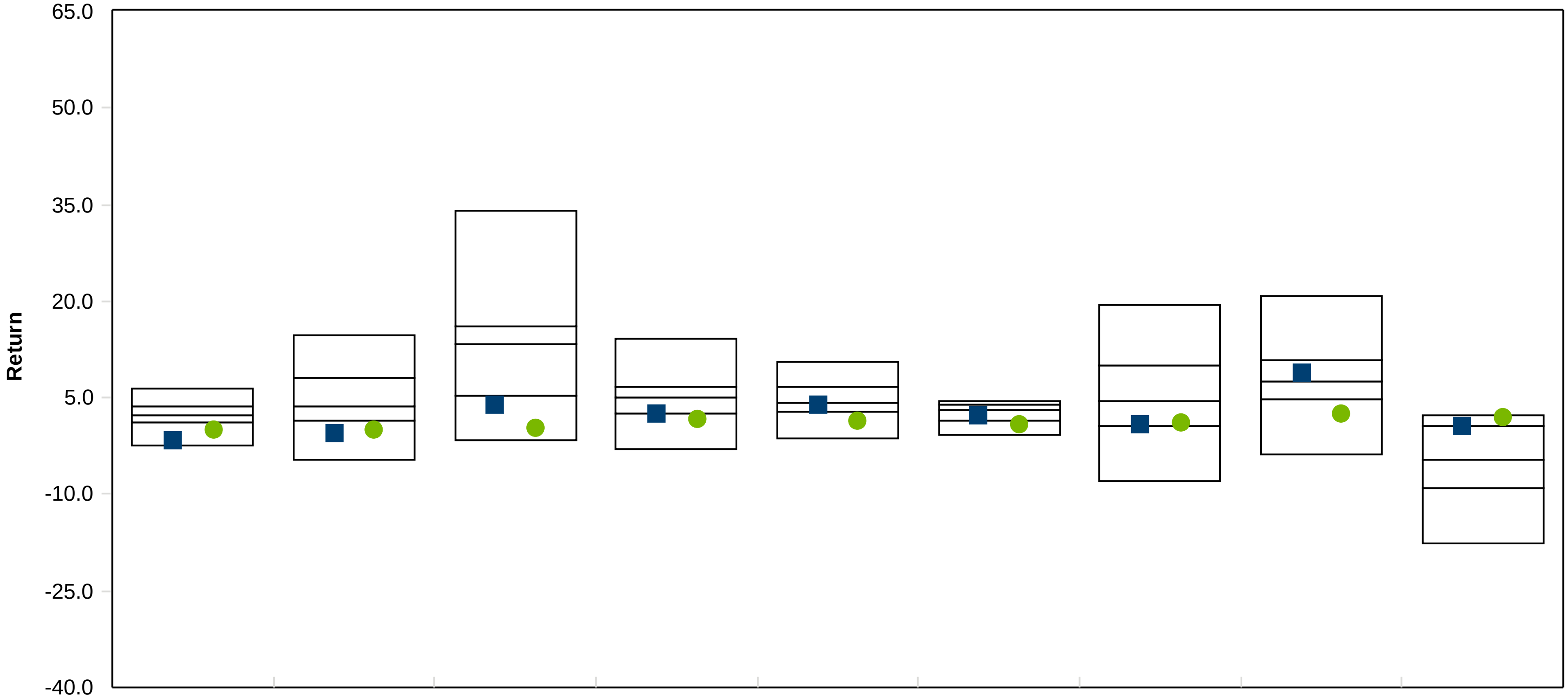



## Ratio of Cumulative Wealth - Since Inception



## Peer Group Analysis

### IM Absolute Return (MF)

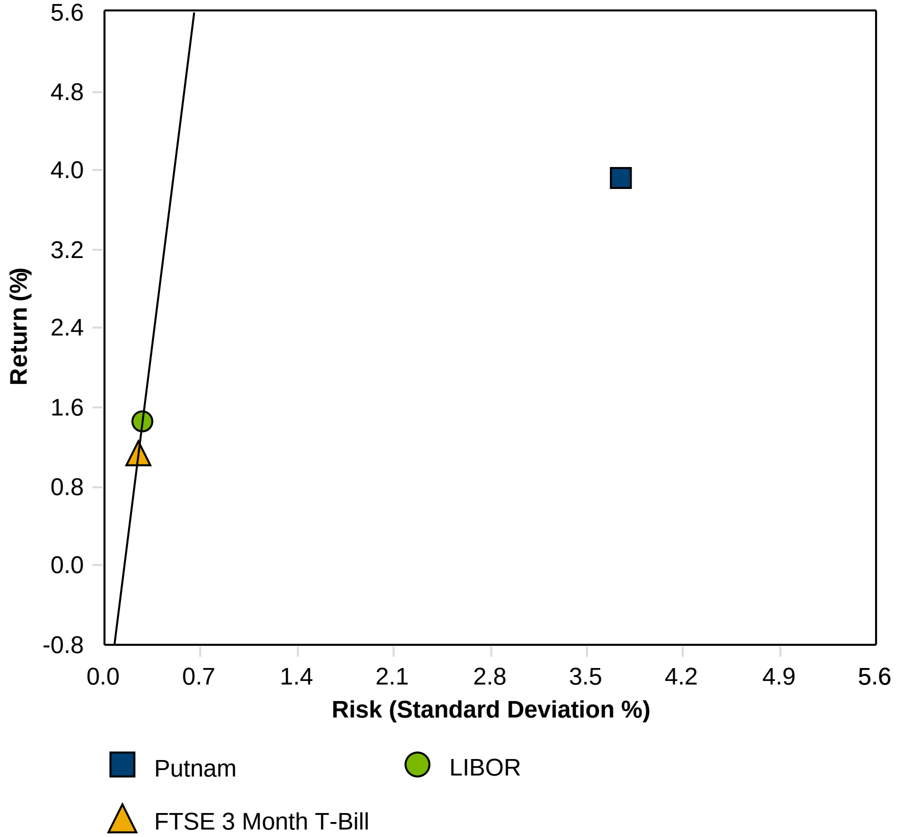



| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|---|
| ■ Putnam | -1.5 (94) | -0.4 (87) | 4.0 (82) | 2.6 (76) | 3.9 (60) | 2.2 (62) | 0.9 (73) | 9.0 (31) | 0.7 (23) |
| ● LIBOR | 0.1 (89) | 0.1 (84) | 0.2 (89) | 1.6 (85) | 1.5 (82) | 0.9 (81) | 1.1 (72) | 2.6 (84) | 2.1 (6) |
| 5th Percentile | 6.3 | 14.6 | 34.0 | 14.2 | 10.7 | 4.6 | 19.4 | 20.7 | 2.4 |
| 1st Quartile | 3.6 | 8.2 | 16.2 | 6.8 | 6.6 | 3.9 | 10.1 | 10.7 | 0.5 |
| Median | 2.4 | 3.5 | 13.3 | 5.0 | 4.3 | 3.0 | 4.4 | 7.7 | -4.6 |
| 3rd Quartile | 1.2 | 1.4 | 5.2 | 2.6 | 2.9 | 1.4 | 0.6 | 4.6 | -9.0 |
| 95th Percentile | -2.3 | -4.7 | -1.6 | -3.0 | -1.3 | -0.7 | -8.0 | -3.8 | -17.6 |
| Population | 34 | 34 | 34 | 34 | 34 | 10 | 34 | 40 | 49 |

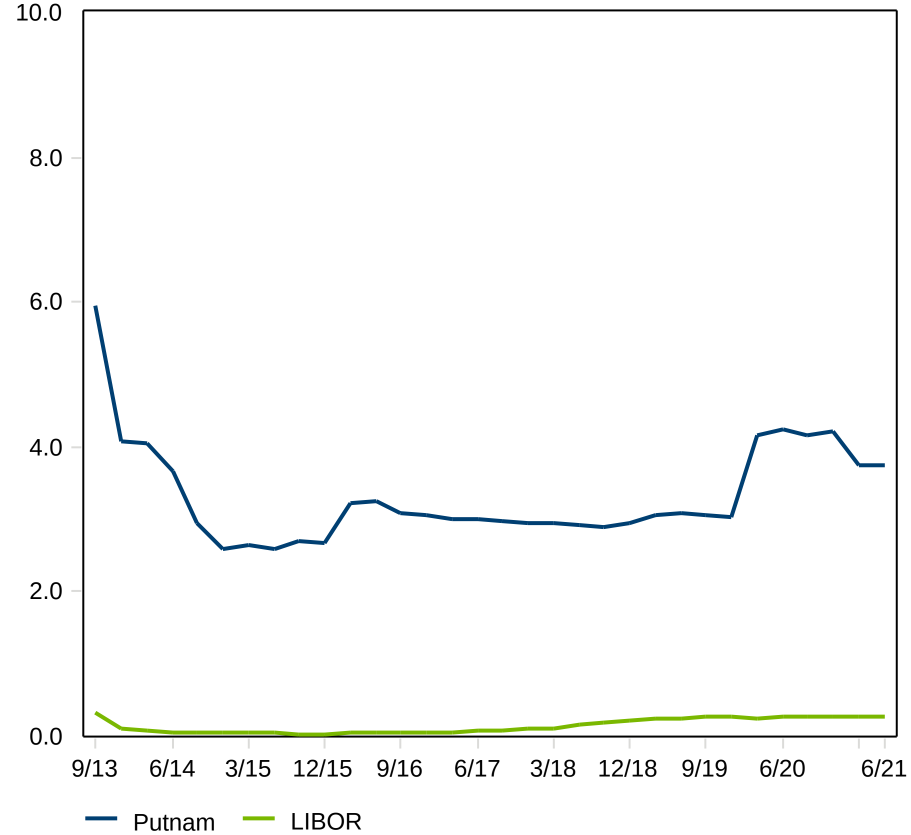
Parentheses contain percentile rankings.

## Putnam Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 5 Years Standard Deviation




### 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Putnam | 2.46 | 3.74 | 0.66 | 0.00 | 0.74 | 3.11 | 0.59 | 3.92 | 3.75 | 0.04 |
| LIBOR | 0.00 | 0.00 | N/A | 1.00 | 2.71 | 0.00 | 1.00 | 1.46 | 0.28 | 1.00 |
| FTSE 3 Month T-Bill | -0.32 | 0.12 | -2.71 | 0.82 | N/A | -0.04 | 0.81 | 1.14 | 0.25 | 0.91 |





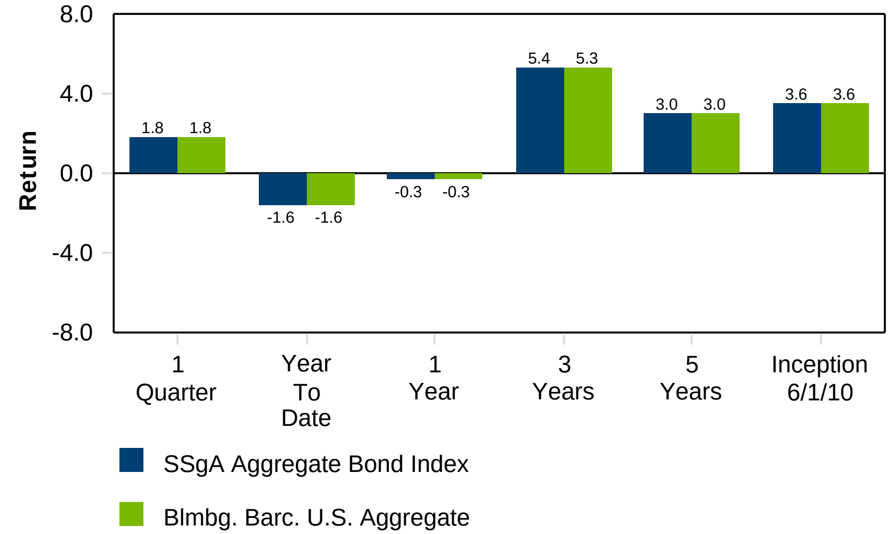
Empower Results®

# SSgA Aggregate Bond Index Performance Summary

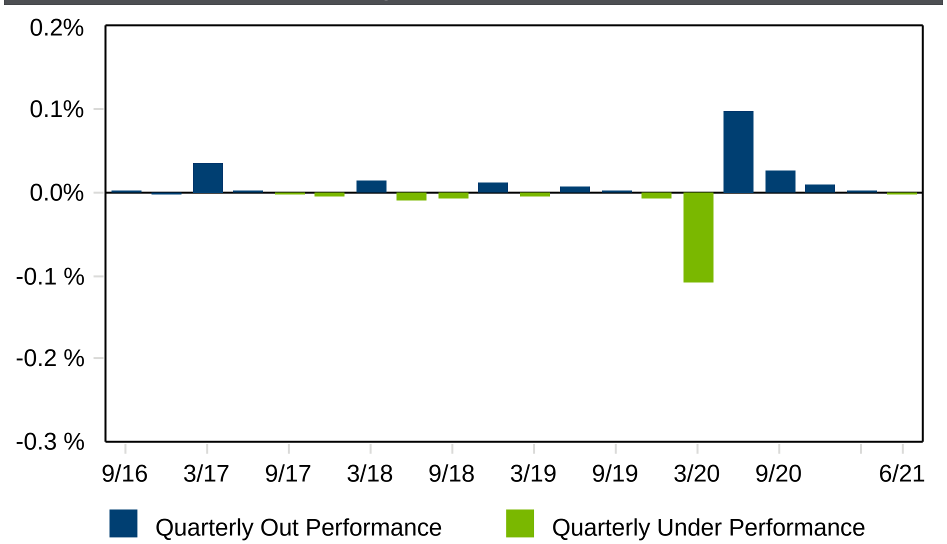
## Account Information

| | |
|---|---|
| Account Name: | SSgA Aggregate Bond Index |
| Inception Date: | 01/01/1901 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Fixed Income |
| Benchmark: | Blmbg. Barc. U.S. Aggregate |
| Peer Group: | IM U.S. Fixed Income (SA+CF) |

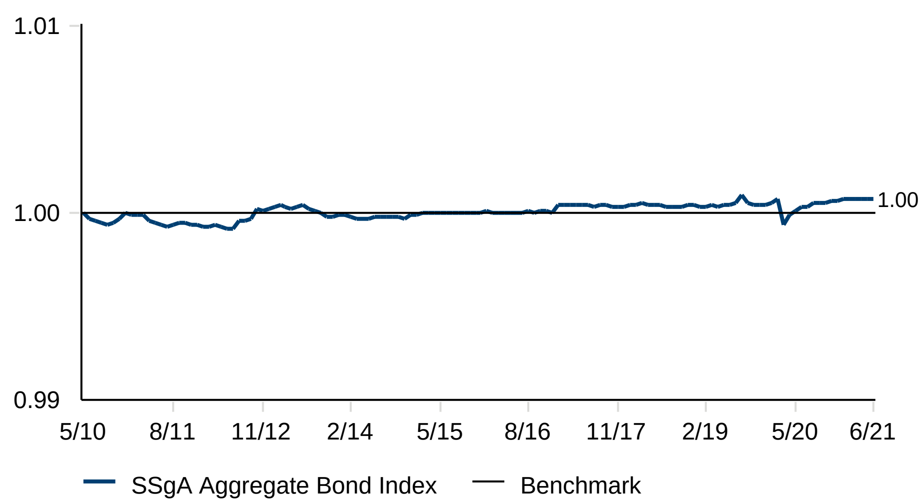
## Return Summary




## Quarterly Excess Performance

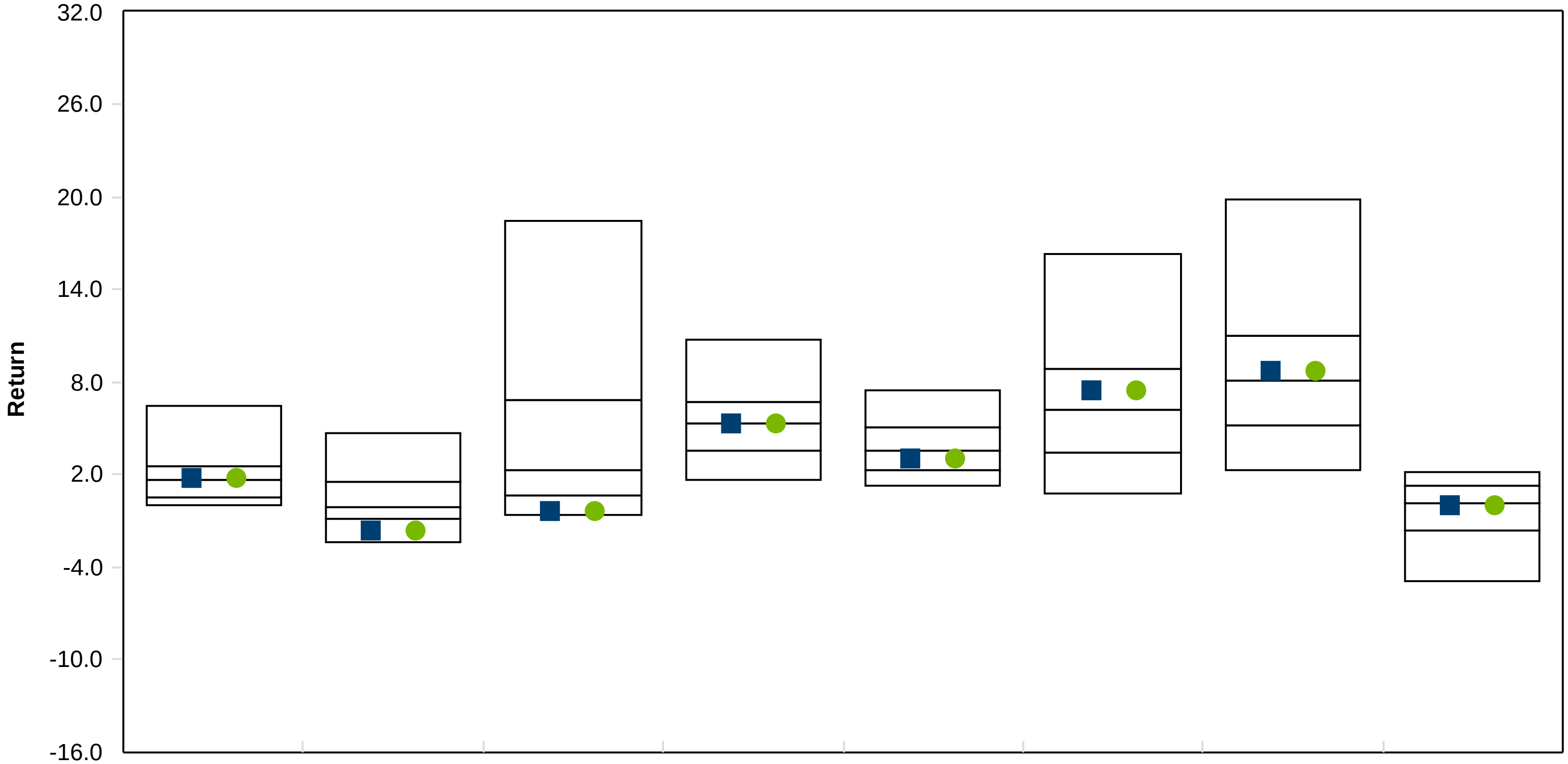



## Ratio of Cumulative Wealth - Since Inception



## Peer Group Analysis

### IM U.S. Fixed Income (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|
| ■ SSgA Aggregate Bond Index | 1.8 (47) | -1.6 (90) | -0.3 (93) | 5.4 (50) | 3.0 (61) | 7.5 (37) | 8.7 (45) | 0.0 (52) |
| ● Blmbg. Barc. U.S. Aggregate | 1.8 (47) | -1.6 (90) | -0.3 (93) | 5.3 (50) | 3.0 (61) | 7.5 (38) | 8.7 (45) | 0.0 (52) |
| 5th Percentile | 6.5 | 4.7 | 18.5 | 10.8 | 7.5 | 16.3 | 19.8 | 2.2 |
| 1st Quartile | 2.5 | 1.6 | 6.9 | 6.7 | 5.1 | 8.8 | 11.1 | 1.3 |
| Median | 1.7 | 0.0 | 2.3 | 5.3 | 3.6 | 6.2 | 8.2 | 0.1 |
| 3rd Quartile | 0.6 | -0.9 | 0.6 | 3.5 | 2.3 | 3.5 | 5.2 | -1.6 |
| 95th Percentile | 0.0 | -2.3 | -0.6 | 1.7 | 1.3 | 0.8 | 2.4 | -4.9 |
| Population | 886 | 886 | 882 | 840 | 790 | 992 | 1,040 | 1,090 |

Parentheses contain percentile rankings.

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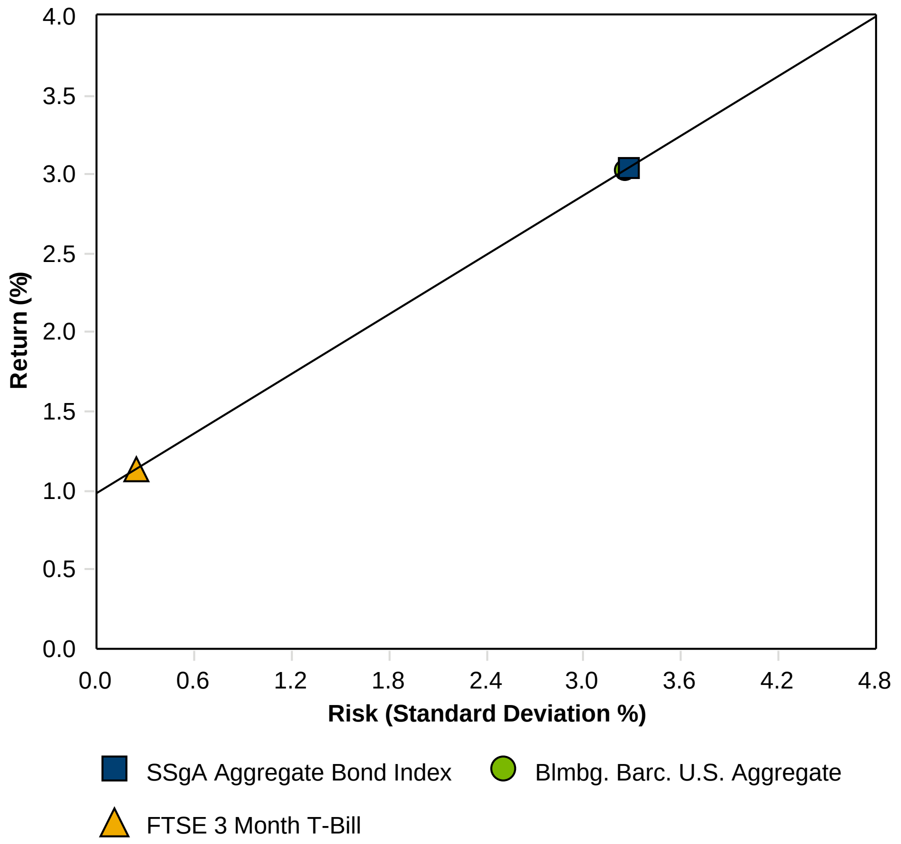
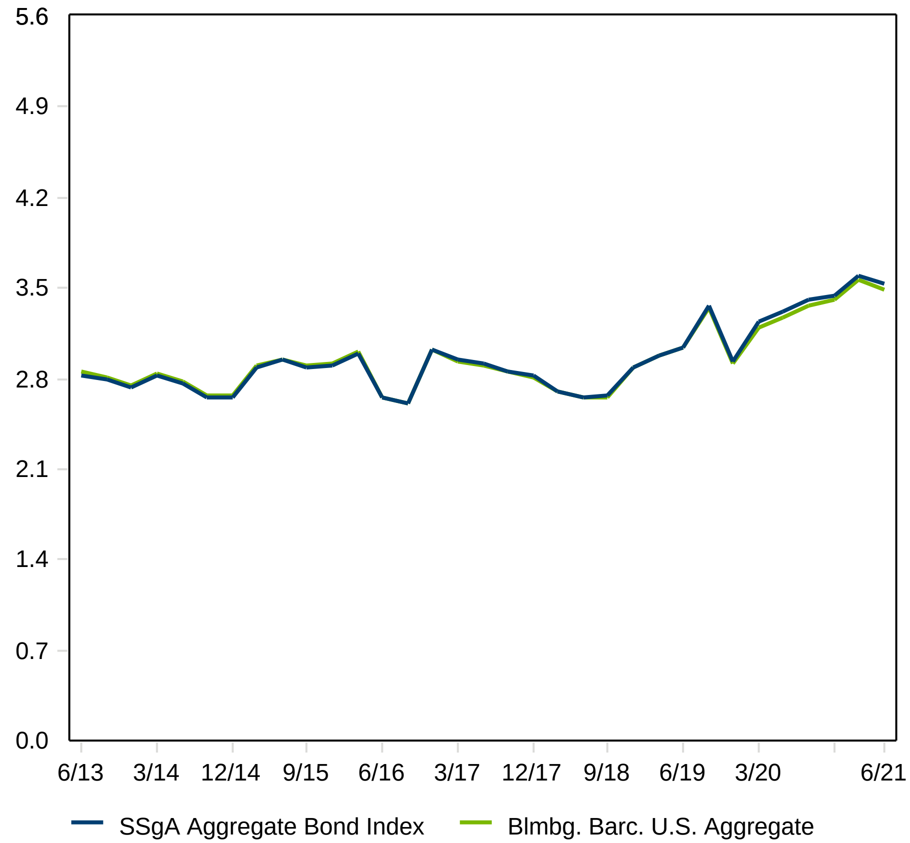
## SSgA Aggregate Bond Index Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 3 Years Standard Deviation




### 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| SSgA Aggregate Bond Index | 0.01 | 0.08 | 0.19 | 1.00 | 0.60 | -0.01 | 1.01 | 3.04 | 3.28 | 1.00 |
| Blmbg. Barc. U.S. Aggregate | 0.00 | 0.00 | N/A | 1.00 | 0.60 | 0.00 | 1.00 | 3.03 | 3.25 | 1.00 |
| FTSE 3 Month T-Bill | -1.90 | 3.19 | -0.60 | 0.09 | N/A | 1.07 | 0.02 | 1.14 | 0.25 | 0.30 |

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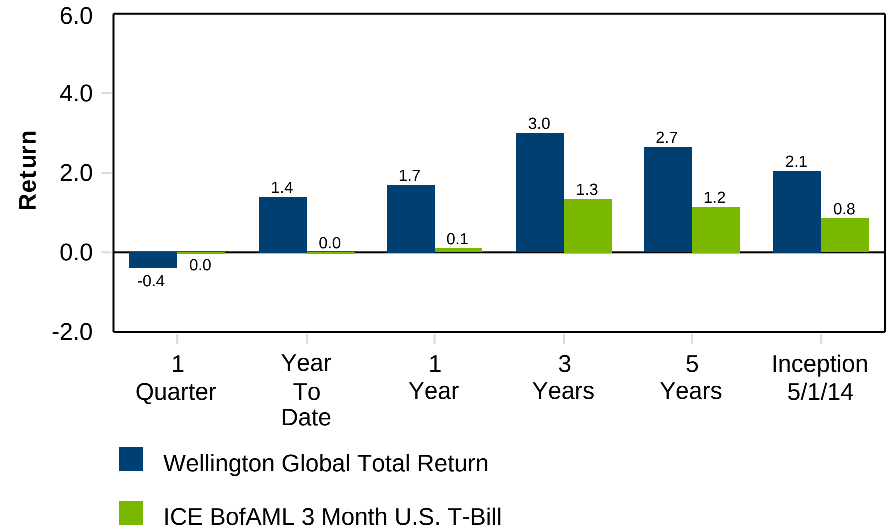
Empower Results®

# Wellington Global Total Return Performance Summary

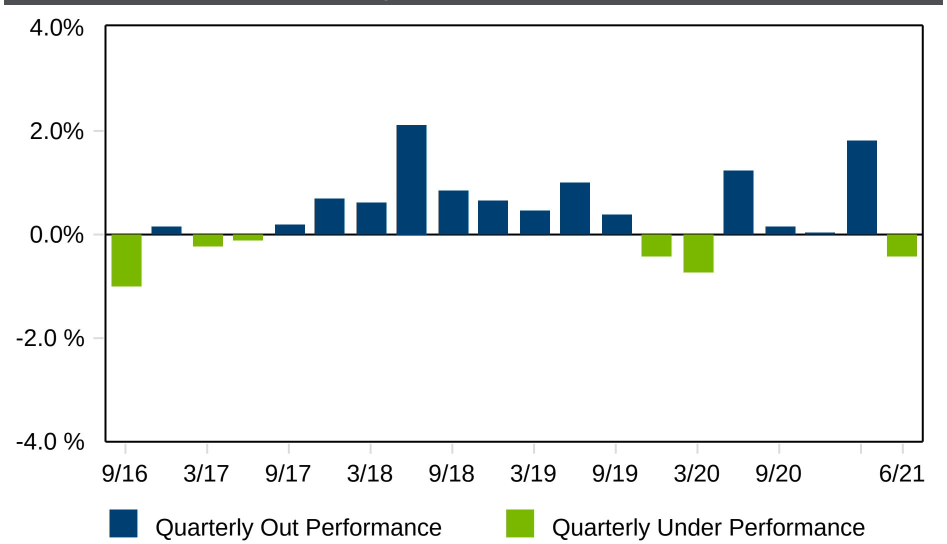
## Account Information

| | |
|---|---|
| Account Name: | Wellington Global Total Return |
| Inception Date: | 05/13/2014 |
| Account Structure: | Commingled Fund |
| Asset Class: | Global Fixed Income |
| Benchmark: | ICE BofAML 3 Month U.S. T-Bill |
| Peer Group: | IM Absolute Return (MF) |

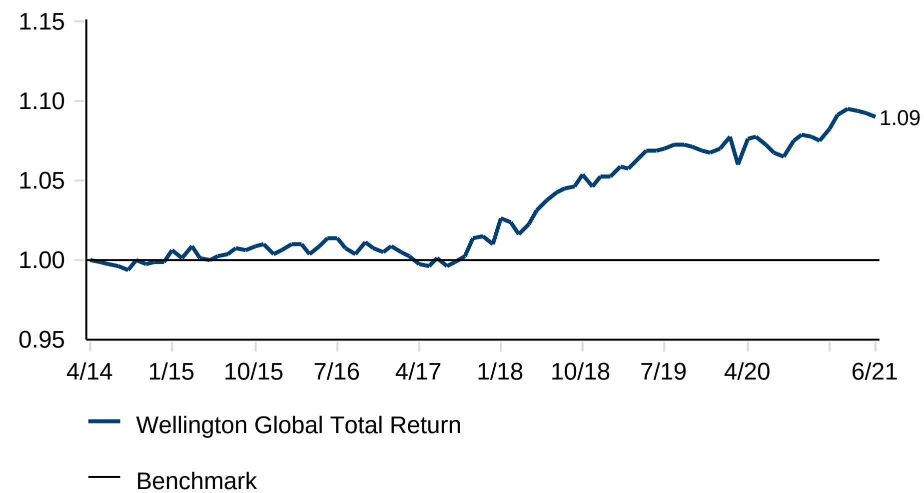
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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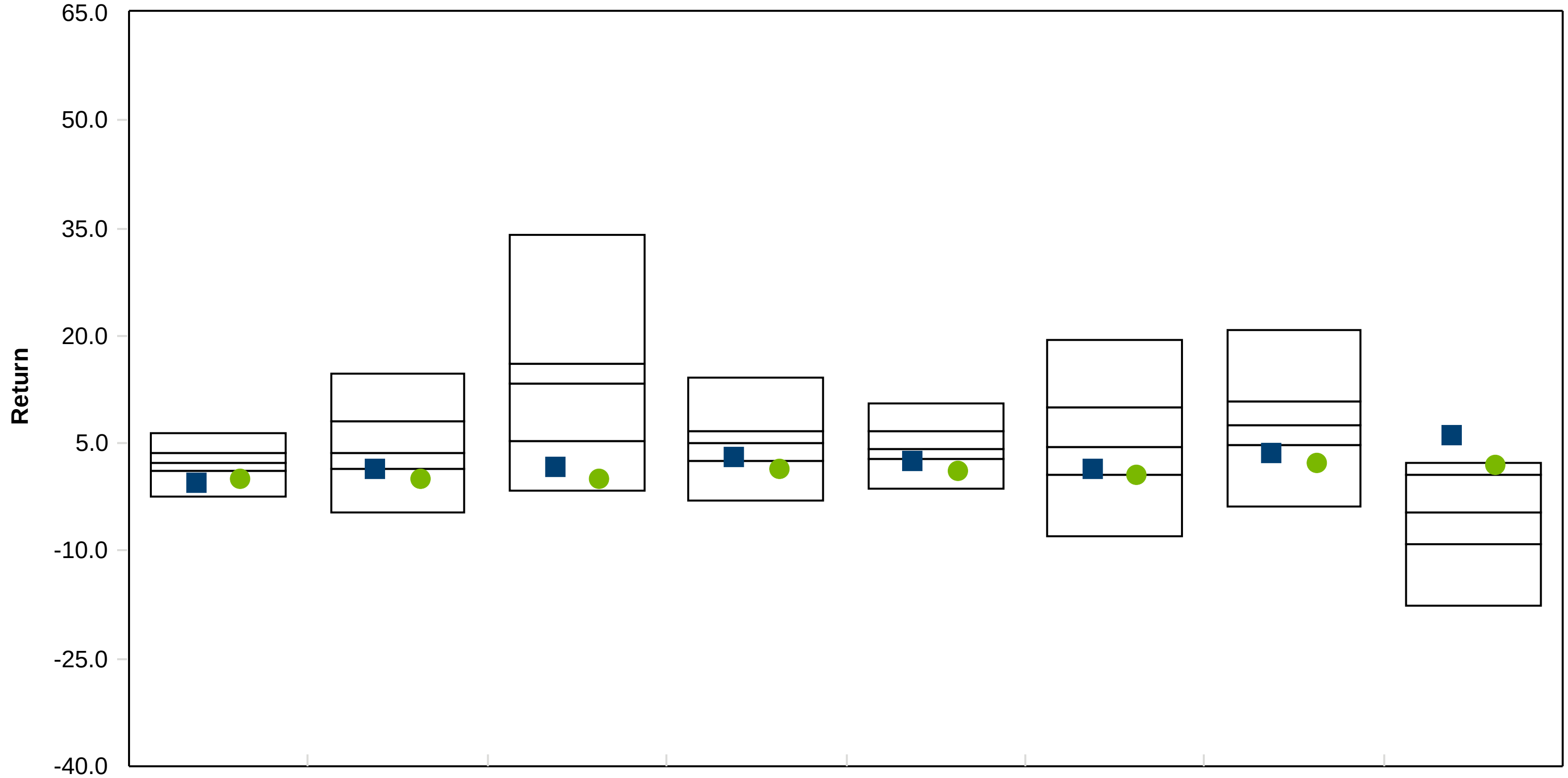
## Peer Group Analysis

### IM Absolute Return (MF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|
| ■ Wellington Global Total Return | -0.4 (90) | 1.4 (73) | 1.7 (87) | 3.0 (72) | 2.7 (78) | 1.4 (72) | 3.7 (83) | 6.2 (4) |
| ● ICE BofAML 3 Month U.S. T-Bill | 0.0 (89) | 0.0 (85) | 0.1 (89) | 1.3 (86) | 1.2 (84) | 0.7 (75) | 2.3 (84) | 1.9 (6) |
| 5th Percentile | 6.3 | 14.6 | 34.0 | 14.2 | 10.7 | 19.4 | 20.7 | 2.4 |
| 1st Quartile | 3.6 | 8.2 | 16.2 | 6.8 | 6.6 | 10.1 | 10.7 | 0.5 |
| Median | 2.4 | 3.5 | 13.3 | 5.0 | 4.3 | 4.4 | 7.7 | -4.6 |
| 3rd Quartile | 1.2 | 1.4 | 5.2 | 2.6 | 2.9 | 0.6 | 4.6 | -9.0 |
| 95th Percentile | -2.3 | -4.7 | -1.6 | -3.0 | -1.3 | -8.0 | -3.8 | -17.6 |
| Population | 34 | 34 | 34 | 34 | 34 | 34 | 40 | 49 |

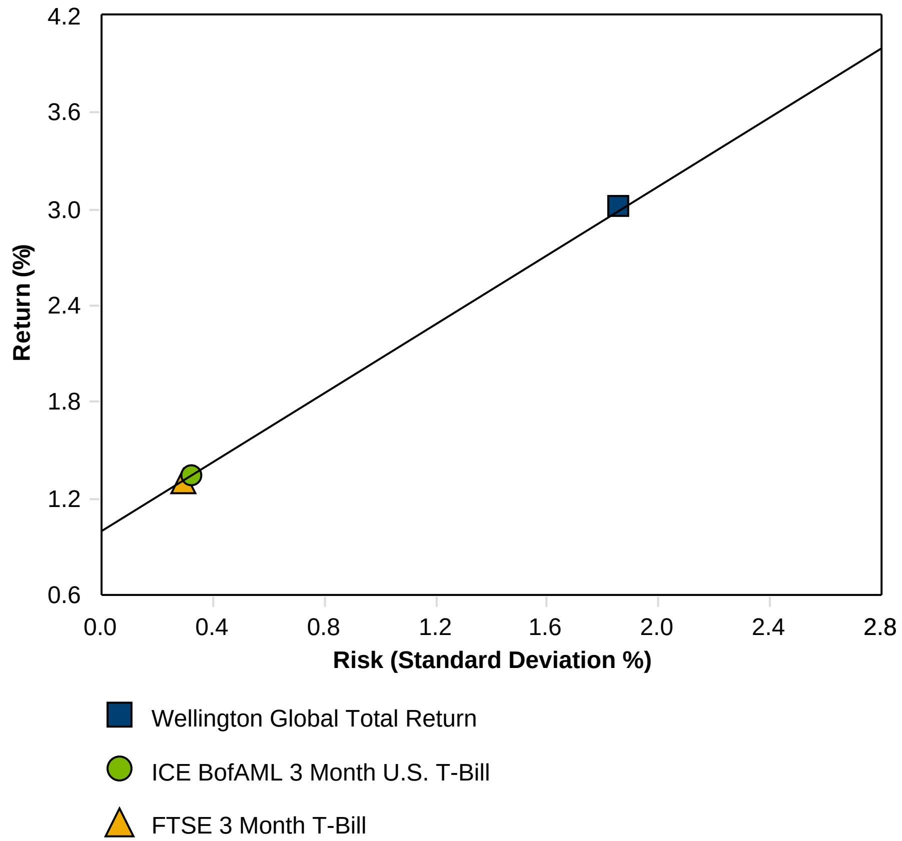
Parentheses contain percentile rankings.



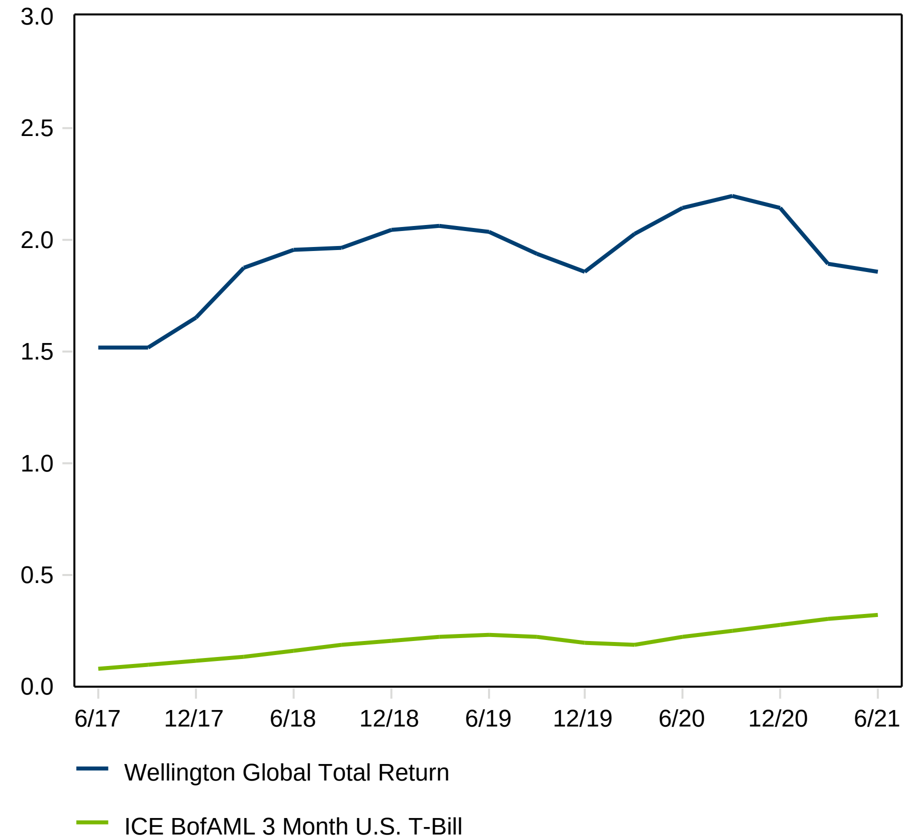
Empower Results®

# Wellington Global Total Return Risk Profile

## Annualized Return vs. Annualized Standard Deviation 3 Years




## Rolling 3 Years Standard Deviation




## 3 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Wellington Global Total Return | 1.67 | 1.89 | 0.88 | 0.00 | 0.94 | 3.26 | -0.16 | 3.03 | 1.86 | -0.03 |
| ICE BofAML 3 Month U.S. T-Bill | 0.00 | 0.00 | N/A | 1.00 | 0.29 | 0.00 | 1.00 | 1.34 | 0.32 | 1.00 |
| FTSE 3 Month T-Bill | -0.03 | 0.12 | -0.29 | 0.87 | N/A | 0.18 | 0.84 | 1.31 | 0.29 | 0.93 |



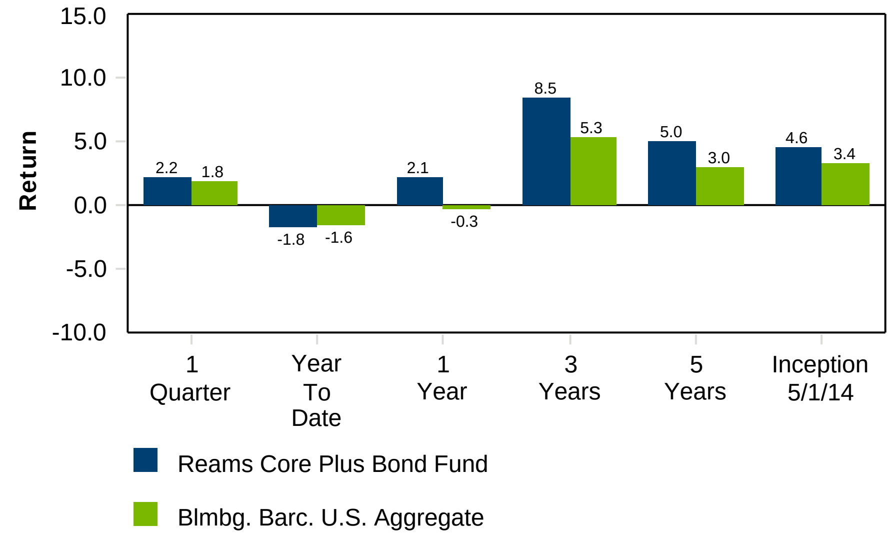
Empower Results®

# Reams Core Plus Bond Fund Performance Summary

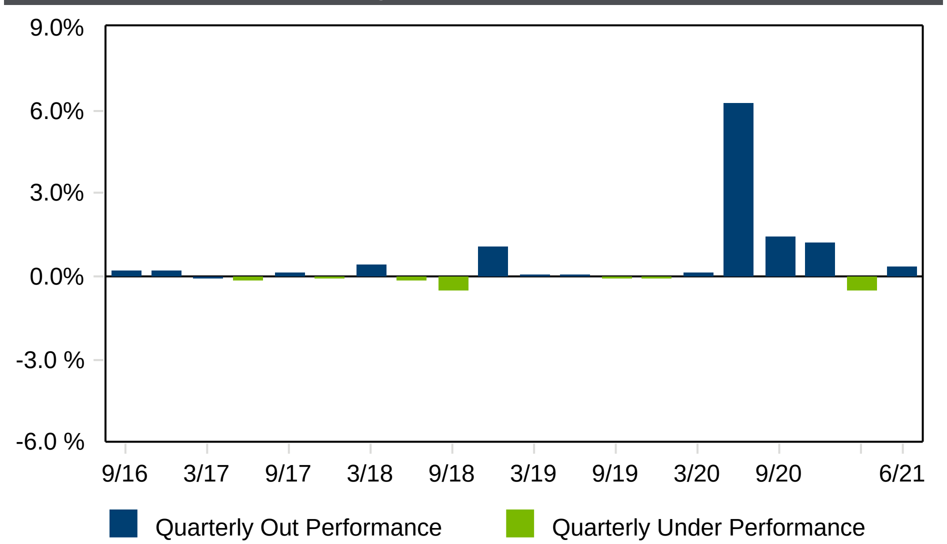
## Account Information

| | |
|---|---|
| Account Name: | Reams Core Plus Bond Fund |
| Inception Date: | 05/08/2014 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Fixed Income |
| Benchmark: | Blmbg. Barc. U.S. Aggregate |
| Peer Group: | IM U.S. Fixed Income (SA+CF) |

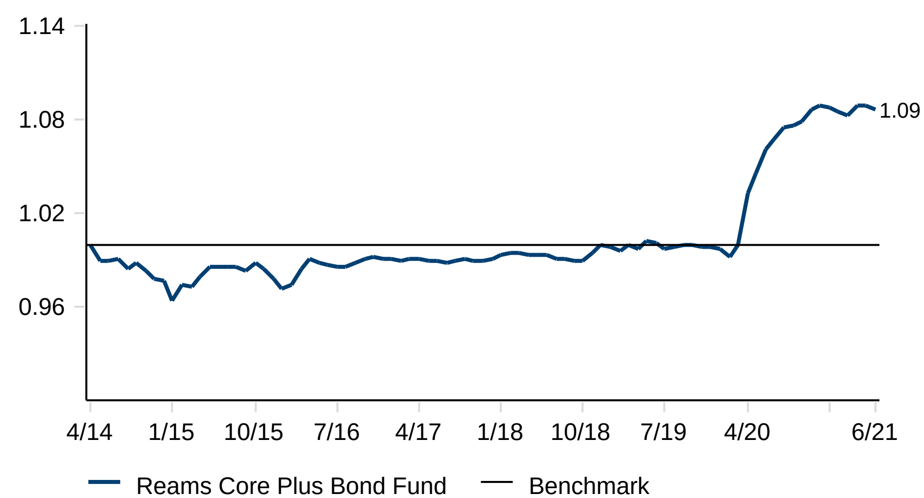
## Return Summary




## Quaterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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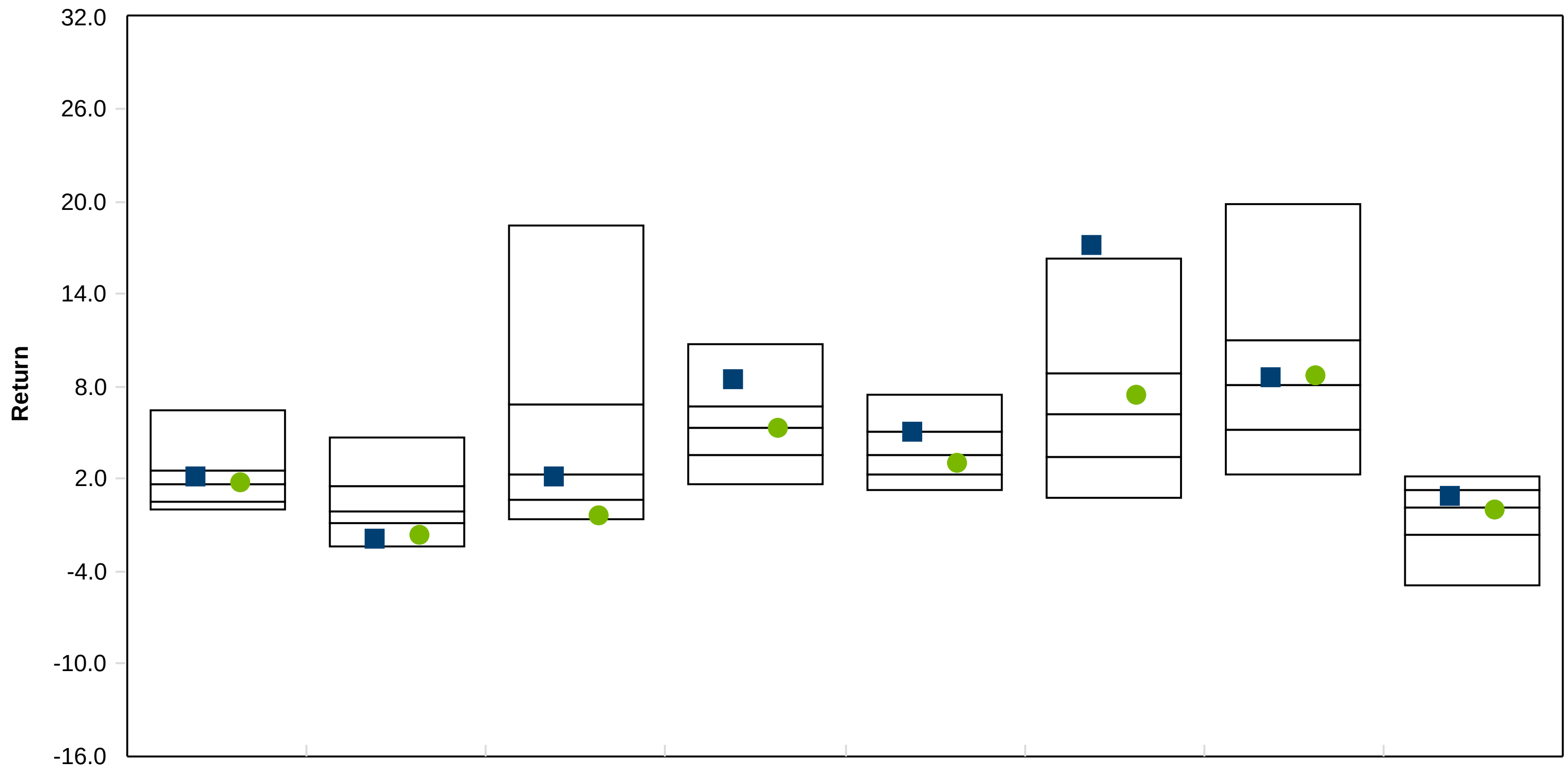
## Peer Group Analysis

IM U.S. Fixed Income (SA+CF)




| | 1 Quarter | Year To Date | 1 Year | 3 Years | 5 Years | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|---|---|---|
| ■ Reams Core Plus Bond Fund | 2.2 (36) | -1.8 (93) | 2.1 (53) | 8.5 (10) | 5.0 (27) | 17.2 (4) | 8.6 (46) | 0.9 (36) |
| ● Blmbg. Barc. U.S. Aggregate | 1.8 (47) | -1.6 (90) | -0.3 (93) | 5.3 (50) | 3.0 (61) | 7.5 (38) | 8.7 (45) | 0.0 (52) |
| 5th Percentile | 6.5 | 4.7 | 18.5 | 10.8 | 7.5 | 16.3 | 19.8 | 2.2 |
| 1st Quartile | 2.5 | 1.6 | 6.9 | 6.7 | 5.1 | 8.8 | 11.1 | 1.3 |
| Median | 1.7 | 0.0 | 2.3 | 5.3 | 3.6 | 6.2 | 8.2 | 0.1 |
| 3rd Quartile | 0.6 | -0.9 | 0.6 | 3.5 | 2.3 | 3.5 | 5.2 | -1.6 |
| 95th Percentile | 0.0 | -2.3 | -0.6 | 1.7 | 1.3 | 0.8 | 2.4 | -4.9 |
| Population | 886 | 886 | 882 | 840 | 790 | 992 | 1,040 | 1,090 |

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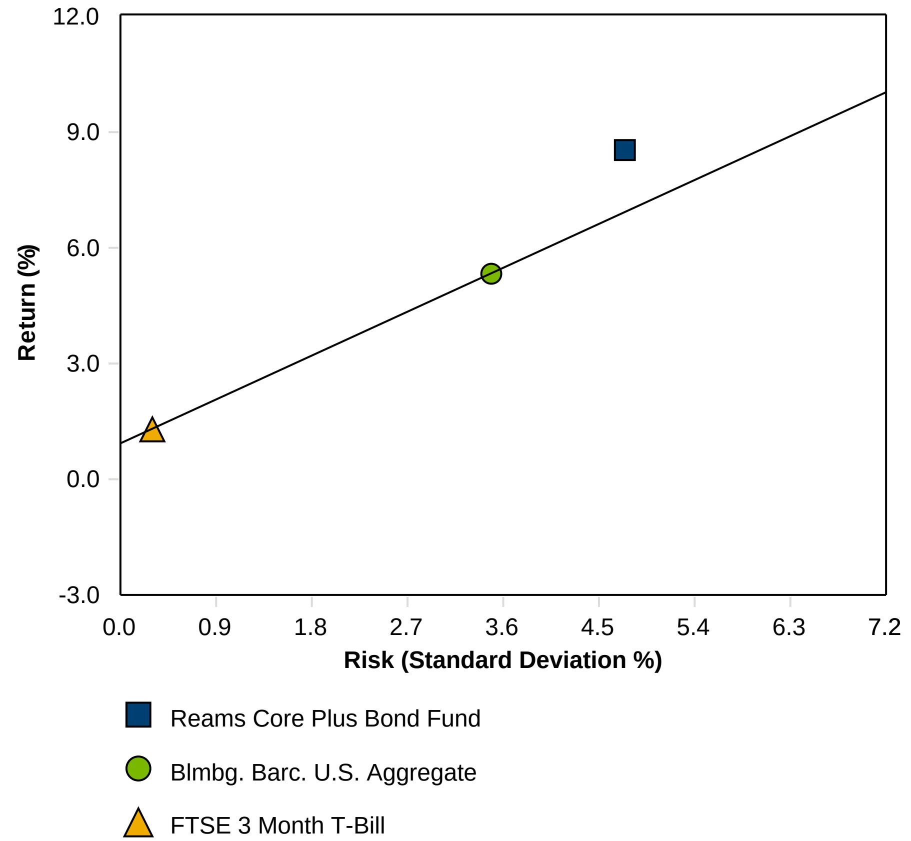
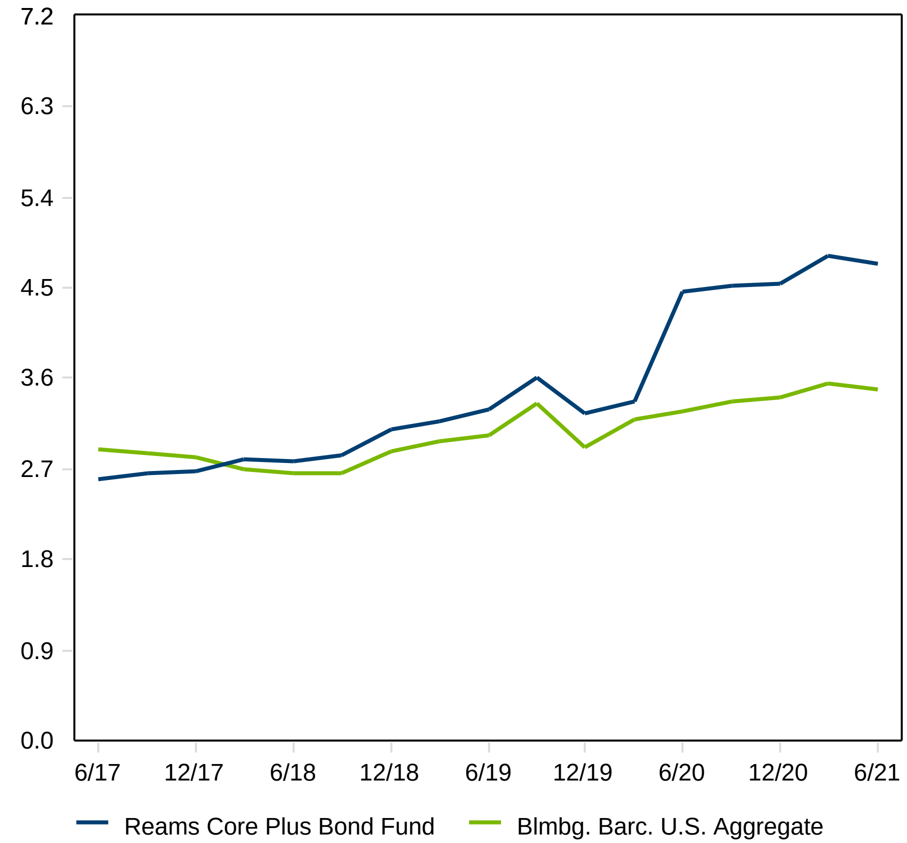
Parentheses contain percentile rankings.

# Reams Core Plus Bond Fund Risk Profile

## Annualized Return vs. Annualized Standard Deviation 3 Years




## Rolling 3 Years Standard Deviation




## 3 Years Historical Statistics

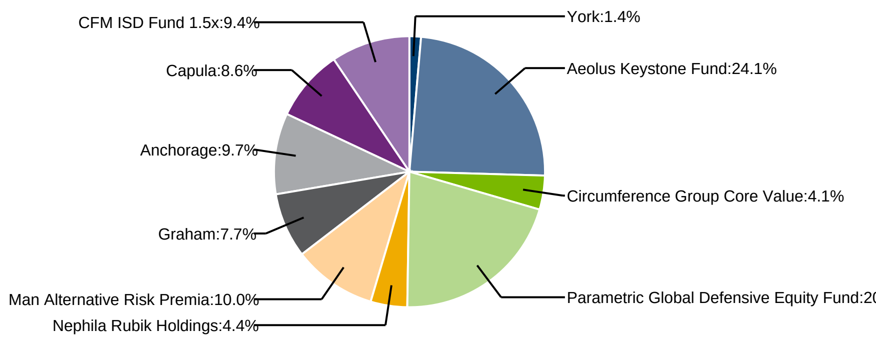
| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Reams Core Plus Bond Fund | 3.05 | 2.42 | 1.26 | 0.76 | 1.49 | 2.11 | 1.18 | 8.53 | 4.74 | 0.87 |
| Blmbg. Barc. U.S. Aggregate | 0.00 | 0.00 | N/A | 1.00 | 1.17 | 0.00 | 1.00 | 5.34 | 3.49 | 1.00 |
| FTSE 3 Month T-Bill | -3.98 | 3.41 | -1.17 | 0.10 | N/A | 1.17 | 0.03 | 1.31 | 0.29 | 0.31 |

# Opportunistic/Alternatives

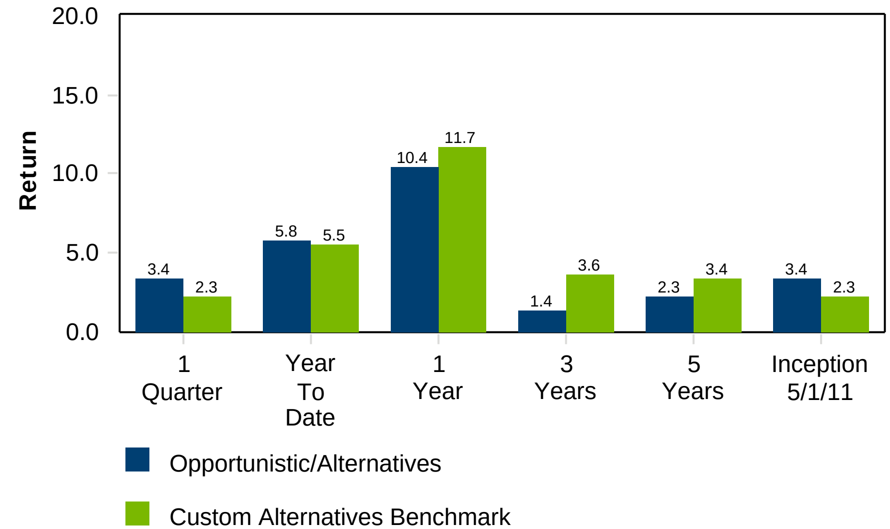
## Opportunistic/Alternatives Portfolio Overview

### Current Allocation

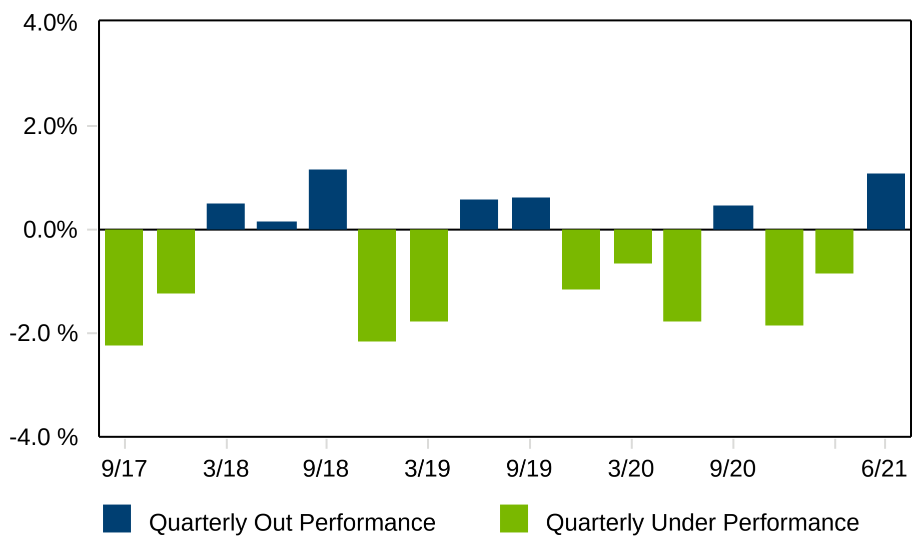
June 30, 2021 : $938M



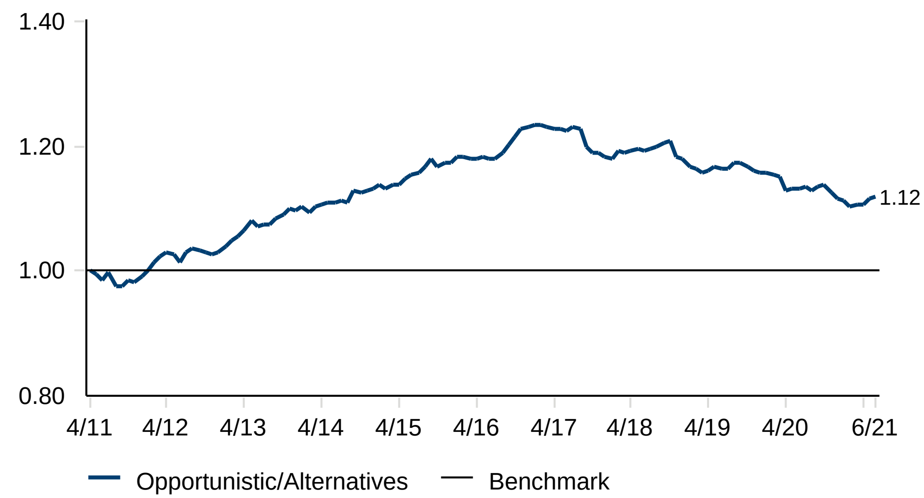

### Return Summary




### Quarterly Excess Performance

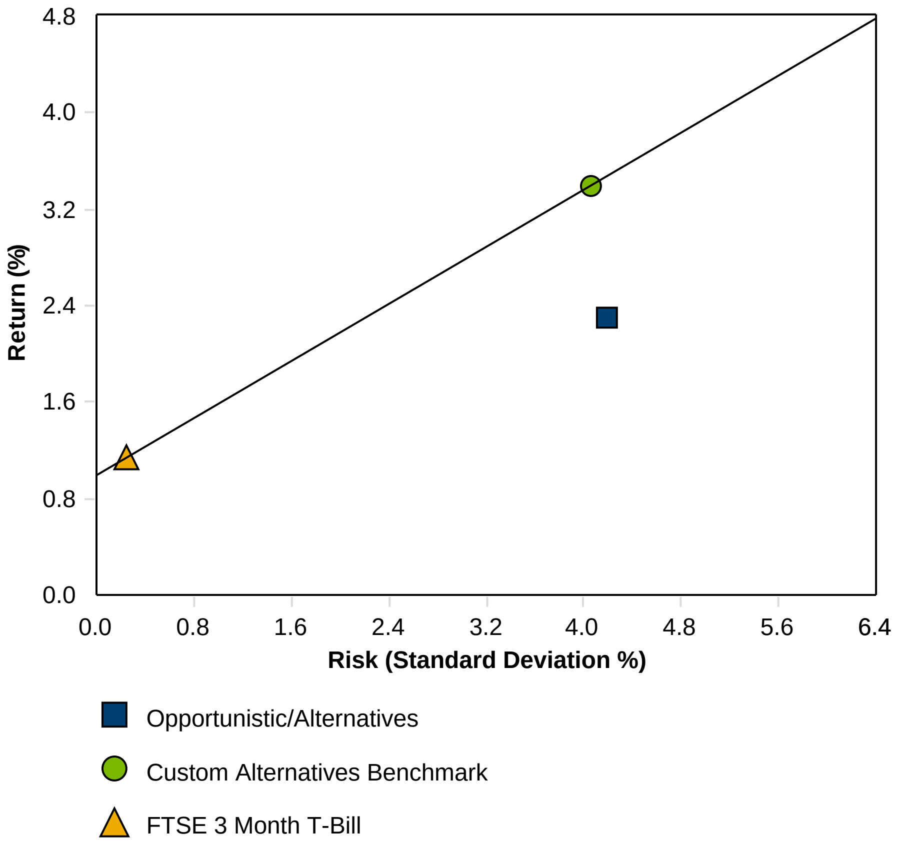



### Ratio of Cumulative Wealth - Since Inception



## Opportunistic/Alternatives Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years



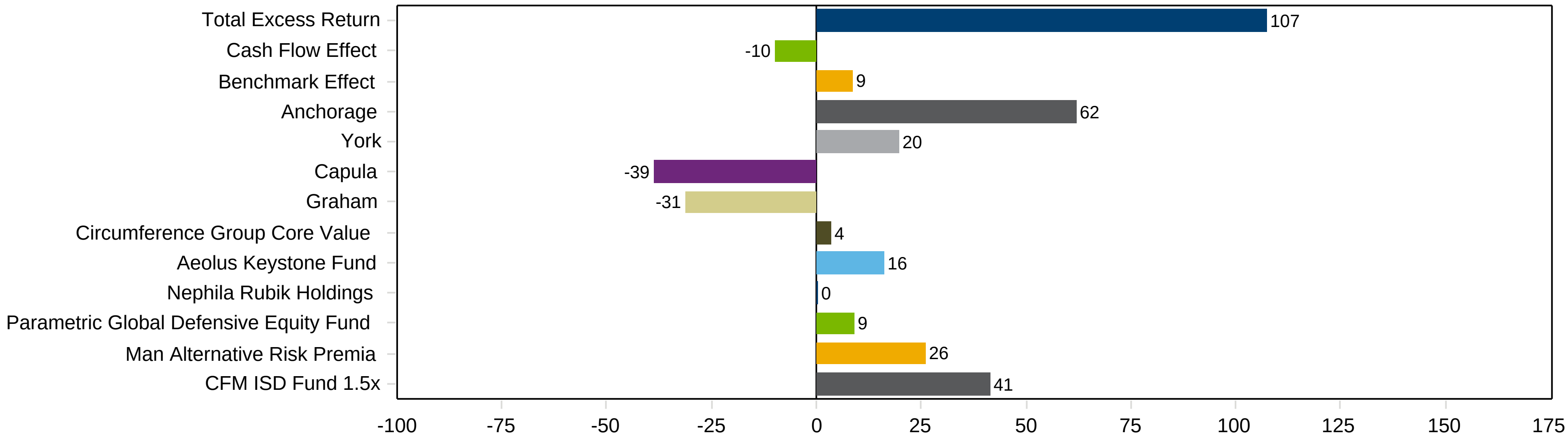

### Rolling 3 Years Standard Deviation


### 5 Years Historical Statistics

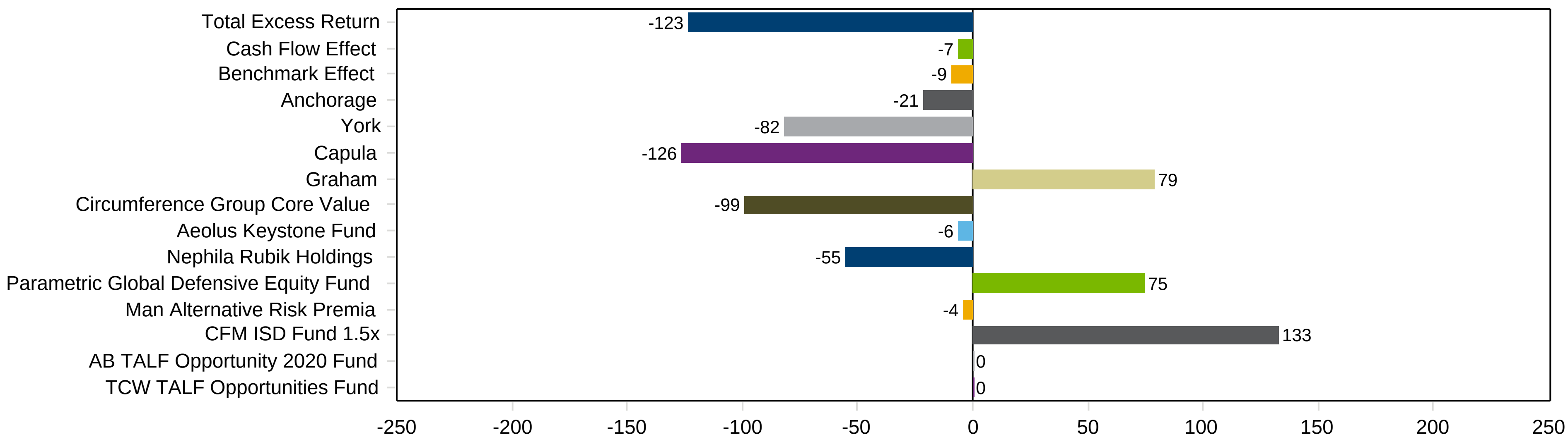
| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Opportunistic/Alternatives | -1.06 | 2.46 | -0.43 | 0.68 | 0.29 | -0.54 | 0.85 | 2.30 | 4.19 | 0.82 |
| Custom Alternatives Benchmark | 0.00 | 0.00 | N/A | 1.00 | 0.56 | 0.00 | 1.00 | 3.40 | 4.06 | 1.00 |
| FTSE 3 Month T-Bill | -2.29 | 4.13 | -0.56 | 0.05 | N/A | 1.19 | -0.01 | 1.14 | 0.25 | -0.22 |

## Asset Class Attribution

### 1 Quarter




### 1 Year

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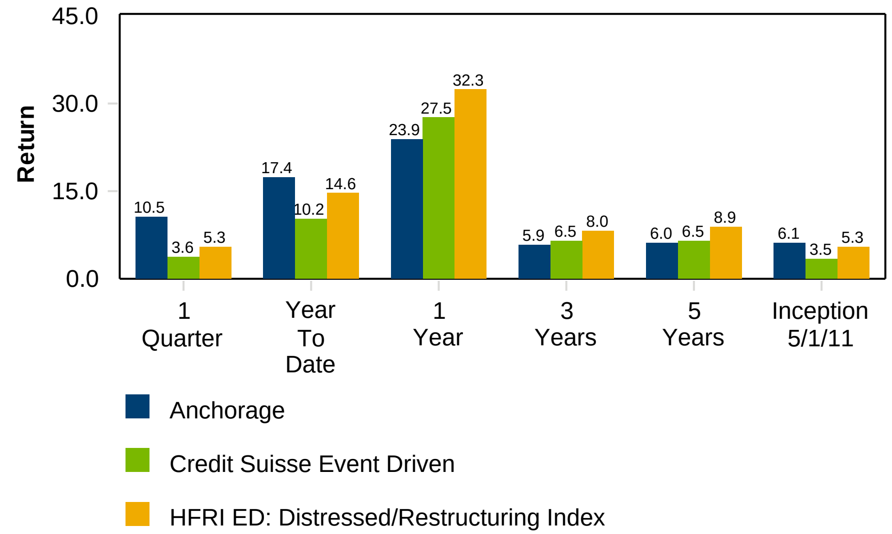
# Anchorage Performance Summary

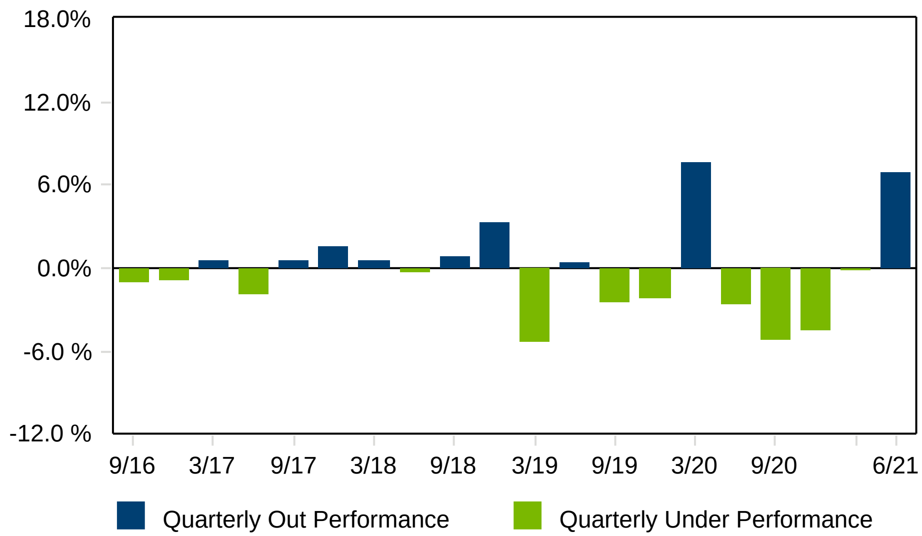
## Account Information

| | |
|---|---|
| Account Name: | Anchorage |
| Inception Date: | 05/01/2011 |
| Account Structure: | Hedge Fund |
| Asset Class: | US Hedge Fund |
| Benchmark: | Credit Suisse Event Driven |
| Peer Group: | |

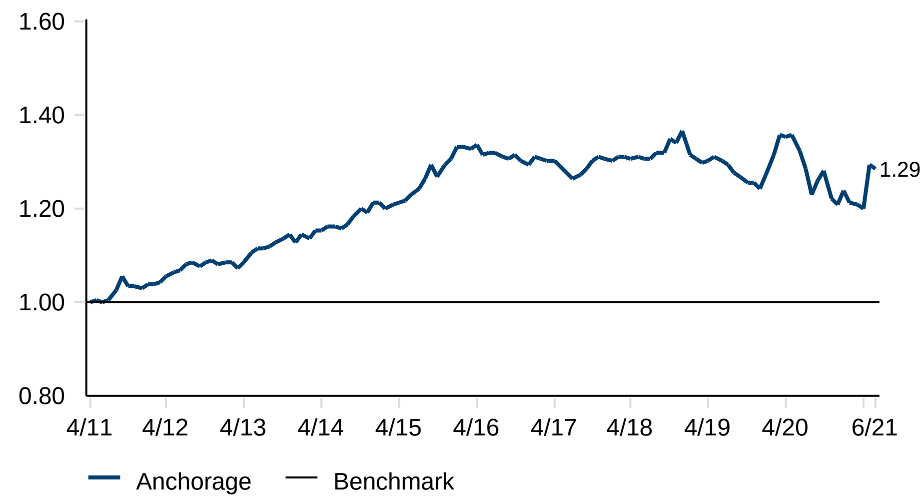
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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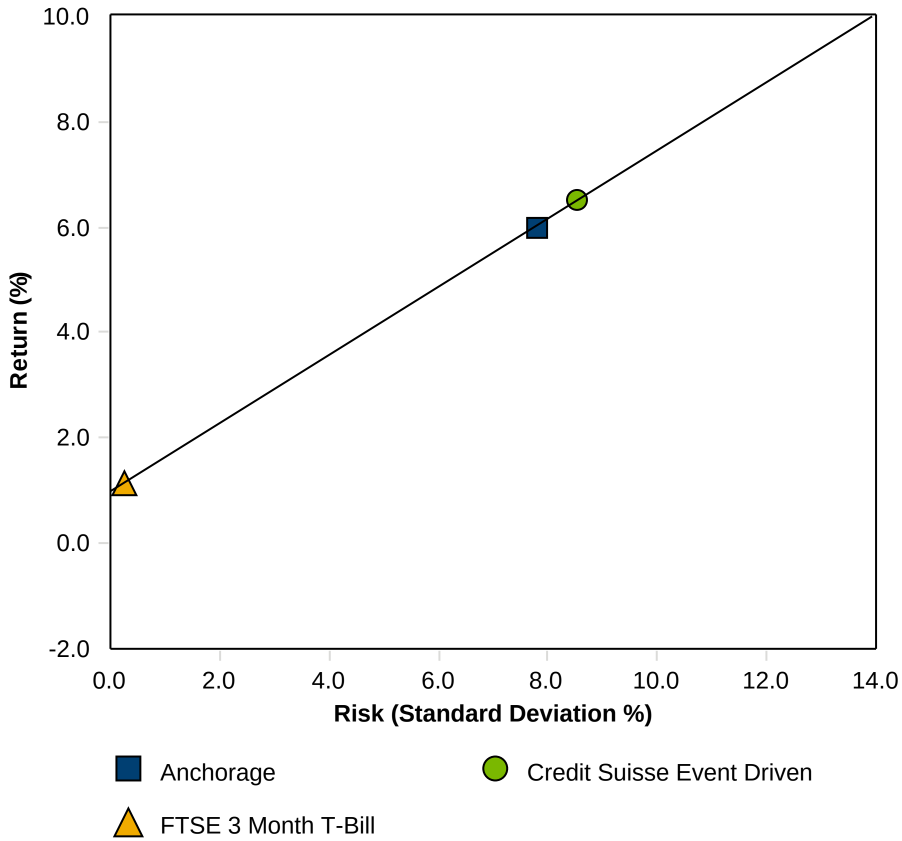
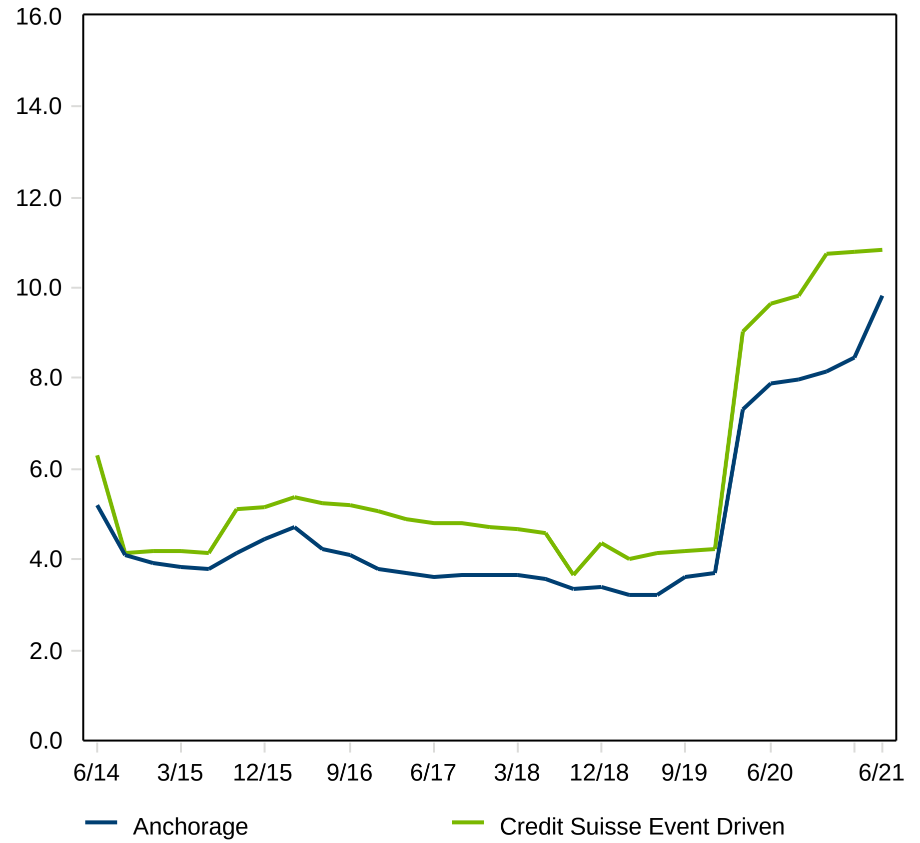
## Anchorage Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 3 Years Standard Deviation




### 5 Years Historical Statistics

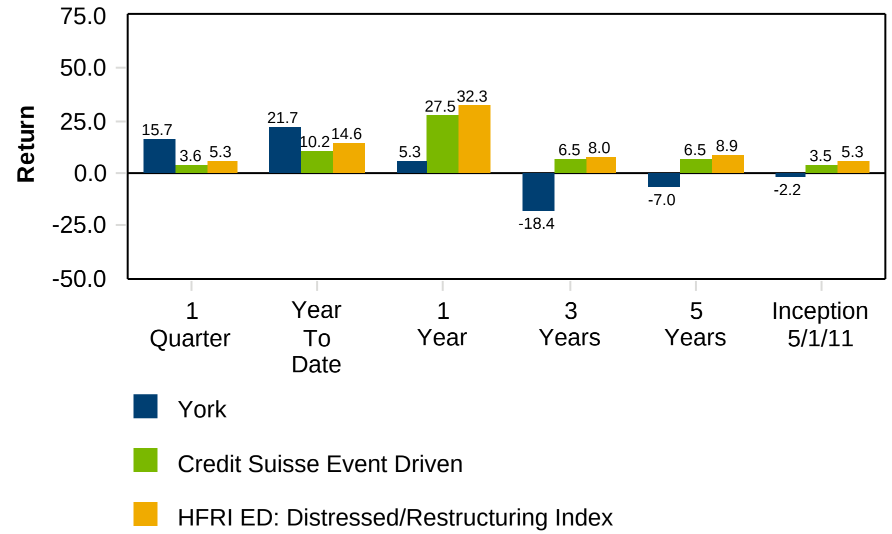
| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Anchorage | -0.57 | 6.46 | -0.09 | 0.48 | 0.63 | 1.92 | 0.63 | 5.98 | 7.79 | 0.69 |
| Credit Suisse Event Driven | 0.00 | 0.00 | N/A | 1.00 | 0.65 | 0.00 | 1.00 | 6.51 | 8.53 | 1.00 |
| FTSE 3 Month T-Bill | -5.56 | 8.61 | -0.65 | 0.10 | N/A | 1.20 | -0.01 | 1.14 | 0.25 | -0.32 |

# York Performance Summary

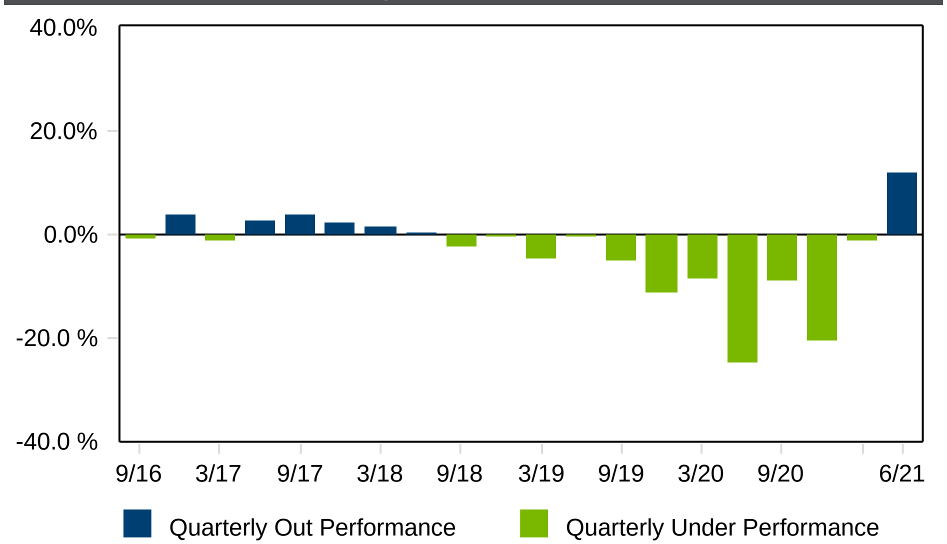
## Account Information

| | |
|---|---|
| Account Name: | York |
| Inception Date: | 05/01/2011 |
| Account Structure: | Hedge Fund |
| Asset Class: | US Hedge Fund |
| Benchmark: | Credit Suisse Event Driven |
| Peer Group: | |

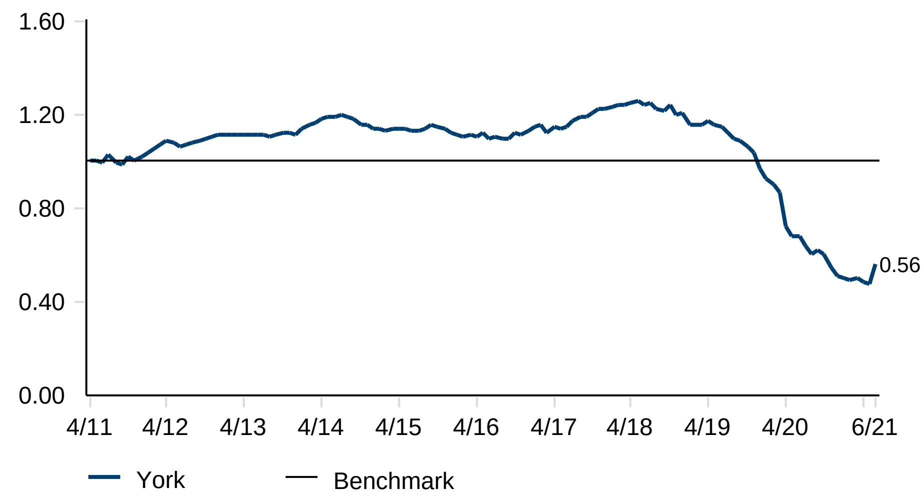
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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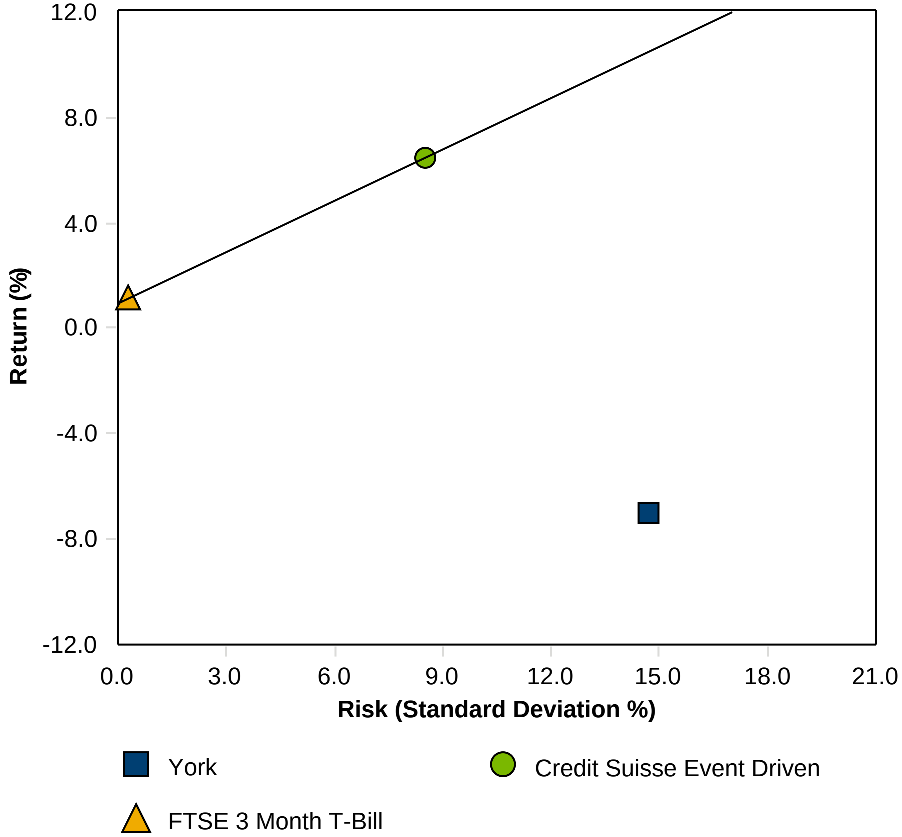
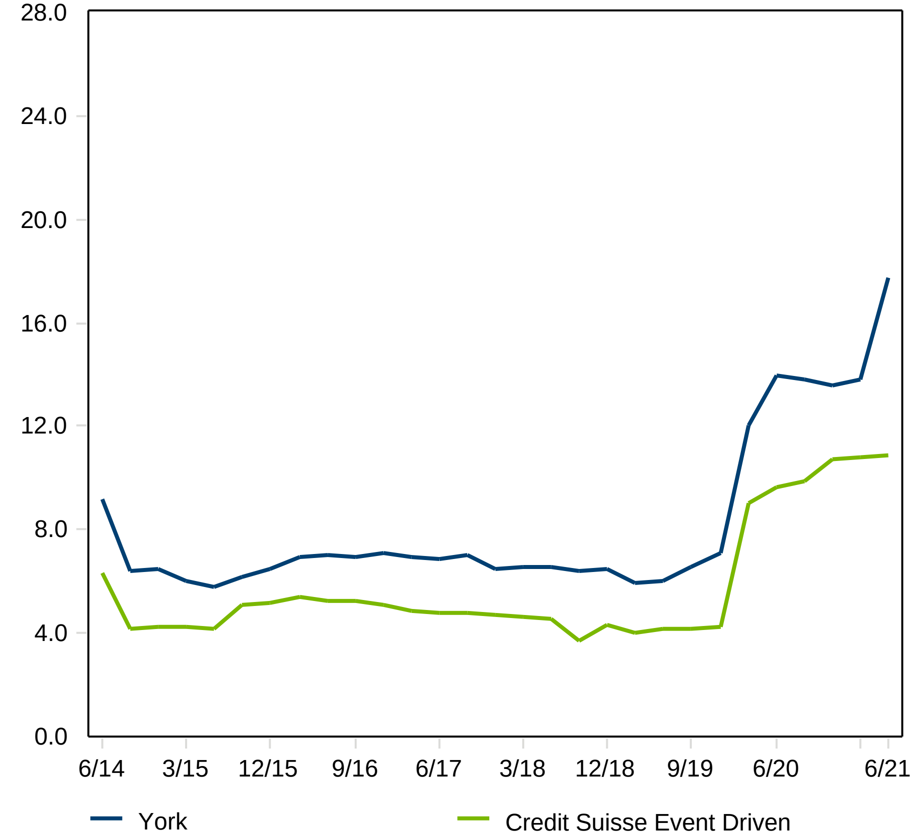
# York Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 3 Years Standard Deviation




## 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| York | -12.82 | 14.47 | -0.89 | 0.10 | -0.49 | -9.35 | 0.55 | -6.97 | 14.70 | 0.32 |
| Credit Suisse Event Driven | 0.00 | 0.00 | N/A | 1.00 | 0.65 | 0.00 | 1.00 | 6.51 | 8.53 | 1.00 |
| FTSE 3 Month T-Bill | -5.56 | 8.61 | -0.65 | 0.10 | N/A | 1.20 | -0.01 | 1.14 | 0.25 | -0.32 |



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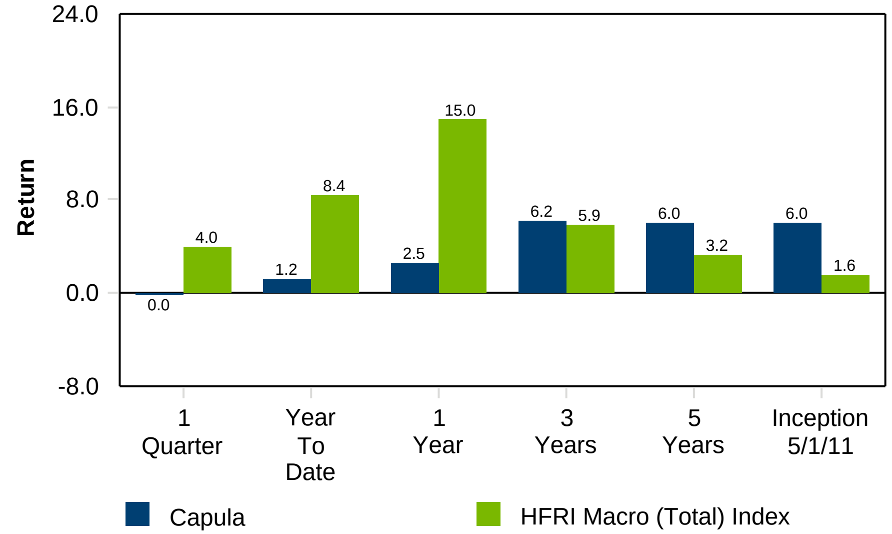
# Capula Performance Summary

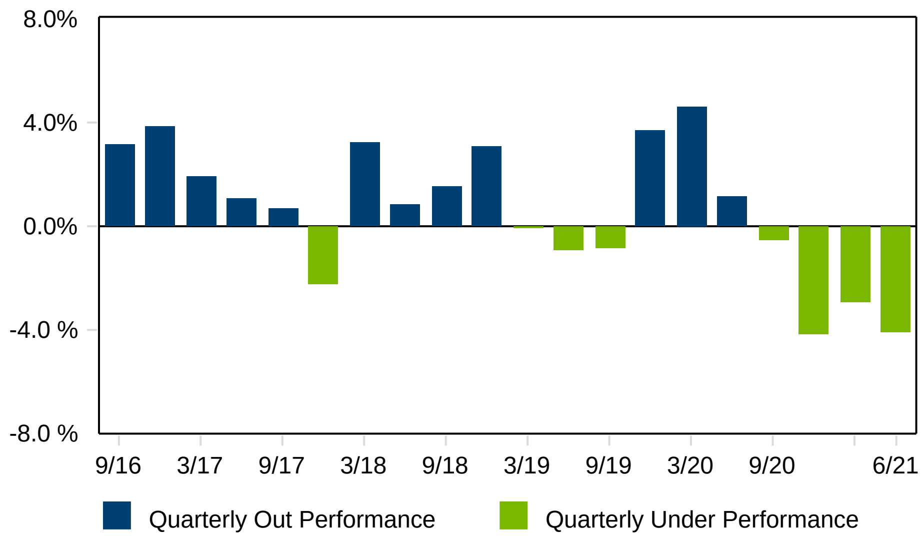
## Account Information

| | |
|---|---|
| Account Name: | Capula |
| Inception Date: | 05/01/2011 |
| Account Structure: | Hedge Fund |
| Asset Class: | US Hedge Fund |
| Benchmark: | HFRI Macro (Total) Index |
| Peer Group: | |

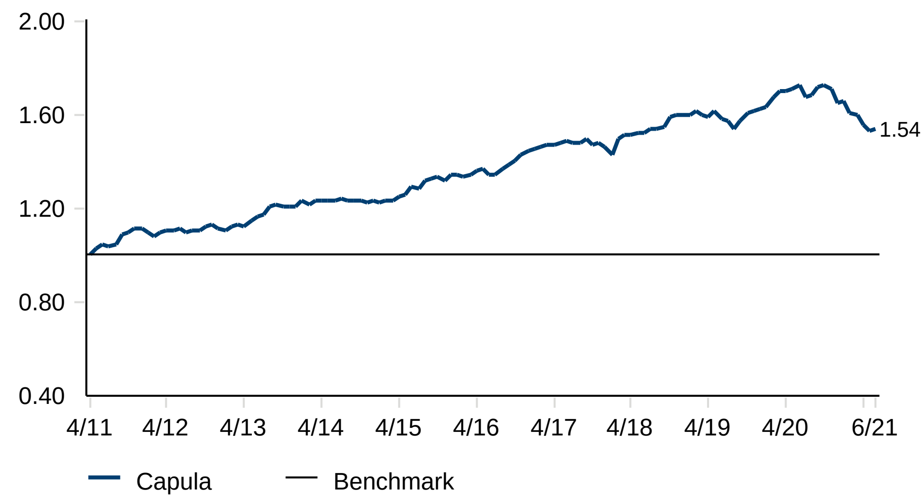
## Return Summary




## Quarterly Excess Performance

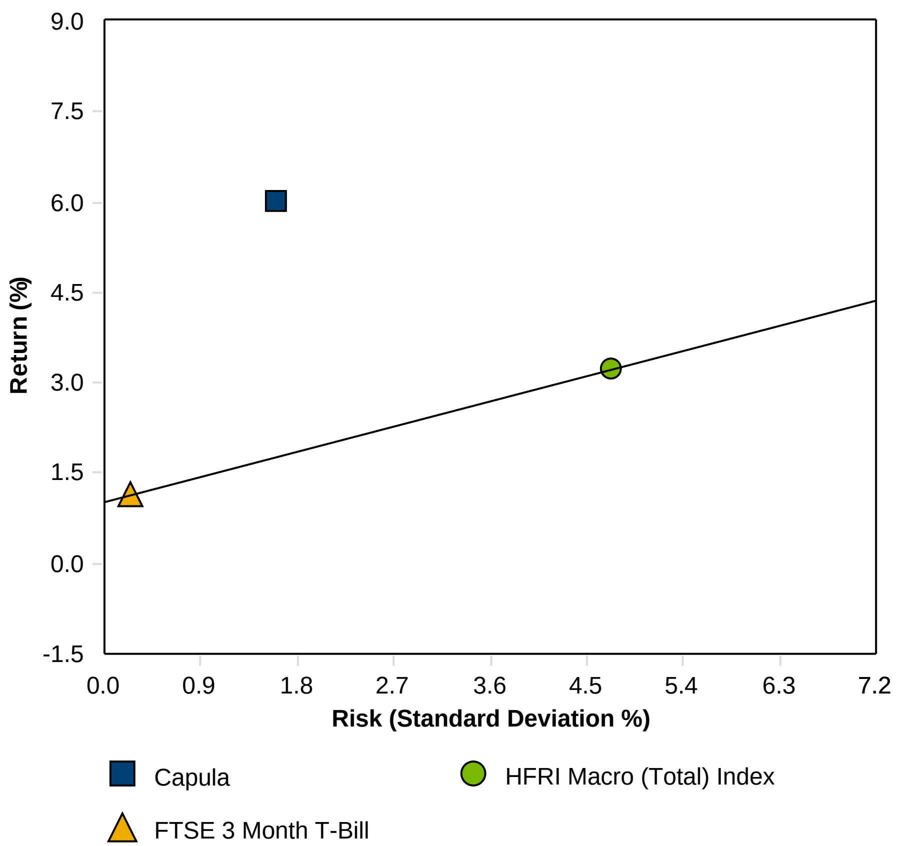



## Ratio of Cumulative Wealth - Since Inception

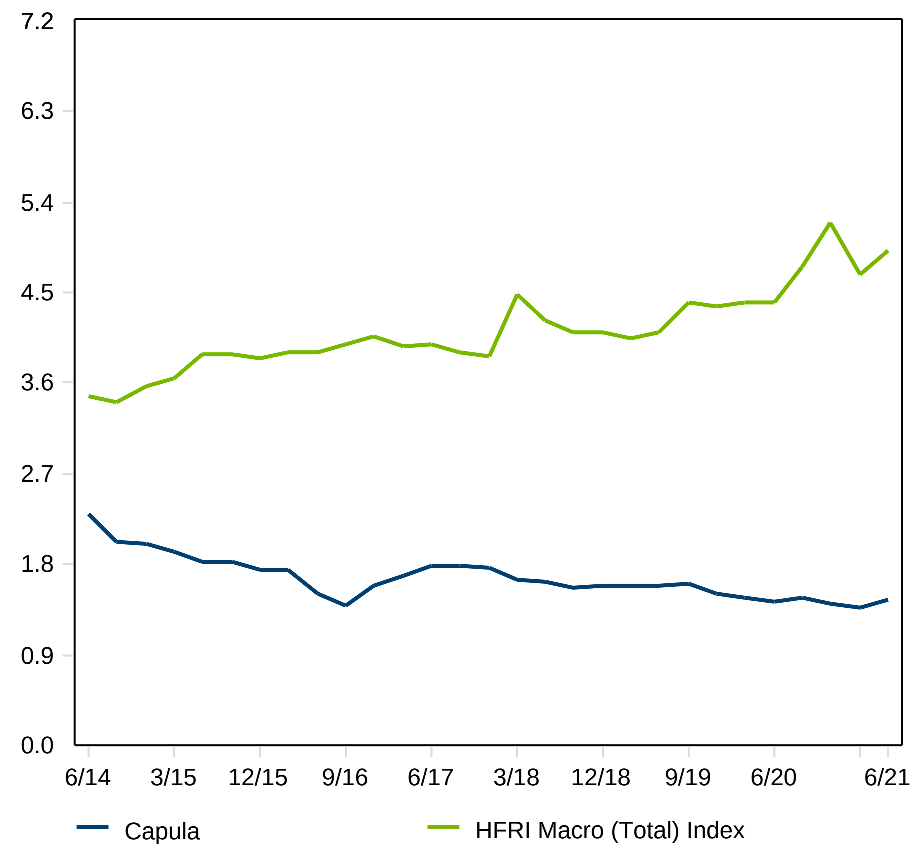


# Capula Risk Profile

## Annualized Return vs. Annualized Standard Deviation 5 Years




## Rolling 3 Years Standard Deviation




## 5 Years Historical Statistics

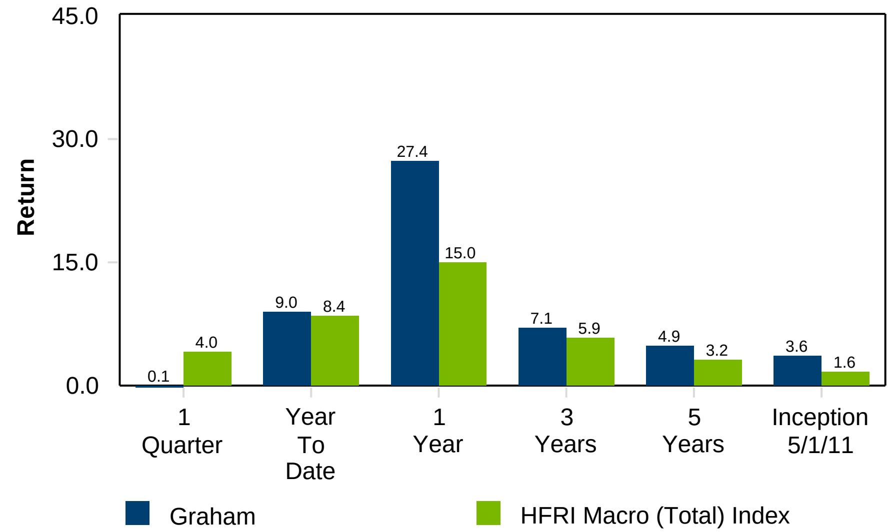
| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Capula | 2.57 | 5.19 | 0.50 | 0.02 | 2.98 | 6.17 | -0.05 | 6.00 | 1.60 | -0.13 |
| HFRI Macro (Total) Index | 0.00 | 0.00 | N/A | 1.00 | 0.45 | 0.00 | 1.00 | 3.23 | 4.73 | 1.00 |
| FTSE 3 Month T-Bill | -2.15 | 4.76 | -0.45 | 0.02 | N/A | 1.16 | -0.01 | 1.14 | 0.25 | -0.13 |

# Graham Performance Summary

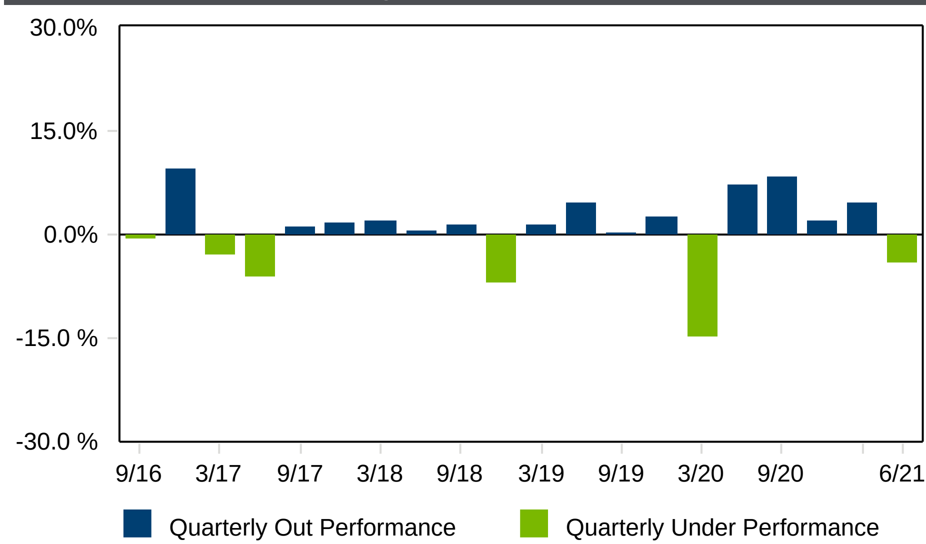
## Account Information

| | |
|---|---|
| Account Name: | Graham |
| Inception Date: | 05/01/2011 |
| Account Structure: | Hedge Fund |
| Asset Class: | Hedge Fund |
| Benchmark: | HFRI Macro (Total) Index |
| Peer Group: | |

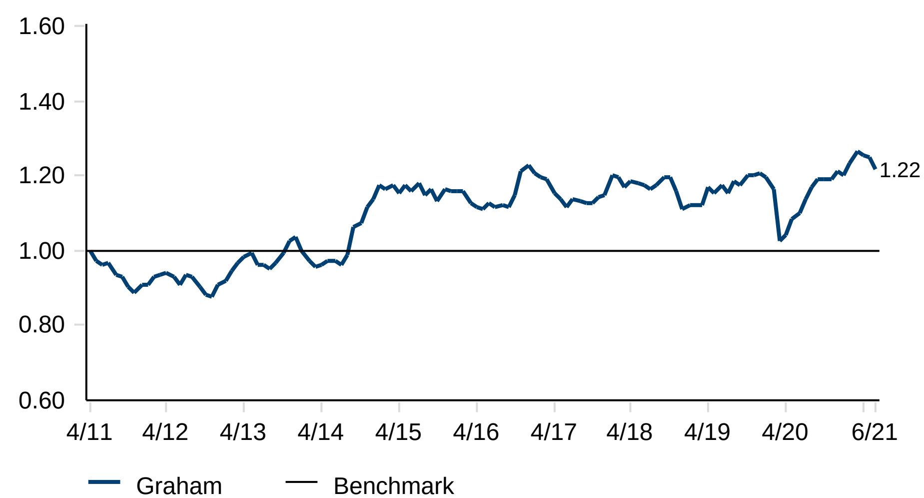
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception



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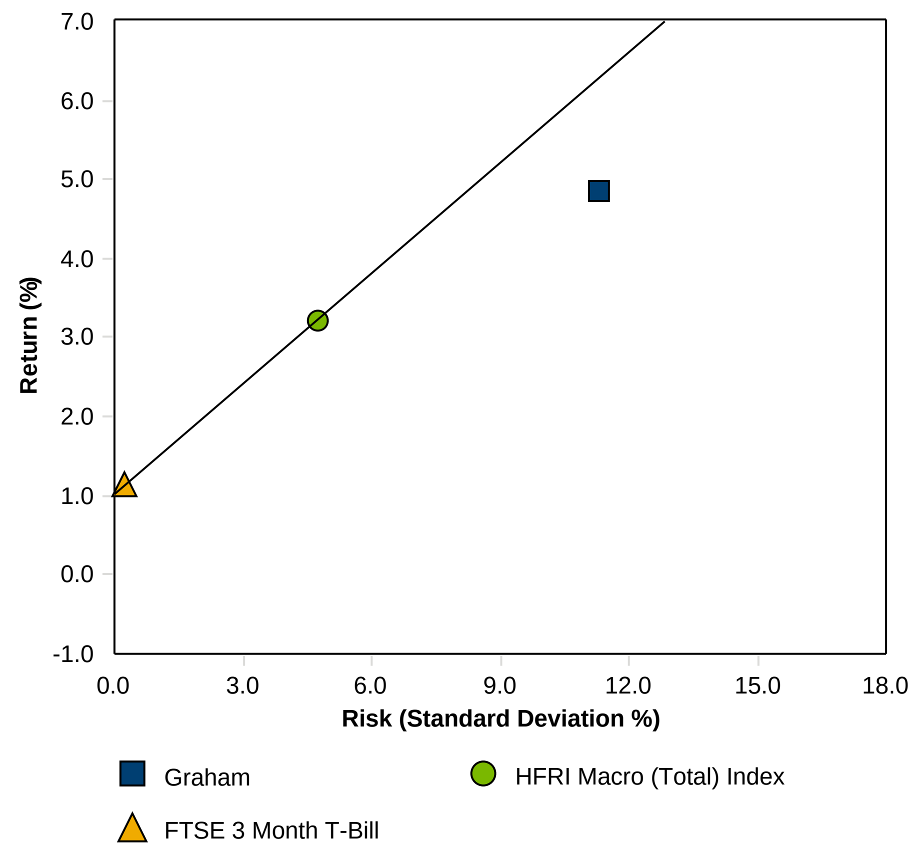
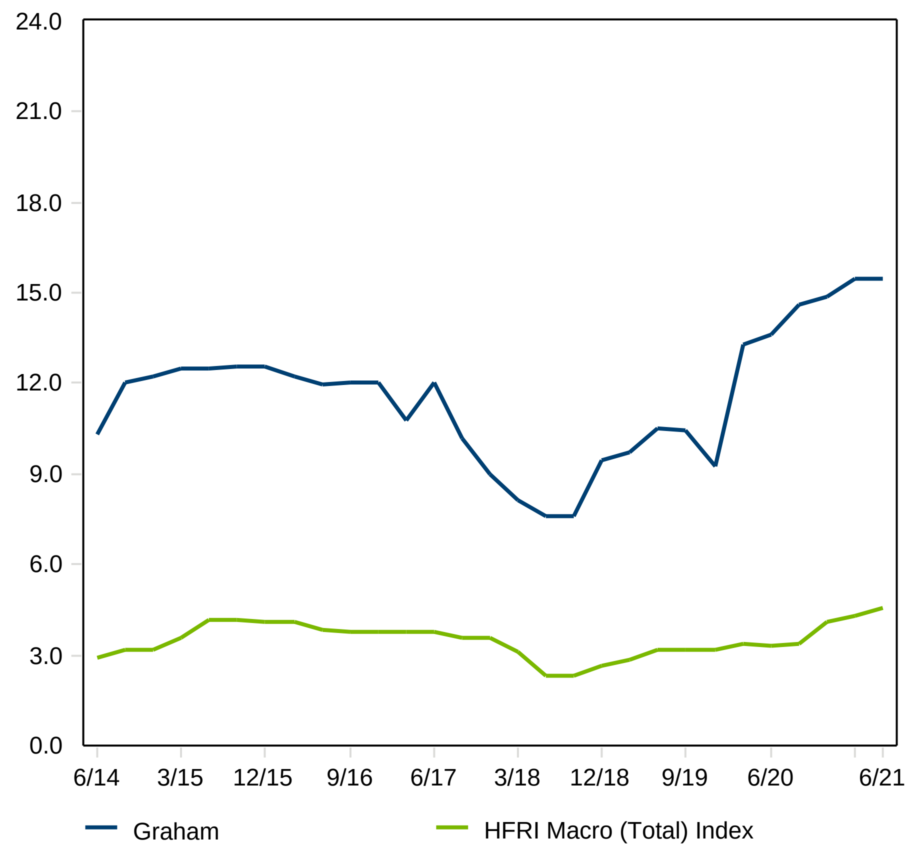
## Graham Risk Profile

### Annualized Return vs. Annualized Standard Deviation 5 Years




### Rolling 3 Years Standard Deviation




### 5 Years Historical Statistics

| | Active Return | Tracking Error | Information Ratio | R-Squared | Sharpe Ratio | Alpha | Beta | Return | Standard Deviation | Actual Correlation |
|---|---|---|---|---|---|---|---|---|---|---|
| Graham | 2.09 | 8.91 | 0.23 | 0.43 | 0.37 | 0.22 | 1.57 | 4.85 | 11.28 | 0.66 |
| HFRI Macro (Total) Index | 0.00 | 0.00 | N/A | 1.00 | 0.45 | 0.00 | 1.00 | 3.23 | 4.73 | 1.00 |
| FTSE 3 Month T-Bill | -2.15 | 4.76 | -0.45 | 0.02 | N/A | 1.16 | -0.01 | 1.14 | 0.25 | -0.13 |

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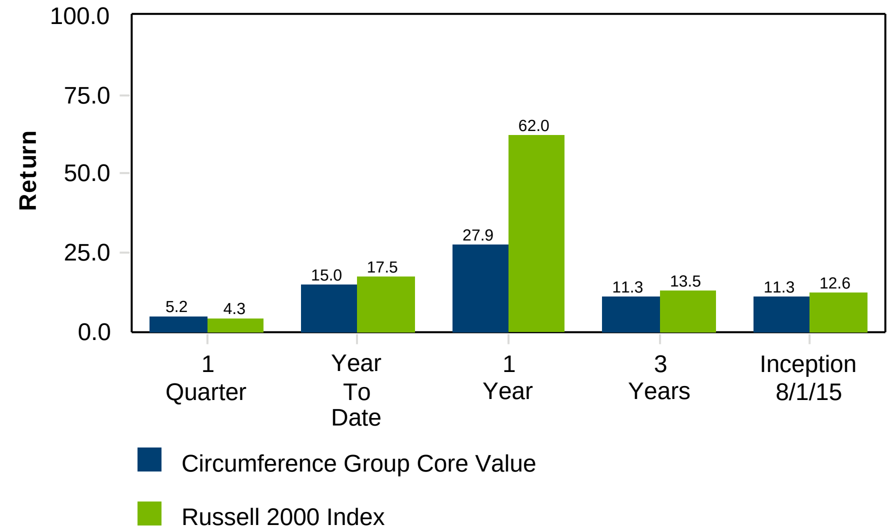
# Circumference Group Core Value Performance Summary

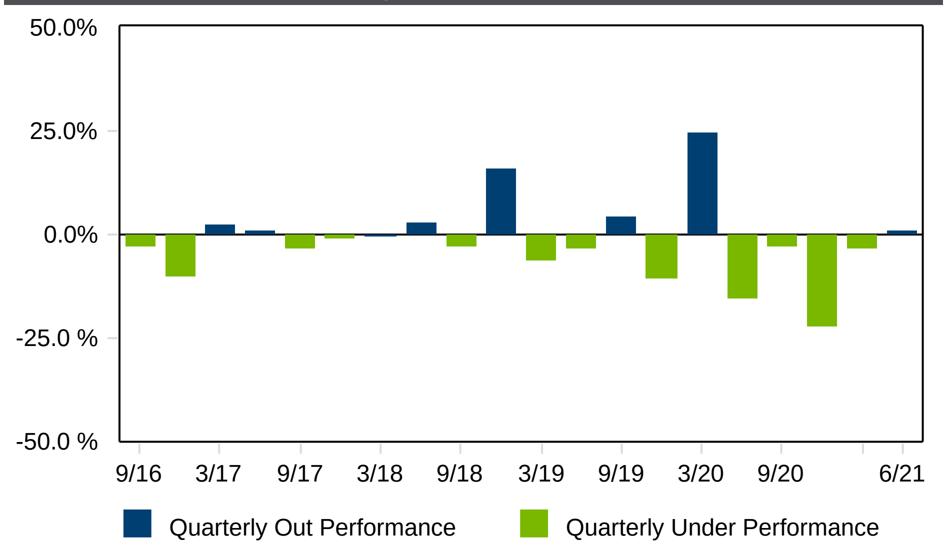
## Account Information

| | |
|---|---|
| Account Name: | Circumference Group Core Value |
| Inception Date: | 08/31/2015 |
| Account Structure: | Hedge Fund |
| Asset Class: | US Hedge Fund |
| Benchmark: | Russell 2000 Index |
| Peer Group: | |

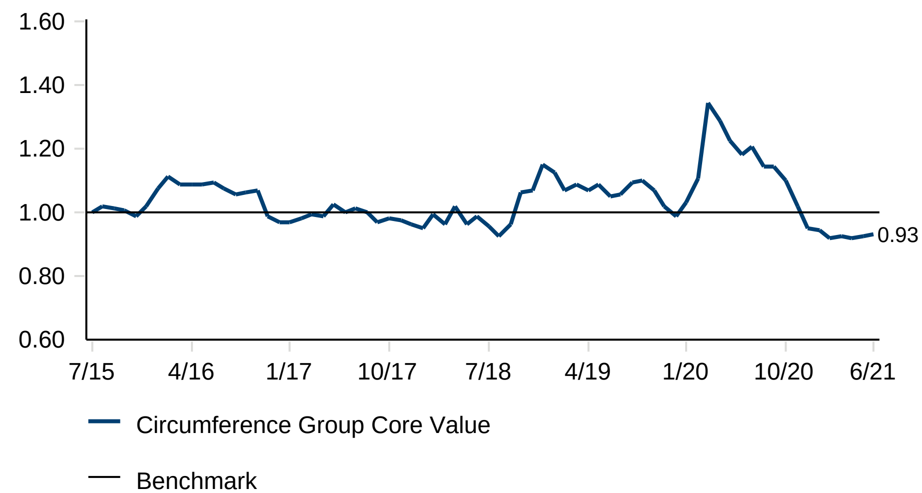
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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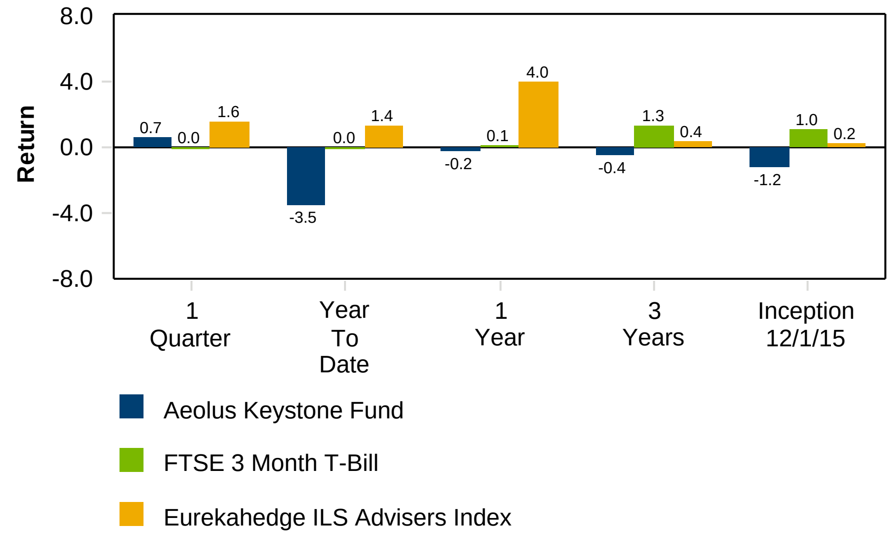
# Aeolus Keystone Fund Performance Summary

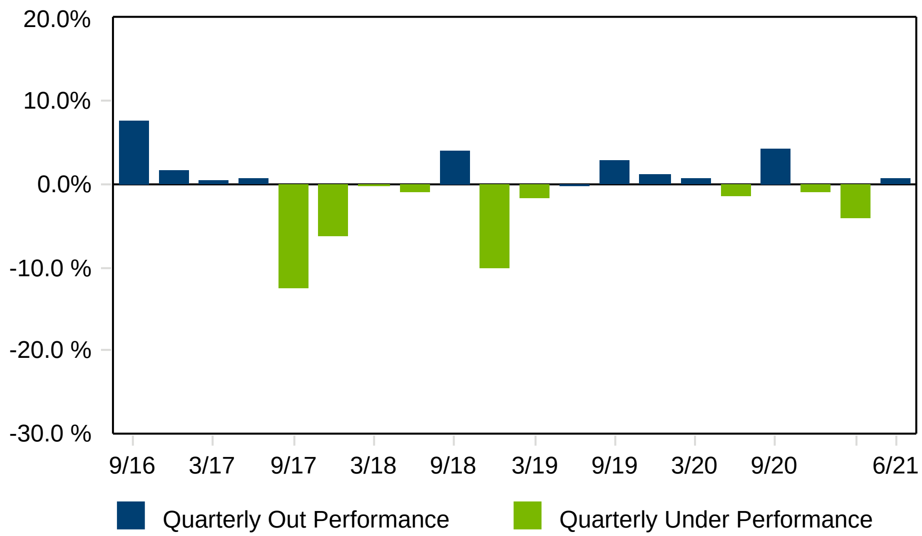
## Account Information

| | |
|---|---|
| Account Name: | Aeolus Keystone Fund |
| Inception Date: | 12/01/2015 |
| Account Structure: | Hedge Fund |
| Asset Class: | Hedge Fund |
| Benchmark: | FTSE 3 Month T-Bill |
| Peer Group: | |

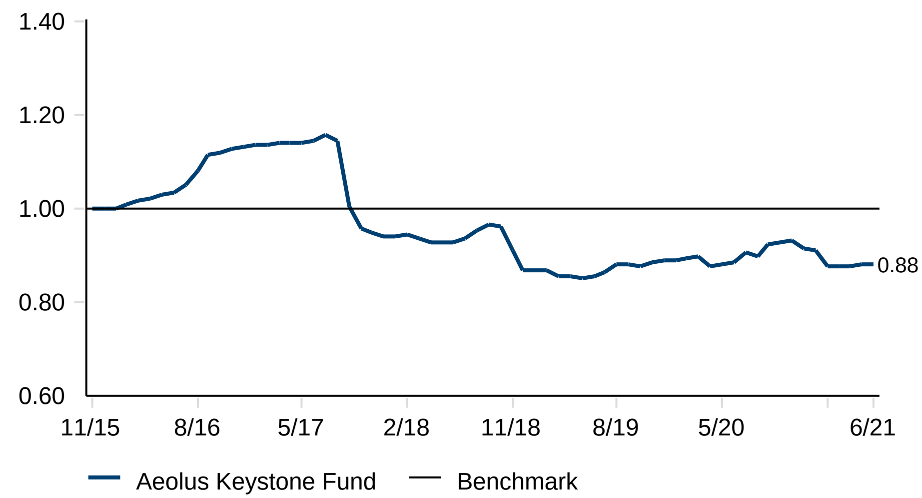
## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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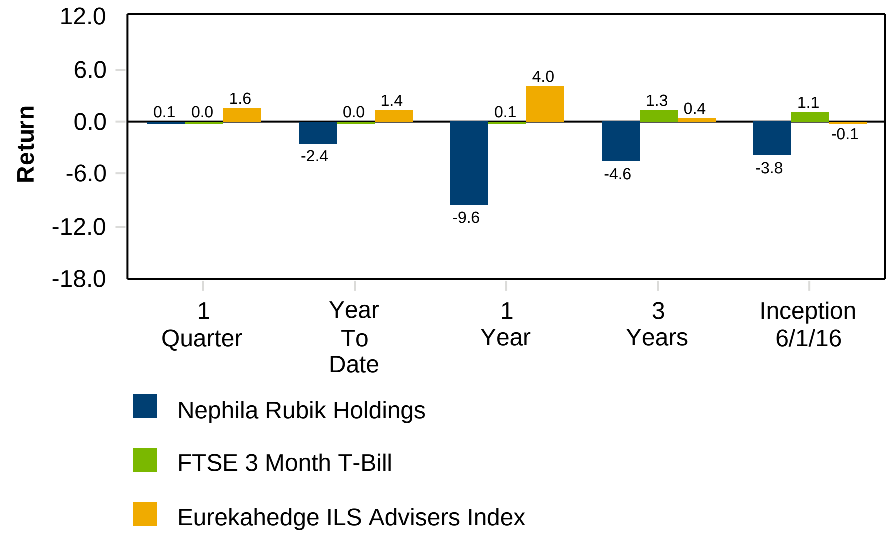
# Nephila Rubik Holdings Performance Summary

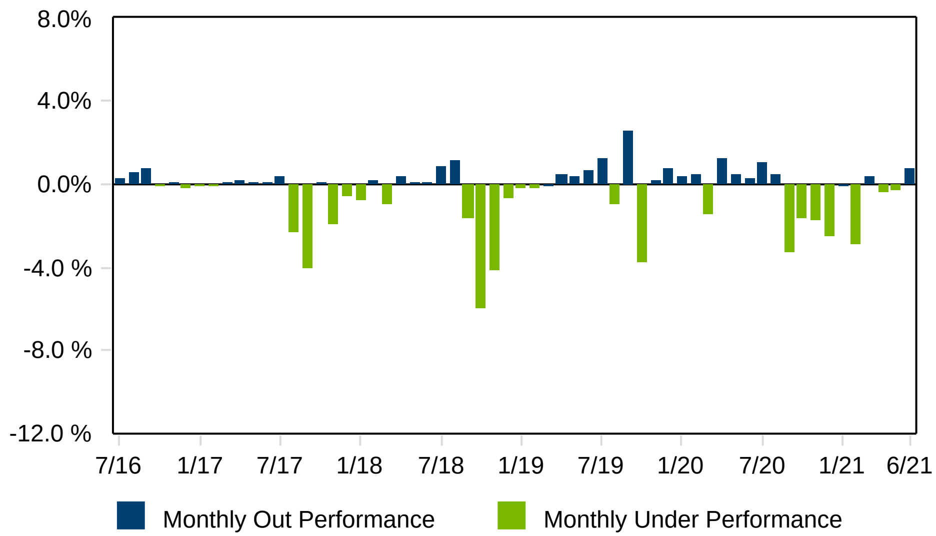
## Account Information

| | |
|---|---|
| Account Name: | Nephila Rubik Holdings |
| Inception Date: | 06/01/2016 |
| Account Structure: | |
| Asset Class: | Hedge Fund |
| Benchmark: | FTSE 3 Month T-Bill |
| Peer Group: | |

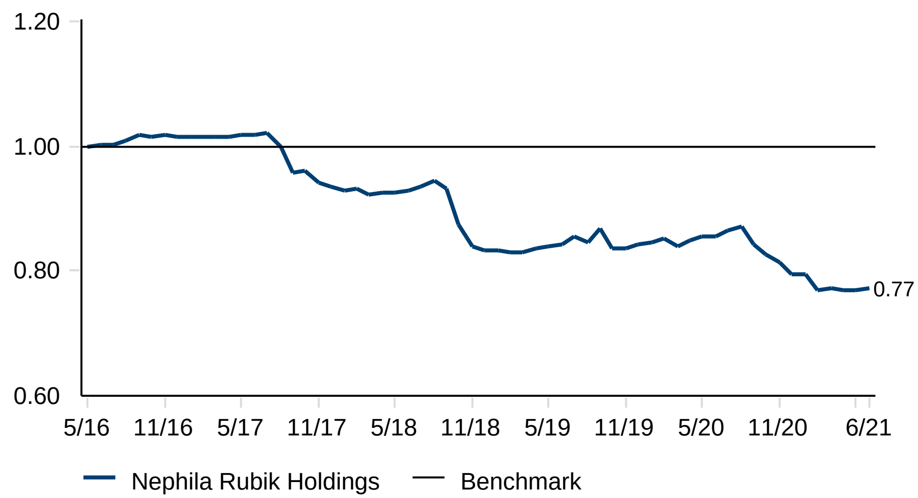
## Return Summary




## Monthly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

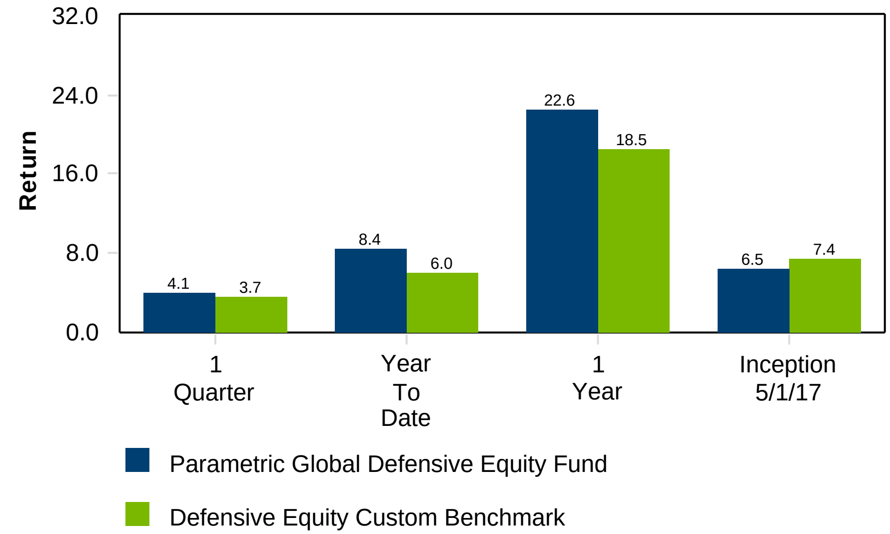


# Parametric Global Defensive Equity Fund Performance Summary

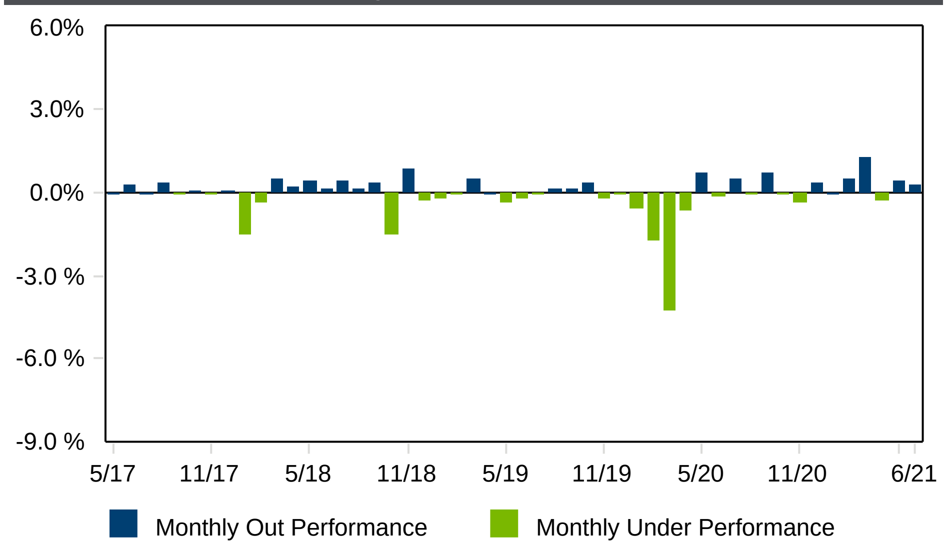
## Account Information

| | |
|---|---|
| Account Name: | Parametric Global Defensive Equity Fund |
| Inception Date: | 06/01/2017 |
| Account Structure: | Commingled Fund |
| Asset Class: | Global Equity |
| Benchmark: | Defensive Equity Custom Benchmark |
| Peer Group: | |

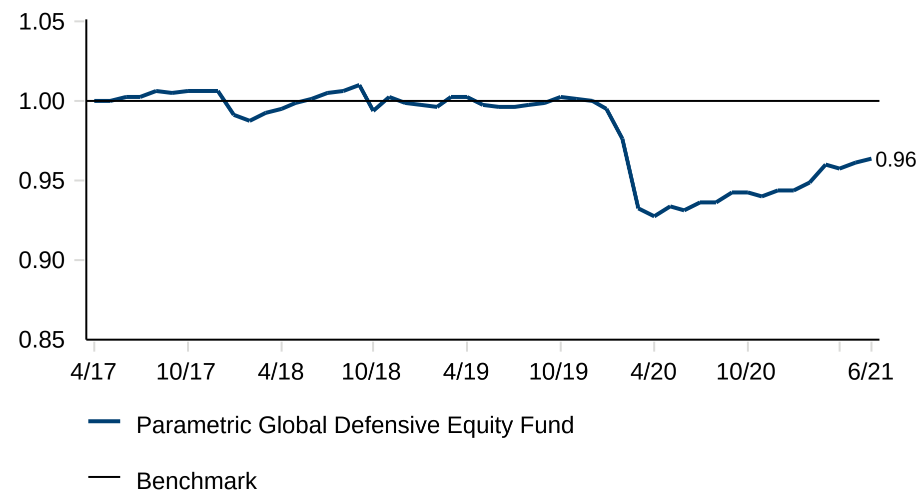
## Return Summary




## Monthly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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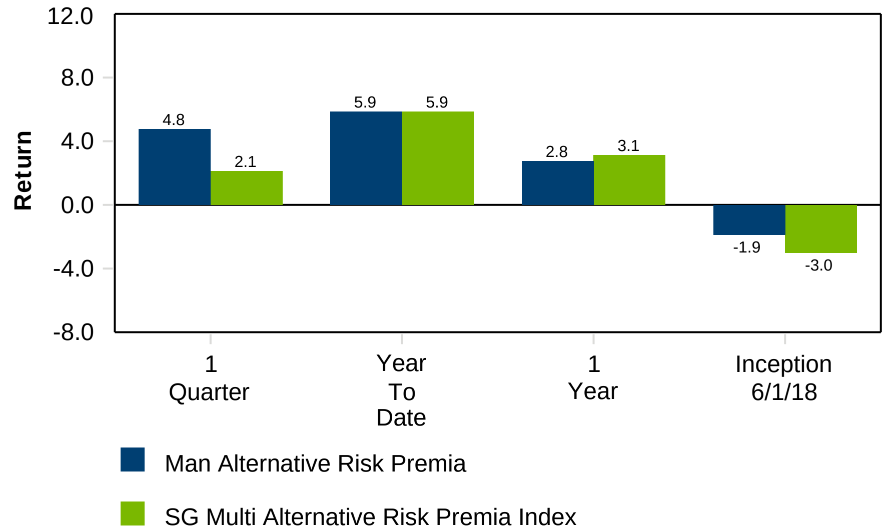
# Man Alternative Risk Premia Performance Summary

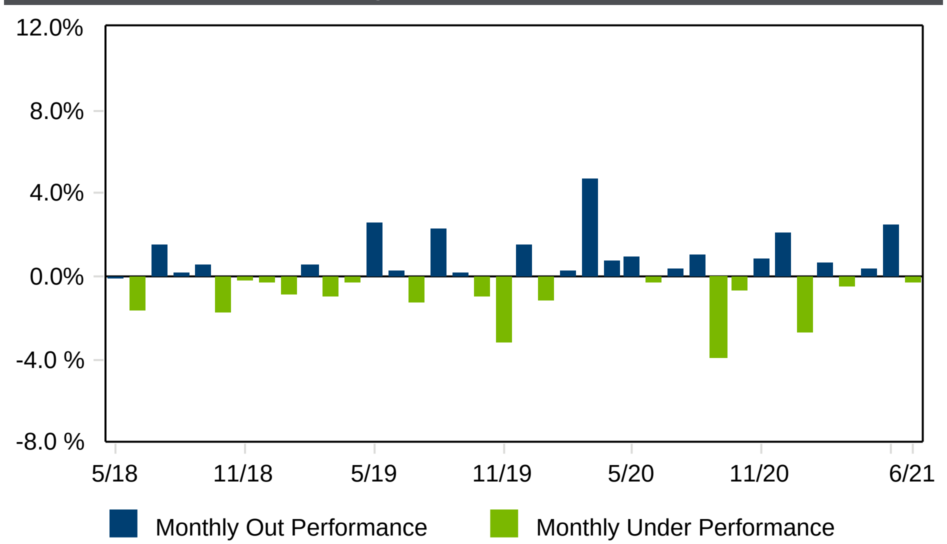
## Account Information

| | |
|---|---|
| Account Name: | Man Alternative Risk Premia |
| Inception Date: | 06/01/2018 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Equity |
| Benchmark: | SG Multi Alternative Risk Premia Index |
| Peer Group: | |

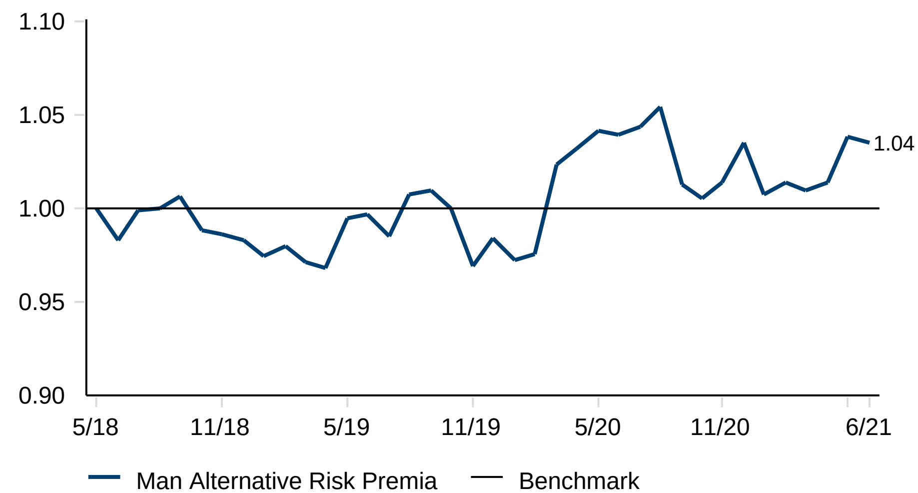
## Return Summary




## Monthly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

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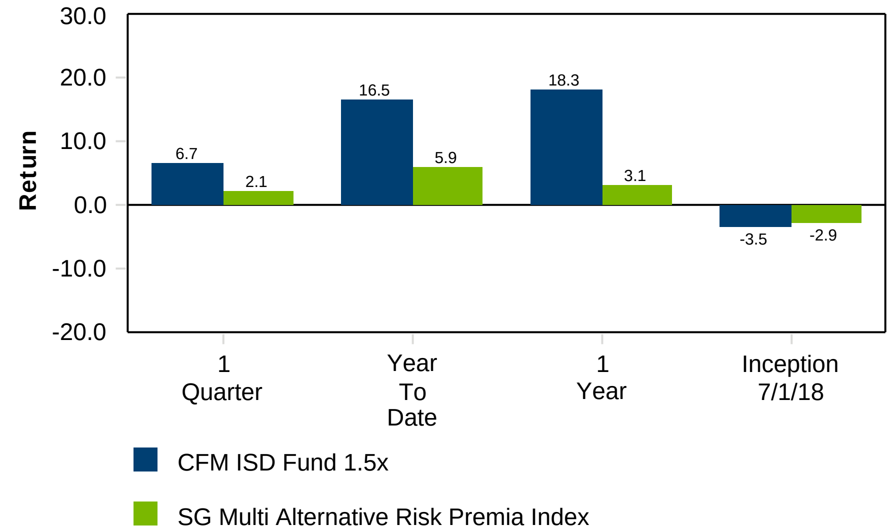
# CFM ISD Fund 1.5x Performance Summary

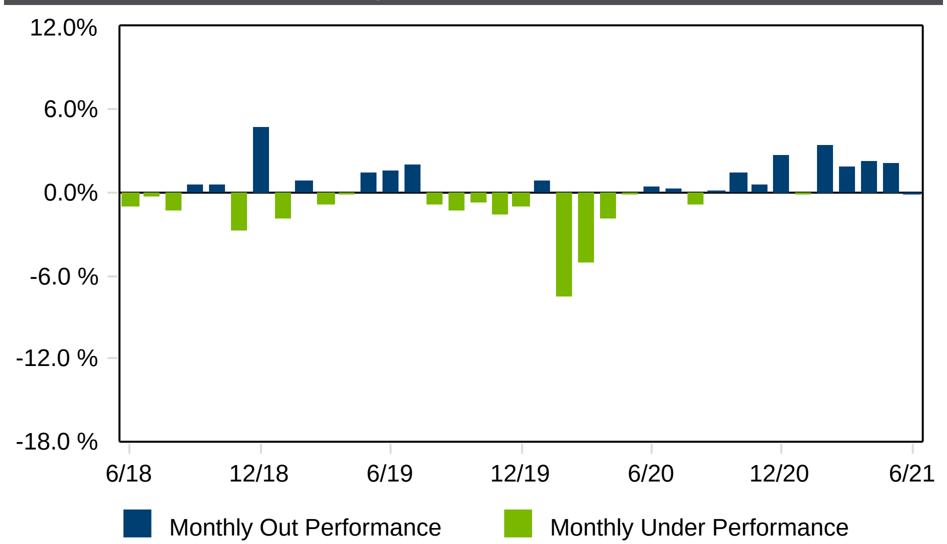
## Account Information

| | |
|---|---|
| Account Name: | CFM ISD Fund 1.5x |
| Inception Date: | 07/01/2018 |
| Account Structure: | Commingled Fund |
| Asset Class: | US Equity |
| Benchmark: | SG Multi Alternative Risk Premia Index |
| Peer Group: | |

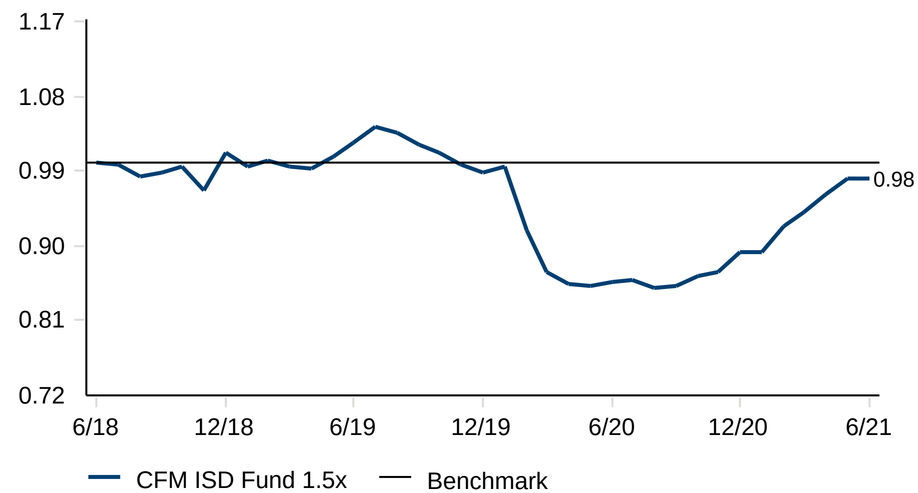
## Return Summary




## Monthly Excess Performance




## Ratio of Cumulative Wealth - Since Inception

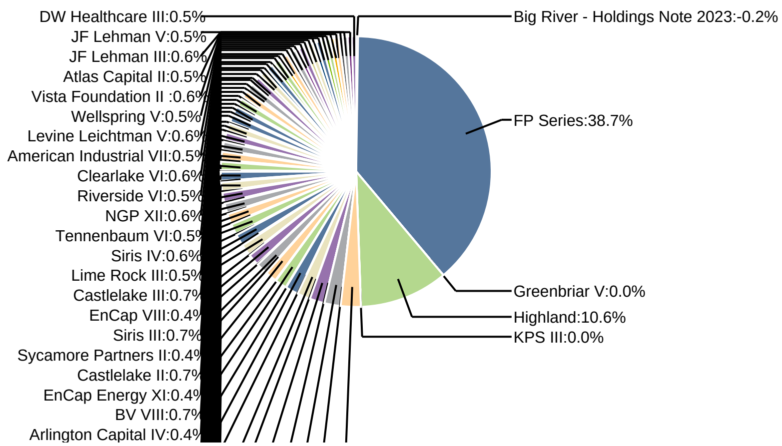


# Private Equity

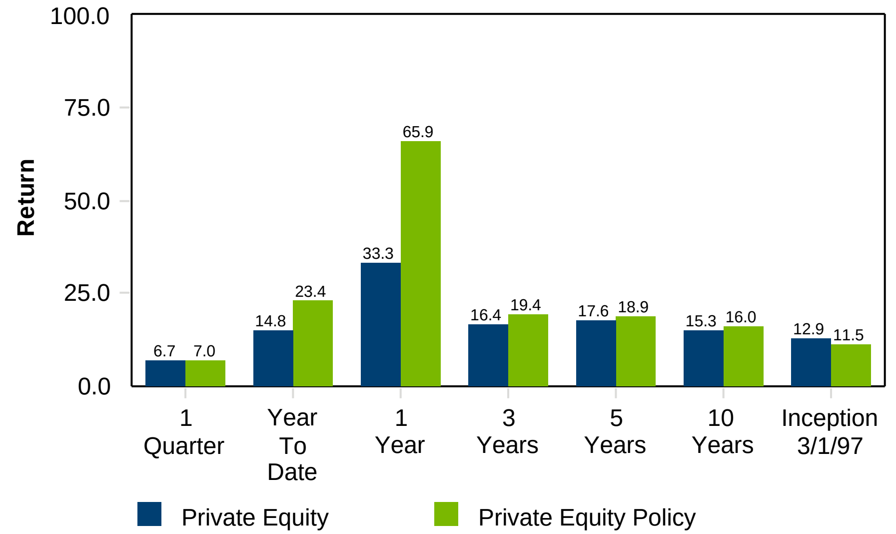
# Private Equity Portfolio Overview

## Current Allocation

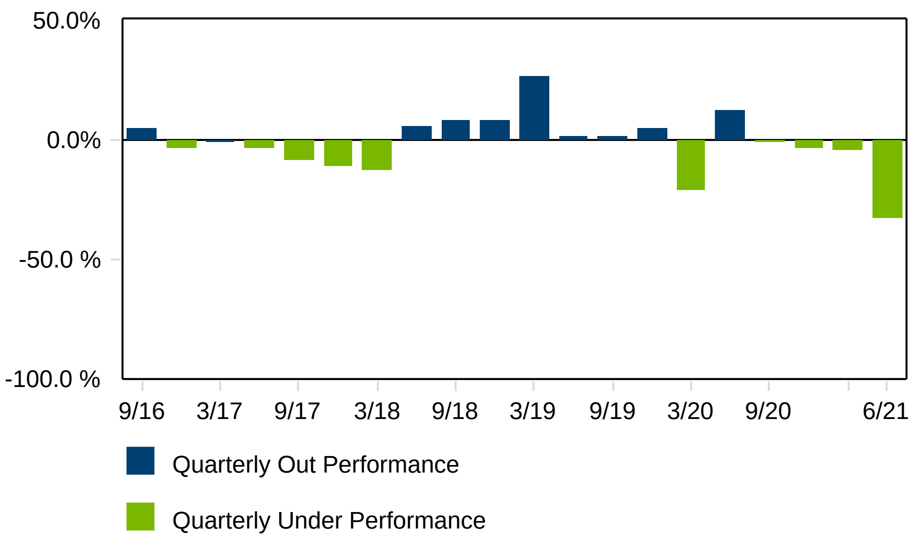
June 30, 2021 : $2,684M



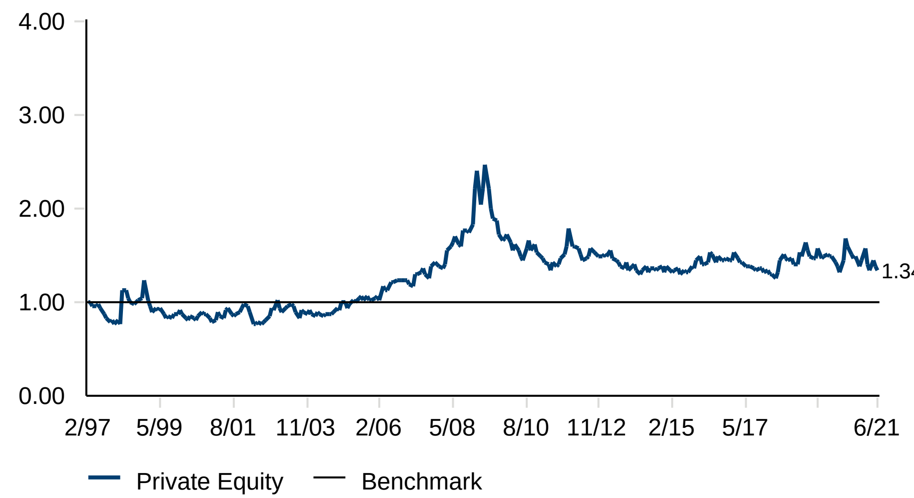

## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception



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# Real Assets

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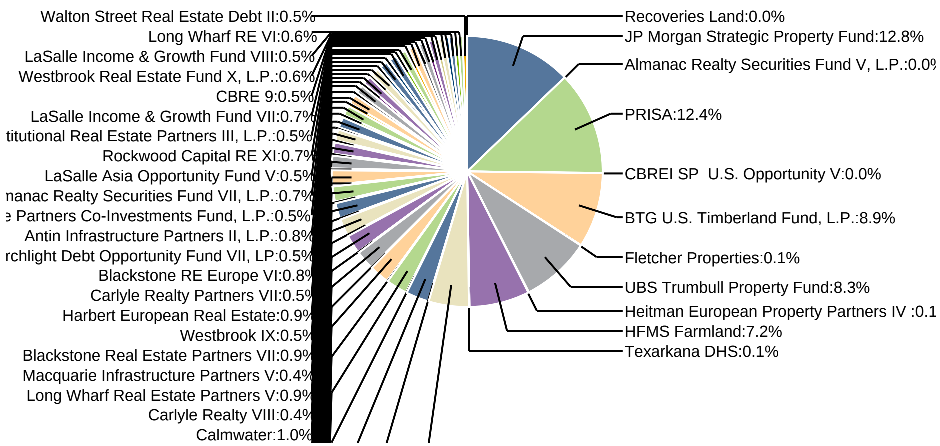
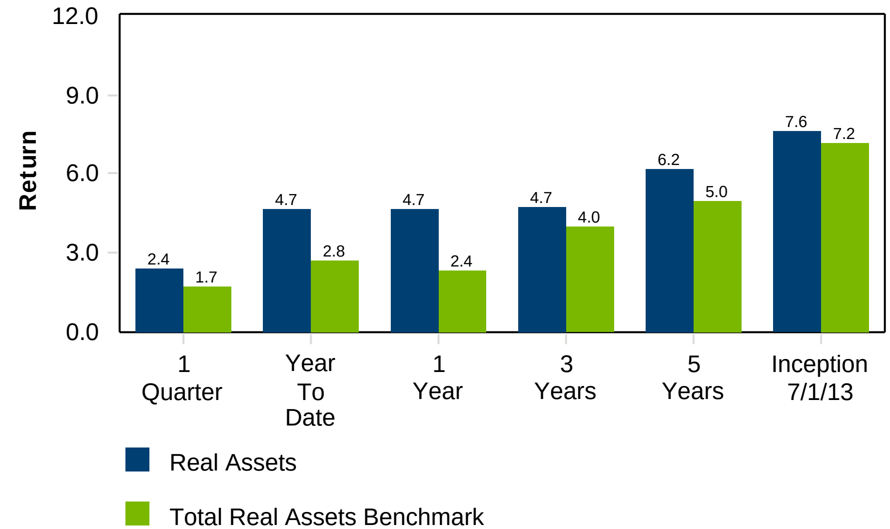
# Real Assets Portfolio Overview

## Current Allocation

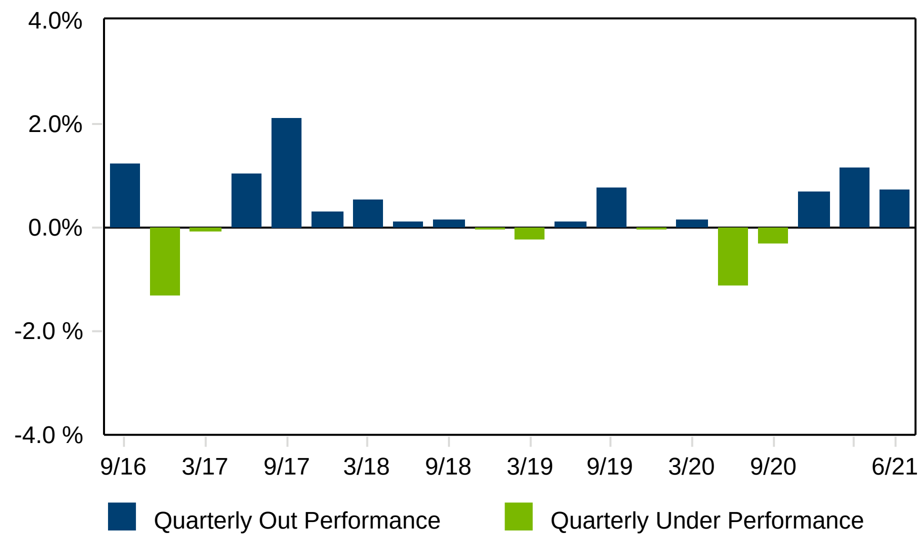
June 30, 2021 : $2,204M



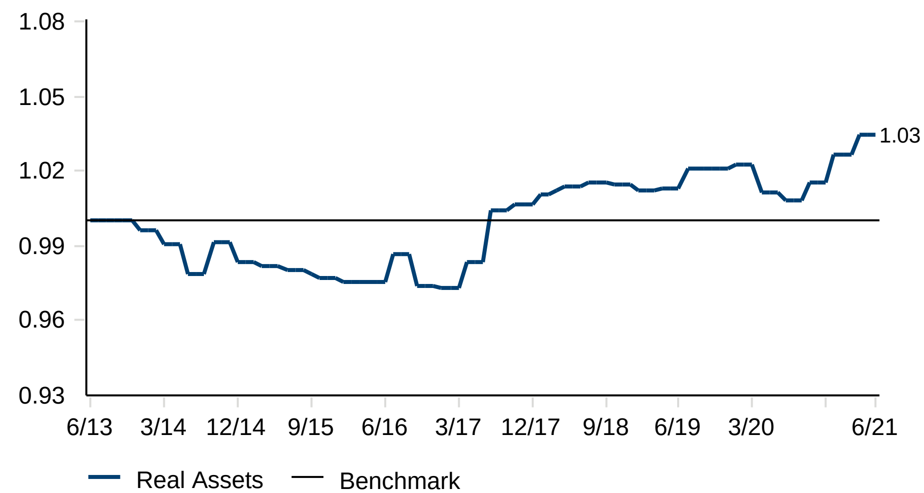

## Return Summary




## Quarterly Excess Performance




## Ratio of Cumulative Wealth - Since Inception



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# Fee Schedule

## Fee Schedule

| | Fee Schedule | Market Value As of 06/30/2021 $000 | Estimated Annual Fee $000 | Estimated Annual Fee (%) |
|---|---|---|---|---|
| **Total Equity** | | **12,519,175** | **57,434** | **0.46** |
| Jacobs Levy 130/30 | 0.60 % of First $200 M<br>0.35 % of Next $300 M<br>0.30 % Thereafter | 932,930 | 3,549 | 0.38 |
| Kennedy Capital Management | 0.60 % of First $100 M<br>0.50 % Thereafter | 775,272 | 3,976 | 0.51 |
| Stephens | 0.75 % of First $150 M<br>0.70 % of Next $50 M<br>0.65 % Thereafter | 658,654 | 4,456 | 0.68 |
| Voya Absolute Return | 0.60 % of First $250 M<br>0.40 % Thereafter | 778,351 | 3,613 | 0.46 |
| Allianz (Nicholas Applegate) | 0.40 % of First $100 M<br>0.30 % of Next $100 M<br>0.25 % of Next $100 M<br>0.20 % Thereafter | 1,059,921 | 2,470 | 0.23 |
| Pershing Square International | 1.50 % of Assets | 1,238 | 19 | 1.50 |
| Pershing Square Holdings | 1.50 % of Assets | 260,293 | 3,904 | 1.50 |
| Trian Partners | 1.50 % of Assets | 87,142 | 1,307 | 1.50 |
| Trian Co-Investments | 0.50 % of Assets | 103,867 | 519 | 0.50 |
| SSgA Global Index | 0.04 % of First $1000 M<br>0.03 % Thereafter | 1,274,744 | 482 | 0.04 |
| BlackRock MSCI ACWI IMI Fund | 0.05 % of First $250 M<br>0.04 % Thereafter | 1,123,563 | 474 | 0.04 |
| Wellington Global Perspectives | 0.80 % of Assets | 760,944 | 6,088 | 0.80 |
| T. Rowe Price Global Equity | 0.43 % of First $500 M<br>0.40 % Thereafter | 1,685,825 | 6,868 | 0.41 |
| Lazard | 0.68 % of First $300 M<br>0.65 % Thereafter | 847,142 | 5,596 | 0.66 |
| D.E. Shaw | 0.84 % of First $100 M<br>0.80 % of Next $100 M<br>0.76 % Thereafter | 953,643 | 7,368 | 0.77 |
| GMO Global All Country Equity | 0.64 % of Assets | 564,968 | 3,616 | 0.64 |
| Harris Global Equity | 0.60 % of First $100 M<br>0.50 % of Next $100 M<br>0.45 % Thereafter | 650,603 | 3,128 | 0.48 |

Above fees reflect only the current base management fee and excludes any performance fee arrangement.

## Fee Schedule

| | Fee Schedule | Market Value As of 06/30/2021 $000 | Estimated Annual Fee $000 | Estimated Annual Fee (%) |
|---|---|---|---|---|
| **Fixed Income** | | **2,640,993** | **5,392** | **0.20** |
| BlackRock | 0.20 % of First $200 M<br>0.15 % of Next $200 M<br>0.10 % of Next $400 M<br>0.08 % Thereafter | 281,102 | 522 | 0.19 |
| Loomis Sayles | 0.50 % of First $20 M<br>0.40 % of Next $30 M<br>0.30 % Thereafter | 501,350 | 1,574 | 0.31 |
| Putnam | 0.40 % of First $100 M<br>0.35 % of Next $150 M<br>0.30 % of Next $250 M<br>0.25 % Thereafter | 385,150 | 1,330 | 0.35 |
| SSgA Aggregate Bond Index | 0.04 % of First $100 M<br>0.02 % Thereafter | 468,813 | 109 | 0.02 |
| Wellington Global Total Return | 0.30 % of Assets | 354,484 | 1,063 | 0.30 |
| Reams Core Plus Bond Fund | 0.20 % of Assets | 397,062 | 794 | 0.20 |
| BRS Recycling Tax Credit | | 176,000 | - | - |
| BRS Recycling Tax Credit Phase 2 | | 77,032 | - | - |
| **Opportunistic/Alternatives** | | **938,263** | **12,853** | **1.37** |
| Anchorage | 2.00 % of Assets | 90,754 | 1,815 | 2.00 |
| York | 1.50 % of Assets | 12,859 | 193 | 1.50 |
| Capula | 2.00 % of Assets | 80,311 | 1,606 | 2.00 |
| Graham | 2.00 % of Assets | 72,683 | 1,454 | 2.00 |
| Circumference Group Core Value | 1.50 % of Assets | 38,072 | 571 | 1.50 |
| Aeolus Keystone Fund | 2.00 % of Assets | 225,867 | 4,517 | 2.00 |
| Nephila Rubik Holdings | 1.50 % of Assets | 40,957 | 614 | 1.50 |
| Parametric Global Defensive Equity Fund | 0.40 % of First $150 M<br>0.35 % Thereafter | 194,673 | 756 | 0.39 |
| Man Alternative Risk Premia | 0.85 % of Assets | 93,570 | 795 | 0.85 |
| CFM ISD Fund 1.5x | 0.60 % of Assets | 88,516 | 531 | 0.60 |

Above fees reflect only the current base management fee and excludes any performance fee arrangement.

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# Disclaimers and Notes

## Appendix

### Description of Benchmarks

**Total Fund** - The Performance Benchmark for the Total Fund reflects a weighted average of the underlying asset class benchmarks, weighted as follows: Opportunistic/Alternatives and Real Assets at the weight of the previous month's ending market values, Fixed Income at its long-term Policy Target of 15%, and Total Equity at its long-term Policy Target of 55% plus the balance of the unfunded or uncommitted assets of the Opportunistic/Alternatives and Real Assets categ ories. These targets can be found on page 21 of the this report. From October 2007 to July 2013, the Performance Benchmark was the performance of the asset class benchmarks as a weighted average of the previous month's ending market values. The historical components of the benchmark are shown in the table below. Returns prior to September 30, 1996, consist of the actual allocations to the seven different asset classes included in the Arkansas Teacher Retirement System over time. The historical benchmarks used for each asset class are noted below.

| Date | DJ Total Stock Market Index | Russell 3000 Index | MSCI ACW ex-U.S. Index | MSCI All Country World Index | BC Universal Bond Index | BC Aggregate Bond Index | Alternative Policy* |
|---|---|---|---|---|---|---|---|
| 03/2004-9/2007 | 40.0 % | – | 17.5 % | -- | 25.0 % | – | 17.5 % |
| 06/2003-02/2004 | 40.0 | – | 17.5 | -- | -- | 25.0 % | 17.5 |
| 10/2001-07/2003 | – | 40.0 % | 17.5 | -- | -- | 25.0 | 17.5 |
| 08/1998-09/2001 | – | 40.0 | 17.0 | -- | -- | 28.0 | 15.0 |
| 10/1996-07/1998 | – | 40.0 | 20.0 | -- | -- | 28.0 | 12.0 |

*Historically, the Alternative Policy was comprised of the weighted averages of the Private Equity, Real Estate, and Alternatives policy benchmarks. Prior to July 31, 2003 the alternative benchmark consisted of 57.0% of the Russell 3000 + a 2% Premium per year, 8.5% of the NCREIF Southeast Timberland Index, 28.5% of the Real Estate Index, 6% of the EnnisKnupp STIF Index.

## Benchmark Descriptions

**Total Equity** -A weighted average of the Dow Jones U.S. Total Stock Market Index and the MSCI All Country World IMI Index based on weights of the underlying investment manager allocations. As of March 1, 2021, the Total Equity Performance Benchmark was comprised of 31.2% DJ U.S. Total Stock Market Index and 68.8% MSCI ACWI IMI.

**Fixed Income** - The Barclays U.S. Universal Bond Index as of March 1, 2004.

**Opportunistic/Alternatives** - A custom benchmark consisting of 25% DJ/CS Event-Driven Index, 25% HFR Macro Index, and 50% South Timberland NCREIF Index until June 30,2013; 60% HFRI Macro Index and 40% DJ/CS Event-Driven Index until July 31, 2015; 56% HFRI Macro Index, 38% DJ/CS Event-Driven Index, and 6% Russell 2000 Index until March 31, 2016; 45% HFRI Macro Index, 30% DJ/CS Event-Driven Index, 5% Russell 2000 Index, and 20% Citigroup 3 Month T-bill until May 31, 2016; 37% HFRI Macro Index, 25% DJ/CS Event-Driven Index, 5% Russell 2000 Index, and 33% Citigroup 3 Month T-bill until May 31, 2017; 28% HFRI Macro Index, 20% DJ/CS Event-Driven Index, 4% Russell 2000 Index, 25% Citigroup 3 Month T-bill, and 23% Parametric Performance Benchmark thereafter.

**Real Assets** - A custom benchmark consisting of a weighted average of the net asset values at previous month's end of the sub-categories' benchmarks, defined as Real Estate Benchmark, Timber Benchmark, Agriculture Benchmark and Infrastructure Benchmark.

**Real Estate**- NFI-ODCE - NCREIF Fund Index Open-end Diversified Core Equity Index is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy; underlying funds are leveraged with gross and net returns available.

**Timber Property Benchmark** - NCREIF Timberland Property Index (NTPI) weighted according to ATRS' regional exposure based on net asset value.

**Agriculture Benchmark** - NCREIF Farmland Index (NFI) weighted according to ATRS' regional and crop type exposure based on net asset value.

**Infrastructure Benchmark** - Consumer Price Index (CPI) plus 500 basis points annually.

**Private Equity** - The Dow Jones U.S. Total Stock Market Index + a 2% premium per year.

**Cash Equivalents** - The Citigroup 90 day T-bill.



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## Benchmark Descriptions

**Allianz (Convertibles) Performance Benchmark** - On January 1, 2005, the benchmark for the portfolio was changed to the Merrill Lynch Convertible Bond (All Quality) Index. Prior to January 1, 2005, the performance benchmark for the Allianz (previously Nicholas Applegate) portfolio was the CSFB Convertible Securities Index. Prior to May 1, 2004, the performance benchmark consisted of 90% CSFB Convertible Securities Index and 10% Salomon High Yield Index.

**BlackRock Performance Benchmark** - The Barclays Universal Bond Index as of March 1, 2004. Previously it was the Barclays Aggregate Bond Index.

**Jacobs Levy Performance Benchmark** - On January 1, 2008, the benchmark for the portfolio was changed to the Russell 3000 Index. Prior to January 1, 2008, the portfolio benchmark was the Russell 1000 Growth Index.

**Loomis Sayles Performance Benchmark** - An Index that splices 65% of the Barclays Government/Credit Index and 35% Barclays High Yield Index.

**Nicholas Applegate Performance Benchmark** - On January 1, 2005, the benchmark for the portfolio was changed to the Merrill Lynch Convertible Bond (All Quality) Index. Prior to January 1, 2005, the performance benchmark for the Nicholas Applegate portfolio was the CSFB Convertible Securities Index. Prior to May 1, 2004, the performance benchmark consisted of 90% CSFB Convertible Securities Index and 10% Salomon High Yield Index.

**Parametric Performance Benchmark** - 50% MSCI All Country World Index (net) and 50% Citigroup 90 day T-Bill Index as of June 1, 2017.

**Wellington Global Performance Benchmark** - As of July 1, 2012 the benchmark was changed to MSCI All Country World Small Cap Index. Prior to July 1, 2012, the benchmark was MSCI All Country World Small/Mid Cap Index.

**Voya Absolute Return Performance Benchmark** - As of December 1, 2015 the benchmark was changed to MSCI All Country World Index. Prior to December 1, 2015, the benchmark was the S&P 500 Stock Index.

**Barclays Aggregate Bond Index** - A market-value weighted index consisting of the Barclays Corporate, Government and Mortgage-Backed Securities Indicies. The Index also includes credit card-, auto- and home equity loan-backed securities, and is the broadest available measure of the aggregate U.S. fixed income market.

**Barclays Government/Credit Index** - The Barclays Government/Credit Index measures the investment return of all medium and larger public issues of U.S. Treasury, agency, investment-grade corporate, and investment-grade international dollar-denominated bonds.

**Barclays High Yield Index -** The Barclays High Yield Index covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

**Barclays U.S. Universal Bond Index** - A market-value weighted index consisting of the components of the Barclays Aggregate Bond Index, plus EuroDollar bonds, emerging markets bonds, 144A fixed income securities, and U.S. corporate high yield securities.

## Benchmark Descriptions

**Barclays Mortgage Index** - A market value-weighted index consisting of the mortgage pass-through securities of Ginnie Mae (GNMA), Fannie Mae (FNMA) and Freddie Mac (FHLMC).

**Citigroup 90 day T-bill Index** - Treasury bill rates of return, as reported by Citigroup (Salomon Smith Barney), for bills with a maximum time remaining to maturity of 90 days.

**Dow Jones U.S. Total Stock Market Index** - A capitalization-weighted stock index representing all U.S. common stocks traded regularly on the organized exchanges. The Index is the broadest measure of the aggregate U.S. stock market.

**FTSE Europe** - A tradable index, designed to represent the performance of the 100 most highly capitalized blue chip companies in Europe.

**Merrill Lynch Convertible Bond (All Quality) Index** -The Merrill Lynch All Convertibles All Qualities Index is a widely used index that measures convertible securities'
performance. It measures the performance of U.S. dollar-denominated convertible securities not currently in bankruptcy with a total market value greater than $50 million at
issuance.

**MSCI All Country World ex-U.S. Index** - A capitalization-weighted index consisting of 22 developed and 23 emerging countries, but excluding the U.S. Covers approximately 85% of global equity opportunity set outside of the U.S.

**MSCI All Country World Index** - A capitalization-weighted index of stocks representing 46 stock markets in Europe, Australia, the Far East, the Middle East, Latin America and North America.

**MSCI All Country World IMI Index** - A capitalization-weighted index representing large and small cap stock from 46 stock markets in Europe, Australia, the Far East, the Middle East, Latin America and North America.

**MSCI Europe, Australasia, Far East (EAFE) Non-U.S. Stock Index** - A capitalization-weighted index of stocks representing 21 developed and emerging country markets in Europe, Australia, Asia and the Far East.

**MSCI World Index** - A capitalization-weighted index of stocks representing 22 developed stock markets in Europe, Asia and Canada.

**NFI-ODCE Index**- NCREIF Fund Index Open-end Diversified Core Equity Index is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy; underlying funds are leveraged with gross and net returns available

**DJ/CS Event-Driven Index** - Event driven funds typically invest in various asset classes and seek to profit from potential mispricing of securities related to a specific corporate or market event. Such events can include: mergers, bankruptcies, financial or operational stress, restructurings, asset sales, recapitalizations, spin-offs, litigation, regulatory and legislative changes as well as other types of corporate events. Event driven funds can invest in equities, fixed income instruments (investment grade, high yield, bank debt, convertible debt and distressed), options and various other derivatives. Many event driven fund managers use a combination of strategies and adjust exposures based on the opportunity sets in each subsector.





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## Benchmark Descriptions

**LIBOR Index** - London Interbank Offered Rate. A filtered average of the world's most creditworthy banks' interbank deposit rates with maturities between overnight and one full year.

**Russell 3000 Index** - An index that measures the performance of the 3,000 stocks that make up the Russell 1000 and Russell 2000 Indices.

**Russell 1000 Index** - An index that measures the performance of the largest 1,000 stocks contained in the Russell 3000 Index.

**Russell 1000 Value Index** - An index that measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower I/B/E/S growth forecasts.

**Russell 2000 Index** - An index that measures the performance of the smallest 2,000 companies contained in the Russell 3000 Index.

**Russell 2000 Growth Index** - An index that measures the performance of those Russell 2000 companies with greater price-to-book ratios and greater I/B/E/S growth forecasts.

**Russell 2000 Value Index** - An index that measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower I/B/E/S growth forecasts.

**Russell Mid Cap Value Index** - And index that measure the performance of those Russell 1000 companies with with lower price-to-book ratios and lower forecasted growth values.

**S&P 500 Stock Index** - A capitalization-weighted stock index consisting of the 500 largest publicly traded U.S. stocks.

**South Timberland Index -** The largest regional subindex of the NCREIF Timberland Index, consisting of timberland properties held in the U.S. South. This includes close to 300 properties with more than 10 million cumulative acres of timberland in the following states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. Calculations are based on quarterly returns at the individual property level. Performance is reported on an all-cash, unlevered basis, gross of investment management fees.

**HFR Macro Index -** Macro: Investment Managers which trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top down and bottom up theses, quantitative and fundamental approaches and long and short term holding periods. Primary investment thesis is predicated on predicted or future movements in the underlying instruments.

**HFR Distressed/Restructuring Index -** Distressed Restructuring Strategies employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings. Distressed Strategies employ primarily debt (greater than 60%) but also may maintain related equity exposure. Hedge Fund Research, Inc. (HFR) utilizes a UCITSIII compliant methodology to construct the HFR Hedge Fund Indices. The methodology is based on defined and predetermined rules and objective criteria to select and rebalance components to maximize representation of the Hedge Fund Universe.

## Historical U.S. Equity and Global Equity composite returns

| As of June 30, 2015 | 1 Year | 3 Years | 5 Years | 10 Years | Since Inception | Inception Date |
|---|---|---|---|---|---|---|
| U.S. Equity | 6.7 | 18.1 | 16.4 | 9.4 | 10.5 | 04/01/1986 |
| Dow Jones U.S. Total Stock Market Index | 7.2 | 17.6 | 17.5 | 8.3 | - | |
| Global Equity | 1.8 | 14.6 | 12.1 | - | 2.5 | 11/01/2007 |
| MSCI AC World Index (Net) | 0.7 | 13.0 | 11.9 | 6.4 | 2.1 | |

In June 2015, the ATRS Board approved the combination of the U.S. and Global equity asset classes to a single Total Equity asset class. Total Equity performance reporting began in July 2015. In the table above, we show the historical returns for the U.S. Equity and Global Equity asset classes since inception through June 2015. Performance for the Total Equity asset class prior to July 2015 represents a weighted average of the U.S. Equity and Global Equity historical performance.

## Benchmark Descriptions

**Bloomberg Barclays Corporate High Yield Bond Index** - An index that covers the U.S.D-dominated, non- investment grade, fixed rate, taxable corporate bond market. Debt issues from emerging market countries are excluded. Securities are classified as high-yield if the middle rating is Ba1/BB+ or below.

**Bloomberg Barclays Emerging Markets Index** - An unmanaged index that tracks total returns for external-currency-denominated debt instruments of the emerging markets.

**Bloomberg Barclays Global Aggregate** - Provides a broad-based measure of the global investment-grade fixed income markets. The three major components of this index are the U.S. Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Indices. The index also includes Eurodollar and Euro-Yen corporate bonds, Canadian government, agency and corporate securities, and U.S.D investment grade 144A securities.

**Bloomberg Barclays Global Treasury Ex-U.S.** - The Barclays Global Treasury ex U.S. Index is a subset of the flagship Global Treasury Index that does not have any exposure to U.S. debt. This multi-currency benchmark includes investment grade, fixed-rate bonds issued by governments in their native currencies.

**Bloomberg Barclays Inflation Index** - Measures the performance of the U.S. Treasury Inflation Protected Securities ("TIPS") market.

**Bloomberg Barclays Universal Index** - A market value-weighted index which is the union of the U.S. Aggregate Index, U.S. High Yield Corporate Index, Eurodollar Index, U.S. Emerging Markets Index and the CMBS High Yield Index. The Index is appropriate for core plus fixed income mandates.

**Bloomberg Barclays U.S. Aggregate Bond Index** - A market value-weighted index consisting of government bonds, SEC-registered corporate bonds and mortgage-related and asset-backed securities with at least one year to maturity and an outstanding par value of $250 M or greater. This index is a broad measure of the performance of the investment grade U.S. fixed income market.

**Bloomberg Barclays U.S. Government/Credit Index** - A subcomponent of the Barclays Capital Aggregate Index, this benchmark includes treasury securities, government related issues, and high quality corporate bonds with an outstanding par value of $250 M or greater and at least one year of maturity remaining.

**Bloomberg Barclays U.S. Government Index** - A market value weighted index of U.S. government and government agency securities (other than mortgage securities) with maturities of one year or more.

**Bloomberg Barclays U.S. High Yield Index** - An index composed of non-investment grade corporate debt denominated in U.S. dollars. The issues have to have an outstanding par value of $150 M or greater and at least one year of maturity remaining.

**Bloomberg Barclays U.S. Intermediate Aggregate Bond Index** - A market value-weighted index consisting of U.S. Treasury securities, corporate bonds and mortgage-related and asset-backed securities with one to ten years to maturity and an outstanding par value of $250 M or greater.

**Bloomberg Barclays U.S. Intermediate Government Bond Index** - An unmanaged index considered representative of intermediate- term fixed-income obligations issued by the U.S. Treasury, government agencies and quasi-federal corporations.

**Bloomberg Barclays U.S. Intermediate Government/Credit Index** - A market-value weighted index consisting of U.S. government bonds and SEC-registered corporate bonds with one to ten years to maturity and an outstanding par value of $150 M or greater.

**Bloomberg Barclays U.S. Intermediate Treasury** - An unmanaged index considered representative of intermediate-term fixed- income obligations issued by the U.S. Treasury.

**Bloomberg Barclays U.S. Long Credit Bond Index** - An unmanaged index considered representative of long-term fixed-income obligations issued by U.S. corporate, specified foreign debentures, and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered.

# Benchmark Descriptions

**Bloomberg Barclays U.S. Long Gov't/Credit Index** - The Barclays Capital U.S. Government/ Credit Bond Index measures performance of U.S. dollar denominated U.S. treasuries, government-related, and investment grade U.S. corporate securities that have a remaining maturity of greater than or equal to 1 year. In addition, the securities have $250 M or more of outstanding face value, and must be fixed rate and non-convertible.

**Bloomberg Barclays U.S. Long Government Bond Index** - An unmanaged index considered representative of long-term fixed- income obligations issued by the U.S. Treasury, government agencies and quasi-federal corporations.

**Bloomberg Barclays U.S. TIPS** - A market value-weighted index consisting of U.S. Treasury Inflation Protected Securities with one or more years remaining until maturity with total outstanding issue size of $500m or more.

**Bloomberg Barclays U.S. Treasury 20-30 Year STRIPS Index -** A subcomponent of the Barclays Aggregate Index, this benchmark includes long-term treasury STRIPS.

**Bloomberg Commodity Index -** Consists of 22 exchange-traded futures on physical commodities, which are weighted to account for economic significance and market liquidity. Performance is calculated on an excess return basis and reflects commodity future price movements.

**BofA Merrill Lynch 3 Month Treasury Bill** - An index that measures the average return of the last three-month U.S. Treasury Bill issues.

**BofA Merrill Lynch High Yield Master** - A market-capitalization weighted index that tracks the performance of U.S. dollar- denominated, below investment grade corporate debt publicly issued in the U.S. domestic market.

**Citigroup 90-Day T-Bill Index** - An index that measures the average return of the last three-month U.S. Treasury Bill issues.

**Credit Suisse Leveraged Loan Index** - Designed to mirror the investable universe of the U.S. dollar denominated leveraged loan market.

**CRSP U.S. Large Cap Index** - an index comprised of nearly 640 U.S. large cap companies and includes securities traded on NYSE, NYSE Market, NASDAQ, or ARCA, representing nearly 85% of the U.S. investable equity market. The index is reconstituted quarterly after the market close on the third Fridays of March, June, September, and December.

**CRSP U.S. Total Market Index** - an index comprised of nearly 4,000 constituents across mega, large, small, and micro capitalizations and includes securities traded on NYSE, NYSE Market, NASDAQ, or ARCA, representing nearly 100% of the U.S. investable equity market. The index is reconstituted quarterly after the market close on the third Fridays of March, June, September, and December.

**DJ U.S. Completion Total Stock Market Index** - A capitalization-weighted index that consists of the stocks in the Dow Jones U.S. Total Stock Market Index less the stocks in the S&P 500 Stock Index.

**DJ U.S. Total Stock Market Index** - A capitalization-weighted stock index representing all domestic common stocks traded regularly on the organized exchanges. The index is the broadest measure of the aggregate domestic stock market and includes approximately 5,000 stocks.

**FTSE 4Good U.S. Select Index** - a socially responsible investment (SRI) index of U.S. stocks that excludes companies with certain business activities such as weapons, tobacco, gambling, alcohol, nuclear power, and adult entertainment.

**FTSE All-World ex-U.S. Index** - A capitalization-weighted stock index representing 46 developed market countries and emerging market countries excluding the U.S.

## Benchmark Descriptions

**FTSE EPRA NAREIT Global ex-U.S. Index** - Designed to represent general trends in eligible real estate equities worldwide. Relevant real estate activities are defined as the ownership, disposure and development of income-producing real estate.

**FTSE Global All Cap ex U.S. Index** - a market-capitalization weighted index representing the performance of roughly 5350 large, mid and small cap companies in 46 Developed and Emerging markets worldwide, excluding the USA.

**FTSE Global Core Infrastructure Index -** Represents the performance of infrastructure and infrastructure-related securities companies in a set of industries that FTSE defines as being involved in infrastructure. The series is based on the FTSE Global Equity Index Series and both developed and emerging markets are included.

**FTSE NAREIT U.S. Equity REITS -** Free float adjusted, market capitalization weighted index of U.S. based equity real estate investment trusts (REITs).

**Goldman Sachs Commodity Index -** A composite index of commodity sector returns which represents a broadly diversified, unleveraged, long-only position in commodity futures.

**HFRI Fund-of-Fund Index** - This index is equal-weighted including 800 constituents. It includes both domestic and offshore accounts and is valued in U.S. dollars. Only fund-of-fund products are included in the index that have at least $50 M under managements and have been actively trading for at least one year. All funds report net monthly returns.

**HFRI Fund Weighted Composite Index** - The HFRI Fund Weighted Composite Index is a global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net of all fees performance in U.S. Dollar and have a minimum of $50 M under management or a twelve (12) month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.

**Hueler Stable Value Index** - The Hueler Analytics Stable Value Pooled Fund Comparative Universe represents investment strategies of $96 billion in stable value assets, across 24 pooled funds, invested in contracts universe across a universe of 16 general account issuers and 14 synthetic wrap providers. The allocation of pooled fund assets is dominated by synthetic contracts issued by insurance companies and banks.

**iMoneyNet All Taxable Money Funds Index** - An index made up of the entire universe of money market mutual funds. The index currently represents over 1,300 funds, or approximately 99 percent of all money fund assets.

**iMoneyNet Money Fund Average** - An index made up of the entire universe of money market mutual funds. The index currently represents over 1,300 funds, or approximately 99 percent of all money fund assets.

**J.P. Morgan EMBI Global Diversified** - Comprised of dollar-denominated Brady bonds, traded loans and Eurobonds issued by emerging market sovereign and quasi-sovereign entities. The Diversified version limits the weights of the index countries by only including a specified portion of those countries' eligible current face amounts of debt outstanding, providing for a more even distribution of weights within the countries in the index.

**MSCI All Country World ex-U.S. Index** - A capitalization-weighted index of stocks representing 44 stock markets in Europe, Australia, the Far East, the Middle East, Latin America and North America. Index consists of 23 developed and 21 emerging countries, but excludes the U.S.

**MSCI All Country World ex-U.S. Index IMI**- A capitalization-weighted index of large, mid and small cap stocks representing 22 developed (excluding the United States) and 24 emerging market countries. The index is the broadest measure of the aggregate non-U.S. stock market, covering approximately 99% of the global equity investment opportunity set outside of the United States.

## Benchmark Descriptions

**MSCI All Country World ex-U.S. Small Cap Index** - Covers all investable small cap securities with a market capitalization below that of the companies in the MSCI Standard Indices (excluding U.S.), and target approximately 14% of each market's free-float adjusted market capitalization.

**MSCI All Country World Index** - A capitalization-weighted index of stocks representing 46 stock markets in Europe, Australia, the Far East, the Middle East, Latin America and North America.

**MSCI All Country World Index IMI -** A capitalization-weighted index of large, mid and small cap stocks representing 23 developed and 24 emerging market countries. The index is the broadest measure of the aggregate global stock market, covering approximately 99% of the global equity investment opportunity set.

**MSCI EAFE Growth Index** - A capitalization-weighted index of 21 stock markets in Europe, Australia, Asia and the Far East designed to capture the growth-oriented companies.

**MSCI EAFE Index** - A capitalization-weighted index of stocks representing 22 developed countries in Europe, Australia, Asia, and the Far East.

**MSCI EAFE Small Cap Index** - A capitalization-weighted index of small cap stocks representing 23 developed country markets in Europe, Australia, Asia, and the Far East.

**MSCI EAFE Value Index** - A capitalization-weighted index of 21 stock markets in Europe, Australia, Asia and the Far East designed to capture the value-oriented companies.

**MSCI Emerging Markets Index** - A capitalization-weighted index of stocks representing 22 emerging country markets.

**MSCI Emerging Markets Value Index** - A capitalization-weighted index considered representative of value stocks across 46 stock markets in Europe, Australia, the Far East, the Middle East, Latin America and North America.

**MSCI U.S. Broad Market Index** - A capitalization-weighted stock index that aggregates the MSCI U.S. Large Cap 300, Mid Cap 450, Small Cap 1,750 and Micro Cap Indices. This index represents approximately 99.5% of the capitalization of the U.S. Equity market and includes approximately 3,562 companies.

**MSCI U.S. REIT Index** - A broad index that fairly represents the equity REIT opportunity set with proper investability screens to ensure that the index is investable and replicable. The index represents approximately 85% of the U.S. REIT universe.

**MSCI World Index** - A free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, representing 24 developed market country indices.

**NCREIF Property Index** - A capitalization-weighted index of privately owned investment grade income-producing properties representing approximately $269 billion in assets.

**NFI ODCE Index** - A capitalization weighted index comprised of open-end, Core funds investing in commercial real estate properties. The funds that constitute the index are subject to certain geographic and property type diversification requirements as well as leverage restrictions. The index reflects the impact of leverage on investment results. The returns shown in this report are net of management fees of the respective funds included in the index.

**Rolling 3-year Constant Maturity Treasury Index** - An index published by the Federal Reserve Board based on the monthly average yield of a range of Treasury securities, all adjusted to the equivalent of a three-year maturity.

**Russell 1000 Growth Index** - An index that measures the performance of those Russell 1000 companies with higher price-to- book ratios and higher I/B/E/S growth forecasts.

**Russell 1000 Index** - A capitalization-weighted index of the 1,000 largest publicly traded U.S. stocks by capitalization.

# Benchmark Descriptions

**Russell 1000 Value Index** - An index that measures the performance of those stocks included in the Russell 1000 Index with lower price-to-book ratios and lower I/B/E/S earnings growth forecasts.

**Russell 2000 Growth Index** - A capitalization-weighted index of those stocks in the Russell 2000 Index with higher price-to-book ratios and higher I/B/E/S earnings growth forecasts.

**Russell 2000 Index** - A capitalization-weighted index of the smallest 2,000 stocks in the Russell 3000 Index. The index excludes the largest- and smallest-capitalization issues in the domestic stock market.

**Russell 2000 Value Index** - An index that measures the performance of those stocks included in the Russell 2000 Index with lower price-to-book ratios and lower I/B/E/S earnings growth forecasts.

**Russell 2500 Growth Index** - A capitalization-weighted index representing those companies within the Russell 2500 Index with higher price-to-book ratios and higher I/B/E/S earnings growth forecasts.

**Russell 2500 Index** - The Index is constructed by first identifying the 3,000 largest-capitalization U.S. stocks and ranking them by market capitalizations, choosing the bottom 2,500 names on the list.

**Russell 2500 Value Index** - An index that measures the performance of those stocks included in the Russell 2500 Index with lower price-to-book ratios and lower I/B/E/S earnings growth forecasts.

**Russell 3000 Growth Index** - A capitalization-weighted index consisting of those Russell 3000 Index stocks that have higher price-to-book ratios and higher I/B/E/S earnings growth forecasts.

**Russell 3000 Index** - A capitalization-weighted index consisting of the 3,000 largest publicly traded U.S. stocks by capitalization. This index is a broad measure of the performance of the aggregate domestic equity market.

**Russell 3000 Value Index** - A capitalization-weighted index consisting of those Russell 3000 Index stocks that have lower price-to-book ratios and lower I/B/E/S earnings growth forecasts.

**Russell Mid Cap Growth Index** - A capitalization-weighted index representing those stocks in the Russell MidCap Index with higher price-to-book ratios and higher I/B/E/S earnings growth forecasts.

**Russell Mid Cap Index** - A capitalization-weighted index of the 800 smallest stocks in the Russell 1000 Index. This index is a broad measure of mid-capitalization stocks.

**Russell Mid Cap Value Index** - A capitalization-weighted index consisting of those Russell MidCap Index stocks that have lower price-to-book ratios and lower I/B/E/S earnings growth forecasts.

**S&P 500 Index** - A capitalization-weighted index representing stocks chosen by Standard & Poor's, Inc. for their size, liquidity, stability and industry group representation. The companies in the S&P 500 Index are generally among the largest in their industries.

# Benchmark Descriptions

**S&P Completion Index** -The S&P Completion Index is a sub-index of the S&P Total Market Index, including all stocks eligible for the S&P TMI and excluding all current constituents of the S&P 500. The index covers approximately 4,000 constituents, offering investors broad exposure to mid, small, and micro cap companies.

**S&P Leverage Loan Index** - A daily total return index that uses LSTA/LPC Mark-to-Market Pricing to calculate market value change.

**S&P MidCap 400 Index** - A market-capitalization-weighted index of stocks in all major industries in the mid-range of the U.S. stock market.

**Wilshire REIT** - A measure of the types of U.S. real estate securities that represent the ownership and operation of commercial or residential real estate. To be included in the index, a company must have a market capitalization of $200 M and have at least 75% of the total revenue derived from the ownership and operation of the real estate assets.

- Indices cannot be invested in directly. Unmanaged index returns assume reinvestment of any and all distributions and do not reflect our fees or expenses.
- Past performance is no guarantee of future results.
- Please feel free to contact us at retirement@aon.com for more index information.

## Thought Leadership Highlights – Public Funds

| Topic | Article | Link |
|---|---|---|
| Aon United | COVID-19 Vaccine: Implications of Mandatory Employee Programs | Link to 1st Bulletin  Link to 2nd Bulletin |
| Governance | Memos on Executive Orders 13959 and 14032—Prohibition of Investment in Securities of Chinese Military Companies | Request from Consultant |
| Market View | Quarterly Market Review and Outlook Video (access code 'aon!') | Link to Video |
| Market View | AA View: Is There and Inflation Problem | Link |
| Market View | Biden's Climate Agenda and the Implications for Investments | Link |
| Market View | A Look at The Biden Infrastructure Proposal | Link |
| Market View | A Big Bold White House | Link |
| Market View | AA View: How far Could U.S. Yields Rise? | Link |
| Market View | AA View: Do China A-Shares Present a Good Investment Opportunity? | Link |
| Market View | U.S. Month in Markets | Link |
| Market View | Is Bitcoin the new Digital Gold? | Link |
| Market View | Quarterly Investment Outlook | Link |
| Annual Outlook | 6 Key Themes for Public Retirement Plans | Link |
| Quarterly Outlook | Key Topic for Public Funds in Q3 2021 (3-minute video, access code 'aon!') | Link to Video |
| Plan Design | Designing, Monitoring and Evaluating Hedge Funds: 3 Questions with Chris Walvoord | Link |
| Plan Design | White Paper on Pension Obligation Bonds | Link |
| Plan Design | Inflation-Protecting Assets: 3 Questions with Sheila Noonan | Link |
| Plan Design | Global Invested Capital Markets – Updated White Paper | Link |
| Plan Design | Trust the Process -- Public Pension Investment Strategy | Link |
| Strategy Review | Resurgence of SPACs: Three Questions with Bruce Ingram and Peter Dracopoulos | Link |
| Strategy Review | 3 Ways Retirement Plans Are Evolving | Link |
| Strategy Review | Diverse Manager Investing Survey Report | Link |
| Strategy Review | Video: Demand Increasing for ESG and Responsible Investment (access code 'aon!') | Link to video |
| Legal & Compliance | Legal & Compliance quarterly update newsletter (6 minute audio summary, access code 'aon!') | Link to Article  Link to Audio Summary |

**If you do not get Aon Investments' monthly email newsletter, but would like to, please ask your consultant.**

## Notes

- The rates of return contained in this report are shown on an after-fees basis unless otherwise noted. They are geometric and time-weighted. Returns for periods longer than one year are annualized.

- Universe percentiles are based upon an ordering system in which 1 is the best ranking and 100 is the worst ranking.

- Due to rounding throughout the report, percentage totals displayed may not sum to 100%. Additionally, individual fund totals in dollar terms may not sum to the plan total.



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# Disclaimer

**Past performance is not necessarily indicative of future results.**

Unless otherwise noted, performance returns presented reflect the respective fund's performance as indicated. Returns may be presented on a before-fees basis (gross) or after-fees basis (net). After-fee performance is net of each respective sub-advisors' investment management fees and include the reinvestment of dividends and interest as indicated on the notes page within this report or on the asset allocation and performance summary pages. Actual returns may be reduced by Aon Investments' investment advisory fees or other trust payable expenses you may incur as a client. Aon Investments' advisory fees are described in Form ADV Part 2A. Portfolio performance, characteristics and volatility also may differ from the benchmark(s) shown.

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Refer to Hedge Fund Research, Inc. www.hedgefundresearch.com for information on HFR indices.



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Aon Investments USA Inc.
200 East Randolph Street
Suite 700
Chicago, IL 60601
ATTN: Aon Investments Compliance Officer

Arkansas Teacher Retirement System | August 31, 2021

# Monthly Investment Review

***All information presented in this report should be considered preliminary.***
***Finalized data will be available on the next Quarterly Investment Report after the close of the quarter.***

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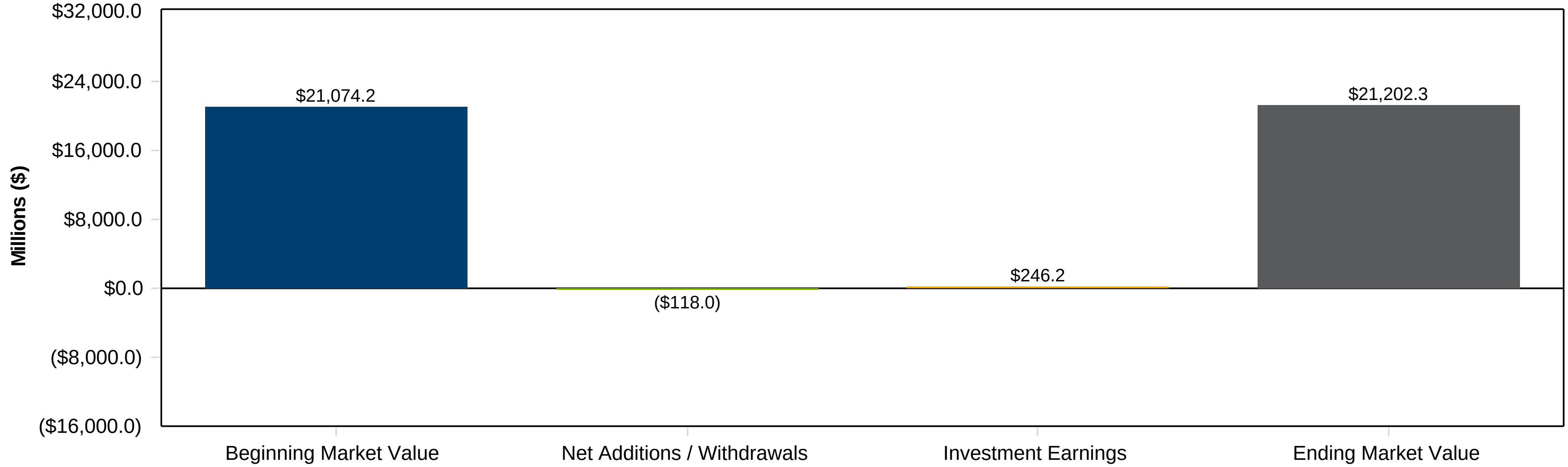
As of August 31, 2021

## Market Environment

| | Performance(%) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 Month | Fiscal YTD | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years |
| Dow Jones U.S. Total Stock Market Index | 2.9 | 4.6 | 20.6 | 33.3 | 17.8 | 17.9 | 16.2 |
| S&P 500 Index | 3.0 | 5.5 | 21.6 | 31.2 | 18.1 | 18.0 | 16.3 |
| Russell 1000 Index | 2.9 | 5.0 | 20.7 | 32.3 | 18.4 | 18.2 | 16.4 |
| Russell 1000 Value Index | 2.0 | 2.8 | 20.3 | 36.4 | 11.5 | 11.7 | 13.0 |
| Russell 1000 Growth Index | 3.7 | 7.2 | 21.1 | 28.5 | 24.6 | 24.4 | 19.4 |
| Russell 2000 Index | 2.2 | -1.5 | 15.8 | 47.1 | 10.7 | 14.4 | 13.6 |
| Russell 2000 Value Index | 2.7 | -1.0 | 25.4 | 59.5 | 8.4 | 11.7 | 12.1 |
| Russell 2000 Growth Index | 1.8 | -1.9 | 6.9 | 35.6 | 12.3 | 16.6 | 14.8 |
| | | | | | | | |
| MSCI AC World IMI (Net) | 2.5 | 3.0 | 16.1 | 30.1 | 14.0 | 14.1 | 11.3 |
| MSCI AC World ex USA IMI (Net) | 2.0 | 0.6 | 10.3 | 26.3 | 9.6 | 10.1 | 6.8 |
| MSCI EAFE Index (Net) | 1.8 | 2.5 | 11.6 | 26.1 | 9.0 | 9.7 | 7.3 |
| MSCI Emerging Markets Index (Net) | 2.6 | -4.3 | 2.8 | 21.1 | 9.9 | 10.4 | 4.9 |
| | | | | | | | |
| Blmbg. U.S. Universal Index | -0.1 | 0.9 | -0.2 | 0.9 | 5.7 | 3.5 | 3.6 |
| Blmbg. U.S. Aggregate | -0.2 | 0.9 | -0.7 | -0.1 | 5.4 | 3.1 | 3.2 |
| Blmbg. U.S. Government | -0.2 | 1.2 | -1.4 | -2.0 | 4.9 | 2.5 | 2.5 |
| Blmbg. Barc. Credit Bond Index | -0.2 | 1.1 | -0.2 | 2.3 | 7.4 | 4.5 | 4.7 |
| Blmbg. U.S. Mortgage Backed Securities | -0.2 | 0.5 | -0.3 | -0.2 | 3.8 | 2.3 | 2.5 |
| Blmbg. U.S. Corp: High Yield | 0.5 | 0.9 | 4.5 | 10.1 | 7.1 | 6.7 | 7.1 |
| Citigroup 90-Day T-Bill | 0.0 | 0.0 | 0.0 | 0.1 | 1.2 | 1.1 | 0.6 |

## Total Plan Asset Summary

### Change in Market Value
### From August 1, 2021 to August 31, 2021




### Summary of Cash Flow

| | 1 Month | Year To Date | 1 Year |
|---|---|---|---|
| Beginning Market Value | 21,074,172,893 | 19,449,264,888 | 17,741,209,729 |
| + Additions / Withdrawals | -117,992,180 | -536,738,635 | -775,092,135 |
| + Investment Earnings | 246,167,735 | 2,289,822,195 | 4,236,230,854 |
| **= Ending Market Value** | **21,202,348,448** | **21,202,348,448** | **21,202,348,448** |

As of August 31, 2021

## Asset Allocation & Performance

| | Allocation | | | Performance(%) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Market Value ($)** | **%** | **Policy(%)** | **1 Month** | **Fiscal YTD** | **Year To Date** | **1 Year** | **3 Years** | **5 Years** | **10 Years** | **Since Inception** | **Inception Date** |
| Total Fund | 21,202,348,448 | 100.0 | 100.0 | 1.2 | 1.2 | 11.7 | 24.0 | 10.3 | 11.5 | 10.4 | 8.8 | 04/01/1986 |
| *Performance Benchmark* | | | | *1.5* | *2.2* | *13.3* | *22.9* | *12.4* | *12.0* | *10.8* | *9.0* | |
| Total Equity | 12,735,497,960 | 60.1 | 58.1 | 2.2 | 2.3 | 15.1 | 34.6 | 12.0 | 13.9 | 12.2 | 11.3 | 07/01/2015 |
| *Total Equity Performance Benchmark* | | | | *2.6* | *3.5* | *17.5* | *31.1* | *15.2* | *15.3* | *13.2* | *12.8* | |
| Fixed Income | 2,648,420,821 | 12.5 | 15.0 | -0.1 | 0.2 | -0.1 | 2.0 | 5.2 | 4.3 | 4.2 | 5.4 | 07/01/1992 |
| *Performance Benchmark* | | | | *-0.1* | *0.9* | *-0.2* | *0.9* | *5.7* | *3.5* | *3.6* | *5.6* | |
| Opportunistic/Alternatives | 901,013,903 | 4.2 | 4.5 | -3.8 | -4.0 | 1.6 | 3.9 | -0.3 | 1.1 | 3.5 | 2.9 | 05/01/2011 |
| *Custom Alternatives Benchmark* | | | | *0.5* | *0.3* | *5.9* | *9.5* | *3.5* | *3.3* | *2.6* | *2.2* | |
| Real Assets | 2,189,132,976 | 10.3 | 10.5 | | | | | | | | | |
| Real Estate | 1,343,404,015 | 6.3 | | | | | | | | | | |
| Timber | 302,864,120 | 1.4 | | | | | | | | | | |
| Agriculture | 213,911,839 | 1.0 | | | | | | | | | | |
| Infrastructure | 328,953,001 | 1.6 | | | | | | | | | | |
| Private Equity | 2,681,547,397 | 12.6 | 12.0 | | | | | | | | | |
| Cash | 46,735,392 | 0.2 | 0.0 | | | | | | | | | |

*Preliminary Results
*Policy % is the interim target used for benchmarking purposes. See page 17 for long-term targets. Beginning July 1, 2013, an updated Investment Policy was adopted which includes the new Real Assets category, which includes Real Estate, Timber, Agriculture and Infrastructure.
*Real Assets and Private Equity are valued on a quarterly basis and reported on a quarter lag. Market values have been adjusted for the current month's cash flows. Updated results for these portfolios are not yet available and will be included in the quarterly performance report.
*The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 21 of this report.



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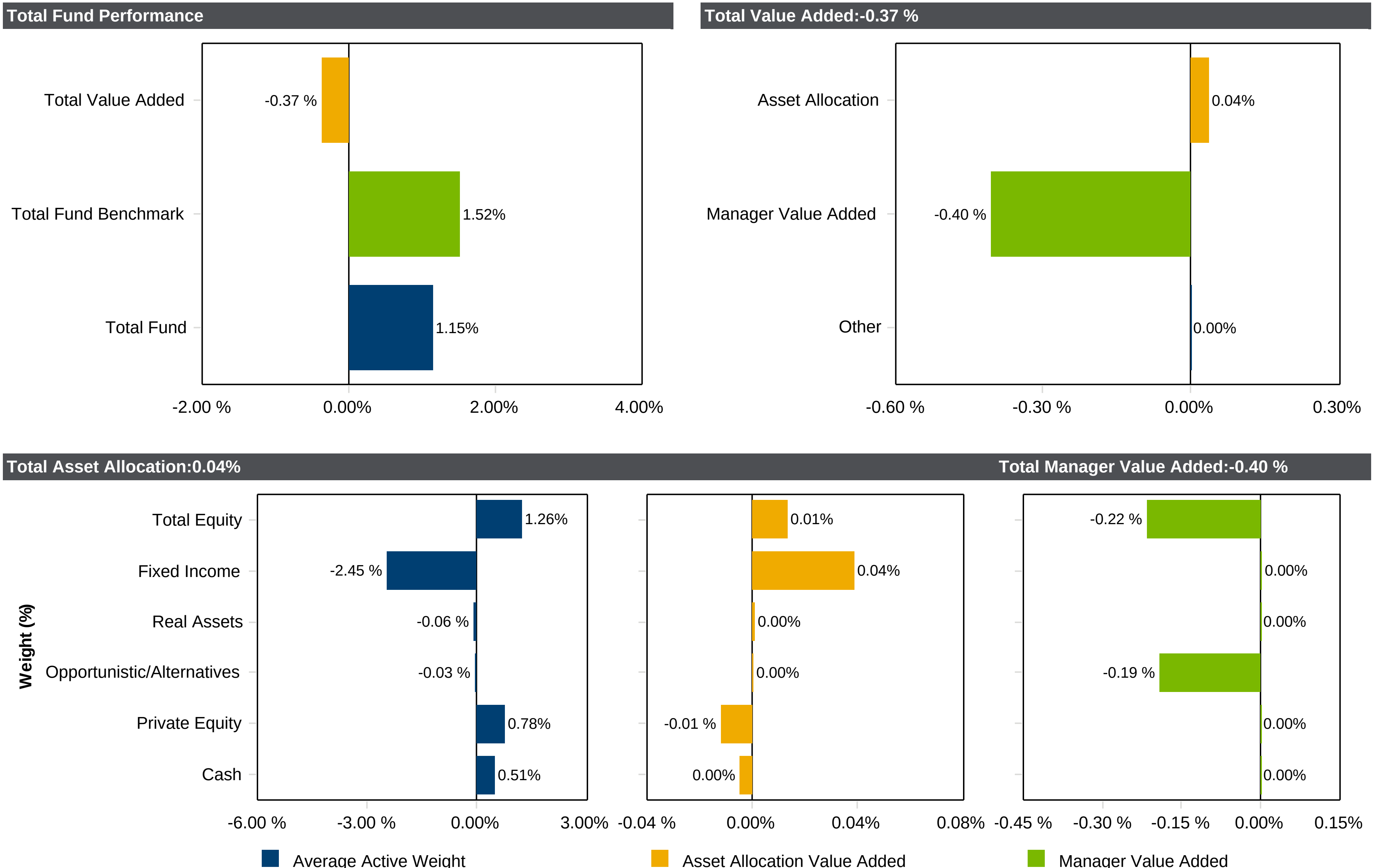
# Total Fund Attribution

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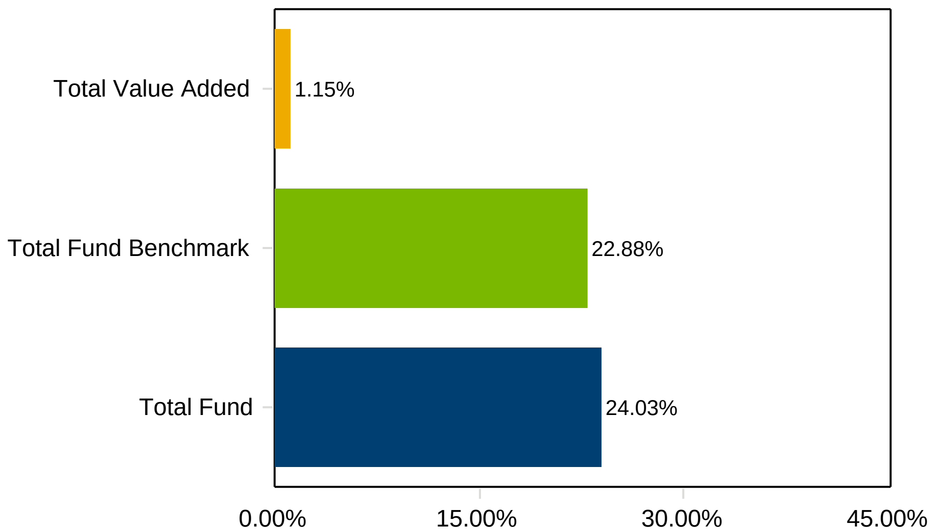
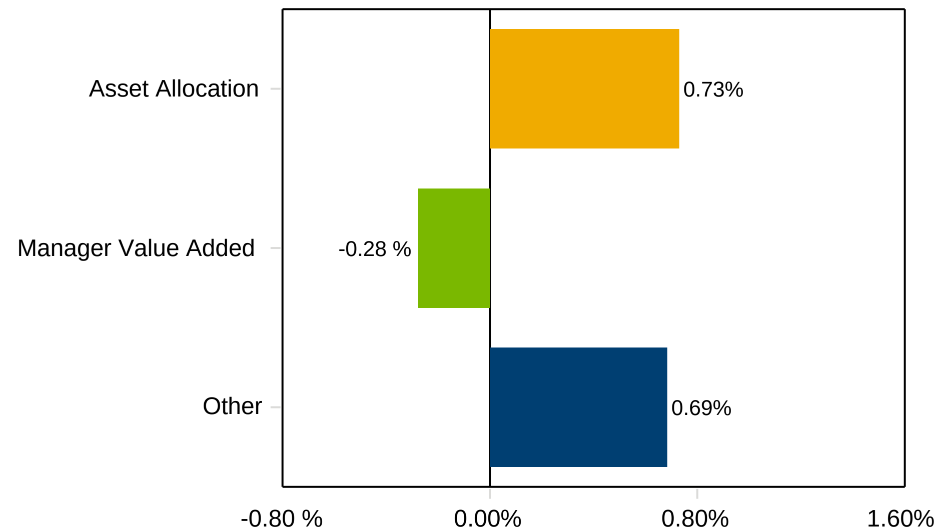
*Preliminary Results

## Total Fund Attribution

### Total Fund Performance

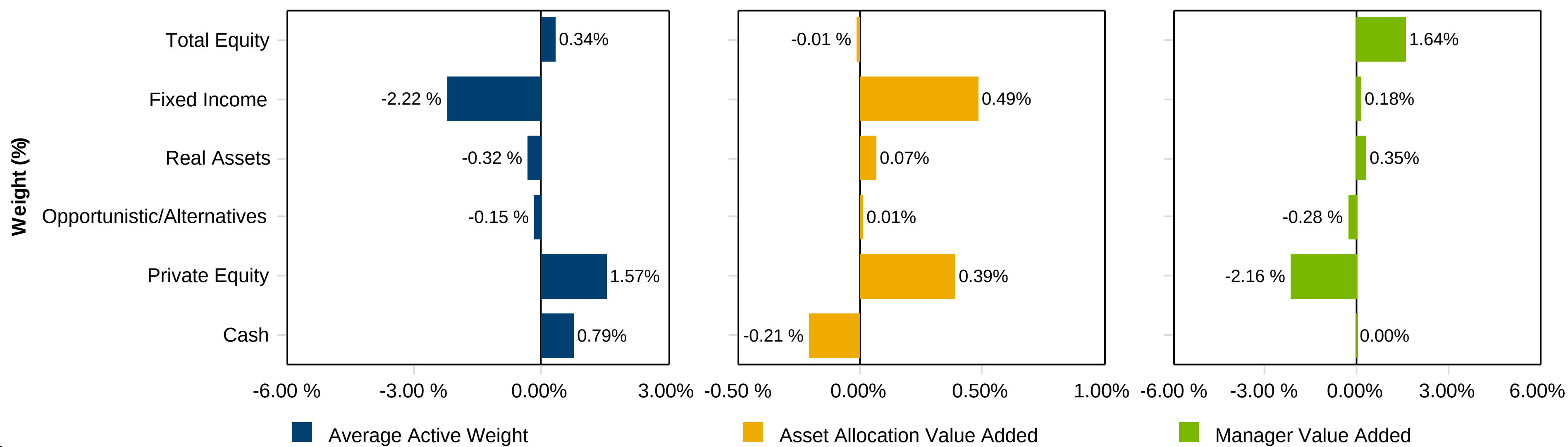



### Total Value Added:1.15%




### Total Asset Allocation:0.73%

### Total Manager Value Added:-0.28 %




*Preliminary Results

As of August 31, 2021

## Asset Allocation & Performance

| | Allocation | | Performance(%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % | 1 Month | Fiscal YTD | Year To Date | 1 Year | 3 Years | 5 Years | Since Inception | Inception Date |
| Total Equity | 12,735,497,960 | 100.0 | 2.2 | 2.3 | 15.1 | 34.6 | 12.0 | 13.9 | 11.3 | 07/01/2015 |
| *Total Equity Performance Benchmark* | | | *2.6* | *3.5* | *17.5* | *31.1* | *15.2* | *15.3* | *12.8* | |
| Jacobs Levy 130/30 | 970,577,816 | 7.6 | 2.2 | 4.0 | 25.8 | 45.6 | 15.3 | 18.4 | 12.0 | 01/01/2008 |
| *Russell 3000 Index* | | | *2.9* | *4.6* | *20.4* | *33.0* | *17.9* | *18.0* | *10.9* | |
| Kennedy Capital Management | 779,596,547 | 6.1 | 2.4 | 0.5 | 27.2 | 60.1 | 9.1 | 11.7 | 12.6 | 01/01/1994 |
| *Russell 2000 Value Index* | | | *2.7* | *-1.0* | *25.4* | *59.5* | *8.4* | *11.7* | *10.1* | |
| Stephens | 685,805,107 | 5.4 | 2.7 | 4.0 | 14.1 | 34.4 | 14.7 | 19.6 | 12.0 | 08/01/2006 |
| *Russell 2000 Growth Index* | | | *1.8* | *-1.9* | *6.9* | *35.6* | *12.3* | *16.6* | *11.1* | |
| Voya Absolute Return | 804,861,494 | 6.3 | 3.0 | 3.3 | 15.2 | 30.3 | 13.8 | 14.0 | 11.8 | 10/01/2008 |
| *Performance Benchmark Voya Absolute Return* | | | *2.5* | *3.2* | *15.9* | *28.6* | *14.3* | *14.3* | *11.8* | |
| Allianz (Nicholas Applegate) | 1,068,626,442 | 8.4 | 1.3 | 0.8 | 6.3 | 27.6 | 23.9 | 20.7 | 11.7 | 12/01/1998 |
| *Performance Benchmark* | | | *1.9* | *1.2* | *8.2* | *26.7* | *20.8* | *18.0* | *9.4* | |
| Pershing Square International | 1,238,401 | 0.0 | 0.0 | 0.0 | 4.9 | 18.0 | 26.5 | 17.5 | 11.8 | 07/01/2008 |
| *Dow Jones U.S. Total Stock Market Index* | | | *2.9* | *4.6* | *20.6* | *33.3* | *17.8* | *17.9* | *12.4* | |
| Pershing Square Holdings | 257,793,456 | 2.0 | 2.4 | -1.0 | 3.7 | 30.7 | 34.9 | 20.4 | 9.6 | 01/01/2013 |
| *Dow Jones U.S. Total Stock Market Index* | | | *2.9* | *4.6* | *20.6* | *33.3* | *17.8* | *17.9* | *16.4* | |
| SSgA Global Index | 1,313,051,821 | 10.3 | 2.5 | 3.0 | 16.2 | 30.4 | 14.4 | 14.5 | 8.2 | 04/01/2008 |
| *MSCI AC World IMI (Net)* | | | *2.5* | *3.0* | *16.1* | *30.1* | *14.0* | *14.1* | *7.8* | |
| BlackRock MSCI ACWI IMI Fund | 1,081,785,495 | 8.5 | 2.5 | 3.0 | 16.2 | 30.4 | 14.2 | 14.3 | 10.4 | 07/01/2011 |
| *MSCI AC World IMI (Net)* | | | *2.5* | *3.0* | *16.1* | *30.1* | *14.0* | *14.1* | *10.0* | |

*Preliminary Results
*The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 21 of this report.





AON Empower Results®

## Asset Allocation & Performance

| | Allocation | | Performance(%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % | 1 Month | Fiscal YTD | Year To Date | 1 Year | 3 Years | 5 Years | Since Inception | Inception Date |
| Wellington Global Perspectives | 778,750,196 | 6.1 | 2.5 | 2.2 | 18.3 | 49.1 | 10.5 | 13.6 | 14.6 | 07/01/2009 |
| *Performance Benchmark* | | | *2.3* | *1.5* | *17.2* | *41.9* | *11.6* | *13.2* | *12.7* | |
| T. Rowe Price Global Equity | 1,747,278,084 | 13.7 | 3.4 | 3.6 | 14.3 | 35.0 | 25.7 | 25.0 | 16.7 | 08/01/2009 |
| *MSCI AC World Index (Net)* | | | *2.5* | *3.2* | *15.9* | *28.6* | *14.3* | *14.3* | *11.0* | |
| *MSCI AC World Index Growth (Net)* | | | *3.2* | *4.7* | *15.5* | *26.2* | *20.4* | *19.2* | *13.7* | |
| Lazard | 846,007,122 | 6.6 | 1.5 | -0.2 | 7.9 | 30.2 | 15.2 | 14.9 | 10.9 | 08/01/2009 |
| *MSCI AC World Index (Net)* | | | *2.5* | *3.2* | *15.9* | *28.6* | *14.3* | *14.3* | *11.0* | |
| D.E. Shaw | 977,230,313 | 7.7 | 1.3 | 2.5 | 12.4 | 25.7 | 11.6 | 13.8 | 12.1 | 09/01/2009 |
| *MSCI World Index (Net)* | | | *2.5* | *4.3* | *17.9* | *29.8* | *15.0* | *14.8* | *11.4* | |
| GMO Global All Country Equity | 567,914,970 | 4.5 | 1.5 | 0.5 | 14.6 | 30.7 | 11.6 | 11.8 | 7.1 | 07/01/2014 |
| *MSCI AC World Index (Net)* | | | *2.5* | *3.2* | *15.9* | *28.6* | *14.3* | *14.3* | *10.0* | |
| *MSCI AC World Index Value (Net)* | | | *1.8* | *1.7* | *16.1* | *31.2* | *7.9* | *9.1* | *5.8* | |
| Harris Global Equity | 657,860,699 | 5.2 | 0.7 | 1.0 | 19.0 | 41.5 | 12.7 | 13.8 | 8.9 | 06/01/2014 |
| *MSCI World Index (Net)* | | | *2.5* | *4.3* | *17.9* | *29.8* | *15.0* | *14.8* | *10.7* | |
| *MSCI World Value (Net)* | | | *1.6* | *2.2* | *17.3* | *31.4* | *8.1* | *9.3* | *6.3* | |
| Trian Partners | 88,841,326 | 0.7 | 2.3 | 1.9 | 12.6 | 25.0 | 12.8 | 10.6 | 10.4 | 11/01/2015 |
| *S&P 500 Index* | | | *3.0* | *5.5* | *21.6* | *31.2* | *18.1* | *18.0* | *16.5* | |
| Trian Co-Investments | 108,204,120 | 0.8 | 3.0 | 4.8 | 11.0 | 25.9 | 13.8 | | 8.5 | 01/01/2017 |
| *S&P 500 Index* | | | *3.0* | *5.5* | *21.6* | *31.2* | *18.1* | | *18.5* | |

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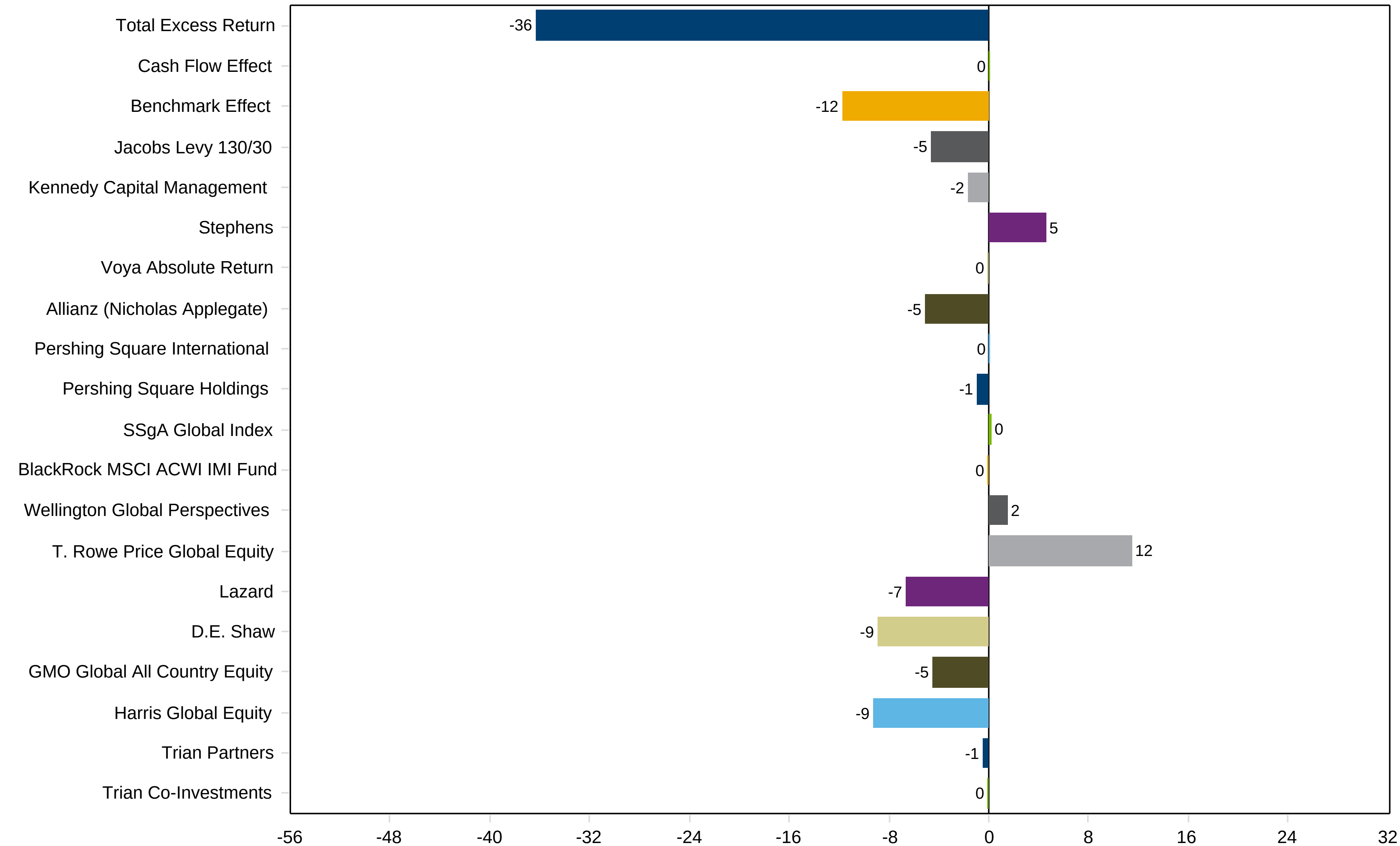
Preliminary Results
The inception of the Total Equity asset class was July 1, 2015. Performance prior to July 2015 represents the weighted average of the U.S. Equity and Global Equity asset class monthly returns. For historical performance of the U.S. Equity and Global Equity asset classes please see page 21 of this report.

# Asset Class Attribution

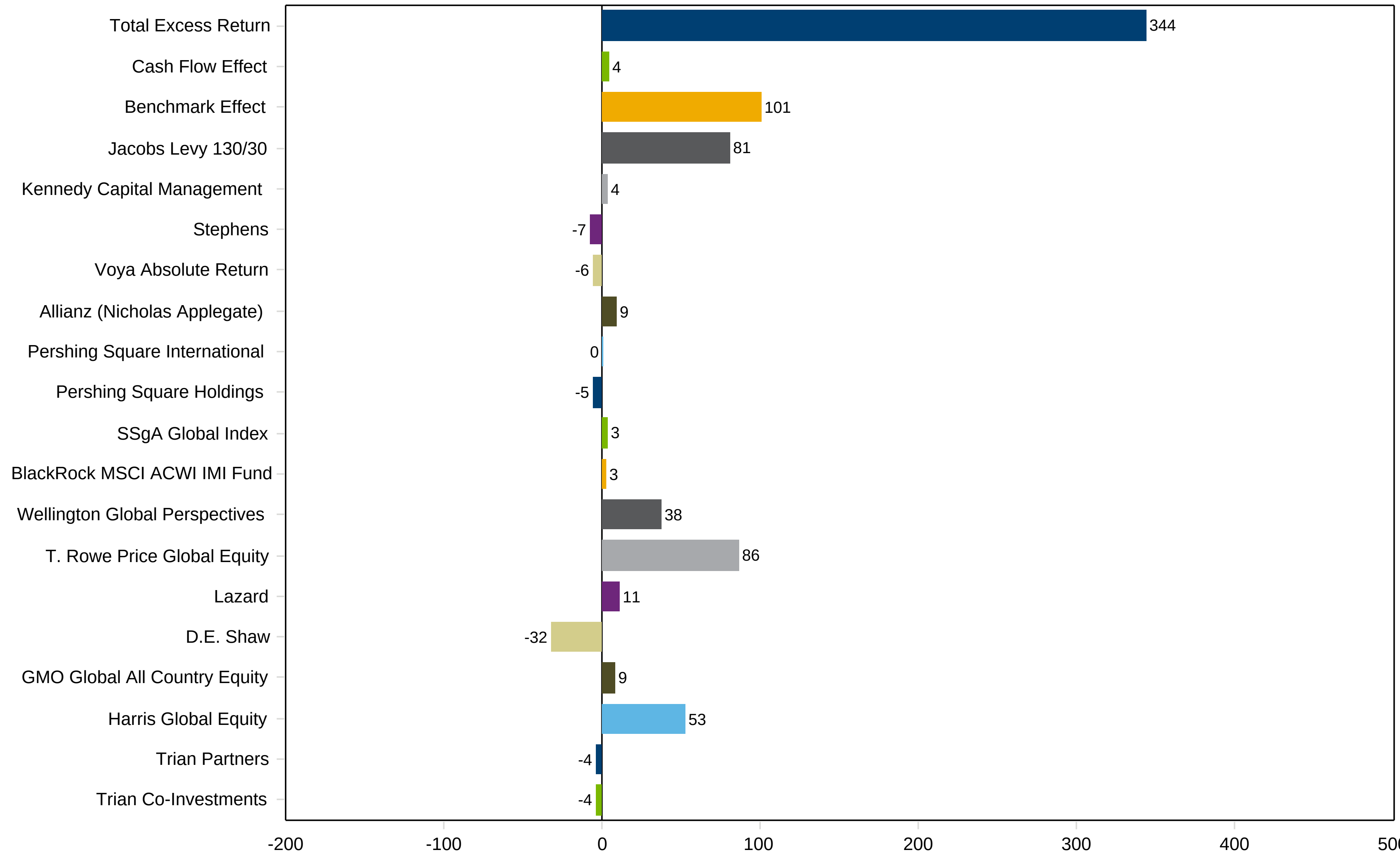
## 1 Month




*Preliminary Results

## Asset Class Attribution

### 1 Year




*Preliminary Results

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Empower Results®

As of August 31, 2021

## Asset Allocation & Performance

| | Allocation | | Performance(%) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % | 1 Month | Fiscal YTD | Year To Date | 1 Year | 3 Years | 5 Years | Since Inception | Inception Date |
| Fixed Income | 2,648,420,821 | 100.0 | -0.1 | 0.2 | -0.1 | 2.0 | 5.2 | 4.3 | 5.4 | 07/01/1992 |
| *Performance Benchmark* | | | *-0.1* | *0.9* | *-0.2* | *0.9* | *5.7* | *3.5* | *5.6* | |
| BlackRock | 283,976,525 | 10.7 | -0.1 | 1.0 | -0.5 | 0.6 | 6.0 | 3.6 | 4.6 | 10/01/2003 |
| *Performance Benchmark* | | | *-0.1* | *0.9* | *-0.2* | *0.9* | *5.7* | *3.5* | *4.4* | |
| Loomis Sayles | 506,583,933 | 19.1 | 0.3 | 1.0 | 2.2 | 6.8 | 8.3 | 6.3 | 8.3 | 09/01/2008 |
| *Performance Benchmark* | | | *0.0* | *1.0* | *1.0* | *3.4* | *6.5* | *4.6* | *5.8* | |
| Putnam | 380,195,600 | 14.4 | -0.1 | -1.3 | -1.7 | 1.6 | 2.0 | 3.2 | 2.8 | 08/01/2008 |
| *LIBOR* | | | *0.0* | *0.0* | *0.1* | *0.2* | *1.5* | *1.5* | *0.9* | |
| SSgA Aggregate Bond Index | 473,192,263 | 17.9 | -0.2 | 0.9 | -0.7 | -0.1 | 5.4 | 3.1 | 3.6 | 06/01/2010 |
| *Blmbg. U.S. Aggregate* | | | *-0.2* | *0.9* | *-0.7* | *-0.1* | *5.4* | *3.1* | *3.6* | |
| Wellington Global Total Return | 352,573,529 | 13.3 | -0.1 | -0.6 | 0.8 | 1.8 | 2.5 | 2.7 | 2.0 | 06/01/2014 |
| *ICE BofAML 3 Month U.S. T-Bill* | | | *0.0* | *0.0* | *0.0* | *0.1* | *1.2* | *1.2* | *0.8* | |
| Reams Core Plus Bond Fund | 398,867,363 | 15.1 | -0.2 | 0.4 | -1.4 | 0.5 | 8.5 | 5.0 | 4.6 | 06/01/2014 |
| *Blmbg. U.S. Aggregate* | | | *-0.2* | *0.9* | *-0.7* | *-0.1* | *5.4* | *3.1* | *3.3* | |
| BRS Recycling Tax Credit | 176,000,000 | 6.6 | | | | | | | | |
| BRS Recycling Tax Credit Phase 2 | 77,031,608 | 2.9 | | | | | | | | |

*Preliminary Results

*The BRS Recycling Tax Credit represents an annual income stream of $16 million dollars over the next 14 years, which ATRS purchased for approximately $162 million. The value shown above represents the year-end market value in accordance with GASB Statement 72, representing the 14 years of annual income, and has been incorporated into Total Fixed Income and Total Fund performance.



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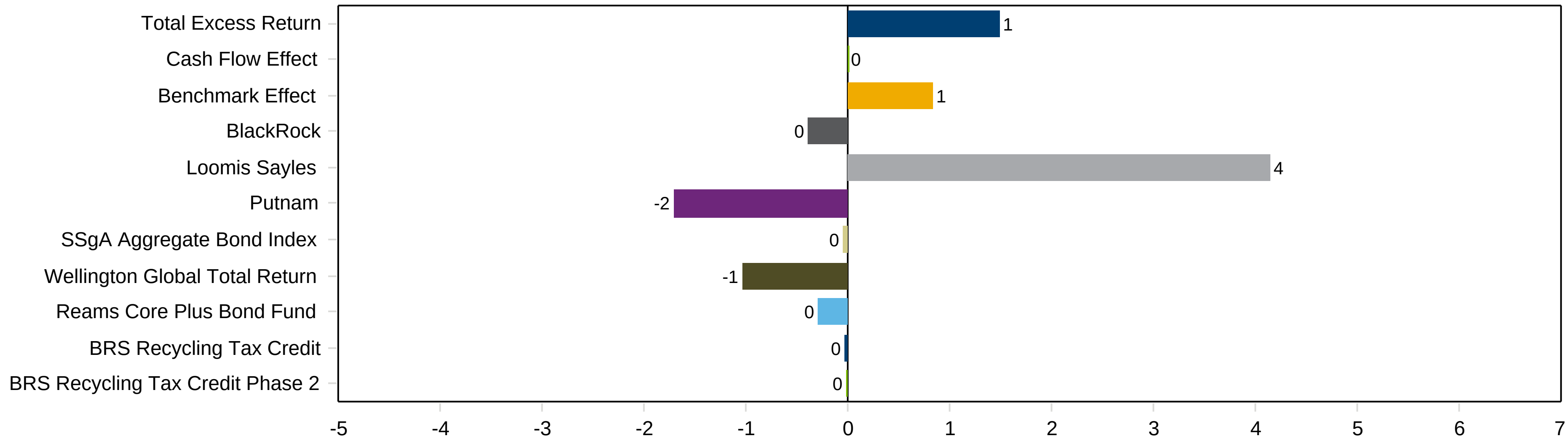
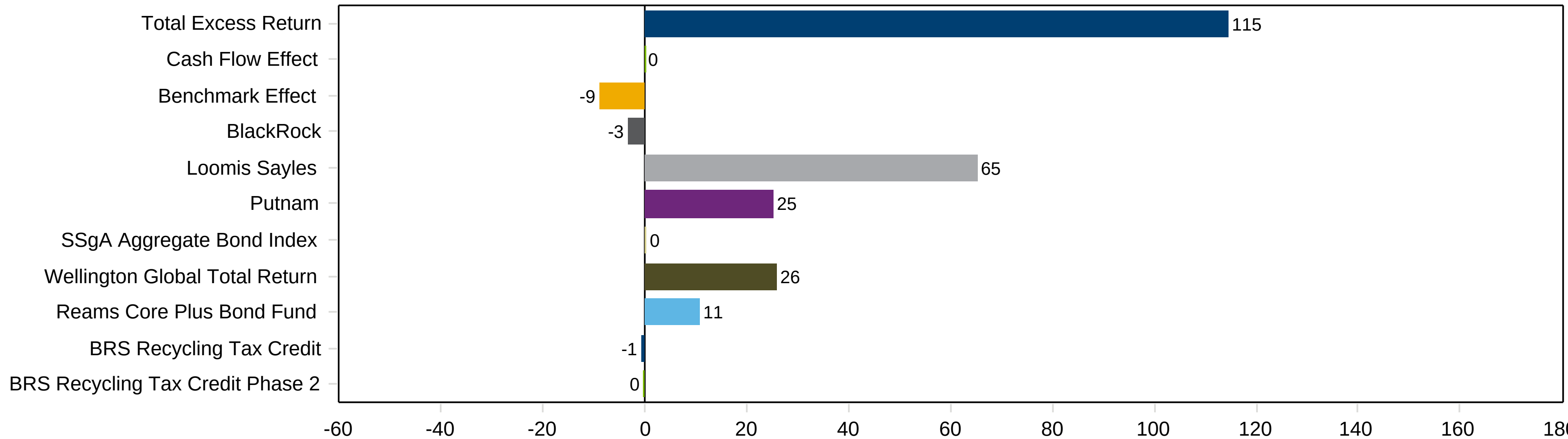
## Asset Class Attribution

### 1 Month




### 1 Year

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*Preliminary Results

As of August 31, 2021

## Asset Allocation & Performance

| | Allocation | | Performance(%) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Market Value ($) | % | 1 Month | Fiscal YTD | Year To Date | 1 Year | 3 Years | 5 Years | 10 Years | Since Inception | Inception Date |
| Opportunistic/Alternatives | 901,013,903 | 100.0 | -3.8 | -4.0 | 1.6 | 3.9 | -0.3 | 1.1 | 3.5 | 2.9 | 05/01/2011 |
| *Custom Alternatives Benchmark* | | | *0.5* | *0.3* | *5.9* | *9.5* | *3.5* | *3.3* | *2.6* | *2.2* | |
| Anchorage | 91,286,214 | 10.1 | 0.7 | 0.6 | 18.1 | 27.6 | 5.6 | 5.7 | 7.0 | 6.1 | 05/01/2011 |
| *Credit Suisse Event Driven* | | | *0.2* | *-0.3* | *9.8* | *21.0* | *6.1* | *5.8* | *4.5* | *3.4* | |
| *HFRI ED: Distressed/Restructuring Index* | | | *0.2* | *-0.6* | *13.9* | *28.5* | *7.7* | *7.9* | *5.7* | *5.1* | |
| York | 12,019,403 | 1.3 | 0.0 | -6.5 | 13.7 | 4.5 | -20.1 | -8.7 | -2.0 | -2.8 | 05/01/2011 |
| *Credit Suisse Event Driven* | | | *0.2* | *-0.3* | *9.8* | *21.0* | *6.1* | *5.8* | *4.5* | *3.4* | |
| *HFRI ED: Distressed/Restructuring Index* | | | *0.2* | *-0.6* | *13.9* | *28.5* | *7.7* | *7.9* | *5.7* | *5.1* | |
| Capula | 80,324,304 | 8.9 | 0.4 | 0.0 | 1.2 | 2.0 | 5.8 | 5.8 | 5.9 | 5.9 | 05/01/2011 |
| *HFRI Macro (Total) Index* | | | *0.1* | *-0.5* | *7.8* | *10.9* | *5.6* | *3.3* | *1.9* | *1.5* | |
| Graham | 69,864,019 | 7.8 | 1.2 | -3.9 | 4.7 | 11.4 | 5.7 | 4.3 | 4.3 | 3.1 | 05/01/2011 |
| *HFRI Macro (Total) Index* | | | *0.1* | *-0.5* | *7.8* | *10.9* | *5.6* | *3.3* | *1.9* | *1.5* | |
| Circumference Group Core Value | 38,061,562 | 4.2 | -0.5 | 0.0 | 15.0 | 21.2 | 11.5 | 11.9 | | 11.0 | 08/01/2015 |
| *Russell 2000 Index* | | | *2.2* | *-1.5* | *15.8* | *47.1* | *10.7* | *14.4* | | *12.0* | |
| Aeolus Keystone Fund | 185,476,426 | 20.6 | -17.8 | -17.9 | -20.7 | -19.4 | -7.7 | -6.6 | | -4.5 | 12/01/2015 |
| *FTSE 3 Month T-Bill* | | | *0.0* | *0.0* | *0.0* | *0.1* | *1.2* | *1.1* | | *1.0* | |
| *Eurekahedge ILS Advisers Index* | | | *-0.5* | *-0.3* | *0.6* | *1.8* | *-0.2* | *-0.6* | | *0.1* | |
| Nephila Rubik Holdings | 39,402,911 | 4.4 | -4.0 | -3.8 | -6.1 | -14.4 | -6.6 | -4.8 | | -4.4 | 06/01/2016 |
| *FTSE 3 Month T-Bill* | | | *0.0* | *0.0* | *0.0* | *0.1* | *1.2* | *1.1* | | *1.1* | |
| *Eurekahedge ILS Advisers Index* | | | *-0.5* | *-0.3* | *0.6* | *1.8* | *-0.2* | *-0.6* | | *-0.2* | |
| Parametric Global Defensive Equity Fund | 198,712,861 | 22.1 | 1.5 | 2.1 | 10.7 | 17.7 | 6.7 | | | 6.8 | 06/01/2017 |
| *Performance Benchmark* | | | *1.3* | *1.6* | *7.7* | *13.8* | *8.0* | | | *7.6* | |
| *MSCI AC World Index* | | | *2.5* | *3.3* | *16.2* | *29.2* | *14.9* | | | *14.3* | |
| Man Alternative Risk Premia | 95,324,117 | 10.6 | -0.1 | 1.9 | 7.9 | 4.1 | -0.9 | | | -1.2 | 06/01/2018 |
| *SG Multi Alternative Risk Premia Index* | | | *0.8* | *1.1* | *7.1* | *5.2* | *-2.3* | | | *-2.5* | |
| CFM ISD Fund 1.5x | 90,542,085 | 10.0 | 2.0 | 2.3 | 19.2 | 22.9 | -1.9 | | | -2.6 | 07/01/2018 |
| *SG Multi Alternative Risk Premia Index* | | | *0.8* | *1.1* | *7.1* | *5.2* | *-2.3* | | | *-2.4* | |

*Preliminary Results



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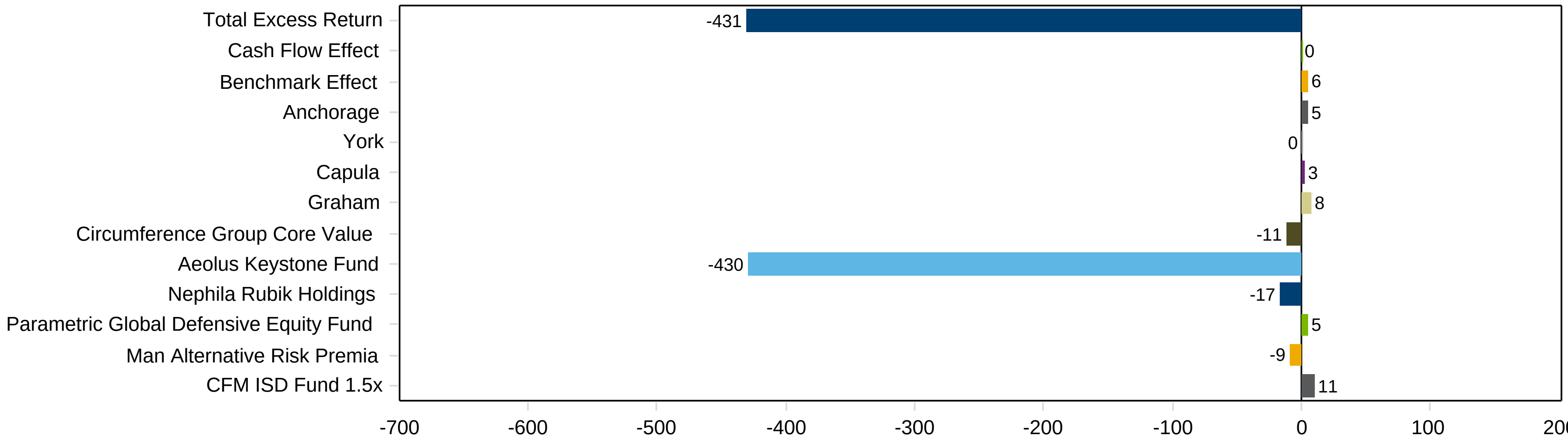
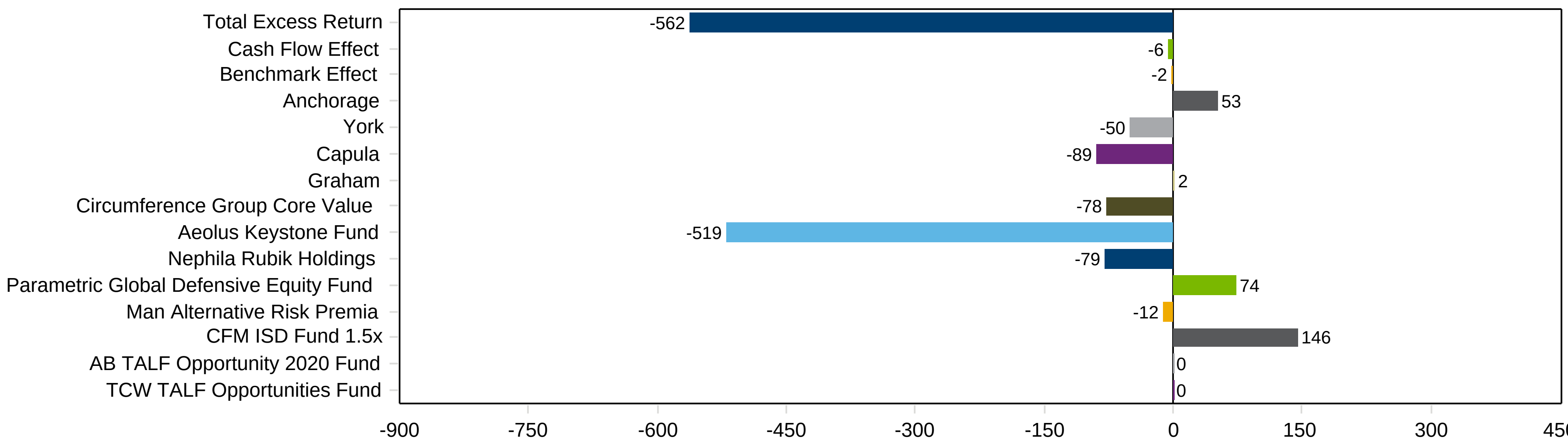
# Asset Class Attribution

## 1 Month




## 1 Year

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| Asset Allocation as of 8/31/2021 | | | | | | | | | Values in $1,000 |
|---|---|---|---|---|---|---|---|---|---|
| | Total Equity | U.S. Bond | Real Estate | Private Equity | Cash | Total | Percent of Total | Interim Policy | Long-Term Target |
| Jacobs Levy 130/30 | $970,577.8 | -- | -- | -- | -- | $970,577.8 | 4.58% | | |
| Kennedy Capital Management | $779,596.5 | -- | -- | -- | -- | $779,596.5 | 3.68% | | |
| Stephens | $685,805.1 | -- | -- | -- | -- | $685,805.1 | 3.24% | | |
| Voya Absolute Return | $804,861.5 | -- | -- | -- | -- | $804,861.5 | 3.80% | | |
| Allianz (Nicholas Applegate) | $1,068,626.4 | -- | -- | -- | -- | $1,068,626.4 | 5.04% | | |
| Pershing Square International | $1,238.4 | -- | -- | -- | -- | $1,238.4 | 0.01% | | |
| Pershing Square Holdings | $257,793.5 | -- | -- | -- | -- | $257,793.5 | 1.22% | | |
| SSgA Global Index | $1,313,051.8 | -- | -- | -- | -- | $1,313,051.8 | 6.19% | | |
| BlackRock MSCI ACWI IMI Fund | $1,081,785.5 | -- | -- | -- | -- | $1,081,785.5 | 5.10% | | |
| Wellington Global Perspectives | $778,750.2 | -- | -- | -- | -- | $778,750.2 | 3.67% | | |
| T. Rowe Price Global Equity | $1,747,278.1 | -- | -- | -- | -- | $1,747,278.1 | 8.24% | | |
| Lazard | $846,007.1 | -- | -- | -- | -- | $846,007.1 | 3.99% | | |
| D.E. Shaw | $977,230.3 | -- | -- | -- | -- | $977,230.3 | 4.61% | | |
| GMO Global All Country Equity | $567,915.0 | -- | -- | -- | -- | $567,915.0 | 2.68% | | |
| Harris Global Equity | $657,860.7 | -- | -- | -- | -- | $657,860.7 | 3.10% | | |
| Trian Partners | $86,865.3 | -- | -- | -- | -- | $86,865.3 | 0.41% | | |
| Trian Partners Co-Investments | $105,096.8 | -- | -- | -- | -- | $105,096.8 | 0.50% | | |
| Capital Guardian & Knight Vinke | $74.5 | -- | -- | -- | -- | $74.5 | 0.00% | | |
| **Total Equity** | | | | | | $12,730,414.6 | 60.06% | 58.08% | 53.00% |
| BlackRock | -- | $283,976.5 | -- | -- | -- | $283,976.5 | 1.34% | | |
| Loomis Sayles | -- | $506,583.9 | -- | -- | -- | $506,583.9 | 2.39% | | |
| Putnam | -- | $380,195.6 | -- | -- | -- | $380,195.6 | 1.79% | | |
| SSgA Aggregate Bond Index | -- | $473,192.3 | -- | -- | -- | $473,192.3 | 2.23% | | |
| Wellington Global Total Return | -- | $352,573.5 | -- | -- | -- | $352,573.5 | 1.66% | | |
| Reams Core Plus Bond Fund | -- | $398,867.4 | -- | -- | -- | $398,867.4 | 1.88% | | |
| BRS Recycling Tax Credit | -- | $176,000.0 | -- | -- | -- | $176,000.0 | 0.83% | | |
| BRS Recycling Tax Credit Phase 2 | -- | $77,031.6 | -- | -- | -- | $77,031.6 | 0.36% | | |
| **Total Fixed Income** | | | | | | $2,648,420.8 | 12.49% | 15.00% | 15.00% |
| Anchorage | -- | -- | -- | $90,651.7 | -- | $90,651.7 | 0.43% | | |
| Capula | -- | -- | -- | $80,324.3 | -- | $80,324.3 | 0.38% | | |
| Graham | -- | -- | -- | $69,864.0 | -- | $69,864.0 | 0.33% | | |
| York | -- | -- | -- | $12,019.4 | -- | $12,019.4 | 0.06% | | |
| Circumference Group Core Value | -- | -- | -- | $38,061.6 | -- | $38,061.6 | 0.18% | | |
| Aeolus Keystone Fund | -- | -- | -- | $185,476.4 | -- | $185,476.4 | 0.88% | | |
| Nephila Rubik Holdings | -- | -- | -- | $39,402.9 | -- | $39,402.9 | 0.19% | | |
| Parametric Global Defensive Equity | -- | -- | -- | $198,712.9 | -- | $198,712.9 | 0.94% | | |
| Man Alternative Risk Premia | -- | -- | -- | $95,324.1 | -- | $95,324.1 | 0.45% | | |
| CFM ISD Fund 1.5x | -- | -- | -- | $90,542.1 | -- | $90,542.1 | 0.43% | | |
| **Total Opportunistic/Alternatives** | | | | | | $900,379.3 | 4.25% | 4.46% | 5.00% |
| **Real Estate** | | | $1,343,404.0 | | | $1,343,404.0 | 6.34% | | |
| **Timber** | | | $302,864.1 | | | $302,864.1 | 1.43% | | |
| **Agriculture** | | | $213,911.8 | | | $213,911.8 | 1.01% | | |
| **Infrastructure** | | | $328,953.0 | | | $328,953.0 | 1.55% | | |
| **Total Real Assets** | | | | | | $2,189,133.0 | 10.33% | 10.46% | 15.00% |
| **Total Private Equity** | | | | $2,681,547.4 | | $2,681,547.4 | 12.65% | 12.00% | 12.00% |
| **Total Cash** | | | | | $46,735.4 | $46,735.4 | 0.22% | 0.00% | 0.00% |
| **Total Fund** | **$12,730,414.6** | **$2,648,420.8** | **$2,189,133.0** | **$3,581,926.7** | **$46,735.4** | **$21,196,630.6** | **100.00%** | **100.00%** | **100.00%** |

*Note: The market values for the Real Assets and Private Equity investments shown above are lagged one quarter and adjusted for the current quarter's cash flows.
Market values and allocation percentages may not add to the sum total due to rounding.

| Asset Allocation as of 8/31/2021 | | | | | | | Values in $1,000 |
|---|---|---|---|---|---|---|---|
| | Real Estate | Percent of Real Estate | Percent of Total Fund | | Real Estate | Percent of Real Estate | Percent of Total Fund |
| Almanac Realty Securities Fund V | $97.9 | 0.01% | 0.00% | LaSalle Asia Opportunity Fund V | $9,350.9 | 0.70% | 0.04% |
| Almanac Realty Securities Fund VI | $3,610.0 | 0.27% | 0.02% | LaSalle Income & Growth Fund VI | $5,267.9 | 0.39% | 0.02% |
| Almanac Realty Securities Fund VII | $15,589.3 | 1.16% | 0.07% | LaSalle Income & Growth Fund VII | $14,415.0 | 1.07% | 0.07% |
| Almanac Realty Securities Fund VIII | $9,258.1 | 0.69% | 0.04% | LaSalle Income & Growth Fund VIII | $11,625.6 | 0.87% | 0.05% |
| American Center | $27,412.6 | 2.04% | 0.13% | Lone Star Real Estate Fund IV | $6,710.3 | 0.50% | 0.03% |
| AR Insurance | $2,260.7 | 0.17% | 0.01% | Long Wharf Real Estate Partners V | $19,288.8 | 1.44% | 0.09% |
| AR Teachers Retirement Building | $5,397.5 | 0.40% | 0.03% | Long Wharf Real Estate Partners VI | $12,247.1 | 0.91% | 0.06% |
| Blackstone Real Estate Partners VII | $19,363.9 | 1.44% | 0.09% | Metropolitan RE Co-Investments | $10,517.3 | 0.78% | 0.05% |
| Blackstone RE Europe VI | $21,460.1 | 1.60% | 0.10% | Met Life Commercial Mtg Inc Fund | $47,991.7 | 3.57% | 0.23% |
| Carlyle Realty Partners VII | $10,082.1 | 0.75% | 0.05% | New Boston Fund VII | $2,611.3 | 0.19% | 0.01% |
| Carlyle Realty VIII | $9,014.7 | 0.67% | 0.04% | O'Connor NAPP II | $8,555.0 | 0.64% | 0.04% |
| CBREI SP U.S. Opportunity V | $779.5 | 0.06% | 0.00% | PRISA | $273,148.8 | 20.33% | 1.29% |
| CBREI SP VIII | $21,613.2 | 1.61% | 0.10% | Recoveries Land | $70.0 | 0.01% | 0.00% |
| CBREI SP IX | $10,935.5 | 0.81% | 0.05% | Rockwood Capital RE Partners IX | $5,637.3 | 0.42% | 0.03% |
| Cerberus Institutional RE Partners III | $11,149.4 | 0.83% | 0.05% | Rockwood Capital RE XI | $15,579.5 | 1.16% | 0.07% |
| Chenal Retirement Village | $0.0 | 0.00% | 0.00% | Rose Law Firm | $4,295.0 | 0.32% | 0.02% |
| Calmwater | $18,104.4 | 1.35% | 0.09% | Texarkana DHS | $1,627.7 | 0.12% | 0.01% |
| Fletcher Properties | $1,162.2 | 0.09% | 0.01% | Torchlight Debt Opportunity Fund IV | $4,298.3 | 0.32% | 0.02% |
| FPA Core Plus IV | $29,496.3 | 2.20% | 0.14% | Torchlight Debt Opportunity Fund V | $4,918.5 | 0.37% | 0.02% |
| GCP GLP IV | $13,065.7 | 0.97% | 0.06% | Torchlight Debt Opportunity Fund VI | $21,629.2 | 1.61% | 0.10% |
| Harbert European Real Estate | $17,474.4 | 1.30% | 0.08% | Torchlight Debt Opportunity Fund VII | $10,159.7 | 0.76% | 0.05% |
| Heitman European Property IV | $1,530.7 | 0.11% | 0.01% | UBS Trumbull Property Fund | $168,690.9 | 12.56% | 0.80% |
| JP Morgan Strategic Property Fund | $279,460.4 | 20.80% | 1.32% | UBS Trumbull Property Income Fund | $51,254.5 | 3.82% | 0.24% |
| Kayne Anderson V | $23,217.4 | 1.73% | 0.11% | Victory | $32,775.7 | 2.44% | 0.15% |
| Kayne Anderson VI | $2,000.0 | 0.15% | 0.01% | Walton Street Real Estate Debt II | $11,970.6 | 0.89% | 0.06% |
| Landmark Fund VI | $1,637.0 | 0.12% | 0.01% | West Mphs. DHS | $2,330.4 | 0.17% | 0.01% |
| Landmark Real Estate VIII | $8,186.1 | 0.61% | 0.04% | Westbrook IX | $10,020.9 | 0.75% | 0.05% |
| LaSalle Asia Opportunity Fund IV | $2,379.5 | 0.18% | 0.01% | Westbrook Real Estate Fund X | $10,677.6 | 0.79% | 0.05% |
| | | | | **Total Real Estate** | **$1,343,404.0** | **100.00%** | **6.34%** |

*Note: The market values for the real estate investments shown above are lagged one quarter and adjusted for the current quarter's cash flows.
Market values and allocation percentages may not add to the sum total due to rounding.



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| Asset Allocation as of 8/31/2021 | | | | | | | Values in $1,000 |
|---|---|---|---|---|---|---|---|
| | Private Equity | Percent of Private Equity | Percent of Total Fund | | Private Equity | Percent of Private Equity | Percent of Total Fund |
| Arlington Capital IV | $30,290.2 | 1.13% | 0.14% | JF Lehman III | $15,103.2 | 0.56% | 0.07% |
| Arlington Capital V | $10,662.6 | 0.40% | 0.05% | JF Lehman IV | $36,726.1 | 1.37% | 0.17% |
| Advent GPE VI | $3,988.6 | 0.15% | 0.02% | JF Lehman V | $13,424.6 | 0.50% | 0.06% |
| Altus Capital II | $7,642.7 | 0.29% | 0.04% | KPS III | $188.3 | 0.01% | 0.00% |
| American Industrial Partners VI | $21,991.7 | 0.82% | 0.10% | KPS IV | $17,584.5 | 0.66% | 0.08% |
| American Industrial Partners VII | $14,048.1 | 0.52% | 0.07% | KPS X | $6,829.7 | 0.25% | 0.03% |
| Altaris Constellation Partners | $26,436.5 | 0.99% | 0.12% | KPS Mid-Cap | $11,391.7 | 0.42% | 0.05% |
| Altaris Health Partners IV | $17,117.7 | 0.64% | 0.08% | Levine Leichtman V | $15,345.5 | 0.57% | 0.07% |
| Atlas Capital II | $14,116.0 | 0.53% | 0.07% | Lime Rock III | $12,299.6 | 0.46% | 0.06% |
| Audax Mezzanine III | $2,654.2 | 0.10% | 0.01% | LLR III | $4,400.9 | 0.16% | 0.02% |
| Big River - Equity | $767.2 | 0.03% | 0.00% | LLR VI | $3,212.9 | 0.12% | 0.02% |
| Big River - Holdings Note 2023 | -$5,904.0 | -0.22% | -0.03% | Mason Wells III | $1,737.9 | 0.06% | 0.01% |
| Big River - Holdings Note 3/16/23 | $5,899.3 | 0.22% | 0.03% | NGP IX | $1,630.7 | 0.06% | 0.01% |
| Bison V | $31,329.4 | 1.17% | 0.15% | NGP X | $4,200.9 | 0.16% | 0.02% |
| Boston Ventures VII | $5,451.4 | 0.20% | 0.03% | NGP XI | $20,250.8 | 0.76% | 0.10% |
| Boston Ventures IX | $27,927.5 | 1.04% | 0.13% | NGP XII | $17,506.8 | 0.65% | 0.08% |
| Boston Ventures X | $5,073.6 | 0.19% | 0.02% | One Rock Capital Partners II | $35,932.3 | 1.34% | 0.17% |
| BV VIII | $18,221.3 | 0.68% | 0.09% | PineBridge | $6,183.2 | 0.23% | 0.03% |
| Castlelake II | $17,373.3 | 0.65% | 0.08% | Riverside IV | $235.8 | 0.01% | 0.00% |
| Castlelake III | $16,737.3 | 0.62% | 0.08% | Riverside V | $26,052.3 | 0.97% | 0.12% |
| Clearlake V | $39,398.2 | 1.47% | 0.19% | Riverside VI | $12,695.1 | 0.47% | 0.06% |
| Clearlake VI | $21,308.5 | 0.79% | 0.10% | Siris III | $17,874.6 | 0.67% | 0.08% |
| Court Square III | $33,564.6 | 1.25% | 0.16% | Siris IV | $19,259.8 | 0.72% | 0.09% |
| CSFB-ATRS 2005-1 Series | $44,931.9 | 1.68% | 0.21% | SK Capital V | $20,606.1 | 0.77% | 0.10% |
| CSFB-ATRS 2006-1 Series | $63,694.7 | 2.38% | 0.30% | Sycamore Partners II | $11,547.3 | 0.43% | 0.05% |
| Diamond State Ventures II | $2,442.2 | 0.09% | 0.01% | Sycamore Partners III | $7,165.7 | 0.27% | 0.03% |
| Doughty Hanson Tech I | -$972.0 | -0.04% | 0.00% | TA XI | $26,403.2 | 0.98% | 0.12% |
| DW Healthcare III | $10,069.8 | 0.38% | 0.05% | Tennenbaum VI | $12,638.6 | 0.47% | 0.06% |
| DW Healthcare IV | $28,565.7 | 1.07% | 0.13% | Thoma Bravo Discover | $20,323.1 | 0.76% | 0.10% |
| DW Healthcare V | $11,698.8 | 0.44% | 0.06% | Thoma Bravo Discover II | $23,413.5 | 0.87% | 0.11% |
| EnCap IX | $8,070.5 | 0.30% | 0.04% | Thoma Bravo Discover III | $8,727.4 | 0.33% | 0.04% |
| EnCap VIII | $11,676.5 | 0.44% | 0.06% | Thoma Bravo Explore I | $4,955.4 | 0.18% | 0.02% |
| EnCap X | $21,715.6 | 0.81% | 0.10% | Thoma Bravo XI | $34,074.6 | 1.27% | 0.16% |
| EnCap XI | $11,873.6 | 0.44% | 0.06% | Thoma Bravo XII | $47,436.0 | 1.77% | 0.22% |
| Franklin Park Series | $1,058,805.0 | 39.48% | 5.00% | Thoma Bravo XIII | $39,024.3 | 1.46% | 0.18% |
| Greenbriar V | $1,982.0 | 0.07% | 0.01% | Thoma Bravo XIV | $10,515.6 | 0.39% | 0.05% |
| GCG IV | $21,364.2 | 0.80% | 0.10% | Vista Equity III | $4,147.3 | 0.15% | 0.02% |
| GCG V | $4,084.5 | 0.15% | 0.02% | Vista Foundation II | $15,227.7 | 0.57% | 0.07% |
| GTLA Holdings | $40,000.0 | 1.49% | 0.19% | Vista Foundation III | $29,694.3 | 1.11% | 0.14% |
| Highland | $284,738.2 | 10.62% | 1.34% | Wellspring V | $12,901.9 | 0.48% | 0.06% |
| Insight Equity II | $19,170.4 | 0.71% | 0.09% | Wicks IV | $32,740.1 | 1.22% | 0.15% |
| Insight Mezzanine I | $1,724.1 | 0.06% | 0.01% | WNG II | $8,206.4 | 0.31% | 0.04% |
| | | | | **Total Private Equity** | **$2,681,547.4** | **100.00%** | **12.65%** |

*Note: The market values for the private equity investments shown above are lagged one quarter and adjusted for the current quarter's cash flows.
Market values and allocation percentages may not add to the sum total due to rounding.

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## Appendix

### Description of Benchmarks

**Total Fund** - The Performance Benchmark for the Total Fund reflects a weighted average of the underlying asset class benchmarks, weighted as follows: Opportunistic/Alternatives and Real Assets at the weight of the previous month's ending market values, Fixed Income and Private Equity at their long-term Policy Targets of 15% and 12%, respectively, and Total Equity at its long-term Policy Target of 50% plus the balance of the unfunded or uncommitted assets of the Opportunistic/Alternatives and Real Assets categories. These targets can be found on page 14 of the this report. From October 2007 to July 2013, the Performance Benchmark was the performance of the asset class benchmarks as a weighted average of the previous month's ending market values. The historical components of the benchmark are shown in the table below. Returns prior to September 30, 1996, consist of the actual allocations to the seven different asset classes included in the Arkansas Teacher Retirement System over time. The historical benchmarks used for each asset class are noted below.

| Date | DJ Total Stock Market Index | Russell 3000 Index | MSCI ACW ex-U.S. Index | MSCI All Country World Index | BC Universal Bond Index | BC Aggregate Bond Index | Alternative Policy* |
|---|---|---|---|---|---|---|---|
| 03/2004-9/2007 | 40.0 % | -- | 17.5 % | -- | 25.0 % | -- | 17.5 % |
| 06/2003-02/2004 | 40.0 | -- | 17.5 | -- | -- | 25.0 % | 17.5 |
| 10/2001-07/2003 | -- | 40.0 % | 17.5 | -- | -- | 25.0 | 17.5 |
| 08/1998-09/2001 | -- | 40.0 | 17.0 | -- | -- | 28.0 | 15.0 |
| 10/1996-07/1998 | -- | 40.0 | 20.0 | -- | -- | 28.0 | 12.0 |

*Historically, the Alternative Policy was comprised of the weighted averages of the Private Equity, Real Estate, and Alternatives policy benchmarks. Prior to July 31, 2003 the alternative benchmark consisted of 57.0% of the Russell 3000 + a 2% Premium per year, 8.5% of the NCREIF Southeast Timberland Index, 28.5% of the Real Estate Index, 6% of the EnnisKnupp STIF Index.

## Appendix

**Total Equity** -A weighted average of the Dow Jones U.S. Total Stock Market Index and the MSCI All Country World IMI Index based on weights of the underlying investment manager allocations. As of August 1, 2021, the Total Equity Performance Benchmark was comprised of 31.0% DJ U.S. Total Stock Market Index and 69.0% MSCI ACWI IMI.

**Fixed Income** - The Barclays Capital Universal Bond Index as of March 1, 2004.

**Opportunistic/Alternatives** - A custom benchmark consisting of 25% DJ/CS Event-Driven Index, 25% HFR Macro Index, and 50% South Timberland NCREIF Index until June 30,2013; 60% HFRI Macro Index and 40% DJ/CS Event-Driven Index until July 31, 2015; 56% HFRI Macro Index, 38% DJ/CS Event-Driven Index, and 6% Russell 2000 Index until March 31, 2016; 45% HFRI Macro Index, 30% DJ/CS Event-Driven Index, 5% Russell 2000 Index, and 20% FTSE 3 Month T-bill until May 31, 2016; 37% HFRI Macro Index, 25% DJ/CS Event-Driven Index, 5% Russell 2000 Index, and 33% FTSE 3 Month T-bill until May 31, 2017; 28% HFRI Macro Index, 20% DJ/CS Event-Driven Index, 4% Russell 2000 Index, 25% FTSE 3 Month T-bill, and 23% Parametric Performance Benchmark Until May 31, 2018. 22% HFRI Macro Index, 18% DJ/CS Event-Driven Index, 3% Russell 2000 Index, 27% FTSE 3 Month T-bill, 18.50% Parametric Performance Benchmark, and 11.5% SG Multi-Alternative Risk Premia Until June 30, 2018. 20% HFRI Macro Index, 15% DJ/CS Event-Driven Index, 3.5% Russell 2000 Index, 25% FTSE 3 Month T-bill, 16.5% Parametric Performance Benchmark, and 20% SG Multi-Alternative Risk Premia Until August 31, 2018. 17% HFRI Macro Index, 15% DJ/CS Event -Driven Index, 3.5% Russell 2000 Index, 28% FTSE 3 Month T-bill, 16.5% Parametric Performance Benchmark, and 20% SG Multi-Alternative Risk Premia Until November 30, 2018. 15% HFRI Macro Index, 15% DJ/CS Event-Driven Index, 3.5% Russell 2000 Index, 30% FTSE 3 Month T-bill, 16.5% Parametric Performance Benchmark, and 20% SG Multi-Alternative Risk Premia thereafter.

**Real Assets** - A custom benchmark consisting of a weighted average of the net asset values at previous month's end of the sub-categories' benchmarks, defined as Real Estate Benchmark, Timber Benchmark, Agriculture Benchmark and Infrastructure Benchmark.

**Real Estate**-The NCREIF Index.

**Timberland Property Benchmark** - NCREIF Timberland Property Index (NTPI) weighted according to ATRS' regional exposure based on net asset value.

**Agriculture Benchmark** - NCREIF Farmland Index (NFI) weighted according to ATRS' regional and crop type exposure based on net asset value.

**Infrastructure Benchmark** - Consumer Price Index (CPI) plus 500 basis points annually.

**Private Equity** - The Dow Jones U.S. Total Stock Market Index + a 2% premium per year.

**Cash Equivalents** - The Citigroup 90 day T-bill.

## Appendix

**Description of Benchmarks**

**FTSE 90 day T-bill Index** - Treasury bill rates of return, as reported by Citigroup (Salomon Smith Barney), for bills with a maximum time remaining to maturity of 90 days.

**Bloomberg Barclays Aggregate Bond Index** - A market-value weighted index consisting of the Barclays Capital Corporate, Government and Mortgage-Backed Securities Indices. The Index also includes credit card-, auto- and home equity loan-backed securities, and is the broadest available measure of the aggregate U.S. fixed income market.

**Bloomberg Barclays Universal Bond Index** - A market-value weighted index consisting of the components of the Barclays Capital Bond Index, plus EuroDollar bonds, emerging markets bonds, 144A fixed income securities, and U.S. credit high yield securities.

**Bloomberg Barclays Mortgage Index** - A market value-weighted index consisting of the mortgage pass-through securities of Ginnie Mae (GNMA), Fannie Mae (FNMA) and Freddie Mac (FHLMC).

**MSCI All Country World ex-U.S. Index** - A capitalization-weighted index consisting of 22 developed and 23 emerging countries, but excluding the U.S. Covers approximately 85% of global equity opportunity set outside of the U.S.

**MSCI All Country World Index** - A capitalization-weighted index of stocks representing 46 stock markets in Europe, Australia, the Far East, the Middle East, Latin America and North America.

**MSCI All Country World IMI Index** - A capitalization-weighted index representing large and small cap stock from 46 stock markets in Europe, Australia, the Far East, the Middle East, Latin America and North America.

**FTSE Europe** - A tradable index, designed to represent the performance of the 100 most highly capitalized blue chip companies in Europe.

**MSCI Europe, Australasia, Far East (EAFE) Non-U.S. Stock Index** - A capitalization-weighted index of stocks representing 21 developed and emerging country markets in Europe, Australia, Asia and the Far East.

**NCREIF Index** - The National Council of Real Estate Investment Fiduciaries (NCREIF) Net Property Index is an unlevered, market-value weighted Index consisting of $128 billion in domestic institutional real estate assets. The Index is representative of the national real estate market, across all property types and regions.

**Nicholas Applegate Performance Benchmark** - On January 1, 2005, the benchmark for the portfolio was changed to the Merrill Lynch Convertible Bond (All Quality) Index. Prior to January 1, 2005, the performance benchmark for the Nicholas Applegate portfolio was the CSFB Convertible Securities Index. Prior to May 1, 2004, the performance benchmark consisted of 90% CSFB Convertible Securities Index and 10% Salomon High Yield Index.

**Wellington Global Performance Benchmark-** As of July 1, 2012 the benchmark was changed to MSCI All Country World Small Cap Index. Prior to July 1, 2012, the benchmark was MSCI All Country World Small/Mid Cap Index.

# Arkansas Teacher Retirement System

## Appendix

**BlackRock Performance Benchmark** - The Barclays Capital Universal Bond Index as of March 1, 2004.

**Voya Absolute Return Performance Benchmark** - As of December 1, 2015 the benchmark was changed to MSCI All Country World Index. Prior to December 1, 2015, the benchmark was the S&P 500 Stock Index.

**LIBOR Index** - London Interbank Offered Rate. A filtered average of the world's most creditworthy banks' interbank deposit rates with maturities between overnight and one full year.

**Russell 3000 Index** - An index that measures the performance of the 3000 stocks that make up the Russell 1000 and Russell 2000 Indices.

**Russell 1000 Index** - An index that measures the performance of the largest 1,000 stocks contained in the Russell 3000 Index.

**Russell 1000 Value Index** - An index that measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower I/B/E/S growth forecasts.

**Russell 2000 Index** - An index that measures the performance of the smallest 2000 companies contained in the Russell 3000 Index.

**Russell 2000 Growth Index** - An index that measures the performance of those Russell 2000 companies with greater price-to-book ratios and greater I/B/E/S growth forecasts.

**Russell 2000 Value Index** - An index that measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower I/B/E/S growth forecasts.

**Russell Mid Cap Value Index** - And index that measure the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

**S&P 500 Stock Index** - A capitalization-weighted stock index consisting of the 500 largest publicly traded U.S. stocks.

**HFR Macro Index** - Macro: Investment Managers which trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top down and bottom up theses, quantitative and fundamental approaches and long and short term holding periods. Primary investment thesis is predicated on predicted or future movements in the underlying instruments.

**HFR Distressed/Restructuring Index** - Distressed Restructuring Strategies employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings. Distressed Strategies employ primarily debt (greater than 60%) but also may maintain related equity exposure.

**Parametric Performance Benchmark** - 50% MSCI All Country World Index and 50% Citigroup 90 day T-Bill Index as of June 1, 2017.

**SG Multi Alternative Risk Premia Index** - An equally weighted index composed of risk premia managers who employ investment programs diversified across multiple asset classes while utilizing multiple risk premia factors.

## Historical U.S. Equity and Global Equity composite returns

| As of June 30, 2015 | 1 Year | 3 Years | 5 Years | 10 Years | Since Inception | Inception Date |
|---|---|---|---|---|---|---|
| U.S. Equity | 6.7 | 18.1 | 16.4 | 9.4 | 10.5 | 04/01/1986 |
| Dow Jones U.S. Total Stock Market Index | 7.2 | 17.6 | 17.5 | 8.3 | - | |
| Global Equity | 1.8 | 14.6 | 12.1 | - | 2.5 | 11/01/2007 |
| MSCI AC World Index (Net) | 0.7 | 13.0 | 11.9 | 6.4 | 2.1 | |

In June 2015, the ATRS Board approved the combination of the U.S. and Global equity asset classes to a single Total Equity asset class. Total Equity performance reporting began in July 2015. In the table above, we show the historical returns for the U.S. Equity and Global Equity asset classes since inception through June 2015. Performance for the Total Equity asset class prior to July 2015 represents a weighted average of the U.S. Equity and Global Equity historical performance.



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## Notes

- The rates of return contained in this report are shown on an after-fees basis unless otherwise noted. They are geometric and time-weighted. Returns for periods longer than one year are annualized.
- Universe percentiles are based upon an ordering system in which 1 is the best ranking and 100 is the worst ranking.
- Due to rounding throughout the report, percentage totals displayed may not sum to 100%. Additionally, individual fund totals in dollar terms may not sum to the plan total.
- All information presented in this report should be considered preliminary. Finalized data will be available on next Quarterly Investment Report after the close of the quarter.

## Disclaimer

**Past performance is not necessarily indicative of future results.**

Unless otherwise noted, performance returns presented reflect the respective fund's performance as indicated. Returns may be presented on a before-fees basis (gross) or after-fees basis (net). After-fee performance is net of each respective sub-advisors' investment management fees and include the reinvestment of dividends and interest as indicated on the notes page within this report or on the asset allocation and performance summary pages. Actual returns may be reduced by Aon Investments' investment advisory fees or other trust payable expenses you may incur as a client. Aon Investments' advisory fees are described in Form ADV Part 2A. Portfolio performance, characteristics and volatility also may differ from the benchmark(s) shown.

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Aon Investments USA Inc.
200 East Randolph Street
Suite 700
Chicago, IL 60601
ATTN: Aon Investments Compliance Officer

# Emerging Manager Report

Arkansas Teacher Retirement System (ATRS)

August 2021

Investment advice and consulting services provided by Aon Investments USA, Inc., an Aon Company.

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# Introduction

Aon Investments (Aon) serves as the general and real assets investment consultant to the Arkansas Teacher Retirement System (ATRS). Our objective as a consultant is to assist the System in achieving its stated goals and objectives. While the primary goal of ATRS is ultimately to secure the retirement benefits for the members, ATRS also has a formal goal to seek out and consider retaining emerging managers consistent with the Prudent Investor Rule.

Aon understands and supports ATRS's goal to seek out and consider emerging managers for the investment portfolio. Aon is also bound by fiduciary requirements and thus all investment manager recommendations, emerging or otherwise, are made in accordance with fiduciary duties.

In accordance with the ATRS Emerging Managers Goal and Acknowledgment Act 304, this report contains information regarding our firm-wide manager research process, including coverage of emerging managers and our ongoing efforts in the space, and provides an update on ATRS's due diligence activity on emerging managers during the 2021 fiscal year.

# Aon Manager Research Overview

## *Global Investment Management Research Team*

Aon's Global Investment Manager (GIM) Research Team is dedicated exclusively to assisting our clients in selecting best in class investment strategies that most appropriately fit within each client's unique circumstances. Currently, the GIM team is comprised of over 130 dedicated investment professionals who are based across the U.S., Canada U.K., and Continental Europe and cover global markets and products across six broad asset classes.

## *Investment Manager Database: InView*

Aon maintains an internal, proprietary database, InView, which includes an extensive list of investment managers across asset classes. The database captures quantitative and qualitative information, consultants' notes and comments, and ratings on all managers visited and vetted. Additionally, InView maintains the complete history of our ratings, analysis, and research based on our coverage of these strategies over time.

Across all asset classes, our database contains statistical and product information on over 10,000 investment managers and approximately 28,000 products. The table below details the number of managers and products by asset class.

**As of 3/31/2021**

| | InView Database | |
|---|---|---|
| | Products | Managers |
| Equities | 6,646 | 1,391 |
| Fixed Income | 2,774 | 662 |
| Hedge Funds | 1,483 | 780 |
| Private Equity | 10,592 | 2,981 |
| Infrastructure | 395 | 167 |
| Real Estate | 4,379 | 1,355 |
| Multi Asset/DGF*/TAA* | 793 | 324 |
| Cash | 159 | 69 |
| Currency | 82 | 58 |
| Commodities | 59 | 34 |
| Other | 429 | 209 |
| Unclassified | 247 | 5,657 |
| **Total**** | **28,038** | **10,600**** |

* DGF: Diversified Growth Fund
* TTAA: Tactical Asset Allocation. Includes Buy & Buy (Closed) Ratings
*** Totals will be less than the sum of asset classes as managers will have products in more than one*

*Investment Manager Rating Process*

The initial phase of our investment manager rating process is our proprietary investment manager screening model called InForm. Our InForm process analyzes available investment manager data and rates each product according to seven factors: business, staff, investment process, investment risk, performance, terms/conditions, and operations. It is performed on a quarterly basis across the global universe of equity and fixed income products. It quickly sifts through thousands of products to identify those worthy of additional research. Leveraging the InForm process allows us to spend valuable client hours performing in-depth research on only the strongest candidates that better serve our clients' needs.

Importantly, our InForm process is inclusive of all managers that elect to provide data, allowing us to identify especially strong and cutting edge, yet perhaps less well-known and/or emerging type investment managers and products. Not only does this ensure emerging managers the ability to be included in our investment manager rating process, we believe the all-inclusive nature of our InForm model drives creativity in portfolio design.

The second phase of our manager research process is a more expanded evaluation of the seven aforementioned factors, including an in-depth assessment of operations. Examples of research topics by factor are listed as follows:

- *Business*: Profitability, stability and spread of ownership, client base, remuneration policy
- *Staff:* Quality, depth of resource, team dynamic, staff turnover
- *Investment Process*: Competitive advantage, repeatability, skill, implementation
- *Risk*: Embedded in process, independent verification, mix of measurements
- *Performance Analysis*: Consistent with stated process, risk adjusted, persistent
- *Terms and Conditions*: Client Service, fees, ESG, best practices in documentation
- *Operational Due Diligence*: Operational controls, valuation of assets, independent directors, third-party vendors

Our research team meets and/or has conference calls with investment managers to gather needed information to perform in-depth research and prepare for a detailed rating meeting. A "Buy" rating requires at least one onsite meeting with the manager. All requested information and notes are stored in the InView database.

When full due diligence concludes, the product is then scored and rated through a formal voting process. Each manager must pass our operational due diligence process to receive a "Buy" rating.

## *Investment Manager Search Process*

Our investment manager search process is completely customized to meet the needs and desires of our clients. The steps taken are dependent on the asset class, mandate type, and available strategies in the space, as well as a client's level of desired involvement. The table below summarizes a typical investment manager search and due diligence process. We invite the ATRS Investment Team and Trustees to participate in each step described, or none at all.

| Process Step | Description |
|---|---|
| **Determine selection criteria** | Aon works with ATRS to determine selection criteria (e.g., investment style, experience, performance, fees, size, risk, stability of staff). We consider the circumstances of each opportunity and determine which criteria are most important to emphasize. Aon also opportunistically brings forth investment ideas to ATRS as they are identified. |
| **Identify preliminary candidates** | Aon, in coordination with GIM, screens our InView database to identify preliminary candidates that meet the selection criteria. We also include any candidates that ATRS would like us to consider. |
| **Update information/ visit managers** | Aon reviews the information in our databases regarding candidate managers, updates the information, and visits the managers, as needed. While we typically have much of the quantitative data we require to screen managers and assign an initial score, we recognize the importance of a qualitative assessment.<br><br>It is during this step in a search that we introduce our qualitative assessment. This includes meeting face-to-face with portfolio managers, analysts, traders, and executive management. We also conduct operational due diligence (ODD) on-site visits, which are led by our dedicated team of ODD professionals. |
| **Select and profile finalist candidates** | Based on the preceding analysis, Aon reviews the candidates and proposes finalists to ATRS. Aon typically narrows the field of candidates to three or four firms, completes a comparative analysis, and considers fit within ATRS's broader portfolio to assist in finalist selection. |
| **Discuss finalist candidates/ interview finalists** | Aon discusses the finalist candidate(s) with ATRS and answers any questions. Additionally, we can help organize presentations by finalist candidates at ATRS's offices and participate in any interview process desired. |
| **Select managers** | Following the finalist discussion and any finalist meetings, ATRS is in a position to select the manager(s) that best fits its investment structure. Aon is also in a position to recommend our highest conviction manager based on the above analysis and understanding of ATRS's specific circumstances. |

## *The Townsend Group*

The Townsend Group is Aon's real estate investment management and consulting arm. Its global real estate platform has approximately $18 billion in assets under management, $139 billion in advised assets, and approximately 85 investment professionals. In the appendix of this report, we provide details of Townsend's manager due diligence process and procedures.

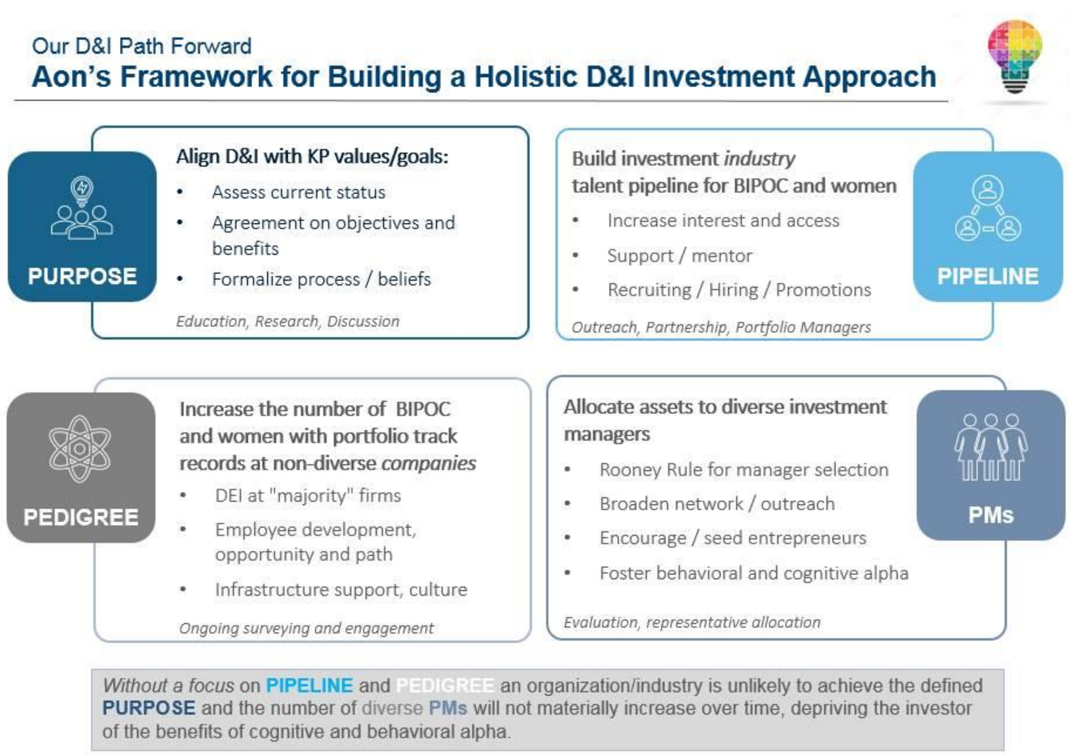
# Aon Emerging Manager Efforts

Alongside ATRS, Aon is also committed to supporting emerging managers and being proactive in identifying and maintaining knowledge of the emerging manager universe. In the last 12 months, Aon has increased its focus on diversity in investment portfolios and has undertaken the following activities:

- Founding member of the Institutional Investor Diversity Council (IIDC)
- Founding member of the Investment Consultants Sustainability Working Group (ICSWG – UK and US)
- Member of The Diversity Project
- Worked with eVestment Alliance to expand their collection of diversity data
- Surveyed 100 clients to gather and share information on diverse manager investing trends and best practice (https://insights-north-america.aon.com/alternative-investing/aon-diverse-manager-investing-survey-report)
- Created a new client framework for measuring and promoting diversity within investment portfolios (see below)
- Author of the upcoming NAIC Diversity in Private Equity performance study update (Fall 2021)

Aon has dedicated resources to ensure we expand our existing platform to more broadly reflect the diverse landscape of asset managers. In addition, we have been working to increase diversity in our internally managed portfolios.

Additionally, Aon continues to evolve the way we and our clients can support inclusion and diversity across the investment landscape.



Our re-evaluation has led us to advocate a more holistic view of diversity and inclusion in investor portfolios, with a focus on each inflection point within the diverse manager lifecycle, as shown in the diagram above. We have found that the past approach to diverse managers has not yielded significant change in industry demographics over the past 10-15 years. And while we continue to support the current efforts, we anticipate that a more holistic approach will increase the availability and accessibility of diverse investor talent for institutional allocation, which will positively impact return profiles.

## *Aon's Emerging and Diverse Manager Program Highlights*

### *Client Experience*

Aon engages with clients to fulfill emerging and diverse investor searches. Recent examples include:

- Provided $120B public plan with diverse candidates for two fixed income searches.
- Worked with $25B plan to invest $50m in diverse, female-run fund
- Working with large DC plan to add diverse managers to line-up.
- Working with large foundation to provide MWBE investment policy enhancements
- Working with large DC plan to add 'Rooney Rule' to investment policy
- Assisting $2B Other Post Employer Benefit Plan with context around proposed fund management diversity legislation
- Presenting diversity survey results to a $70B public pension investment committee
- Developed a diversity, equity & inclusion (DEI) framework for a $50 billion non-profit health system to evaluate and engage with managers in the portfolio and identify/invest in DEI opportunities

### *MWBE Outreach and Research*

Aon regularly conducts client and education sessions on the diverse and emerging landscape, as well as the different approaches clients can take to initiate or enhance emerging/diverse manager programs.

Although conference activity was somewhat curtailed by the events of 2020, we continued to be active in diverse and emerging manager events online. We participated in a number of virtual events, some of which included online meeting opportunities as well.

### *Industry Outreach*

Through collaborative engagement efforts such as the IIDC, the ICSWG and the Diversity Project, we have joined with others in the industry to promote transparency around and investment in diversity. In addition, we continue to work with internal marketing and media outlets and are widely quoted on the topic of diversity.

### *Relationships*

Aon has ongoing relationships with more than 30 emerging and diverse fund managers.

***Open Door Policy***

Any emerging or diverse managers seeking introductory meetings with Aon are able to secure a meeting. We average 100+ meetings with managers in these categories per year. This augments more traditional data base strategies and allows us to gather data on a slate of mangers that will fit investors' varied needs.

At Aon, we believe that emerging and diverse managers can fill several needs, including return enhancement, diversification, and fulfilling investment mandates. We acknowledge that every organization has a unique definition of an emerging manager, varying among size requirements and ownership requirements - typically among females, persons with disability and minority groups. Our approach towards emerging and diverse managers, including our investment manager research process is to be all inclusive and does not set barriers such as assets under management, years in business, or ownership requirements that would unduly screen out any type of manager.

Currently, over 400 minority and woman-owned business enterprise (MWBE) managers are included in our database. Emerging managers are included in the database and evaluated in the same manner that non-emerging managers are evaluated.

The table below details Aon's emerging manager historical activity*.

| | Public Equity | Fixed Income | Private Equity | Hedge Funds | Total |
|---|---|---|---|---|---|
| # of MWBE Managers Recommended | 15 | 4 | 15 | 12 | 38 |
| # of MWBE Managers on Buy List | 27 | 2 | 0 | 3 | 25 |

*Real Estate numbers are shown under the Townsend coverage which can be found on subsequent pages. Aon's definition of MWBE or emerging manager may be different than peers and ATRS's specific definition as defined in ATRS's Emerging Managers Goal and Acknowledgment Act 304.

## The Townsend Group

Aon has also bolstered its emerging and diverse coverage through its acquisition of The Townsend Group. Townsend is also dedicated to supporting clients' emerging and diverse investment programs.

As illustrated below, the group has screened over 1,000 emerging manager funds which ultimately led to approving 103 emerging manager funds over the past 10 years ending March 31, 2021.

**Townsend Emerging Manager Execution
Due Diligence Selectivity**


Since 2004, the Townsend Group invested or committed:

- $11.0 billion to emerging managers
- $3.6 billion to minority and/or women owned managers
- $7.7 billion to first or second time funds

Over the past 5 years, The Townsend Group approved:

- 17 MWBE funds, committing $607 million in total
- 25 emerging managers, committing $2.4 billion in total

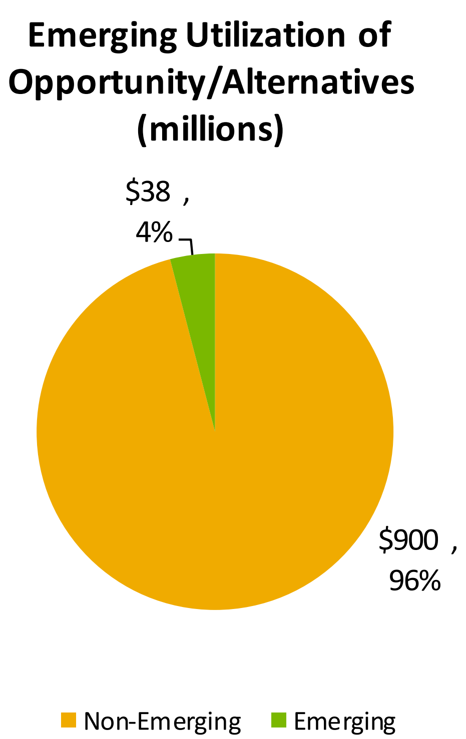
# ATRS Emerging Manager Utilization

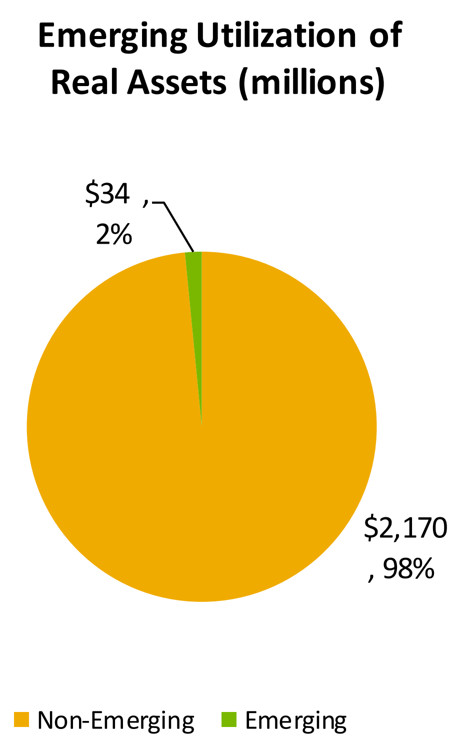
For purposes of fulfilling the goal to seek and consider emerging managers, Arkansas defines emerging managers as "firms whose majority ownership is black or African American, Hispanic American, American Indian or Native American, Asian, and Pacific Islander." Within the asset classes that Aon provides investment consulting services, ATRS currently utilizes one emerging manager within the real assets asset class.

We note that Circumference Group and the newly hired GLP Capital Partners do not fit within ATRS's specific definition of an emerging manager firm; however, we list them as we believe the hiring of these firms is consistent with the spirit of ATRS's emerging manager goal.

The table below reflects the assets invested as of June 30, 2021.

| Manager | Strategy | Emerging Status | Portfolio Size | Tenure with ATRS |
|---|---|---|---|---|
| Long Wharf Investors | Value Added Real Estate (Fund V & VI) | Majority Hispanic owned | $34 M | 13 years |
| *Circumference Group* | *Core Value & Concentrated Positions* | *Small Manager* | *$38 M* | *7 years* |




*Represents assets allocated to Circumference Group which does not fall under the Arkansas emerging manager definition but is considered an emerging manager under alternative definitions.

# ATRS 2021 Fiscal Year Search Activity

During the 2021 fiscal year there was limited manager search activity for the ATRS portfolio. The activity included 7 new strategies in the real assets asset class. During the year, one of the seven commitments was made to an emerging manager under a broader emerging manager definition as noted above. ATRS approved a $50M commitment to the GLP Capital Partners IV Fund, an emerging manager defined by a new investment firm with currently below $2 billion in AUM.

The table below summarizes investment manager hiring activity for the total equity, fixed income, opportunistic/alternative and real assets asset classes, and whether an emerging manager was considered.

| New Account | Type | Minority/Emerging Managers Considered? |
|---|---|---|
| PGIM Real Estate Capital VII | Real Assets (Real Estate) | N/A – the new account is with an existing manager within the ATRS portfolio |
| Kayne Anderson Real Estate Partners Fund VI | Real Assets (Real Estate) | N/A – the new account is with an existing manager within the ATRS portfolio |
| Mesa West Real Estate Income Fund V | Real Assets (Real Estate) | N/A – the new account is with an existing manager within the ATRS portfolio |
| ISQ Global Infrastructure Fund III | Real Assets (Infrastructure) | N/A – the new account is with an existing manager within the ATRS portfolio |
| Carlyle Realty Partners IX | Real Assets (Real Estate) | N/A – the new account is with an existing manager within the ATRS portfolio |
| GLP Capital Partners IV | Real Assets (Real Estate) | Yes – GLP Capital Partners is a new manager and is considered an emerging manager |
| KKR Diversified Core Infrastructure Fund | Real Assets (Infrastructure) | N/A – the new account is with an existing manager within the ATRS portfolio |

We note that the investment structure, i.e., the number and types of investment managers employed by ATRS, is driven by the asset allocation decision which is reviewed and approved regularly by the ATRS Board. Efficient implementation of the manager structure is critical to the success of the ATRS Trust Fund. Aon's investment strategy recommendations focus on the ability to provide long-term value add and we do not promote nor advise frequent hiring and firing of investment managers.

Aon continues to fully support ATRS's goal of seeking and considering retention of emerging managers and remains committed to pursuing appropriate emerging manager mandates for ATRS when opportunities arise. In order to support ATRS and our broader client-base, Aon remains dedicated to staying apprised of the emerging manager opportunity set.

# Appendix – Aon Historical Projects and Participation/Speaking Engagements

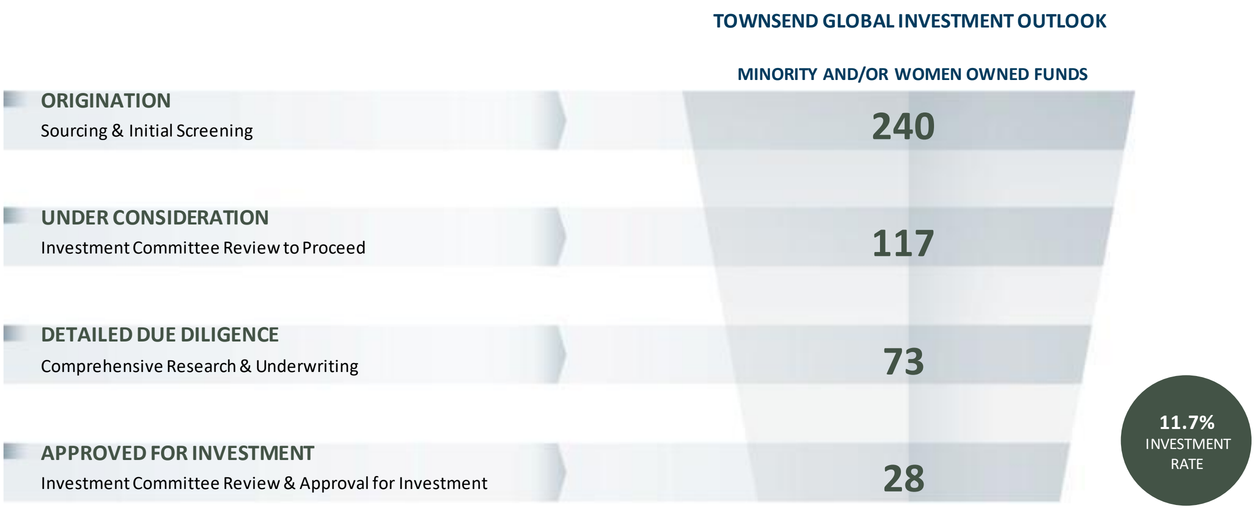
Emerging manager-related projects our firm has completed over recent years include:

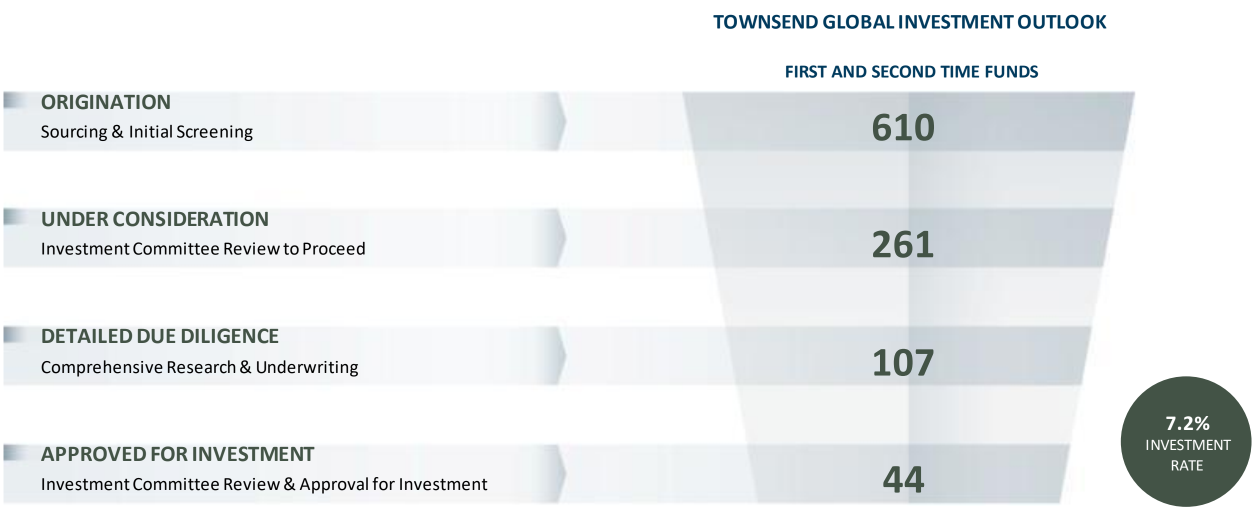
- Assisting a $110 billion public pension fund build their direct fund Emerging Manager investment program. Provide investment recommendations across private equity sub-strategies
- Designed investment policy statement and guidelines for rapidly growing in-state private equity fund manager program (ETI)
- Reviewed and critiqued emerging manager in-state alternative assets program for large state plan through fiduciary audit
- Directed Emerging Manager selection process for in-state bioscience program
- Sourced and recommended venture capital Emerging Managers for in-state program
- Ran public pension fund RFP search for an in-state program
- A $55 billion public pension fund retains Aon to perform minority and emerging manager due diligence on traditional asset classes and report on trends in the emerging manager space.
- In early 2010 Aon assisted a group of Illinois public pension plans with the creation of a special investment vehicle that specifically targets emerging and women and minority-owned real estate managers.
- Built an emerging manager program for a $44 billion VEBA plan, recommending $100 million commitments.

Historical participation and/or speaking engagements include:

- Teacher Retirement System of Texas and Employees Retirement System of Texas Emerging Manager Conference
- New America Alliance, An American Latino Business Initiative Events
- Women in Private Equity Summits
- Opal Emerging Managers Summits
- NASP Baltimore and Washington Annual Emerging Manager Forums
- RG Associates Emerging Manager Consortium Conferences
- NASP Annual Pension and Financial Services Conferences
- Global Diversity Summit
- Women in Investments (sponsored by CalPERS & CalSTRS)

# Appendix – The Townsend Group Emerging and MWBE Due Diligence Coverage




*Above data reflects the 10-year period from 1Q 2011 to 1Q 2021

# Appendix – The Townsend Group Due Diligence Methodology

**RIGOROUS, SYSTEMATIC ANALYSIS YIELDS BETTER CLIENT OUTCOMES**

| TRACK RECORD | PEOPLE & PLATFORM | ALIGNMENT OF INTERESTS | RISK CONTROLS | MARKET RISK |
|---|---|---|---|---|
| • Asset-by-asset review<br>• Peer group and vintage year (realized vs. unrealized)<br>• Study of mistakes<br>• Style drift<br>• Growth in fund sizes<br>• Capital pacing<br>• Pre-specified investments<br>• Pipeline | • Depth, breadth, turnover<br>• History, culture, ownership<br>• Experience in execution<br>• Sourcing<br>• Asset management<br>• Reference checks<br>• Performance attribution<br>• Focus on creating franchise value<br>• Parents/affiliates<br>• Prior litigation | • Compensation structure<br>• Material co-invest capital<br>• Pooled carried interest<br>• Clawback provisions<br>• Moderate catch-up<br>• Sufficient carry dispersion<br>• Vesting schedule<br>• Exclusivity<br>• Investment allocation | • Portfolio constraints<br>• Investment guidelines<br>• Investment process<br>• Reporting and transparency<br>• Key person triggers<br>• Auditors and accountants<br>• Legal representation<br>• Insurance and liability<br>• Regulatory compliance | • Macro/micro economics<br>• Geographic focus<br>• Demographics<br>• Geopolitical issues<br>• Foreign direct investment<br>• Currency<br>• Concentration |

# Appendix – The Townsend Group Investment Process Overview

**A STRUCTURED, MULTI-STAGE PROCESS INTEGRATED WITH INVESTMENT COMMITTEE**

# Contact Information

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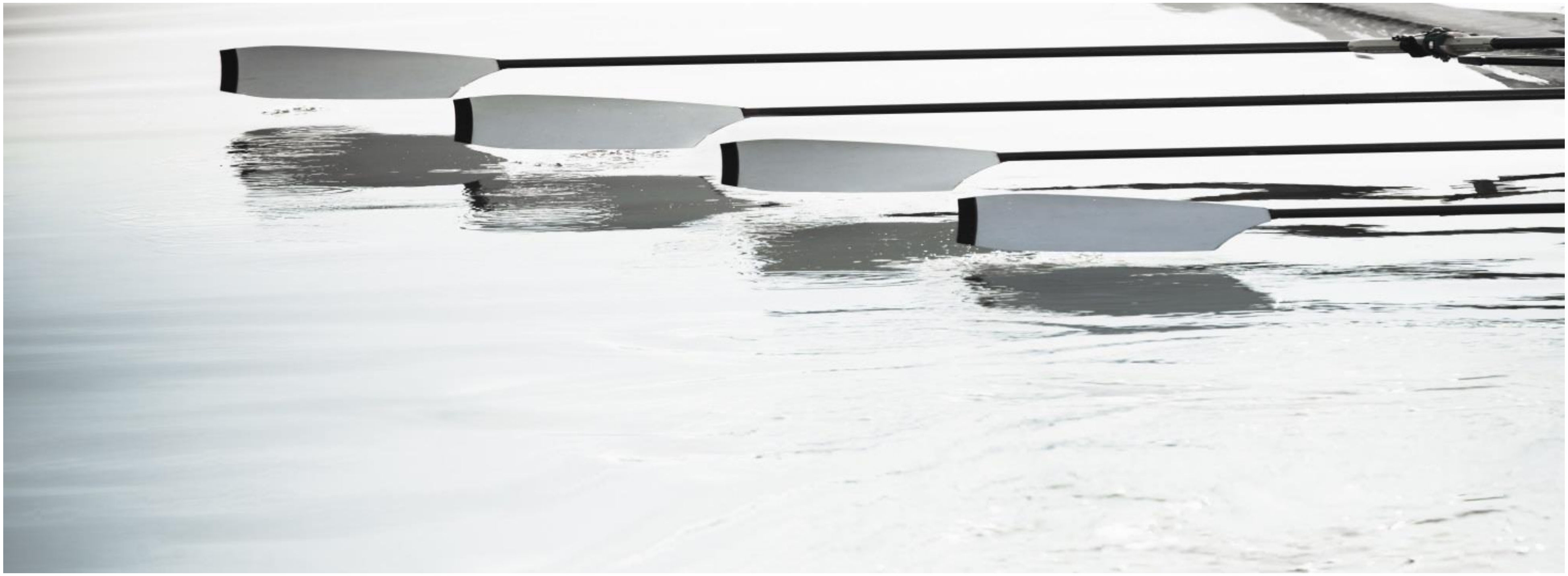

# Arkansas Teacher Retirement System Opportunistic/Alternatives Portfolio Manager Recommendations

September 27, 2021

**Aon**
Retirement and Investment





Empower Results®

# Executive Summary

- At the June meeting, Aon presented an overview of the Opportunistic/Alternatives portfolio with the following key take-aways:
  - Overall, the Opportunistic/Alternatives portfolio is well-diversified across strategy type and manager, providing broad coverage of the available opportunities
  - The portfolio has protected on the downside and outperformed its custom benchmark since inception, though performance has been disappointing from an absolute return perspective
  - Aon identified a few areas to improve the manager structure
- The following material presents the following recommendations:
  - Commit $50M to Chatham Asset Management (“Chatham”) Private Debt and Strategic Capital Fund III (“PDSC III”) to replace York as a credit manager
  - Restructure insurance linked securities (“ILS”) portfolio
    - Fund ILS strategy Pillar Juniperus Insurance Opportunity Fund with $95M to replace Nephila
    - Rebalance ILS manager structure to reflect 35% to Pillar and 65% to Aeolus
  - Upgrade Alternative Risk Premia (ARP) strategy, CFM Institutional Systematic Diversified (ISD) with the CFM Systematic Global Macro Fund (SGM)

# Recommendation Summary

| Strategy and Managers | Opp/Alts Review Comments | Recommendation |
|---|---|---|
| Event Driven/Credit<br>• Anchorage<br>• York | • York continues to return capital<br>• Anchorage has underwhelmed<br>• Consider other strategies as the investment environment has evolved | • Restructure manager line-up<br>• Maintain total credit allocation to 10% of Alts portfolio<br>Today's Recommendation:<br>• Commit $50M to Chatham PDSC III to replace York<br>Upcoming:<br>• Evaluate remaining portfolio |
| Insurance Linked Securities<br>• Aeolus<br>• Nephila | • Manager performance has been disappointing since ATRS inception<br>• Continue to believe current market conditions present attractive opportunities<br>• Believe there may be more compelling funds to consider | Today's Recommendation<br>• Fund Pillar Juniperus Insurance Opportunity Fund to replace Nephila<br>• Rebalance ILS allocation<br>- 65% Aeolus (from 85%) / 35% Pillar<br>Upcoming<br>• Re-evaluate Aeolus and continue to monitor |
| Alternative Risk Premia<br>• Man Group<br>• CFM ISD | • Short-lived strategy thus far (ATRS inception of 6/2018)<br>• CFM: PM and organizational changes trigger review | • Upgrade CFM ISD to CFM SGM<br>• Maintain Man Group at current allocation |



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# Credit Portfolio Recommendation:

## Commit $50M to Chatham Asset Private Debt and Strategic Capital Fund III (“PDSC III”)

- Recommend maintaining credit portfolio at approximately 10% of Total Alternatives/Opportunity Portfolio and splitting allocation evenly between two mandates
- Recommend committing $50M to Chatham PDSC III as a first step towards restructuring
- Timing: Chatham has a final close in January 2022. Assets would be sourced from York distributions and public equity
- At subsequent meeting, Aon will return with recommendation addressing remaining credit portfolio

| Current Credit Exposure | $(M) | % of Opp/Alts |
|---|---|---|
| York | $13.9M | 1.7% |
| Anchorage | 90.8 | 9.6 |

| Long-Term Recommendation | $(M) | % of Opp/Alts |
|---|---|---|
| Chatham PDSC III | $50M | 5.0% |
| Credit Manager 2 | $50 | 5.0% |

Data above is approximate based on 6/30/2021 information

# Chatham Asset Management

- Chatham is employee owned by seven partners with client base focused on pensions and E&Fs
- Disciplined at managing capacity, at times closing the fund when asset flows and market opportunity warrant a slowing of new inflows
- Evan Ratner is the Director of Research and also the portfolio manager of PDSC III while Anthony Melchiorre and Kevin O'Malley provide oversight on PDSC III
  - The combination of research, trading, and portfolio construction talent encompassed by the team is superior to those found amongst their peers
- Research team is senior and broken out as sector specialists, covering all companies in their universe

| Chatham PDSC | |
|---|---|
| Firm Inception | 2002 |
| Firm AUM | $4.3 billion |
| Strategy Inception | 2017 |
| Strategy AUM | $300-400 million |
| Team Location(s) | Chatham, NJ and Chicago, IL |
| Total Employees | 24 |
| Investment Staff | 13 |
| Strategy Head | Evan Ratner |
| Strategy Type | Illiquid, Opportunistic Middle Market |

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# Chatham Private Debt and Strategic Capital Fund III ("PDSC III")

- Opportunistic distressed strategy of best ideas that are more illiquid and with a more distant catalyst
- Focused on middle market companies where there is less competition for alpha
- Anticipate many ideas to be distressed for influence or capital solutions
- Key Differentiators:
  - The team executes on a deep level of credit research in areas of the market that are under-followed
  - Unlike other private credit funds, the manager will do some hedging to reduce market risk and volatility

| Fund | Chatham PDSC III |
|---|---|
| Fund Inception | 2021 |
| Management Fee | 1.0% |
| Performance Fee | 20% over 5% preferred return |
| Redemption Terms | Five year fund life with one year extension possible |
| Lock-up/Gate | Four year investment period / One year harvest period |
| Target return | 10-15% |
| Previous Vintage Performance | • PDSC I - Net IRR ITD of 16%<br>• PDSC II - Net IRR ITD of 24% |

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# Insurance Linked Securities Portfolio Recommendation

- Recommend placing $95M with the Pillar Juniperus Insurance Opportunity Fund (Opportunity Fund) to replace Nephila
- Recommend balancing manager allocations between Aeolus (65%) and Pillar (35%)
- Timing: Nephila requires 90-day notice for year-end redemption. Aon recommends funding Pillar when Nephila assets are returned in January 2022
  - Rebalancing from Aeolus will happen naturally during the renewal process
- Aon downgraded Nephila to a Qualified rating in March and believe the Pillar Opportunity Fund will provide ATRS with better risk/return prospects going forward
  - We believe Nephila's investment process is no longer consistent with expectations of a manager who exceeds their peer group and has given us less conviction in the manager's ability to deliver on the strategy's return target going forward
- Upcoming: Aon continues to monitor Aeolus and will re-evaluate that allocation over coming months

| Current | $(M) | % of Total Alts | % of ILS |
|---|---|---|---|
| Nephila | $41 | 4.4% | 15% |
| Aeolus | $226 | 24.1% | 85% |

| Recommendation | $(M) | % of Total Alts | % of ILS |
|---|---|---|---|
| Pillar | $95 | 10.0% | 35% |
| Aeolus | $173 | 18.5% | 65% |

*Based on based on current 16% side-pocket and subject to change dependent on storm season
Data above approximate and based on 6/30/2021 information







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# Pillar Juniperus Insurance Opportunity Fund

- Pillar Juniperus Opportunity Fund is a multi-instrument ILS strategy that invests across private reinsurance, retrocession, ILWs, and cat bonds
- PM and founder Stephen Velotti has led the senior investment team since Fund's inception in 2008
- Pillar likes to focus its portfolio on small-to-mid sized cedents and coverage of homes and autos over business properties
- Key differentiators:
  - Proprietary cat modelling tools that adjusts for perceived holes in standard industry tools
  - The team has created an internal scoring system to help select contracts for the portfolio

| Fund | Pillar |
|---|---|
| Fund Inception | 2008 |
| Management Fee | 1.5% |
| Performance Fee | 15% |
| Subscriptions / Minimum | Monthly / $1m |
| Redemption Terms | 12/31 and 6/30 with 90 days |
| Lock-up/Gate | One year hard lock |
| Target return | Annualized 8-12% |

**Performance through 6/30/21**

| | 1-Year | 3-Year | 5-Year | 10-Year |
|---|---|---|---|---|
| Pillar | 5.3% | 4.2% | 2.9% | 8.2% |
| Benchmark* | 3.6 | 0.2 | -0.3 | 2.5 |

| | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 |
|---|---|---|---|---|---|---|
| Pillar | 8.3% | 8.7% | -2.8% | -3.4% | 6.4% | 9.8% |
| Benchmark* | 3.4 | 0.9 | -3.9 | -5.6 | 5.2 | 4.2 |

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*Eurekahedge ILS Advisor Index

# ILS Manager Performance Comparison

| Annual Returns | Pillar | Aeolus Keystone | Nephila Rubik | Eurekahedge ILS Index |
|---|---|---|---|---|
| 2008 | 9.30% | 16.63% | #N/A | 3.83% |
| 2009 | 31.60% | 25.23% | #N/A | 8.99% |
| 2010 | 3.54% | 21.09% | #N/A | 7.52% |
| 2011 | -7.18% | -14.95% | #N/A | -0.14% |
| 2012 | 17.16% | 15.68% | #N/A | 5.93% |
| 2013 | 14.99% | 21.87% | #N/A | 7.61% |
| 2014 | 12.57% | 19.02% | #N/A | 5.42% |
| 2015 | 9.76% | 15.21% | #N/A | 4.24% |
| 2016 | 6.36% | 10.42% | 2.25% | 5.19% |
| 2017 | -3.44% | -18.84% | -6.78% | -5.60% |
| 2018 | -2.82% | -7.09% | -9.15% | -3.92% |
| 2019 | 8.68% | 5.23% | 4.02% | 0.92% |
| 2020 | 8.27% | 0.55% | -4.04% | 3.41% |
| 2021 | 1.26% | -5.23% | -2.83% | 0.96% |

| | Pillar | Aeolus Keystone | Nephila Rubik | Eurekahedge ILS Index |
|---|---|---|---|---|
| Ann.Perf. | 8.00% | 7.85% | -3.12% | 4.17% |
| Ann. Vol. | 6.38% | 9.12% | 5.27% | 3.21% |
| Risk Reward Ratio | 1.25 | 0.86 | -0.59 | 1.30 |
| Sharpe Ratio | 1.05 | 0.72 | -0.83 | 0.90 |
| Sortino | 0.71 | 0.70 | -0.54 | 0.66 |
| Calmar | 0.37 | 0.29 | -0.16 | 0.33 |
| Up Months | 92.99% | 78.16% | 60.61% | 85.48% |
| Down Months | 7.01% | 21.84% | 37.88% | 14.52% |
| Best Month | 6.03% | 8.62% | 2.80% | 1.60% |
| Best Month Date | Sep-09 | Sep-11 | Sep-19 | Jan-07 |
| Worst Month | -10.36% | -15.31% | -5.91% | -8.61% |
| Worst Month Date | Feb-11 | Sep-17 | Oct-18 | Sep-17 |
| Max Drawdown | -21.76% | -27.36% | -19.20% | -12.51% |
| Max Drawdown Date | Mar-11 | May-19 | May-21 | May-19 |

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Data above as of June 2021

# Recommendation to Exchange CFM ISD with CFM SGM

- Recommend exchanging the CFM Institutional Systematic Diversified (ISD) shares to the CFM Systematic Global Macro (SGM) strategy
- CFM Systematic Global Macro strategy was launched in November 2020 and Aon believes the CFM SGM strategy will provide a superior way to achieve low-cost and uncorrelated sources of return
  - New CFM alpha product, as opposed to ARP, that combines futures models with a ‘macro intuition’ (i.e. not purely price driven)
  - CFM overlays strategy with a defensive layer of more recently developed strategies, originally designed to provide protection for the ARP products in equity market drawdowns
  - CFM has demonstrated long-term success with its flagship multi-strategy fund, from which the team and models for SGM are sourced
- Benchmark would change to the HFRI Macro: Systematic Diversified
- Allocation to ARP manager Man Group (approx. $94M) would remain unchanged
- ATRS would qualify for the founders’ fee discount which would reduce the current CFM ISD fee from 0.6% and 10% to 0.5% and 0% (CFM SGM at discounted fee)

| Recommendation | $(M) | % of Total Alts |
|---|---|---|
| CFM ISD | - | - |
| CFM SGM | $89 | 9.4% |







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**Memo**

| | |
|---|---|
| To | Arkansas Teacher Retirement System (ATRS) Board of Trustees |
| From | PJ Kelly, CFA, CAIA, Katie Comstock, Kevin Hrad, CAIA |
| Cc | Clint Rhoden, Rod Graves, Jerry Meyer |
| Date | September 27, 2021 |
| Re | Recommendation to Replace Capital Fund Management (CFM) Institutional Systematic Diversified (ISD) with CFM Systematic Global Macro (SGM) Series 1 |

**Background and Recommendation**

As a result of the Opportunistic/Alternatives Portfolio review conducted in June 2021, Aon recommends exchanging interests of the CFM Institutional Systematic Diversified (ISD) Fund with the recently launched CFM Systematic Global Macro (SGM) Fund. The CFM ISD strategy was originally funded in 2018 as part of an allocation to Alternative Risk Premia (ARP) strategies. The ARP allocation is intended to diversify the portfolio through systematically capturing risk premia that are prevalent across most hedge fund strategies but at much more attractive fee and liquidity terms. While we continue to believe ARP is a worthwhile exposure for ATRS, we believe the newly launched CFM SGM strategy will provide a superior way to achieve low-cost and uncorrelated sources of return.

The CFM SGM strategy was launched as a live portfolio in November 2020. The strategy benefits from a diversified collection of uncorrelated strategies that are combined with a defensive overlay on CFM's first-class systems and trading platform. The strategy is managed within CFM's Alpha research team, which manages over three-fourths of the firm's $8.0 billion in AUM. The investment models used have been live and run within other strategies at CFM and thus have a proven track record. The strategy also has a defensive overlay that should provide the fund with some stability during market shocks. Furthermore, ATRS is eligible for the early bird discount of a 0.50% management fee in perpetuity (at least 10 years) for investments made through October 2021 vs. the 1.0% management fee and 15% performance fee structure for investments made thereafter.

Therefore, Aon recommends that ATRS transfer its existing investment in the CFM Institutional Systematic Diversified (ISD) fund to the CFM Systematic Global Macro (SGM) Series 1 fund effective month-end October 2021. While SGM is a recent launch, we view it as an upgrade within the product lineup at highly regarded CFM. Our confidence in SGM is based on the well-established personnel, sub-strategies, systems, and trading platform that are utilized for the firm's flagship product offering, CFM Stratus. The

Series 1 shares target a 10% annualized volatility which will maintain a similar level of volatility as ATRS had previously with CFM ISD and which Aon continues to view as appropriate. Moreover, by making the transfer in October 2021, ATRS can take advantage of the early bird fee discount which is lower than fees currently paid for ISD.

Additional detail on the CFM SGM strategy is provided in the accompanying more detailed recommendation memo and the InTotal report.

# Aon InTotal: Capital Fund Management SA

## CFM Systematic Global Macro Program

| Review Date | Overall Rating | Previous Overall Rating |
|---|---|---|
| September 2021 | Buy | No Change |

### Overall Rating

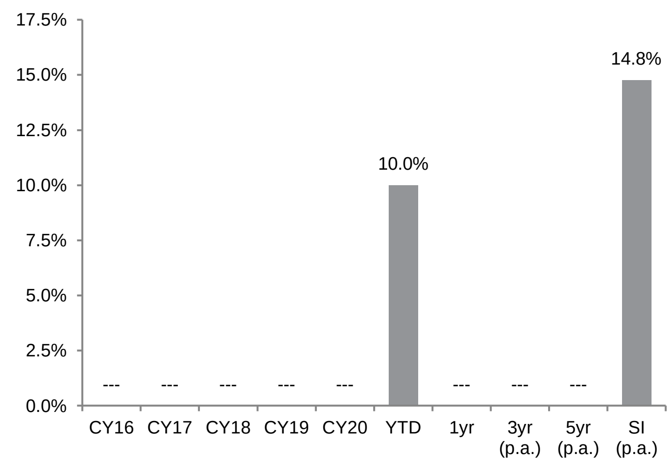
Capital Fund Management ("CFM") is a longstanding business which has managed and developed quantitative strategies for over 20 years. Ownership is well spread across what we consider to be a high caliber team with the experience, depth, and scientific research capabilities necessary to execute the strategy. Systematic Global Macro ("SGM") benefits from a diversified collection of uncorrelated strategies that are combined with a defensive overlay on CFM's first-class systems and trading platform. SGM is a newly launched product with a small and concentrated asset base given its infancy, although we expect it to attract institutional investors as the live track record develops.

**Component Ratings**

| | Rating | Previous Rating | Aon InForm Assessment** |
|---|---|---|---|
| Business | 3 | *No Change* | - |
| Staff | 3 | *No Change* | - |
| Process | 3 | *No Change* | - |
| Risk | 3 | *No Change* | - |
| ODD | A2 Pass | *No Change* | - |
| Performance | 3 | *No Change* | - |
| T&C | 2 | *No Change* | - |
| ESG | Integrated | *New Rating* | - |

** We are not currently able to provide an Aon InForm Assessment for this strategy as the manager has not provided us with enough data to perform a meaningful analysis. We are working with the manager to collect the necessary data for future quarters.

**Absolute Performance to 30 Jun 2021**




Performance Since Inception Date as of November 2020
Performance (USD) is net of fees. CY = calendar year. Source: Manager
Performance is representative performance as reported in eVestment. The performance for a specific vehicle may differ from the representative strategy.

### Firm and Strategy Summary

| | | | |
|---|---|---|---|
| **Head Office Location** | Paris, France | **Parent Name** | Not Applicable |
| **Firm AUM** | $8.0 billion | **Hedge Fund AUM** | $8.0 billion |
| **Team Location** | Paris, France | **Team Head** | Not Applicable |
| **Firm/Strategy Inception** | 1991 / November 2020 | **Strategy Size** | $88.3 million |
| **Performance Objective** | Not Applicable | **Risk Objective** | 10% to 15% |
| **Management Fee** | 1.0%* | **Performance Fee** | 15.0%* |
| **Hurdle Rate** | Not Applicable | **Lock-up** | Not Applicable |
| **Redemption Terms** | Monthly, 15 days notice | **Currency Available** | $, £, €, C$, A$, ¥ |

Note: **Past performance is no guarantee of future results**. *Lower early bird fees are currently available. AUM data as at 30 June 2021.

## Investment Manager Evaluation

**Rating Sheet**

| Factor | Rating | Previous Rating | Comments |
|---|---|---|---|
| **Business** | 3 | *No Change* | Capital Fund Management ("CFM") is a longstanding business which has exclusively managed and developed quantitative strategies for over 20 years. Ownership is well spread across the firm, and while 12% is held externally by Navigator Global investments Ltd., this is an entirely passive investment. Systematic Global Macro ("SGM") is a newly launched product with a small and concentrated asset base as can be expected given its infancy. We would prefer CFM to have committed proprietary capital to the product to better align interests. |
| **Investment Staff** | 3 | *No Change* | The staff at CFM is of an extremely high caliber, with substantial strength in depth across all areas of the business. The ability to attract talent due to reputation and a unique location relative to peers is in our opinion a strong positive. The SGM team is relatively small but sits within the wider Alpha research team, which is responsible for CFM's flagship offering, Stratus, which also trades many of the models employed by the SGM strategy. The portfolio construction and trading research groups within the Alpha research team are also responsible for portfolio construction and trading research for the SGM product. |
| **Investment Process** | 3 | *No Change* | CFM SGM aims to systematize the thought process of discretionary macro traders to generate returns in liquid futures markets. It combines a core portfolio of models, which have a "macro-intuition" and are also traded in the firm's flagship alpha products, with a smaller defensive overlay designed to mitigate drawdowns during swift market declines where quantitative models can struggle to react quickly. The core portfolio trades a suite of models across fundamental strategies (yield capture, leading indicators and sentiment-based) and price-driven models (trend following and price-driven value). The product also benefits from CFM's first-class systems, trading platform, and highly scientific approach to research. |

| Rating Sheet | | | |
|---|---|---|---|
| **Factor** | **Rating** | **Previous Rating** | **Comments** |
| **Risk Management** | 3 | *No Change* | Risk management is overwhelmingly systematic, although there is a discretionary override which can and has been enacted in the firm's other offerings. Ultimate responsibility for risk management is held by the management board, but the independent risk team oversees all matters relating to operational and market risk on a day-to-day basis. At the underlying strategy level, each allocation has a range of sensible limits and constraints. |
| **Operational Due Diligence (ODD)** | A2 Pass | *No Change* | Capital Fund Management ("CFM") is a mature asset management business headquartered in Paris, France. The manager demonstrates a well-controlled operating environment, including appropriate middle and back office processes, regulatory compliance capabilities, industry standard technology, and security protocols. Aon notes that CFM does not engage an external auditor with respect to internal controls reporting nor does it have a firm-level board of directors with independent representation, something which Aon considers a deviation from best practice. Investors should be aware that the CFM Systematic Global Macro strategy has a concentrated client base as it was recently launched in Q4 of 2020. |
| **Performance Analysis** | 3 | *No Change* | The strategy was launched in November 2020, so the live track record is too short to allow for meaningful conclusions. Based on our assessment of the team, process, and live trading success of the models for years in the firm's flagship alpha strategies, we have confidence that SGM can produce attractive risk-adjusted returns. |
| **Terms & Conditions (T&C)** | 2 | *No Change* | Headline fees are in line with the peer group, although the founders' share class represents good value in our opinion. Our experience of client service has been excellent, and requests for information have been met in a prompt fashion. |

| Rating Sheet | | | |
|---|---|---|---|
| **Factor** | **Rating** | **Previous Rating** | **Comments** |
| **ESG** | Integrated | *New Rating* | CFM has appropriate policies in place with a commitment to ESG issues from the very highest levels of the firm. CFM works with a number of advisory bodies and is active in addressing some of the issues relating to ESG through work with these bodies. The firm is a PRI signatory and is committed to providing detailed ESG related analytics with regards to its portfolios, a process it is currently implementing. ESG is being actively researched as an investment factor and some of the models within the Responsible Investing Fund, Quasar, have made their way into other alpha strategies. CFM is also active in engaging with companies it owns through voting on relevant ESG related issues in line with its views, with a particular focus on climate change. However, it should be noted that SGM does not trade cash equities. |
| **Overall Rating** | Buy | *No Change* | Capital Fund Management ("CFM") is a longstanding business which has managed and developed quantitative strategies for over 20 years. Ownership is well spread across what we consider to be a high caliber team with the experience, depth, and scientific research capabilities necessary to execute the strategy. Systematic Global Macro (“SGM”) benefits from a diversified collection of uncorrelated strategies that are combined with a defensive overlay on CFM’s first-class systems and trading platform. SGM is a newly launched product with a small and concentrated asset base given its infancy, although we expect it to attract institutional investors as the live track record develops. |

## Manager Profile

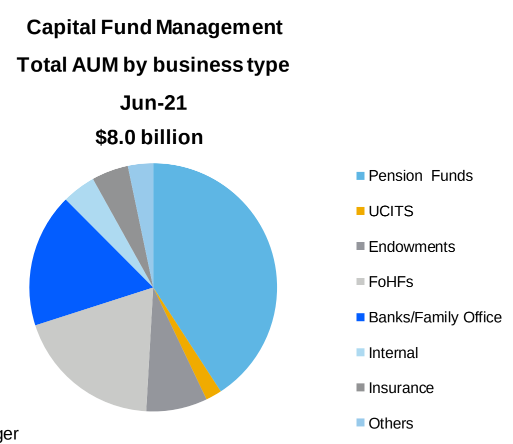
### Overview

Capital Fund Management is an alternative asset manager headquartered in Paris, with other offices in London, Tokyo, and New York. The firm was founded in 1991 and initially traded a traditional CTA strategy which has morphed over the years into a short-term trading program known as Discus. The flagship Stratus fund was launched in 2003, which initially comprised CTA and Statistical Arbitrage strategies, and expanded to include Volatility strategies. In 2013 CFM launched a more traditional long-term CTA program (IST) and in 2014 launched a risk premia product (ISD). More recently the firm has launched a long only ESG-focused equity fund (Quasar) and a systematic global macro fund. The firm is authorised and regulated by the Financial Conduct Authority, the Securities and Exchange Commission, and the Autorité des marchés financiers (AMF) amongst others.

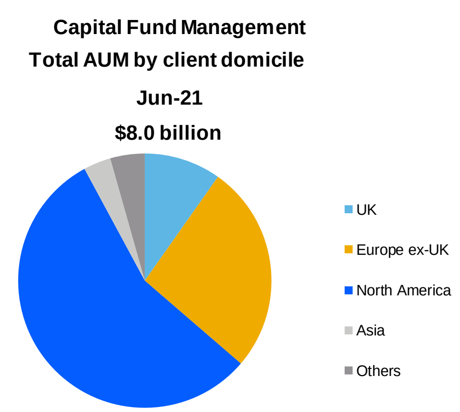
### Business

- CFM is 88% owned by staff, the majority of which is held by the management board. The remaining 12% is ultimately owned by Navigator Global Investments Ltd., which purchased the stake from Dyal in February 2021. The stake is entirely passive.
- The firm has 264 employees out of which 61 are in research. Three of the 5 management board members are also heavily involved in the research process. There is also a technology team numbering over 120 people who provide data, trading, infrastructure, and front office functions.
- The Systematic Global Macro Fund was launched in November 2020 and builds primarily on the futures strategies found in Discus, a programme with a three-decade track record. The flagship strategy for the firm is Stratus, with assets of over $6 billion.
- CFM have launched a number of new funds over the years, ranging from alternative risk premia (ISD) and its component strategies separately, ESG-focused equity (Quasar), to systematic global macro (SGM). Each of the products leverages the firm's strengths in systematic implementation of investment strategies based on rigorous research efforts.

### Client Base




Source: Manager




Source: Manager

- Firm assets are well split across different investor types, with the majority of the assets invested in the firm's flagship product Stratus.
- SGM is still relatively small at $88 million, although we would expect this to grow over time.

## Investment Staff

| Key Staff | Position | Date Joined | Years of Experience |
|---|---|---|---|
| Jean Phillippe Bouchaud | Chairman and Chief Scientist | 1994 | 27 |
| Phillippe Jordan | President | 2005 | 39 |
| Marc Potters | CIO | 1995 | 26 |
| Philip Seager | Head of Quantitative Investment Solutions | 2000 | 23 |
| Laurent Laloux | Chief Product Officer | 1997 | 24 |

- The vast majority of staff, including nearly all the firm's research staff, are based in the Paris office. Most research staff hold PhDs or equivalent in disciplines such as Physics, Applied Mathematics and Engineering.
- The members of the Management Board listed above control the governance of the firm and have expertise across research, information technology and business development.
- The firm headcount has ebbed and flowed in recent years along with assets. There have been some senior departures, but we have been impressed with the caliber of replacements who have normally had a long history with the firm.

## Investment Process

### Philosophy

Since its formation in 1991, CFM's investment philosophy is grounded on applying quantitative techniques to invest in financial markets. As the firm has grown both the number of markets and the trading techniques applied have evolved, with the firm now trading statistical arbitrage, volatility arbitrage and a number of directional strategies utilising both fundamental and price data. The systematic global macro strategy draws on a number of pre-existing trading models, mainly from the longstanding Discus strategy, to create a programme that utilizes both price driven and macro driven strategies, with an additional defensive layer.

### Process

The process is one of continuous development as the underlying trading systems constantly evolve, with models added and removed over time. Researchers are encouraged to instigate and develop new ideas, with regular meetings between the Strategy Heads, Jean-Phillipe Bouchaud (Chief Scientist), Marc Potters (CIO), and the individual scientists, ensuring continuity.

The portfolio capital is allocated across three different clusters, with weights based on the expected Sharpe ratios of the individual models within each cluster. The defensive cluster is envisioned to be relatively steady at 20% of the portfolio, with the weights to the macro and price driven clusters varying over time as performance waxes and wanes. The allocation decision takes into account liquidity, tail risk, the general environment and capacity amongst other things. The overall aim is to ensure maximum diversification, not just by asset class but by risk factors.

**Macro driven clusters:** The largest allocation. There are around 35 different models within these clusters split into 3 different types:

i) Leading indicators – This cluster trades relationships inter- and intra-asset class, for example, using inflation releases to predict bond prices or money creation to predict FX rates. They use a mixture of prior hypotheses (e.g. an increase in growth is good for equities) to machine learning techniques where the relationship may be nonlinear and changeable over time.

ii) Yield capture – The largest cluster with a large variety of carry models. This bucket contains asset class specific carry models and conditioned carry (i.e. looking at the change in the carry rather than carry itself). This will also include flow models and seasonal aspects.

iii) Sentiment indicators – The smallest cluster at present. These models look to take advantage of behavioural signals and market participants' views to take positions. Broadly speaking, this bucket includes anything that involves analyst perception: how do 'surprise' nonfarm payrolls compared to consensus affect markets, is there any value in analysts' assessment of macro variables, are biases present, etc.

**Price driven clusters:** There are two types of models in this bucket:

i) Trend – Pure trend models, taken from the Discus programme, which include shorter term signals and conditioned trend.

ii) Price driven value – These are essentially long term (c.5 year) mean reversions models, which increase positions as prices move away form the long term average.

**Defensive strategies:** As mentioned above, these make up around 20% of the overall strategy. There are two sub-strategies:

i) Long VIX – A long position in VIX futures hedged with a long equity position. In a market crash, the VIX should overreact compared to equities, with the long equity positions cushioning the bleed in 'normal' times.

ii) Short term trend equity capped – A faster trend model looking to exploit spikes in volatility. Exposure to long equity beta is avoided.

The price driven and macro clusters are alpha strategies while the defensive strategies are in place to mitigate to some extent sharp reversals in markets, which can capture some macro strategies off guard. Given the risk allocation to defensive strategies, the aim is to mitigate large losses rather than completely reverse them, hence this should not be seen as a tail risk strategy.

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**Risk Management**

Risk management is almost entirely systematic, but a discretionary override can be used on occasion to cope with extreme events. Risk management at CFM incorporates both market risk and operational risk, which is extremely important for the firm as they execute thousands of trades a day.

Risk limits are bespoke to each individual strategy and are overseen by an independent risk team. The limits cover aspects such as maximum exposures, leverage, position limits, volatility exposure and tail risk.

There are two levers that CFM can pull to change risk within the portfolio on a discretionary basis. The first is to reallocate across strategies. The second is to reduce risk in particular strategies if performance is outside of expected ranges. The firm has reduced risk in this manner in other strategies that it manages, particularly Stratus, and we would expect the same discipline to be applied here. It has not been demonstrated to date, given the short track record, with allocations dictated by the models in normal trading conditions.

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**Operational Due Diligence**

Firm Information

| | |
|---|---|
| Name | Capital Fund Management S.A. |
| Corporate Structure | Corporation |
| Corporate Domicile | France |
| Primary Regulator | Autorité des Marchés Financiers (AMF) |
| Auditor | PricewaterhouseCoopers and Fidus |
| Errors and Omissions Insurance | Yes |
| Fiduciary Liability Insurance | Yes |
| Internal Controls Reporting | No |

Vehicle Information

| | |
|---|---|
| Fund name | CFM Systematic Global Macro Master Limited (Master)<br>CFM Systematic Global Macro Fund LP (Offshore feeder) |
| Fund structure | Master/Feeder |
| Fund domicile | Master: British Virgin Islands<br>Offshore feeder: Cayman Islands |
| Fund's Investment Advisor | Capital Fund Management S.A. |
| Fund's Sub-Advisor | NA |
| Fund's General Partner | Master: NA<br>Offshore feeder: Capital Fund Management North America Inc. |
| Fund's AIFM | Capital Fund Management LLP |
| Fund registration | Master: British Virgin Islands – Recognised as a Private Fund under the British Virgin Islands Securities and Investment Business Act 2010 (SIBA)<br>Offshore feeder: Offshore feeder: Cayman Islands - Cayman Islands Monetary Authority (CIMA) |
| Directors/Trustee(s) | Directors of the Master Fund:<br>Jacques Sauliere<br><br>Directors of CFM North America Inc, the General Partner for Offshore Feeder<br>Philippe Jordan, Jacques Sauliere |
| Independent Directors/Trustees(s) | Independent Directors of the Master Fund:<br>Humphry Leue, Alan D. Marshall<br><br>Independent Directors of CFM North America Inc, the General Partner for the Offshore Feeder:<br>Humphry Leue, Alan D. Marshall, Lionel Berruti |
| FASB Asset Levels | Level 1: 100% (as per latest audited financial statements) |
| Prime Broker | Barclays, Deutsche Bank, JPMorgan Chase |
| Administrator | Citco Fund Administration (Cayman Islands) Limited |
| Transfer Agent | Citco Fund Administration (Cayman Islands) Limited |

| | |
|---|---|
| Auditor | Deloitte |
| Valuation Agent | NA |
| Depositary | HSBC Continental Europe |

Business Continuity/Cyber Security

- The Infrastructure Technology team consists of over 30 individuals (of which 12 are contractors) and is responsible for data centres, networks, systems and cyber security.

- CFM has six data centres. The two primary data centres are located in France, housing hardware and software required for trading, position keeping, risk/data management, and all office IT infrastructure on a global basis. Key processes are duplicated between the two primary data centres on a real time basis. In order to enable low latency trading connections, the firm also deploys a number of "satellite" data centres, which house trading processes locally in Frankfurt, New York, Chicago and Tokyo.

- The primary data centres are tested twice a year. The last test was in September 2020 and CFM indicated it was positive. The satellite data centres are tested quarterly, rotating the region.

- CFM has two disaster recovery sites; one is located in the suburbs of Paris with 50 dedicated seats and the second 50km away from the office with syndicated seats. Tests are carried out on a yearly basis.

- Penetration testing is conducted on an annual basis. The last test was performed in Q3 2020 with the Manager representing there were no material findings.

- CFM has set up a Crisis Management team that is tasked to provide the firm's response in case of disruptive and unexpected events such as epidemics. The firm activated its BCP plan in March 2020 and represented that no material issues were experienced during the COVID-19 global pandemic crisis when its employees worked from home.

- System and application access rights for new joiners and leavers are controlled as follows; the process is initiated by the Human Resources Department and then executed by the IT Infrastructure team and controlled by the ICT. Access rights are periodically reviewed for appropriateness and upon role changes.

- IT training is provided to all staff on an annual basis by an external party. Phishing campaigns are conducted on an on-going basis for all members of staff.

**Terms & Conditions**

- Headline terms are 1.0% per annum management fees with a 15% performance fee. However, early bird fees of 0.5% flat are currently available to investors.
- Given the relatively small size of the strategy at present, expenses have been capped at 0.2%.
- Liquidity is monthly, with a notice period of on or before the 15th day of the preceding month.

**ESG**

Policies

CFM has formal policies in place relating to ESG, including a substantive policy document setting out their position on Responsible Investing, engagement (with regulatory bodies and companies where they hold a stake) and climate amongst other things. It is a signatory to the UN PRI (since 2018) and scored a 'B' in the strategy and governance modules in 2020. CFM are a member of the Standards Board for Alternative Investments ("SBAI") along with other industry bodies.

The firm is looking to upgrade reporting on ESG issues to investors this year. It has recently launched a 170/70 equity fund, Quasar, which reports scope 1, 2 and 3 exposures for each long and short. The firm is also looking at Social factors such as diversity within organisations and will consider adding other metrics. CFM are looking to offer this across their other funds by the end of the year.

Staff

CFM has 3 dedicated ESG staff members, however there are researchers looking to add ESG ideas to the firm's strategies and are not there simply to be the face of ESG for the firm. Pierre Lenders is the most senior ESG staff member and has been heavily involved in the launch of Quasar as well as incorporating some of the alpha factors and reporting from Quasar to other strategies across the firm.

CFM has an ESG and TCFD steering committee which is headed by Mr. Lenders and is staffed by 4 out of the 5 board members along with the Head of QIS and Legal and Compliance. This shows a very firm commitment to the issues as these are the most senior people in the organisation. A number of them have research roles which helps to bed down ESG as something that is at the heart of the investment process rather than being tacked on at the end. The committee meets officially semi-annually although ad hoc meetings between members take place throughout the year.

ESG does not form part of the appraisal and compensation of employees yet but that is something under consideration.

Process

Given the nature of the strategy it is not easy to find materiality due to the fact the portfolio that SGM holds is extremely diverse and holding periods are often relatively short. However, there are a number of examples the firm gave of where ESG risks are clearly considered:

- Within a responsible investing framework CFM has omitted coal contracts and Controversial Weapons producers, in programmes that trade equities.
- Revisiting work on is 'ESG an Equity Factor' using a combination of elements from multiple datasets whereas previously they had used a single dataset. If new evidence comes to light as a result of this it could result in new trading models explicitly targeting ESG factors.
- The work on Quasar was inspired by discussions around the policy response to rising temperatures and what risks and opportunities this will present around climate change.
- Subscriptions to multiple data vendors to build insights into climate related risks and opportunities and to further enhance the search for financially material ESG factors.
- Although a lot of focus has been on climate given the recent high profile nature of climate risks and strong attempts globally to measure this across supply chains, CFM has also been looking for other factors that could be financially material such as diversity in companies and even biodiversity. CFM has subscribed to Sustainalytics data which looks across the ESG spectrum.

Active Ownership

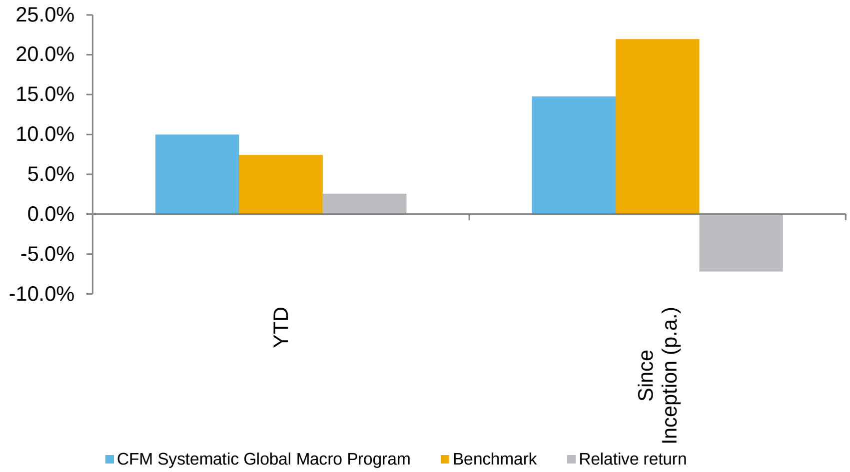
SGM does not trade single name equities, but for those programmes where the firm does trade equities CFM uses Glass Lewis to vote proxies but have a number of checks on this and 30 topics have been noted that are of particular relevance. They also take the ESG voting policy of Glass Lewis, which has frequent rejections and has added a climate action layer. Where any positions are flagged as a relevant topic, Mr. Lenders will manually check the votes to ensure they are in line with CFM's convictions and amend if necessary. There are some positions they won't vote on if their position is too small (<$500k) unless it is a high profile energy company such as Exxon where CFM will vote. The firm particularly want to do more with regards to climate – it is a member of Climate 100+ and is on the HF advisory committee of the UN PRI along with 20 or so other firms. CFM is also on the Responsible Investing committee of AIMA, where it aims to find consensus on issues such as the appropriateness of staking a claim to responsible investing by shorting companies with poor ESG records.

Outcomes

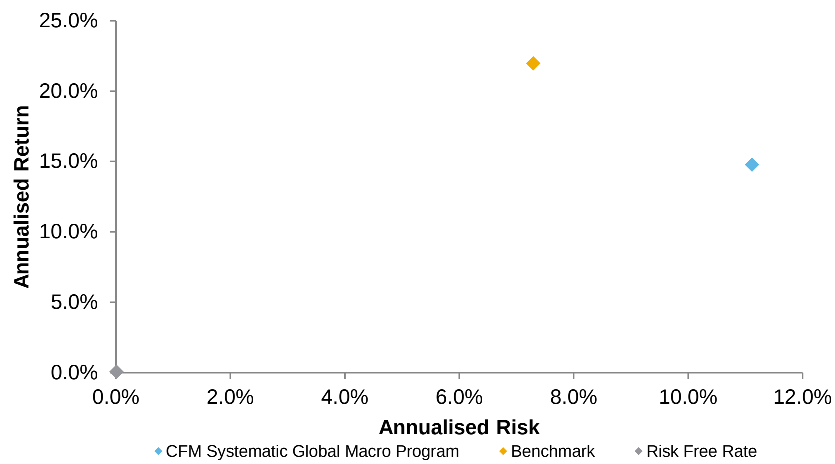
As noted, since SGM does not trade single name equities, outcomes are less prevalent within SGM than strategies like Stratus. On the futures side, coal is omitted although that is a very small part of their book. However, the work the firm is doing on both carbon reporting and finding ESG alpha factors is not just through an equity lens, and we believe this will lead to futures-based strategies and reporting in time.

## Performance and Risk Metrics

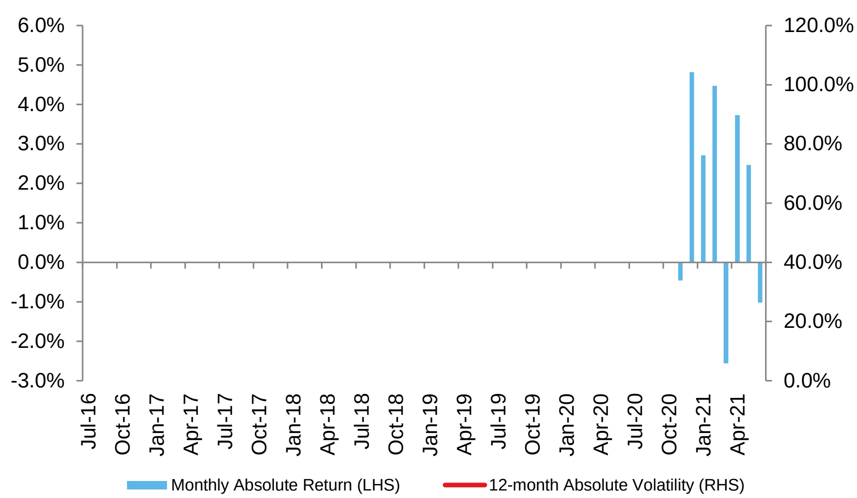
### Historic Performance (Inception: November 2020)




### Risk – Return (Since Inception)



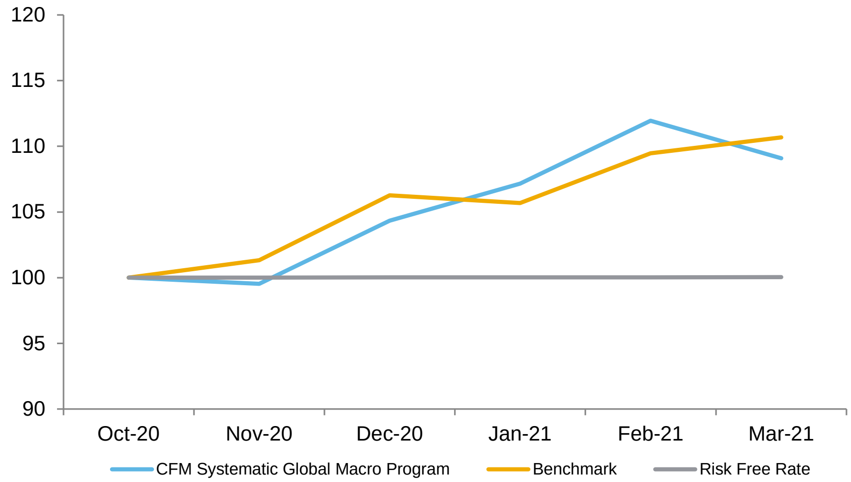

### Monthly Return and 12-Month Rolling Volatility Since Inception



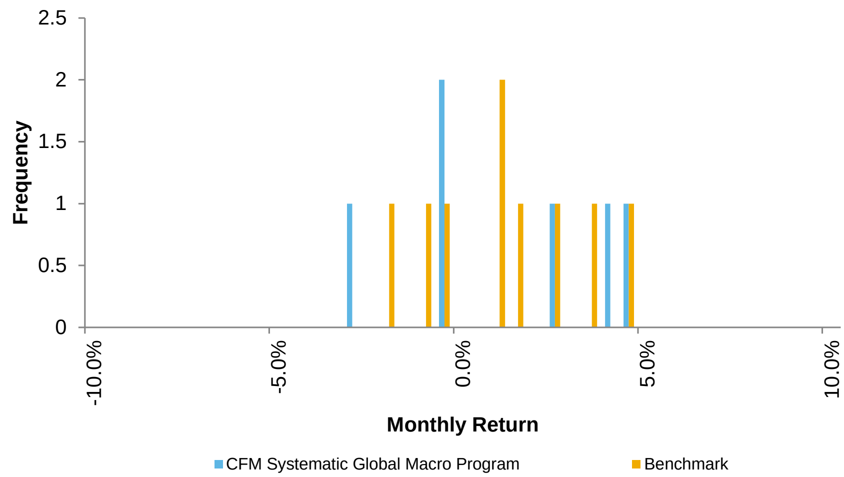

Benchmark: HFRI Macro Systematic Diversified Index; Risk Free Rate: FTSE 3-Month T-Bill
**Past performance is no guarantee of future results**.

## Performance and Risk Metrics

### Growth of $100
### (Inception: November 2020)




### Monthly Distribution of Returns
### (Inception: November 2020)




Note: Performance (USD) is net of fees and sourced from Manager.
Benchmark: HFRI Macro Systematic Diversified Index; Risk Free Rate: FTSE 3-Month T-Bill
**Past performance is no guarantee of future results**.

## Ratings Explanation

Below we describe the criteria which we use to rate fund management organizations and their specific investment products. Our manager research process assesses each component using both our qualitative and Aon InForm criteria. With the exception of Operational Due Diligence ("ODD"), each component is assessed as follows:

| Qualitative Outcome | Aon InForm Outcome | |
|---|---|---|
| 1 = Weak | ✓ | **Pass**: This component in isolation meets or exceed our desired criteria |
| 2 = Average | ⚐ | **Alert**: This component in isolation does not meet our desired criteria, or the lack of data on this component means that we are not able to judge whether it meets our desired criteria |
| 3 = Above Average | | |
| 4 = Strong | - | **Not assessed**: There is a lack of data, which means that we are not able to assess this component, however we do not consider this in isolation to justify an Alert |

The ODD factor is assigned a rating and can be interpreted as follows:

| Overall ODD Rating* | What does this mean? |
|---|---|
| **A1 Pass** | No material operational concerns – the firm's operations largely align with a well-controlled operating environment. |
| **A2 Pass** | The firm's operations largely align with a well-controlled operating environment, with limited exceptions – managers may be rated within this category due to resource limitations or where isolated areas do not align with best practice. |
| **Conditional Pass ("CP")** | Specific operational concerns noted that the firm has agreed to address in a reasonable timeframe; upon resolution, we will review the firm's rating. |
| **F** | Material operational concerns that introduce the potential for economic or reputational exposure exist – we recommend investors do not invest and/or divest current holdings. |

*Operational due diligence inputs provided to the research team by Aon's Operational Risk Solutions and Analytics Group (ORSA). ORSA is an independent entity from Aon Solutions UK Limited, Aon Investments USA Inc., and Aon Hewitt Inc./
Aon Investments Canada Inc.
Investment advice is provided by these Aon entities.

Aon previously assigned ODD ratings of pass, conditional pass, or fail for the ODD factor. We are in the process of refreshing all ODD ratings to the new terminology. During the transition period, the prior ratings, as follows, may persist in some deliverables until the ODD factor rating is converted to the above noted letter ratings.

- **Pass** – Our research indicates that the manager has acceptable operational controls and procedures in place.
- **Conditional Pass** – We have specific concerns that the manager needs to address within a reasonable established timeframe.
- **Fail** – Our research indicates that the manager has critical operational weaknesses and we recommend that clients formally review the appointment.

An overall rating is then derived taking into account both the above outcomes for the product. The overall rating can be interpreted as follows:

| Overall Rating | What does this mean? |
|---|---|
| **Buy** | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products |
| **Buy (Closed)** | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products, however it is closed to new investors |
| **Qualified** | A number of criteria have been met and we consider the investment manager to be qualified to manage client assets |
| **Not Recommended** | A quantitative assessment of this strategy indicates it does not meet our desired criteria for investment. This strategy is not recommended |
| **Sell** | We recommend termination of client investments in this product |
| **In Review** | The rating is under review as we evaluate factors that may cause us to change the current rating |

The comments and assertions reflect our views of the specific investment product and our opinion of its quality. Differences between the qualitative and Aon InForm outcome can occur and if meaningful these will be explained within the Key Monitoring Points section. Although the Aon InForm Assessment forms a valuable part of our manager research process, it does not automatically alter the overall rating where we already have a qualitative assessment. Overall rating changes must go through our qualitative manager vetting process. Similarly, we will not issue a Buy recommendation before fully vetting the manager on a qualitative basis.

The ESG factor is assigned a rating and can be interpreted as follows:

| Overall ESG Rating | What does this mean? |
|---|---|
| **Advanced** | The fund management team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate and potentially mitigate these risks across the entire portfolio. |
| **Integrated** | The fund management team has taken appropriate steps to identify, evaluate and mitigate potential financially material ESG risks within the portfolio. |
| **Limited** | The fund management team has taken limited steps to address ESG considerations in the portfolio. |
| N/A (Not Applicable) | ESG risks and considerations are not applicable to this strategy, for example, on the grounds of materiality or asset class relevance. |
| NR (Not Rated) | An evaluation of ESG risks is not yet available for this strategy. |

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As of December 31, 2020, Aon's quantitative model is run on approximately 13,000 strategies from an external database. Aon assigned a quantitative rating of "Qualified" to 42% of these strategies and a "Not Recommended" to 23% of these strategies. The remainder were not rated. A "Buy" rating cannot be assigned via quantitative analysis. Across asset classes (excludes private real estate and real assets), Aon had approximately 21,000 strategies in its internal database. Aon assigned a qualitative rating of "Buy" to 7% of strategies in the data base; "Qualified" to 1% of strategies in the database; "Sell" to <1% of strategies in the database; and "In Review" to <1% of strategies in the database. The remaining strategies in the database are not rated. Some strategies may be included in both the internal and external database. Where a qualitative rating exists, it prevails over the quantitative rating. These statistics exclude real estate / Townsend databases and ratings.

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**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-38**

## Approving Transfer of Investment in CFM Institutional Systematic Diversified Fund L.P. Series 1.5 to CFM Systematic Global Macro L.P. Series 1

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board previously approved Resolution 2018-17 authorizing an investment in **CFM Institutional Systematic Diversified Fund L.P. Series 1.5** of up to **$100 million dollars ($100,000,000)** at the April 2, 2018 ATRS Board meeting; and

***WHEREAS***, the ATRS full commitment of **$100 million dollars ($100,000,000)** in **CFM Institutional Systematic Diversified Fund L.P. Series 1.5** was successfully negotiated, accepted, and closed on June 7, 2018; and

***WHEREAS***, it has been determined that **CFM Systematic Global Macro L.P. Series 1** is a more efficient ownership structure based on the strategy of lower volatility. Accordingly, the revised recommendation of the ATRS opportunistic/alternative assets investment consultant, Aon Hewitt Investment Consulting, Inc., and subsequent recommendation from ATRS legal counsel along with the recommendation of the Investment Committee and ATRS staff has been revised to transfer ATRS interests of approximately $90.5 million in their entirety from **CFM Institutional Systematic Diversified Fund L.P. Series 1.5,** to **CFM Systematic Global Macro L.P. Series 1**.

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves the transfer of the approximate **$90.5 million-dollar ($90,500,000)** investment in **CFM Institutional Systematic Diversified Fund L.P. Series 1.5.** to **CFM Systematic Global Macro L.P. Series 1** and agrees to immediately move to transfer the subscription of the limited partnership investment interest from **CFM Institutional Systematic Diversified Fund L.P. Series 1.5.**to **CFM Systematic Global Macro L.P. Series 1;** and

***FURTHER, BE IT RESOLVED***, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this transfer if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

__________________________________

**Mr. Danny Knight, *Chair***
**Arkansas Teacher Retirement System**

**Memo**

| | |
|---|---|
| To | Arkansas Teacher Retirement System (ATRS) Board of Trustees |
| From | PJ Kelly, CFA, CAIA, Katie Comstock, Kevin Hrad, CAIA |
| Cc | Clint Rhoden, Rod Graves, Jerry Meyer |
| Date | September 27, 2021 |
| Re | Recommendation to Redeploy Nephila Investment |

**Background and Recommendation**

The Arkansas Teacher Retirement System (ATRS) initiated an allocation to the insurance linked securities (ILS) market in 2016 with the objective of achieving attractive risk-adjusted returns that were uncorrelated with financial markets. ATRS implemented the allocation via two investment managers, split approximately 85% to Aeolus and 15% to Nephila. Since investment, the ILS market has experienced a number of years with higher levels of landfalling hurricanes, wildfires, and convective storms that have impacted the achieved returns from this allocation. However, given the rise in premiums, we do continue to believe that this is an attractive exposure to maintain in the ATRS portfolio.

Aon's research team provides ongoing monitoring of these investment strategies and the team's latest review has resulted in a recommendation to redeploy the assets from Nephila to a new ILS manager and strategy, the Pillar Juniperus Insurance Opportunity Fund. The main reason for Aon's downgraded opinion of Nephila is our changing view on Nephila's investment process. Nephila has created a number of very good aspects to their investment process, including proprietary modelling, unique avenues of sourcing investments, and a direct insurance business that vertically integrates the insurance supply chain which reduces costs. However, despite the many compelling features and a large team with deep experience, Nephila has not been able to produce a compelling performance track record. We believe the portfolio construction element of the investment process has been prone to errors over a number of insurance cycles which has increased portfolio risk while not being compensated with increased contract pricing. We also have concerns that the portfolio hedging program has failed to provide needed protection when insurable losses from global events occur.

We believe the ATRS portfolio will be better served by redeploying the Nephila assets to the Pillar Juniperus Opportunity Fund. Please see the Pillar Juniperus Opportunity Fund recommendation under separate cover.

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-39**

## To Redeploy Arkansas Teacher Retirement System Assets Managed by Nephila Rubik Holdings Ltd. And Close the Arkansas Teacher Retirement System Position in Nephila Rubik Holdings, Ltd.

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its general investment consultant, Aon Hewitt Investment Consulting, Inc., along with the recommendation of the Investment Committee and ATRS staff regarding the redeployment of Arkansas Teacher Retirement System assets managed by Nephila Rubik Holdings by closing the Arkansas Teacher Retirement position in **Nephila Rubik Holdings Ltd.,** in order to rebalance the ATRS opportunistic/alternative portfolio and add more diversification.

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves redeployment and closing of the Arkansas Teacher Retirement System position in Nephila Rubik Holdings, Ltd.

***FURTHER, BE IT RESOLVED,*** that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this redeployment and closing if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

________________________________

**Mr. Danny Knight,** ***Chair***
***Arkansas Teacher Retirement System***

**Memo**

| | |
|---|---|
| To | Arkansas Teacher Retirement System (ATRS) Board of Trustees |
| From | PJ Kelly, CFA, CAIA, Katie Comstock, Kevin Hrad, CAIA |
| Cc | Clint Rhoden, Rod Graves, Jerry Meyer |
| Date | September 27, 2021 |
| Re | Recommendation to Invest $95M in the Pillar Juniperus Insurance Opportunity Fund |

## Background and Recommendation

The Arkansas Teacher Retirement System (ATRS) portfolio maintains a 1.25% exposure to the insurance linked securities (ILS) market that was initiated in 2016 and allocated between managers Aeolus and Nephila. The objective of this exposure is to provide attractive risk-adjusted returns that are uncorrelated with financial markets. Despite a number of very active event seasons which have impaired results since ATRS's inception, Aon continues to believe the ILS market can provide attractive returns that also bring diversification benefits to the total portfolio. Following Aon's manager structure review, we believe that replacing Nephila with the Pillar Juniperus Insurance Opportunity Fund will provide a stronger portfolio going forward. We also recommend better balancing the manager exposures by investing 35% of the ILS allocation to the Pillar strategy and reducing Aeolus's exposure to 65% (from 85%).

Therefore, Aon recommends ATRS invest approximately $95M in the Pillar Juniperus Insurance Opportunity Fund. The Pillar Juniperus Insurance Opportunity Fund ("Opportunity Fund") is a multi-instrument ILS fund that invests in private reinsurance, cat bonds, retrocession, ILWs, and direct insurance. Pillar's investments are focused on key perils in Tier 1 regions with a strong preference for residential coverage vs. business and industrial properties. Pillar's philosophy also includes having more smaller cedents in the portfolio as the firm believes risk analysis is more straightforward within a geographically narrow book of business. The investment team has created a number of proprietary tools which aids the investment process and, in our view, sustains Pillar's edge. Additionally, Pillar's relative performance has been strong across both negative and positive markets as shown below.

| Annual Returns (%)[1] | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Pillar | 1.26 | 8.27 | 8.68 | -2.82 | -3.44 | 6.36 | 9.76 | 12.57 | 14.99 | 17.16 | -7.18 |
| EurekaHedge ILS Index | 0.96 | 3.41 | 0.92 | -3.92 | -5.60 | 5.19 | 4.24 | 5.42 | 7.61 | 5.93 | -0.14 |

[1] As of June 30, 2021

# Aon InTotal: Pillar Capital Management, Ltd.

## Pillar Juniperus Insurance Opportunity Fund

| Review Date | Overall Rating | Previous Overall Rating |
|---|---|---|
| September 2021 | Buy | No Change |

## Overall Rating

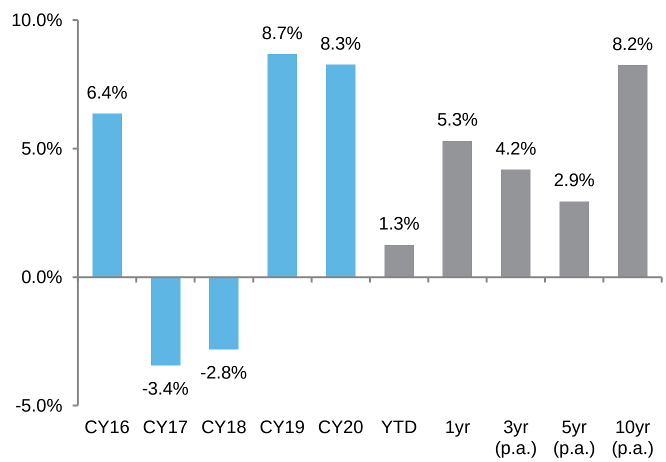
The Pillar Juniperus Insurance Opportunity Fund ("Opportunity Fund") is a multi-instrument insurance linked securities ("ILS") fund that invests in private reinsurance, cat bonds, retrocession, ILWs, and direct insurance. Pillar's investments are focused on key perils in Tier 1 regions with a strong preference for residential coverage vs. business and industrial properties. Pillar's philosophy also includes having more smaller cedents in the portfolio as the firm believes risk analysis is more straightforward within a geographically narrow book of business. The investment team has created a number of proprietary tools which aids the investment process and in our view sustains Pillar's edge.

### Component Ratings

| | Rating | Previous Rating | Aon InForm Assessment** |
|---|---|---|---|
| Business | 2 | *No Change* | - |
| Staff | 3 | *No Change* | - |
| Process | 3 | *No Change* | - |
| Risk | 2 | *No Change* | - |
| ODD | A2 | *No Change* | - |
| Performance | 3 | *No Change* | - |
| T&C | 2 | *No Change* | - |
| ESG | Integrated | *No Change** | - |

* Effective 30 June 2021, Aon changed its ESG ratings evaluation for levels of ESG integration from a scale of 1-4, to the descriptors: Limited-Integrated-Advanced. Any material change to our ESG rating and view, will be noted in our ESG summary comment below.

### Absolute Performance to 30 Jun 2021




Performance (USD) is net of fees. CY = calendar year. Source: Manager

Performance is representative performance as reported in eVestment. The performance for a specific vehicle may differ from the representative strategy.

## Firm and Strategy Summary

| | | | |
|---|---|---|---|
| **Head Office Location** | Hamilton, Bermuda | **Parent Name** | Pillar Capital Management |
| **Firm AUM** | $2.4 billion | **Hedge Fund AUM** | $1.9 billion |
| **Team Location** | Hamilton, Bermuda | **Team Head** | Stephen Velotti |
| **Firm/Strategy Inception** | 2008/2008 | **Strategy Size** | $2.4 billion |
| **Management Fee** | 1.5% | **Performance Fee** | 15% |
| **Hurdle Rate** | 1 month U.S. T-bill + 20 bps | **Lock-up** | One year |
| **Redemption Terms** | Dec 31 and June 30 - 90 days' notice | **Currency Available** | $ |

Note: **Past performance is no guarantee of future results.**

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## Investment Manager Evaluation

| Rating Sheet | | | |
|---|---|---|---|
| **Factor** | **Rating** | **Previous Rating** | **Comments** |
| **Business** | 2 | *No Change* | Pillar, formerly known as Juniperus Capital Limited prior to July 2012, is owned equally by the firm's six-person management team and Transatlantic Holdings, Inc. ('TransRe'). Pillar has grown its AUM steadily over time with a largely institutional client base that is focused almost exclusively on the Opportunity Fund strategy. We would like to see more diversification among the investor base, which includes several large institutional accounts, and capacity discipline demonstrated before assigning a higher rating. |
| **Investment Staff** | 3 | *No Change* | Chief Investment Officer Stephen Velotti leads an experienced investment team whose key leaders have worked together for over a decade. The team is distinguished by its diverse industry backgrounds and uncommon stability at the senior level relative to peers. The investment professionals are all generalists, with each of them having the skills to underwrite and peer review every different type of ILS security. |
| **Investment Process** | 3 | *No Change* | Pillar's investment process is focused on executing its philosophy under which residential property and more geographically focused cedents are areas of concentration for the portfolio. In the research process, the team adjusts industry catastrophe models to reflect the true loss experience of the cedent, which enables Pillar to adjust pricing to reflect the true amount of risk taken. Among the proprietary tools developed by Pillar which we believe contributes to the fund's edge is a scoring tool that quantifies the relative merits of investment choices when constructing the portfolio. The portfolio is optimized for the best make-up of risks and returns, with the use of the Omega ratio as a unique way for Pillar to help score the current portfolio. |
| **Risk Management** | 2 | *No Change* | Risk management is embedded in the meticulous aspects of the investment process that are geared toward identifying the best risk-adjusted positions upfront. While there is not a dedicated risk management staff, the Fund's Board of Directors provides oversight for portfolio compliance where reasonable parameters are in place. Pillar is active in hedging the portfolio to reduce risk, with a level of hedging that changes with market pricing and long risks present in the portfolio |

| Rating Sheet | | | |
|---|---|---|---|
| **Factor** | **Rating** | **Previous Rating** | **Comments** |
| **Operational Due Diligence (ODD)** | A2 | *No Change* | Pillar has generally implemented institutional levels of controls including outsourcing various facets of the firm, such as compliance, IT and IT-related items, as well as some middle and back office functions. Additionally, it has implemented appropriate controls to help safeguard client assets including multiple levels of controls around cash movements, the implementation of a Fund Board of Directors to oversee the fund, as well as engaging an external valuation agent to appraise Fund assets annually. |
| **Performance Analysis** | 3 | *No Change* | Pillar has performed well on both an absolute and relative basis over its life. The Fund has posted recent performance that has protected capital well in big catastrophic event years such as 2017 and 2018. Additionally, the portfolio has been able to capture solid gains during periods of low to medium levels of global events, such as 2020 and 2019. |
| **Terms & Conditions (T&C)** | 2 | *No Change* | The Fund's fees and liquidity provisions are in-line with peer ILS managers trading a similar strategy with a focus on private contracts. |
| **ESG** | **Integrated** | *No Change* | Pillar has recently become a signatory to the United Nations Principles of Responsible Investing. Pillar has started to incorporate ESG criteria into the analysis and decision making processes across all ILS instruments where they are covering business properties. They have recently implemented a systematic screening and scoring for ESG factors for contracts in which they are researching. |
| **Overall Rating** | **Buy** | ***No Change*** | The Pillar Juniperus Insurance Opportunity Fund ("Opportunity Fund") is a multi-instrument insurance linked securities ("ILS") fund that invests in private reinsurance, cat bonds, retrocession, ILWs, and direct insurance. Pillar's investments are focused on key perils in Tier 1 regions with a strong preference for residential coverage vs. business and industrial properties. Pillar's philosophy also includes having more smaller cedents in the portfolio as the firm believes risk analysis is more straightforward within a geographically narrow book of business. The investment team has created a number of proprietary tools which aids the investment process and in our view sustains Pillar's edge. |

## Manager Profile

### Overview

The Pillar Juniperus Insurance Opportunity Fund ("Opportunity Fund") is a multi-instrument insurance linked securities ("ILS") fund. Within the Fund, Pillar will invest in private reinsurance, cat bonds, retrocession, ILWs, and direct insurance. The firm and fund are led by Chief Investment Officer and Chief Executive Officer Stephen Velotti who founded both in 2008. Pillar's investments are focused on key perils in Tier 1 geographic are with a strong preference to covering residential properties over business and industrial properties. Pillar's philosophy also includes having more smaller cedents in the portfolio as the team views the analysis of the risk easier in a more geographically narrow book of business. The investment team has created a number of proprietary tools which aids the investment process and sustains Pillar's edge.

### Business

- Pillar Capital's ownership is split evenly between the management team and TransRe. The management team ownership is led by Stephen Velotti along with five other senior team members. TransRe has representation on the Board of Directors of Pillar but does not take part in the management of Pillar's investment process.
- Pillar manages the flagship Opportunity Fund, a second more conservative Value Fund, and a couple of fund-of-ones.
- Pillar employs a team of 19, with 9 investment professionals. All Pillar employees are based in Bermuda.

### Client Base

- Firm wide assets on May 31, 2021 were $2.4 billion, with the Opportunity Fund assets at $1.9 billion.
- Pillar's has a highly institutional client base with 70% of the portfolio's AUM consisting of public and corporate pension plans, sovereign wealth funds, insurance companies, and endowments and foundations.
- Pillar's internal capital represents approximately 7% of the Fund's AUM.

### Investment Staff

| Key Staff | Position | Date Joined | Years of Experience |
|---|---|---|---|
| Stephen Velotti | Chief Executive Officer and Chief Investment Officer | 2008 | 27 |
| Thomas Cosenza | Chief Actuary | 2009 | 20 |
| Jeff Franklin | Chief Underwriting Officer | 2009 | 27 |
| Stewart Foster | Head of Catastrophe Modeling | 2010 | 20 |
| Kim Stenild-Johansen | Portfolio Manager | 2019 | 30 |

- Stephen Velotti leads the investment team and is responsible for portfolio management.
- Chief Actuary Thomas Cosenza oversees adjustments to Pillar's proprietary models.
- All senior members of the investment team can conduct underwriting on a contract. Another member of the team must review the underwriting before the contract can be approved for use in the portfolio.
- Pillar has seen very little turnover in its senior investment team.

## Investment Process

### Philosophy

Pillar wants to invest in a flexible manner in which capital allocations in the portfolio are weighted more heavily to the ILS instrument with the best risk and return outlook for the current renewal period. Pillar prefers to build a diversified portfolio of catastrophe risk with a high concentration of smaller to medium sized, more geographically focused cedents rather than focusing on large insurers with global books of business. Another aspect of the investment philosophy is to focus the portfolio on residential coverage and avoid as much as possible covering businesses as the team deems the ability to model and assess risk much easier and cleaner for residences than businesses. As an example of the dedication to this property preference, residential coverage makes up 94% of the 2021 portfolio. Pillar wants to balance targeted maximum return with acceptable tail risk, and to do this the team will actively use hedges in the portfolio and view risk through the Omega score. The unique aspects to Pillar's investment philosophy, along with a number of proprietary upgrades to its cat modelling process, makes Pillar a compelling ILS manager.

### Process

At the beginning of each insurance renewal season, Pillar conducts a number of portfolio reviews at the outset of the investment process:

1) Review all existing transactions. The team will look at all contracts in the portfolio in the prior year and determine if any of them need to be eliminated based on attributes such as poor terms, new information about a cedent, etc. Pillar takes this evaluation as a little self-reflection to determine what mistakes may have been made in the prior year and what led to that mistake.
2) Calculate all capital available. This effort accounts for all new subscriptions, outgoing redemptions, gains/losses, and cash entrapment to understand how much capital must be put to work.
3) Review market conditions. Pillar focuses on recent losses in a geography/peril to determine if capital should be moved to an area of particular price hardening or to areas where term changes are expected to lead to a reduction in risk.
4) Review trades not executed in the prior year. The team will look at what trades were passed on or trades in which Pillar did not receive an allocation. Pillar determines why and if anything has changed in the current investment cycle to make those contracts more attractive.
5) Solicitation of trades. In the geographic areas where the team wants to have more exposure, the team will create a roadmap for getting in front of brokers who will be the most helpful to work with in deploying capital in those regions.

Pillar invests across ILS instruments, including direct insurance, ILWs, cat bonds, private reinsurance, and retrocession. Based on pricing and risk viewed in the market, Pillar will make adjustments to the allocation of different ILS instruments.

During the sourcing process, Pillar sees about 2,000 proposals and executes on about 200 of them in a typical year. When looking at a potential contract, Pillar's underwriters are expected to go through a number of steps that will be documented in Pillar's system. These steps include adjusting for non-modeled perils that are poorly represented in the standard industry cat models, assessing data quality and quantity provided by cedent, reviewing a cedent's insurance to value program and its ability to analyze its book of business, ensuring that the contract has been adjusted to meet the reality of the underlying portfolio risks, reviewing the claims handling process of the cedent, and evaluating the historical track record of claims for cedent deviating from modeled output.

Some contracts can be eliminated from consideration because they do not fit with the firm's investment philosophy: Pillar wants to focus on Tier 1 geographic areas (U.S., EU, Japan, and Australia/New Zealand); contracts need to be heavily weighted towards residential and auto coverage rather than business coverage; smaller cedents are preferred because Pillar believes it is much easier to analyze a cedent with a smaller geographic footprint than one that has global coverage.

A review of the contract's language and terms will also be conducted at this point of the process. Terms such as peril exclusions, collateral release, etc. are reviewed. Pillar can either reject the contract on terms, accept the terms, or negotiate with the broker/cedent for a change in terms. Pillar then conducts a quantitative review using artificial intelligence to analyze the quality and quantity of data submitted by a cedent. The data includes exact addresses for properties covered and the occupancy type, construction materials, and age of buildings. This analysis helps compare the cedent's data to that which is provided by other similar cedents. Based on the review, Pillar will put a loading factor on the contract which could lead to it requiring a higher rate on-line to invest in the contract. The third step of the investment process is modeling and trade selection. Pillar makes use of AIR Catrader as its core model to simulate 10,000 years of catastrophes and develop aggregate risk curves. Stewart Foster, Head of Catastrophe Modeling, diligently tests AIR to find anomalies and areas where Pillar needs to make adjustments.

Pillar believes the industry cat models are more focused on exposures and not experience, which it believes leads to false impressions of potential losses. To adjust the cat model, Pillar has created a proprietary tool called the Pillar Risk Optimization System (PROS). PROS helps Pillar develop a loading factor to change an expected loss for a contract and ultimately adjust the price that it is willing to pay to cover a book of risk. Pillar wants to adjust for historical experience and incorporate a more realistic view of actual risk in poorly modeled and understated risks such as hail and tornado. To accomplish this, Pillar compares the losses modeled for a contract in AIR versus the actual historical losses for the contract properties over 10-15 years. This comparison usually results in higher expected losses. Pillar uses eleven different geographic regions and perils in the process.

As contract are approved by Pillar's investment team, a systematic treaty score is completed to help them gauge a number of relative aspects to the contract such as how its inclusion in the portfolio would change its risk and return expectations. Each contract is given a score of 1 to 5, with a 5 being the most investable contract. Pillar runs a real-time optimization of the portfolio to analyze the current composition and determine areas of potential need. As the portfolio is being assembled, the Chief Actuary through PROS will monitor the portfolio bucket allocations and communicate to the team where risk should be increased or decreased. Pillar views the portfolio construction process in six months increments as it looks out into the future.

As a final step in looking at the portfolio, Pillar will uniquely among ILS managers make use of the Omega ratio to judge the quality of the portfolio. Omega measures the positive side of the distribution curve against the negative side of the distribution curve creating a ratio. Pillar looks at historical Omega scores and trends in the ratio when reviewing the portfolio.

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**Risk Management**

Pillar's risk philosophy is inter-woven into its investment philosophy. Therefore, most of the risk management for the portfolio is accomplished upfront in the process of underwriting individual contracts, along with measures to address diversification in portfolio construction. Pillar does maintain a number of risk metrics that must be met under the enforcement authority of the Chief Actuary.

Pillar creates risk reporting that is provided to various groups to ensure that the portfolio is in compliance with risk metrics and underwriting guidelines, including exposure reports that are reviewed by the Board of Directors on a regular basis. This reporting includes allocation by form of contract, allocation by maturity date, allocation by geography/peril, underwriting guideline tracking, and various other metrics.

As a part of the investment philosophy and portfolio construction, Pillar is active in hedging the portfolio. Jeff Franklin, Chief Underwriting Officer, oversees the hedging program for Pillar. The level of hedging moves up and down with industry pricing and can be used to reduce the overall portfolio volatility or take advantage of poor pricing in a geography/peril such as European or Japanese wind which Pillar currently believes is poorly priced.

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**Operational Due Diligence**

- The Fund Administrator is responsible for the calculation the NAV and is the official book of record; however, Pillar conducts shadow accounting to ensure the accuracy of the calculation inputs. Pillar must officially approve the inputs; however, in practice this approval is viewed more as a reconciliation between the two parties.

- At the end of each year and after larger capital flows, Pillar retains an independent valuation agent to conduct a review of the loss estimate and loss adjustment expenses.

**Terms & Conditions**

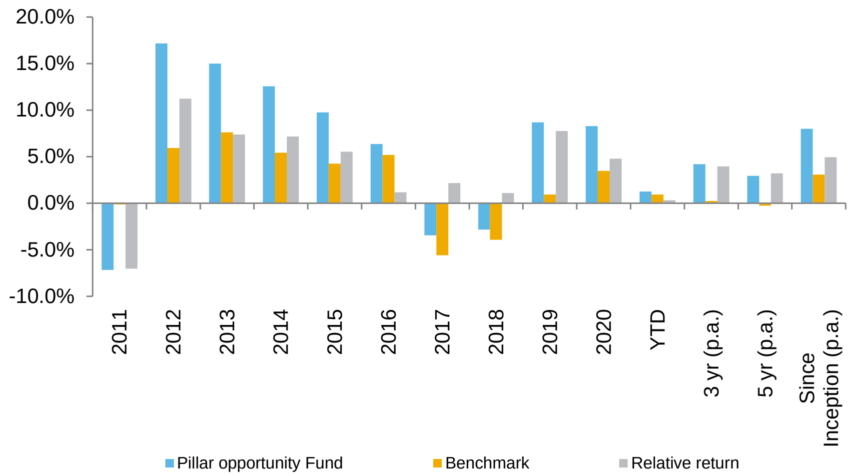
- The Opportunity Fund charges a management fee of 1.5% and performance fee of 15% over a hurdle of 1-month U.S. T-bills + 20 bps. Pillar provides a management fee discount for larger investments.
- The Fund has a 1-year hard lock.
- After the initial lock-up, investors can redeem twice a year, at December 31st and June 30th, with 90 days' notice.

**ESG**

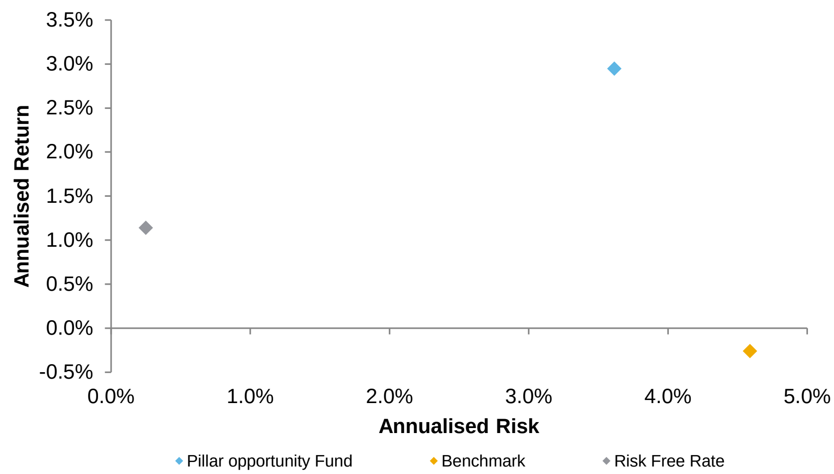
- Pillar is a signatory to the United Nations Principles of Responsible Investment.
- The manager reviews ESG policies of the cedents it uses as counterparties.
- In the small portion of the portfolio that covers business properties, Pillar places an ESG score on the properties based on ESG factors.

## Performance and Risk Metrics

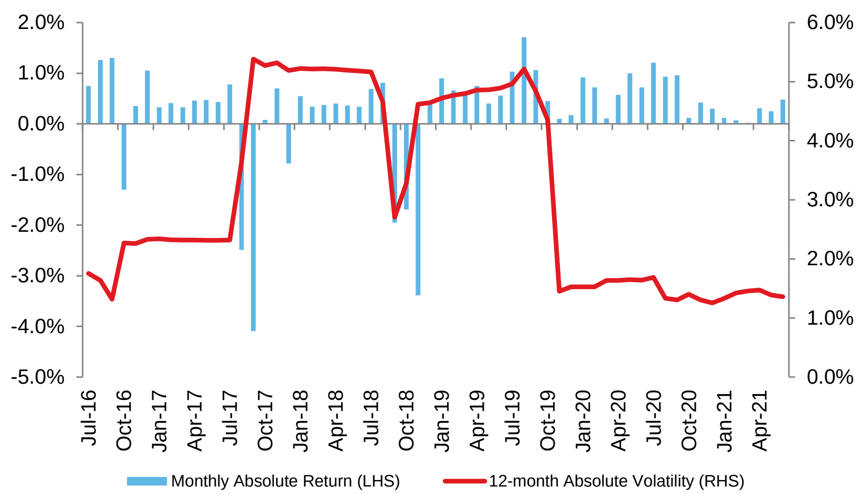
**Historic Performance (Inception: June 2008)**




**Risk – Return 5 Years Ending 30 June 2021**



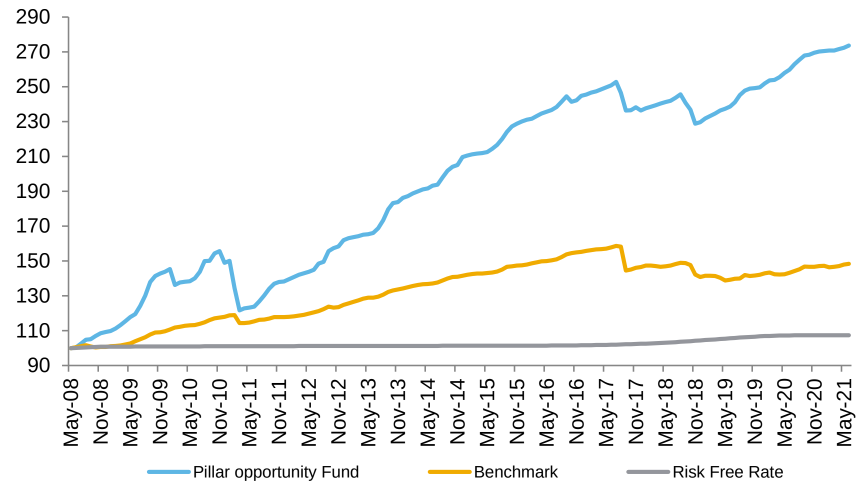

**Monthly Return and 12-Month Rolling Volatility 5 Years Ending 30 June 2021**



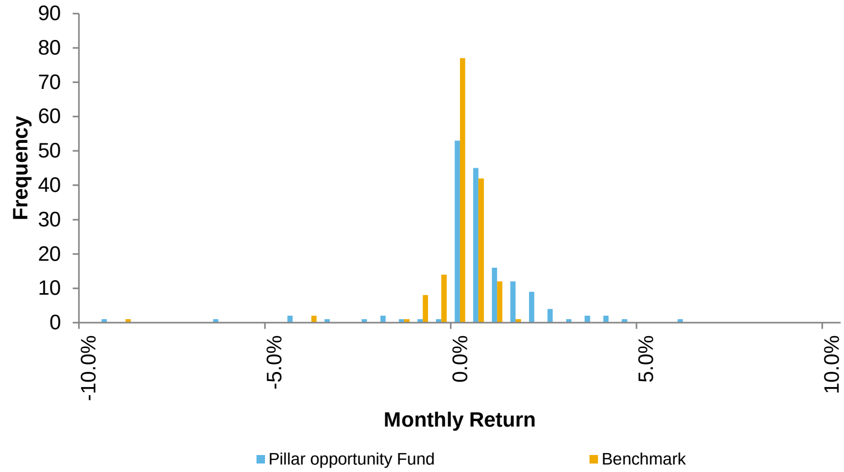

Benchmark: Eurekahedge ILS Advisers Index; Risk Free Rate: FTSE 3-Month T-Bill
**Past performance is no guarantee of future results**.

## Performance and Risk Metrics

**Growth of $100**
**(Inception: June 2008)**




**Monthly Distribution of Returns**
**(Inception: June 2008)**




Note: Performance (USD) is net of fees and sourced from Manager.
Benchmark: Eurekahedge ILS Advisers Index; Risk Free Rate: FTSE 3-Month T-Bill
**Past performance is no guarantee of future results**.

## Ratings Explanation

Below we describe the criteria which we use to rate fund management organizations and their specific investment products. Our manager research process assesses each component using both our qualitative and Aon InForm criteria. With the exception of Operational Due Diligence ("ODD"), each component is assessed as follows:

| Qualitative Outcome | Aon InForm Outcome | |
|---|---|---|
| 1 = Weak | ✓ | **Pass**: This component in isolation meets or exceed our desired criteria |
| 2 = Average | ⚐ | **Alert**: This component in isolation does not meet our desired criteria, or the lack of data on this component means that we are not able to judge whether it meets our desired criteria |
| 3 = Above Average | | |
| 4 = Strong | - | **Not assessed**: There is a lack of data, which means that we are not able to assess this component, however we do not consider this in isolation to justify an Alert |

The ODD factor is assigned a rating and can be interpreted as follows:

| Overall ODD Rating* | What does this mean? |
|---|---|
| **A1 Pass** | No material operational concerns – the firm's operations largely align with a well-controlled operating environment. |
| **A2 Pass** | The firm's operations largely align with a well-controlled operating environment, with limited exceptions – managers may be rated within this category due to resource limitations or where isolated areas do not align with best practice. |
| **Conditional Pass ("CP")** | Specific operational concerns noted that the firm has agreed to address in a reasonable timeframe; upon resolution, we will review the firm's rating. |
| **F** | Material operational concerns that introduce the potential for economic or reputational exposure exist – we recommend investors do not invest and/or divest current holdings. |

*Operational due diligence inputs provided to the research team by Aon's Operational Risk Solutions and Analytics Group (ORSA). ORSA is an independent entity from Aon Solutions UK Limited, Aon Investments USA Inc., and Aon Hewitt Inc./
Aon Investments Canada Inc.
Investment advice is provided by these Aon entities.

Aon previously assigned ODD ratings of pass, conditional pass, or fail for the ODD factor. We are in the process of refreshing all ODD ratings to the new terminology. During the transition period, the prior ratings, as follows, may persist in some deliverables until the ODD factor rating is converted to the above noted letter ratings.

- **Pass** – Our research indicates that the manager has acceptable operational controls and procedures in place.
- **Conditional Pass** – We have specific concerns that the manager needs to address within a reasonable established timeframe.
- **Fail** – Our research indicates that the manager has critical operational weaknesses and we recommend that clients formally review the appointment.

An overall rating is then derived taking into account both the above outcomes for the product. The overall rating can be interpreted as follows:

| Overall Rating | What does this mean? |
|---|---|
| **Buy** | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products |
| **Buy (Closed)** | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products, however it is closed to new investors |
| **Qualified** | A number of criteria have been met and we consider the investment manager to be qualified to manage client assets |
| **Not Recommended** | A quantitative assessment of this strategy indicates it does not meet our desired criteria for investment. This strategy is not recommended |
| **Sell** | We recommend termination of client investments in this product |
| **In Review** | The rating is under review as we evaluate factors that may cause us to change the current rating |

The comments and assertions reflect our views of the specific investment product and our opinion of its quality. Differences between the qualitative and Aon InForm outcome can occur and if meaningful these will be explained within the Key Monitoring Points section. Although the Aon InForm Assessment forms a valuable part of our manager research process, it does not automatically alter the overall rating where we already have a qualitative assessment. Overall rating changes must go through our qualitative manager vetting process. Similarly, we will not issue a Buy recommendation before fully vetting the manager on a qualitative basis.

The ESG factor is assigned a rating and can be interpreted as follows:

| Overall ESG Rating | What does this mean? |
| --- | --- |
| **Advanced** | The fund management team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate and potentially mitigate these risks across the entire portfolio. |
| **Integrated** | The fund management team has taken appropriate steps to identify, evaluate and mitigate potential financially material ESG risks within the portfolio. |
| **Limited** | The fund management team has taken limited steps to address ESG considerations in the portfolio. |
| N/A (Not Applicable) | ESG risks and considerations are not applicable to this strategy, for example, on the grounds of materiality or asset class relevance. |
| NR (Not Rated) | An evaluation of ESG risks is not yet available for this strategy. |

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As of December 31, 2020, Aon's quantitative model is run on approximately 13,000 strategies from an external database. Aon assigned a quantitative rating of "Qualified" to 42% of these strategies and a "Not Recommended" to 23% of these strategies. The remainder were not rated. A "Buy" rating cannot be assigned via quantitative analysis. Across asset classes (excludes private real estate and real assets), Aon had approximately 21,000 strategies in its internal database. Aon assigned a qualitative rating of "Buy" to 7% of strategies in the database; "Qualified" to 1% of strategies in the database; "Sell" to <1% of strategies in the database; and "In Review" to <1% of strategies in the database. The remaining strategies in the database are not rated. Some strategies may be included in both the internal and external database. Where a qualitative rating exists, it prevails over the quantitative rating. These statistics exclude real estate / Townsend databases and ratings.

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**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# RESOLUTION
## No. 2021-40

## Approving Investment in Juniperus Insurance Opportunity Fund Limited

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its general investment consultant, Aon Hewitt Investment Consulting, Inc., along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Juniperus Insurance Opportunity Fund Limited,** a fund that invests across insurance linked securities including private reinsurance, reassignment of insurance risk to other carriers, catastrophe bonds, and other insurance linked investments.

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$95 million dollars ($95,000,000.00)** in **Juniperus Insurance Opportunity Fund Limited.** The total investment amount is to be determined by the general investment consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED,*** that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

________________________________
**Mr. Danny Knight,** ***Chair***
***Arkansas Teacher Retirement System***

**Memo**

| | |
|---|---|
| To | Arkansas Teacher Retirement System (ATRS) Board of Trustees |
| From | PJ Kelly, CFA, CAIA, Katie Comstock, Kevin Hrad, CAIA |
| Cc | Clint Rhoden, Rod Graves, Jerry Meyer |
| Date | September 27, 2021 |
| Re | Recommendation to Commit $50M in the Chatham Private Debt |

**Background and Recommendation**

As a result of the Opportunistic/Alternatives Portfolio Review presented at the ATRS June Board meeting, there was a recommendation to restructure the credit and event/driven exposure within the portfolio. As part of the restructuring, Aon recommends maintaining the credit exposure at 10% of the Opportunistic/ Alternatives portfolio and allocating evenly between two managers. As the York Credit Opportunities Fund continues to distribute capital back after deciding to liquidate in January of 2020, Aon recommends committing $50M to the Chatham Asset Private Debt and Strategic Capital Fund III ("PDSC III"). Aon will continue to review the credit portfolio and follow-up at a later meeting with a recommendation for the remainder of the credit portfolio.

The Chatham PDSC III Fund is the firm's third vintage of this closed-end product. PDSC III is designed to provide clients with exposure to the illiquid, opportunistic component of the firm's flagship product and other illiquid positions that are not suitable for the mandate of the flagship offering. The fund is not an overflow product, but closer to a best ideas product that can upsize positions that would otherwise be too illiquid in an evergreen fund. Chatham will rely on its fundamental research conducted by a team of sector specialists to source and work through ideas to populate the fund's portfolio. Aon believes Chatham's edge is their deep credit research skills which helps them find unique stressed opportunities with large mispricings which should lead to success. Like the main fund, lower middle market companies will be the focus of the PDSC III. Aon believes this strategy is a nice fit for ATRS's portfolio given the expected attractive returns via an illiquidity premium and the managers ability to manage risk across opportunistic investments.

# Aon InTotal: Chatham Asset Management

## Chatham Asset Private Debt and Strategic Capital Fund III, LP

| Review Date | Overall Rating | Previous Overall Rating |
|---|---|---|
| August 2021 | Buy | No Change |

### Overall Rating

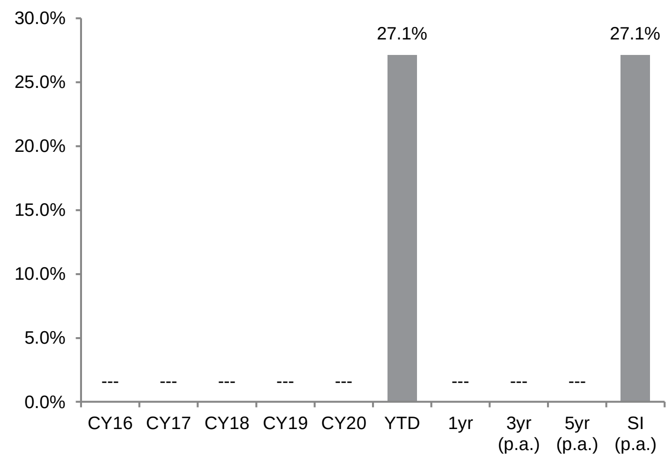
Chatham Asset Private Debt and Strategic Capital Fund III ("PDSC III") is the firm's third vintage of closed-end product. PDSC III is designed to provide clients with exposure to the illiquid, opportunistic component of the firm's flagship product and other illiquid positions that are not suitable for the mandate of the flagship offering. The fund is not an overflow product, but closer to a best ideas product that can upsize positions that would otherwise be too illiquid in an evergreen fund. Chatham will rely on its fundamental research conducted by a team of sector specialists to source and work through ideas to populate the fund's portfolio. Aon believes Chatham's edge is their deep credit research skills which helps them find unique stressed opportunities with large mispricings which should lead to a success fund. Like the main fund, lower middle market companies will be the focus of the PDSC III portfolio.

**Component Ratings**

| | Rating | Previous Rating | Aon InForm Assessment** |
|---|---|---|---|
| Business | 3 | *No Change* | - |
| Staff | 4 | *No Change* | - |
| Process | 3 | *No Change* | - |
| Risk | 2 | *No Change* | - |
| ODD | A2 | *No Change* | - |
| Performance | 3 | *No Change* | - |
| T&C | 2 | *No Change* | - |

** We are not currently able to provide an Aon InForm Assessment for this strategy as the manager has not provided us with enough data to perform a meaningful analysis. We are working with the manager to collect the necessary data for future quarters.

**Absolute Performance to 30 Jun 2021**




Performance Since Inception Date as of January 2021.
Performance (USD) is net of fees. CY = calendar year. Source: Manager

### Firm and Strategy Summary

| | | | |
|---|---|---|---|
| **Head Office Location** | Chatham, NJ | **Parent Name** | Chatham Asset Management |
| **Firm AUM** | $4.3 billion | **Private Credit AUM** | $1.1 billion |
| **Team Location** | Chatham, NJ/Chicago, IL | **Team Head** | Anthony Melchiorre |
| **Firm/Strategy Inception** | 2002/2017 | **Strategy Size** | $300 - $400 MM |
| **Management Fee** | 1% | **Performance Fee** | 20% |
| **Hurdle Rate** | 5% preferred return | **Fund Term** | Five years |

Note: **Past performance is no guarantee of future results**.

Empower Results®

**Rating Sheet**

| Factor | Rating | Previous Rating | Comments |
|---|---|---|---|
| **Business** | 3 | *No Change* | Chatham is employee owned by seven partners, with Anthony Melchiorre the owner of the majority of the management company. The remaining partnership interests are held by Kevin O'Malley, Evan Ratner, James Ruggerio, Feisal Alibhai, Barry Schwartz, and Dave Sobolewski. Chatham has been disciplined at managing capacity, at times closing the fund when asset flows and market opportunity warrant a slowing of new inflows. The client base is focused on pensions and endowments and foundations. |
| **Investment Staff** | 4 | *No Change* | Evan Ratner is the Director of Research and focuses his time on reviewing the work of the research team. He is also the portfolio manager of PDSC III and works with companies that are longer duration investments. Anthony Melchiorre and Kevin O'Malley provide oversight on PDSC III but spend most of their time focused on portfolio construction and trading on the flagship fund. The research team is senior and is broken out as sector specialists who cover all companies in their universe and are expected to know them well and bring forth ideas. In our view, the team is very deep with some of the senior analysts being strong enough that they could lead their own credit hedge fund. Additionally, the combination of research, trading, and portfolio construction talent encompassed by Mr. Melchiorre, Mr. O'Malley, and Mr. Ratner are superior than those found amongst their peers. |
| **Investment Process** | 3 | *No Change* | Chatham's investment process starts with deep fundamental research in middle market companies. The manager emphasizes the importance of conviction based on fundamental research, which results in a more concentrated portfolio. The investment team also believes the middle market is inefficient with a meaningful opportunity to find mispriced credits, which leads to the portfolio having differentiated positions as Chatham aims to avoid crowded trades made by larger private credit competitors. |
| **Risk Management** | 2 | *No Change* | Chatham's risk management is embedded into the research process and serves as the main control of portfolio risk. Chatham wants to work through potential risk areas in the research process and understand the downside risks to each investment. The initial valuation of the company at entry is a key risk control. Unlike many private debt funds, Chatham will hedge the portfolio's market risk through the use of equity index options that will mirror the portfolio hedging of Chatham's flagship hedge fund. |

| Rating Sheet | | | |
|---|---|---|---|
| **Factor** | **Rating** | **Previous Rating** | **Comments** |
| **Operational Due Diligence (ODD)** | A2 | *No Change* | The firm employs experienced non-investment staff and utilizes well known third-party service providers within the hedge fund industry. Valuation processes related to Level 2 and 3 securities in its main hedge fund follow best practices. A majority independent Board of Directors oversees the Fund. |
| **Performance Analysis** | 3 | *No Change* | Both of Chatham's first two private debt PDSC vintages have performed well, meeting their target of mid-teens annualized returns through the middle of 2021 since their respective inceptions. PDSC III has had a strong start and we believe is in a position to meet Chatham's return goals of low-to-mid teen returns. |
| **Terms & Conditions (T&C)** | 2 | *No Change* | The Fund's fees and liquidity provisions are in-line with credit managers trading a similar strategy, with reasonable fees and investor liquidity that is appropriate for the portfolio. |
| **Overall Rating** | **Buy** | *No Change* | Chatham Asset Private Debt and Strategic Capital Fund III ("PDSC III") is the firm's third vintage of closed-end product. PDSC III is designed to provide clients with exposure to the illiquid, opportunistic component of the firm's flagship product and other illiquid positions that are not suitable for the mandate of the flagship offering. The fund is not an overflow product, but closer to a best ideas product that can upsize positions that would otherwise be too illiquid in an evergreen fund. Chatham will rely on its fundamental research conducted by a team of sector specialists to source and work through ideas to populate the fund's portfolio. Aon believes Chatham's edge is their deep credit research skills which helps them find unique stressed opportunities with large mispricings which should lead to a success fund. Like the main fund, lower middle market companies will be the focus of the PDSC III portfolio. |

## Manager Profile

### Overview

Chatham Asset Private Debt and Strategic Capital Fund III ("PDSC III") is the firm's third vintage of closed-end product. PDSC III is designed to provide clients with exposure to the illiquid, opportunistic component of the firm's flagship product and other illiquid positions that are not suitable for the mandate of the flagship offering. The fund is not an overflow product, but closer to a best ideas product that can upsize positions that would otherwise be too illiquid in an evergreen fund. Chatham will rely on its fundamental research conducted by a team of sector specialists to source and work through ideas to populate the fund's portfolio. Aon believes Chatham's edge is their deep credit research skills which helps them find unique stressed opportunities with large mispricings which should lead to a success fund. Like the main fund, lower middle market companies will be the focus of the PDSC III portfolio.

### Business

- Chatham Asset Management is wholly owned by internal partners with Anthony Melchiorre holding the majority of the ownership interest. Six other senior team members are partners in the management company.
- Chatham manages the flagship hedge fund and three longer-lock private debt funds. Chatham manages a few fund-of-ones for investors who have made significant capital allocations to the manager.
- Chatham employs a team of 24, with 13 investment professionals. The majority of the team is based in Chatham, New Jersey, with a small team based in Chicago, IL.

### Client Base

- Firm wide assets on June 30, 2021 were $4.3 billion, with the three private credit funds having $1.1 billion in assets.
- Chatham has a highly institutional client base with over 80% of the portfolio's AUM provided by public and corporate pension plans and endowments and foundations.
- Chatham's partners and employees capital invested in the private credit funds represents approximately 14% of the three Funds' AUM.

### Investment Staff

| Key Staff | Position | Date Joined | Years of Experience |
|---|---|---|---|
| Anthony Melchiorre | Founder/Portfolio Manager | 2003 | 32 |
| Kevin O'Malley | Deputy Portfolio Manager | 2004 | 29 |
| Evan Ratner | Director of Research | 2009 | 27 |
| Barry Schwartz | Senior Analyst | 2006 | 34 |
| Feisal Alibhai | Senior Analyst | 2004 | 28 |

- Anthony Melchiorre and Anthony O'Malley are the sole risk takers and spend the majority of their time focused on portfolio construction and trading.
- Evan Ratner leads the research team and focuses his time working with the analyst team as they research new ideas and track ideas currently in the portfolio. For PDSC III, Mr. Ratner also serves as the Fund's portfolio manager.
- The research team is broken down by sector specialists who are expected to know their universe well and bring forth new investment ideas.

### Investment Process

## Philosophy

Chatham is a long/short high yield credit manager that believes it distinguishes itself from peers through an emphasis on credit research and a focus on lower middle market companies. The manager emphasizes the importance of fundamental conviction based on deep credit research which results in a concentrated portfolio of high conviction ideas. Chatham believes it can remain nimble by sourcing lower middle market positions that are outside the reach of larger private credit competitors. Chatham will express its investment thesis across a company's entire capital structure. Additionally, engagement with underlying management is variable based on the situation, but in PDSC III Chatham is expected to be more active on the credit committees of portfolio companies and advising management.

## Process

Sourcing of investments ideas is done through several different avenues including proprietary research, interactions with covered companies' customers, suppliers, and competitors, recent and sizeable price moves, and sector and/or market disruptions. Idea sourcing is important to Chatham as it usually invests in smaller or medium sized companies where the story is not always front-page news. Therefore, it needs to dig a little more to find ideas. Chatham's senior team members have been in the business for a long-time and have created a large catalog of contacts on the Street and in the sectors they frequently invest. To mine their contacts for new ideas, Evan Ratner and other team members are in New York at least weekly talking to the Street and industry contacts. Idea generation for PDSC III will rely on the team's existing network of bankers, bankruptcy lawyers, management companies of current investments, and prior investment relationships. While Chatham may collaborate with other hedge fund managers, it will not source opportunities from larger syndicate groups that are simply looking to offload some exposure.

When one of the analysts begins work on a new idea, they will complete enough diligence to be able to propose the idea to Anthony Melchiorre, Kevin O'Malley, and Evan Ratner. The senior leaders will walk through the idea with the analyst and review it to see if it is viable from risk/return, liquidity, and edge perspectives. If the idea is approved for more work, the analyst starts to do deep fundamental analysis on the company and its capital structure. Detailed models will be built to project the fortunes of the company and its ability to repay debt. As a part of work on a company, Chatham is a big believer in meeting with management at company headquarters and doing field trips to key operational locations. Chatham believes these on-sites helps it understand the business better and identify potential issues.

The sector researches will also do a complete legal document review of the company's bond indentures and covenants. The researchers are looking for areas that may trigger a default or other event that may cause Chatham to either potentially enter or exit a position. The legal analysis may also point the team to potential legal areas to leverage in negotiations with management teams.

As a part of the work, value unlocking catalysts are identified with a potential timeline. Additionally, the research package will include a downside case and price targets that are developed by the analyst.

While analysts are in constant contact with Evan Ratner on their work agenda and progress, Mr. Ratner performs a more formal review when the analyst has completed his or her work. Evan will review the idea and the supporting diligence, ask questions, and request further support or clarification where needed. In this role, he is expected to act as a firewall between the analysts and Anthony Melchiorre and Kevin O'Malley, and this first level of review frees up the portfolio managers' time to focus on the portfolio and weed out potential poor ideas.

Once Evan Ratner is satisfied with an idea, it will be presented to Messrs. Melchiorre and O'Malley. The three senior leaders will review assumptions made, look at the results of diligence performed, and re-affirm conviction.

If the portfolio managers like the idea, they will look for an entry and then start to build exposure to the idea. Chatham keeps a 30-35 name watch list where a company reaching a particular price will cause the portfolio managers to begin trading in the security.

The PDSC III portfolio should focus about half of the book on event driven opportunities in public markets where credit could rapidly sell off should equity markets decline in the face of inflation. Within this book, Chatham will continue to look for mispricing similar to past cycles where investors indiscriminately sell without evaluating individual credits within a sector. The remaining portfolio will include a combination of distress for influence and capital solutions. In the current market, investors have become excited by the SPAC market following successful transactions for growth companies. However, Chatham has been focused on PE sponsor reliance on SPACs to unwind legacy positions. Once exited, these companies will still be overleveraged and likely to quickly lose interest from the public markets which will create an opportunity for Chatham to approach with highly structured capital solutions.

## Risk Management

Chatham's risk management philosophy is to embed risk management into its investment research process and use that as the main control of portfolio risk. Chatham wants to work through potential risk areas in the investment research process as they seek to know a company and their pressure points on the downside. Chatham is not a big believer in managing risks through controlling correlations and betas.

A secondary risk control is Chatham's trading ability to lower exposures in a down market and increase exposures in an upward moving market. Tertiary risk controls include minimal use of leverage and their strong sell discipline.

Chatham does not maintain either a risk management or investment committee to control risk. Instead, Chatham believes the constant interaction between the three senior investment team members and the research team helps them to know the portfolio and the market well and to react quickly to changing environments.

Chatham uses a hedge overlay that focuses on left tail risk to help control the Fund's market sensitivity. The fund spends approximately 15 - 20 basis points a month purchasing S&P puts expiring one to two months out with a strike price 5% to 10% below the current trading level of the S&P 500. Trading the options book is one of Kevin O'Malley's key roles. In a market where the hedges are working, Chatham is quick to crystalize profits and reset hedges based on market moves. Chatham will also do some interest rate and credit market hedging at both the portfolio and individual investment level when deemed appropriate.

## Operational Due Diligence

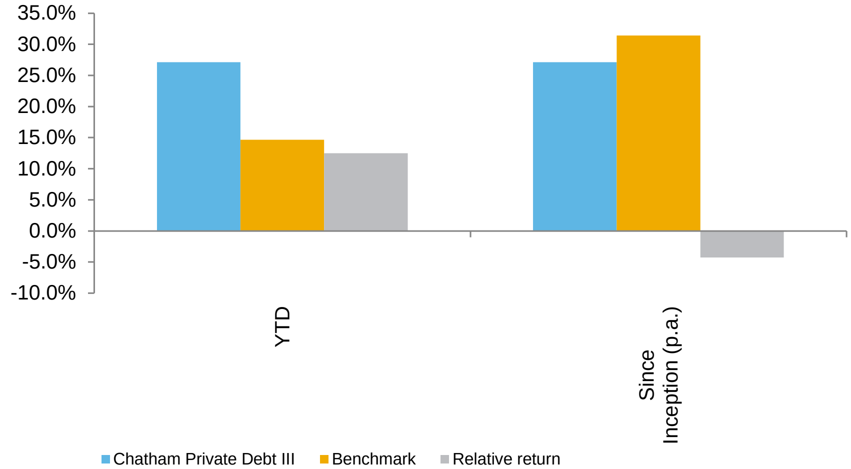
- All trades are entered into the firm's Northpoint Order Management System and are reconciled daily by the Chatham operations group.
- The manager uses external service provider Duff and Phelps to valuate illiquid portfolio positions.

## Terms & Conditions

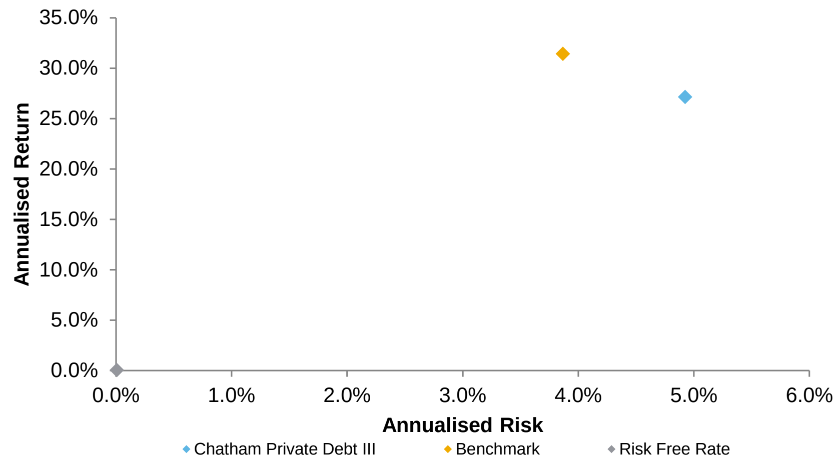
- Targeted fund size is $300 - $400 million.
- The management fee is 1% and the performance fee is 20% over a 5% preferred return with a 100% General Partner catch-up.
- The investment period on the Fund is four years with a one year harvest period for a five-year total life. There is a one-year extension possible at the discretion of the General Partner.
- To date, Chatham has called all committed capital in the Private Debt funds.

## Performance and Risk Metrics

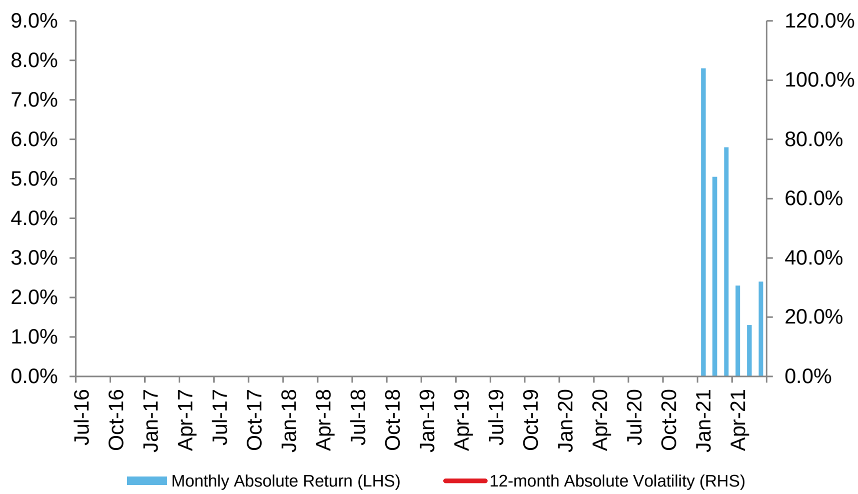
### Historic Performance (Inception: January 2021)




### Risk – Return (Since Inception)



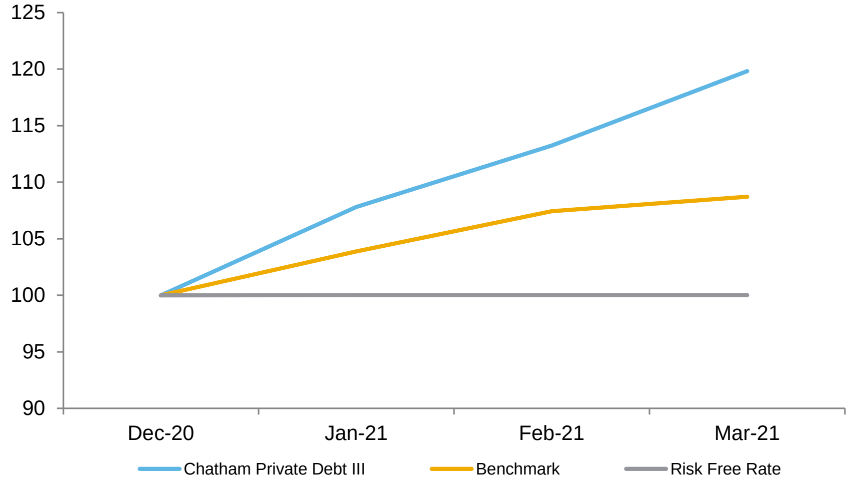

### Monthly Return and 12-Month Rolling Volatility Since Inception



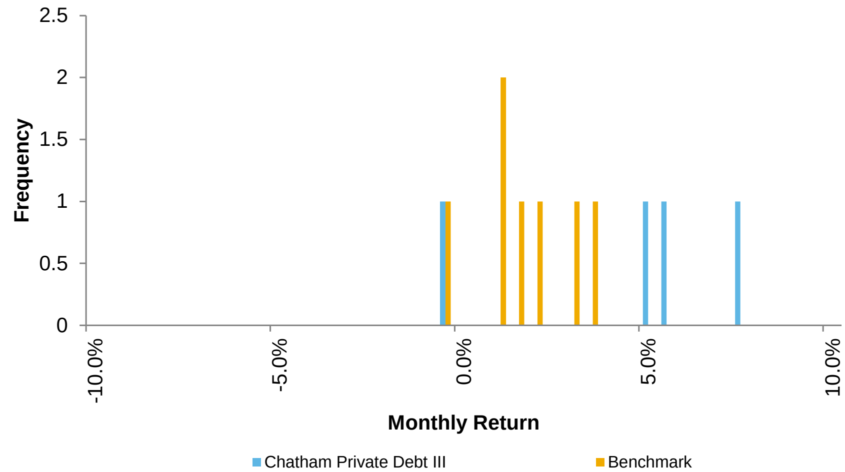

Benchmark: HFRI ED Distressed/Restructuring Index; Risk Free Rate: FTSE 3-Month T-Bill
**Past performance is no guarantee of future results**.

## Performance and Risk Metrics

**Growth of $100**
**(Inception: January 2021)**




**Monthly Distribution of Returns**
**(Inception: January 2021)**




Note: Performance (USD) is net of fees and sourced from Manager.
Benchmark: HFRI ED Distressed/Restructuring Index; Risk Free Rate: FTSE 3-Month T-Bill
**Past performance is no guarantee of future results**.

## Ratings Explanation

Below we describe the criteria which we use to rate fund management organizations and their specific investment products. Our manager research process assesses each component using both our qualitative and Aon InForm criteria. With the exception of Operational Due Diligence ("ODD"), each component is assessed as follows:

| Qualitative Outcome | Aon InForm Outcome | |
|---|---|---|
| 1 = Weak | ✓ | **Pass**: This component in isolation meets or exceed our desired criteria |
| 2 = Average | ⚐ | **Alert**: This component in isolation does not meet our desired criteria, or the lack of data on this component means that we are not able to judge whether it meets our desired criteria |
| 3 = Above Average | - | **Not assessed**: There is a lack of data, which means that we are not able to assess this component, however we do not consider this in isolation to justify an Alert |
| 4 = Strong | | |

The ODD factor is assigned a rating and can be interpreted as follows:

| Overall ODD Rating* | What does this mean? |
|---|---|
| **A1 Pass** | No material operational concerns – the firm's operations largely align with a well-controlled operating environment. |
| **A2 Pass** | The firm's operations largely align with a well-controlled operating environment, with limited exceptions – managers may be rated within this category due to resource limitations or where isolated areas do not align with best practice. |
| **Conditional Pass ("CP")** | Specific operational concerns noted that the firm has agreed to address in a reasonable timeframe; upon resolution, we will review the firm's rating. |
| **F** | Material operational concerns that introduce the potential for economic or reputational exposure exist – we recommend investors do not invest and/or divest current holdings. |

*Operational due diligence inputs provided to the research team by Aon's Operational Risk Solutions and Analytics Group (ORSA). ORSA is an independent entity from Aon Solutions UK Limited, Aon Investments USA Inc., and Aon Hewitt Inc./
Aon Investments Canada Inc.
Investment advice is provided by these Aon entities.

Aon previously assigned ODD ratings of pass, conditional pass, or fail for the ODD factor. We are in the process of refreshing all ODD ratings to the new terminology. During the transition period, the prior ratings, as follows, may persist in some deliverables until the ODD factor rating is converted to the above noted letter ratings.

- **Pass** – Our research indicates that the manager has acceptable operational controls and procedures in place.
- **Conditional Pass** – We have specific concerns that the manager needs to address within a reasonable established timeframe.
- **Fail** – Our research indicates that the manager has critical operational weaknesses and we recommend that clients formally review the appointment.

An overall rating is then derived taking into account both the above outcomes for the product. The overall rating can be interpreted as follows:

| Overall Rating | What does this mean? |
|---|---|
| **Buy** | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products |
| **Buy (Closed)** | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products, however it is closed to new investors |
| **Qualified** | A number of criteria have been met and we consider the investment manager to be qualified to manage client assets |
| **Not Recommended** | A quantitative assessment of this strategy indicates it does not meet our desired criteria for investment. This strategy is not recommended |
| **Sell** | We recommend termination of client investments in this product |
| **In Review** | The rating is under review as we evaluate factors that may cause us to change the current rating |

The comments and assertions reflect our views of the specific investment product and our opinion of its quality. Differences between the qualitative and Aon InForm outcome can occur and if meaningful these will be explained within the Key Monitoring Points section. Although the Aon InForm Assessment forms a valuable part of our manager research process, it does not automatically alter the overall rating where we already have a qualitative assessment. Overall rating changes must go through our qualitative manager vetting process. Similarly, we will not issue a Buy recommendation before fully vetting the manager on a qualitative basis.

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As of December 31, 2020, Aon's quantitative model is run on approximately 13,000 strategies from an external database. Aon assigned a quantitative rating of "Qualified" to 42% of these strategies and a "Not Recommended" to 23% of these strategies. The remainder were not rated. A "Buy" rating cannot be assigned via quantitative analysis. Across asset classes (excludes private real estate and real assets), Aon had approximately 21,000 strategies in its internal database. Aon assigned a qualitative rating of "Buy" to 7% of strategies in the database; "Qualified" to 1% of strategies in the database; "Sell" to <1% of strategies in the database; and "In Review" to <1% of strategies in the database. The remaining strategies in the database are not rated. Some strategies may be included in both the internal and external database. Where a qualitative rating exists, it prevails over the quantitative rating. These statistics exclude real estate / Townsend databases and ratings.

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**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# <u>**R E S O L U T I O N**</u>
# No. 2021-41

## Approving Investment in Chatham Asset Private Debt and Strategic Capital Fund III, L.P.

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its general assets consultant, Aon Hewitt Investment Consulting, Inc., along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Chatham Asset Private Debt and Strategic Capital Fund III, L.P.,** a closed-ended fund that invests in high yield bonds, leverage loans and equity both on a long and short basis; and

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$50 million dollars ($50,000,000.00)** in **Chatham Asset Private Debt and Strategic Capital Fund III, L.P.** The total investment amount is to be determined by the general assets consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board and;

***FURTHER, BE IT RESOLVED,*** That the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

___________________________________

**Mr. Danny Knight,** ***Chair***
***Arkansas Teacher Retirement System***

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# Arkansas Teachers Retirement System
# First Quarter 2021 Real Assets Performance Review

PROPRIETARY & CONFIDENTIAL
September 2021

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# Agenda

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# Real Assets Markets Performance and Overview

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| Performance Summary | Quarter (%) | | 1 Year (%) | | 3 Year (%) | | 5 Year (%) | | 10 Year (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET |
| NFI-ODCE Value Weight | 2.1 | 1.9 | 2.3 | 1.5 | 4.9 | 4.0 | 6.2 | 5.3 | 9.7 | 8.7 |
| NCREIF Property Index "NPI" | 1.7 | | 2.6 | | 4.9 | | 5.8 | | 8.8 | |
| NCREIF Farmland Property Index “NFI” | 0.9 | | 4.1 | | 4.7 | | 5.5 | | 10.2 | |
| NCREIF Timberland Property Index “NTI” | 0.8 | | 1.5 | | 1.8 | | 2.6 | | 4.6 | |

- In the first quarter of 2021, the NFI-ODCE (net) returned 1.9%, up 79 basis points quarter-over-quarter. NFI-ODCE returns have fallen below long-term expectations of 7% to 9% gross due to the maturity of the real estate cycle, as well as distress created by the COVID-19 pandemic.

- The NCREIF Farmland Index (“NFI”) returned 86 basis points, down 73 basis points from the prior quarter. Row crops drove performance with a returns of 1.6%, while permanent crops returned (0.2%).

- The NCREIF Timberland Index (“NTI”) returned 76 basis points for the quarter and 1.5% for the trailing one-year return. Both total returns were driven by the positive income offsetting the negative appreciation. Regionally, the Northeast was the NTI’s top performer while the South and Lake States lagged for the quarter.

# Portfolio Funding Status and Composition

| As of March 31, 2021 | ATRS' Portfolio $ in Millions |
|---|---|
| | |
| Number of Investments | 70 |
| Total Commitments | 3,079.0 |
| Unfunded Commitments | 662.2 |
| Total Paid-In Capital | 2,603.2 |
| Total Distributions | 1,863.0 |
| Net Asset Value | 2,156.0 |
| Gross Asset Value | 3,175.1 |
| DPI | 0.7x |
| TVPI | 1.5x |
| Since Inception IRR | 7.0% |
| **Active and Liquidated* | |

| PORTFOLIO COMPOSITION TO TARGETS (As of 3/31/2021) | Target | Actual Funded |
|---|---|---|
| **Target Real Asset Allocation** | 15% | 10.7% |
| | | |
| **Portfolio Style Composition** | | |
| **Real Estate** | 10% | 6.7% |
| **Core*** | 50%-70% | 68.4% |
| **Non-Core** | 30%-50% | 31.6% |
| ***Value-Added*** | *N/A* | *17.5%* |
| ***Opportunistic*** | *N/A* | *14.1%* |
| **Agriculture** | 1% | 0.8% |
| **Timber** | 2% | 1.5% |
| **Infrastructure** | 2% | 1.4% |
| **Leverage** | 50% | 32.1% |

* Includes Arkansas Investments

** No stated targets

- Recent infrastructure and real estate commitments will help the portfolio continue to move towards its target allocation irrespective of liquidating investments

- In general, the portfolio is in compliance with its Statement of Investment Policy. There are a few exceptions:
  - An overallocation to hotels though still less than 5% of the real estate portfolio
  - Timber geographic concentration remains out of compliance though significantly improved with recent BTG OEF commitment
  - Infrastructure is currently overweight Non-U.S., however Townsend and Staff are actively pursuing US focused managers

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# ATRS’ Real Assets Performance

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| Performance Summary | Quarter (%) | | 1 Year (%) | | 3 Year (%) | | 5 Year (%) | | 10 Year (%) | | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET | | |
| ATRS Total Portfolio | 2.4 | 2.0 | 5.6 | 4.3 | 6.1 | 4.7 | 7.6 | 6.1 | 8.9 | 7.6 | 7.0 | 1.5 |
| Total Real Assets Benchmark | | 1.7 | | 2.4 | | 4.0 | | 5.0 | | 7.7 | | |

- The table shows the returns for ATRS’ Total Real Assets Portfolio and the Real Assets Benchmark.
- ATRS is outperforming the benchmark over the near- and medium-term measurement periods.

*The ATRS Total Real Assets Benchmark was comprised of the NFI-ODCE returns, the NCREIF Timberland returns, the NCREIF Agriculture returns, and CPI plus 500 weighted by the allocations based on Net Asset Values across the various sub-categories, and thus defined as Real Assets benchmark, Timber benchmark, Agriculture benchmark, and Infrastructure benchmarks prior to 3Q2020. As of 3Q2020, the Timberland and Agriculture benchmarks going forward will no longer be weighted and are just the NCREIF Timberland and NCREIF Farmland returns, gross of fees. Additionally, the Infrastructure Benchmark of CPI plus 500 bps has been adjusted to CPI plus 300 bps as of 3Q20 and the new Infrastructure Benchmark will be a blend of the two going forward.

# ATRS' Real Estate Performance

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| Performance Summary | Quarter (%) | | 1 Year (%) | | 3 Year (%) | | 5 Year (%) | | 10 Year (%) | | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET | | |
| Real Estate | 2.0 | 1.6 | 1.8 | 0.7 | 4.1 | 2.9 | 6.6 | 5.3 | 9.7 | 8.4 | 7.6 | 1.5 |
| NFI-ODCE Value Weight | 2.1 | 1.9 | 2.3 | 1.5 | 4.9 | 4.0 | 6.2 | 5.3 | 9.7 | 8.7 | | |

- The table shows the time-weighted, net of fee returns for ATRS' Total Real Estate Portfolio and the NFI-ODCE benchmark.
- There are a number of Non-Core Funds that have exited the J-curve and performance is expected to have a more meaningful impact as newer funds' investments are realized.
- The real estate portfolio underperformed the benchmark for the quarter, as well as over the 1- and 3-Year periods largely due in part to market distress caused by the global pandemic, relative underperformance of UBS TPF, and a cash out refinance from an Arkansas Investment property during Q2 2020 that decreased net asset value and consequently effected the return.

# ATRS' Timberland and Agriculture Performance

| Performance Summary | Quarter (%) | | 1 Year (%) | | 3 Year (%) | | 5 Year (%) | | 10 Year (%) | | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET | | |
| Timberland | 2.2 | 2.0 | 5.8 | 4.9 | 6.5 | 5.5 | 6.1 | 5.1 | 4.3 | 3.5 | 5.2 | 1.8 |
| Timberland Property Benchmark* | 0.8 | | 1.6 | | 1.6 | | 2.2 | | 3.5 | | | |
| Agriculture | 3.4 | 3.1 | 7.2 | 6.0 | 4.9 | 3.8 | 4.9 | 3.8 | N/A | N/A | 5.0 | 1.3 |
| Agriculture Benchmark* | 0.9 | | 4.3 | | 4.5 | | 4.3 | | N/A | | | |

- The timber portfolio is outperforming the benchmark over all measurable time periods.
- The agriculture portfolio is now outperforming the benchmark over all measurable time periods, primarily driven by strong performance from the US Agriculture, LLC Separate Account (3.9% net).



*The Timberland Property Benchmark was comprised of the NCREIF Timberland returns weighted according to ATRS' regional exposure based on Net Asset Value prior to 3Q20, gross of fees. The Agriculture Benchmark was comprised of the NCREIF Farmland returns weighted according to ATRS' regional and crop type exposure based on Net Asset Value prior to 3Q20, gross of fees. As of 3Q20, the Timberland and Agriculture benchmarks going forward will no longer be weighted and are just the NCREIF Timberland and NCREIF Farmland returns, gross of fees. Additionally, the Infrastructure Benchmark of CPI plus 500 bps has been adjusted to CPI plus 300 bps as of 3Q20 and the new Infrastructure Benchmark will be a blend of the two going forward.

# ATRS' Infrastructure Performance

| Performance Summary | Quarter (%) | | 1 Year (%) | | 3 Year (%) | | 5 Year (%) | | 10 Year (%) | | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET | TGRS | TNET | | |
| Infrastructure | 4.3 | 3.6 | 22.9 | 20.4 | 16.7 | 13.9 | 18.0 | 14.3 | N/A | N/A | 13.4 | 1.4 |
| Infrastructure Benchmark* | 2.4 | | 6.2 | | 6.6 | | 6.9 | | N/A | | | |

- The infrastructure portfolio outperformed the Infrastructure benchmark over the quarter, returning 3.6% net, primarily driven by strong performance from KKR Global Infrastructure Investors II (14.9% net).

- ATRS' Infrastructure portfolio is outperforming the Infrastructure benchmark over all measurement periods.





*As of 3Q2020, the Infrastructure Benchmark of CPI plus 500 bps has been adjusted to CPI plus 300 bps and the new Infrastructure Benchmark will be a blend of the two going forward.

# ATRS' Real Assets Portfolio Highlights

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- Commitment activity update
  - ATRS made the following commitments during the quarter or subsequent to quarter end
    - ISQ Global Infrastructure Fund III: $50 million
    - Carlyle Realty Partners IX: $35 million
    - GLP Capital Partners IV: $50 million
  - ATRS is in the queue for a partial redemption of UBS TPF
    - As of July 2021, the TPF redemption queue is $7.2 billion and expect 3 to 4 years for repayment

## Significant Events

- During the previous quarter, New Boston Real Estate Investment Fund VII, which saw it's first capital call during 4Q08, fully liquidated. The investment generated a -2.8% net IRR and 0.8x equity multiple over it's fund life due to its tough 2008 vintage year.

- During the quarter, AxInfra NA II LP and PRECap VII made their first capital calls.

- Subsequent to quarter end, UBS appointed Tiffany Gherlone as Head of Asset Management for the Trumbull Property Fund. Tiffany replaces Jim-Fishman, Co-Head of Asset Management, who retired, and Tom Enger, Co-Head of Asset Management, who now oversees UBS's ESG program full-time. Townsend has reviewed this and is comfortable with the change in leadership.

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# Agenda

| | |
|---|---|
| Section 1 | Executive Summary |
| **Section 2** | **Market Overview** |
| **Section 3** | Real Assets Portfolio Update |
| **Section 4** | Glossary |

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# United States Real Estate Market Update (1Q21)

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**General**

- As a result of the COVID-19 pandemic, national, state and local governments across the world implemented stay-at-home orders, which caused a near complete halt of the world economy in the 1st half 2020. Governments dramatically expanded expenditures in order to protect people and businesses from large-scale disruption. In 1Q21, equity markets continued to bounce back from the March 2020 rout and even exceeded prior highs, and the S&P 500 produced a gross total return of 6.2%. The MSCI US REIT index continued to rebound and produced a return of 8.8% and returned close to pre-COVID levels.

- The U.S. entered a recession in February 2020, but the economy has since rebounded with the accelerated development and rollout of vaccines. In the 1st quarter, GDP grew at an annualized rate of 6.4%. The unemployment rate peaked in April at 14.7% and has since declined to 6.1% at quarter end 1Q21. The Federal Reserve has acted aggressively via quantitative easing and rate cuts, thus far financial markets have stabilized. The world economy shrunk by -3.3% in 2020 but is forecasted to grow 6.0% in 2021.

**Commercial Real Estate**

- Through April of 2021, transaction volume was up by 60% YoY, after rebounding from a COVID-19 induced slowdown. Transaction volume has been the strongest in the apartment and industrial sectors.

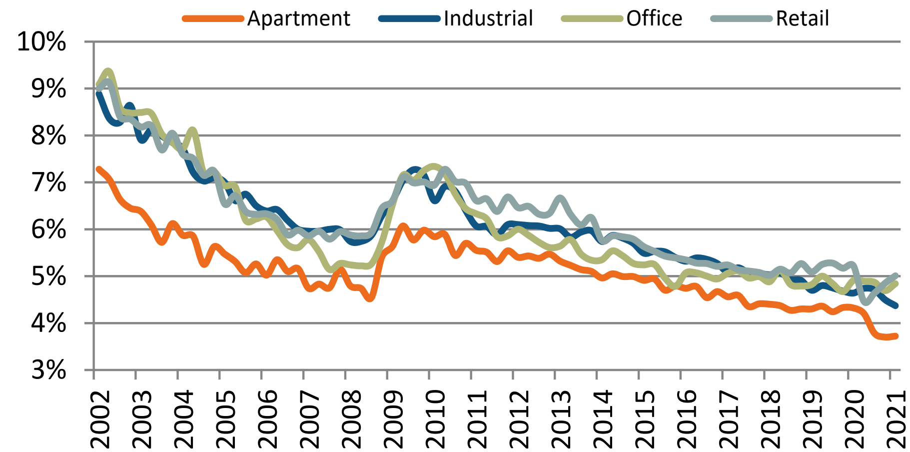
- Transaction cap rates (5.9%) expanded +34 bps during the quarter. Current valuation cap rates declined for industrial (-13 bps). The office (+15 bps) and retail (+16 bps) property sectors experienced cap rate expansion. Apartment valuation cap rates were flat.

- NOI growth has substantially diverged between property sectors due to the impacts of COVID-19. Retail NOI has contracted substantially (-17%) YoY as rent collections declined and retailers were shutdown. Apartment NOI contracted (-14%), primarily driven by declines in CBD effective market rents.

- In the first quarter of 2021, $34 bn of aggregate capital was raised by real estate funds. There continues to be substantial dry powder,~$362 billion, seeking exposure to private real estate.

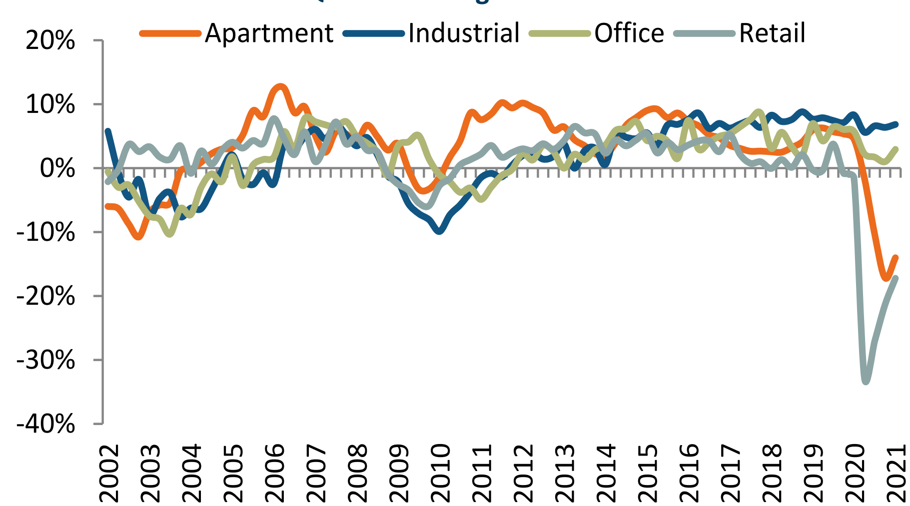
- 10-year treasury bond yields rose 80 bps to 1.7% during the quarter as a result of an improving economic growth outlook and growing inflationary pressures.

**Current Value Cap Rates by Property Type**




*Source: NCREIF*

**4 Quarter Rolling NOI Growth**




*Source: NCREIF*



*Sources: Bureau of Economic Analysis, U.S. Census Bureau, St. Louis Fed, NCREIF, Real Capital Analytics, Bloomberg LP., Preqin.*

# United States Property Matrix (1Q21)

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## INDUSTRIAL

- In 1Q21, industrial properties were the highest returning sector at 4.7% and outperformed the NPI by 300 bps.
- Transaction volumes fell to $21.6 billion in the first quarter of the year, resulting in a 23.0% decrease year-over-year. Individual asset sales increased 23.4% year-over-year, while portfolio purchases turned in a year-over-year volume decrease of 21.9%. At slightly over $21.6 billion, the industrial sector decreased a significant $20.1 billion quarter-over-quarter.
- The industrial sector turned in NOI growth of 6.8% over the past year, an increase from the prior periods TTM growth of 6.4% in 4Q20. Market rent growth is expected to decelerate compared to its pre-pandemic levels but remains strong.
- Vacancy increased by 5 bps year-over-year to 3.5%, remaining close to all-time historic lows. E-commerce continues to drive demand.
- Industrial cap rates compressed approximately 30 bps from a year ago, to 4.4%. Industrial overall fundamentals still top all property sectors.

## MULTIFAMILY

- The apartment sector delivered a 1.7% return during the quarter, performing in line with the NPI.
- Transaction volume in the first quarter of 2021 fell to $38.1 billion, resulting in a decrease of 6.0% year-over-year. This volume continues to make multifamily the most actively traded sector for the fifteenth straight quarter.
- Cap rates remained steady at 3.7% through the quarter, compressing 60 bps year-over-year. Multifamily cap rates remain at the lowest level observed in years, driven by continued decrease in NOI and increases in valuation.
- The multifamily sector saw increasing vacancy rates throughout the entirety of 2020 due to the global pandemic. As 2021 begins, the sector appears to have shaken the trend as vacancy rates decreased 90 bps quarter-over-quarter, though still 70 bps higher than a year ago. Various rent concessions have helped managers to maintain tenants through out the pandemic, these concessions will continue to have various impacts on NOI over the next few quarters. The aging millennials have begun shifting their desires to suburban living, but continued home price appreciation has deterred the full effect of this migratory trend.

## OFFICE

- The office sector returned 1.0% in 1Q21, 70 bps below the NPI return over the period.
- Transaction volumes decreased by 32.0% year-over-year in the first quarter. Transaction volume equaled $21.2 billion for the quarter, a decrease of $9.4 billion quarter-over-quarter. Single asset transactions accounted for 62.0% of volume.
- Office sector vacancy rates have expanded since the beginning of the pandemic due to work from home orders and uncertainty revolving around the future of office space. Office continues to be the highest vacancy property type at close to 12.4%.
- NOI growth in the office sector looks to have begun its recovery, 2.9% TTM growth for the quarter, after falling for three straight periods.
- Office cap rates compressed from a year ago to approximately 4.8%, a compression of just 5 bps. Office-using job growth was stunted significantly in 2020 due to many work from home orders. Though we are beginning to observe a slow but steady flow back to in-office work, there is still uncertainty in the sector as many companies remain hesitant.

## RETAIL

- As of 1Q21, the retail sector delivered a quarterly return of -0.5%, performing 225 bps below the NPI.
- Transaction volumes totaled $8.8 billion in the first quarter, falling 34% year-over-year. Single asset transactions accounted for just over 86.5% of all sales volume for the quarter.
- Cap rates have compressed approximately 20 bps within the sector over the last year, to 5.0%. The current valuation cap rate did expand quarter-over-quarter by 20 bps due to slight downward valuation adjustments made across the sector in general.
- NOI growth slightly increased though still significantly negative, -17.2% over the last year. This is a 4.1% increase from last quarter. Retail is expected to continue to suffer from the shift towards e-commerce and hesitance of the consumer.
- Retail vacancy rates increased 235 bps over the past year to 9.9%. Many big box stores have closed as the need for retail space shrinks, translating to a negative outlook for rent growth. Paired with the global economic crisis, which has had a significant negative impact on this sector.

*Sources: Real Capital Analytics, Green Street, NCREIF*

# Global Real Estate Market Update (1Q21)

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- Global investment activity during the first quarter of 2021 was down significantly relative to 4Q20 and by 19% over the year compared to 2020. During 1Q21, transaction volumes recovered significantly in the APAC regions while the EU and US continued to experience significant depression.

- Increased availability of the vaccine has driven an uptick in investor appetite, specifically in regions that were among the first to be affected by the virus such as APAC. Interest in the quarter was concentrated primarily in multifamily properties, as well as senior housing.

**Global Total Commercial Real Estate Volume - 2020 - 2021**

| $ US Billions | Q1 2021 | Q1 2020 | % Change Q1 21 - Q1 20 | Full Year Ending 1Q21 | Full Year Ending 1Q20 | % Change Full Year |
|---|---|---|---|---|---|---|
| Americas | 89 | 122 | -27% | 347 | 560 | -38% |
| EMEA | 64 | 85 | -25% | 293 | 396 | -26% |
| Asia Pacific | 123 | 128 | -4% | 786 | 802 | -2% |
| Total | 275 | 335 | -18% | 1426 | 1758 | -19% |

Source: Real Capital Analytics, Inc., Q1' 21

- Investment activity in the Americas witnessed a sharp decline and fell by 38% year-over-year. Despite a slow down in COVID cases, the roll out of the vaccine hasn't helped spur investment to pre-COVID levels. Transaction volume in the US decreased 37% relative to 4Q20.

- In the Asia Pacific region, volumes were still slightly down year-over-year, but transaction activity remained the same relative to 4Q20. Singapore, Taiwan, and Hong Kong saw improvements in deal activity during 1Q21, while mainland China overtook Japan as the top market.

- Although investment activity dropped in the EMEA region, it dropped less than the Americas, with a 26% year-over-year decline. Apartment transactions in the region were up a noteworthy double-digit rate.

- In the office sector, global leasing activity declined by over 31% year-over-year and vacancy rates increased by 70 bps to 13.6%. The declines represent a continued uncertainty about future office space needs. US coastal markets have been more affected than lower-cost and high-growth markets. Across the main European markets, leasing activity fell 23% year-over-year. In the APAC region, net absorption increased for the third consecutive quarter.

- Despite a recovery in sales, the retail sector continued to suffer globally as the shutdowns and social distancing measures of the COVID-19 outbreak posed challengers for operators. The bifurcation between property types (necessity-based vs malls/street retail) and markets (urban vs suburban) has continued to widen. However, gateway cities, such as New York and London, have seen noteworthy increases in leasing activity.

- With the multifamily market recording the quarter's only increase in investments globally, the sector remains the most liquid in commercial real estate highlighting its attractiveness. Throughout the world, the re-opening of businesses has contributed to a pickup in urban demand, leading to a growth in asking rents, as the number of tours and leases increased during the quarter.

- Industrial yields continued to compress due to strong market fundamentals and heightened demand. US vacancy rates fell to 5.2% in 1Q21. EMEA vacancy rates slightly climbed to 4.7% for the quarter, while the Asia Pacific region saw a dip to 11.4%.

**Global Outlook - GDP (Real) Growth % pa, 2020-2022**

| | 2020 | 2021 | 2022 |
|---|---|---|---|
| **Global** | **-3.3** | **6.0** | **4.4** |
| **Asia Pacific** | **0.2** | **5.1** | **5.0** |
| Australia | -2.4 | 4.5 | 3.3 |
| China | 2.3 | 8.5 | 5.5 |
| India | -7.5 | 9.8 | 6.8 |
| Japan | -4.7 | 2.6 | 2.2 |
| **North America** | **-3.9** | **6.4** | **4.0** |
| US | -3.5 | 6.5 | 4.0 |
| **Middle East** | **-2.8** | **3.1** | **4.1** |
| **European Union** | **-6.0** | **4.5** | **4.3** |
| France | -8.1 | 5.8 | 3.9 |
| Germany | -4.8 | 3.4 | 4.1 |
| UK | -10.1 | 6.1 | 5.5 |

Source: Bloomberg



Sources: Jones Lang LaSalle Research, Real Capital Analytics, Inc., CBRE

# Farmland – First Quarter 2021 Market Update

## FARMLAND MARKETS

- The agricultural industry had a very strong quarter as many experienced the best market conditions since 2013, as prices for many major crops reached multi-year highs. Strong exports and dwindling supplies helped provide support along with a retreat in the U.S. dollar and trade policy reforms, all helping provide optimism for a healthy farm economy outlook for 2021.
- Agricultural commodity prices increased over the quarter as export demand continued to improve, driven in large part by the global economic rebound and improved growth prospects spurred heightened economic activity. (**FIGURE 1**)
- Prices for almonds and walnuts were strong with almonds 18% higher than the 2020 crop and walnuts 19% higher. Further, both have experienced strong exports. Almond exports are up 20% over same time last year and walnut exports are up 25% over same time last year.
- In Brazil, soybean exports hit record highs in March at 13.5 million metric tons, up 24.3% y-o-y. Brazil's soybean prices have continued climbing as result of significant demand from China. (**FIGURE 2**)
- In Australia, farmland has continued to perform strongly helped by continued growth in investor appetite. However, farmland production values are predicted to contract by 4% over the year as a result of lower prices and reduced volumes of crops and livestock.

**FIGURE 1: Key Commodity Prices 1Q21**

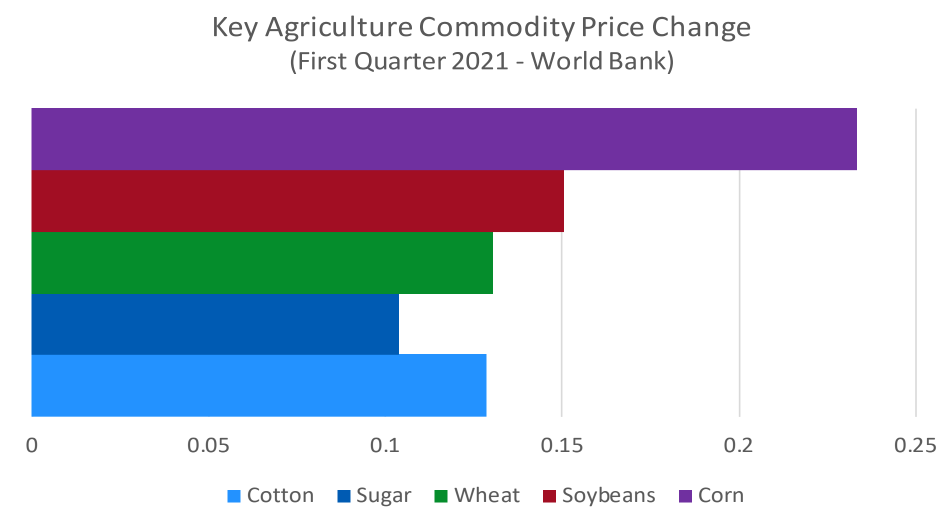
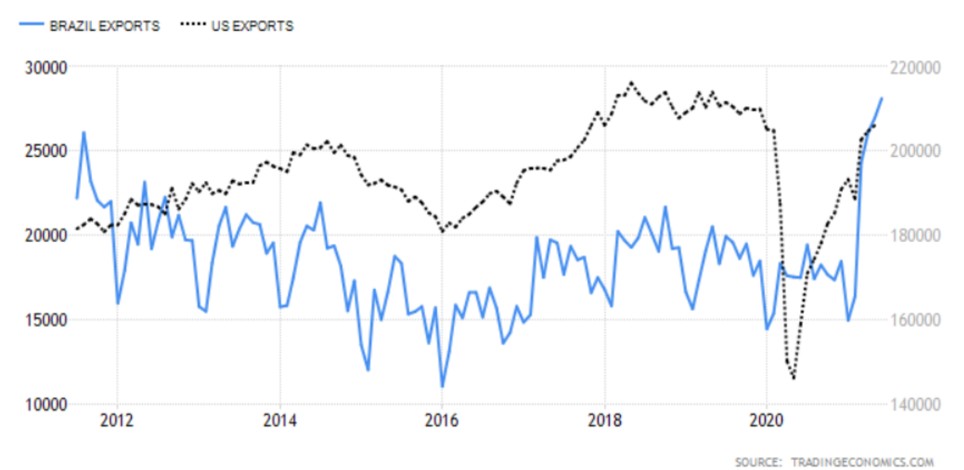



**FIGURE 2: US and Brazil Soybean Exports**






Sources by Figure: (1) World Bank; Townsend (2) Trade Economics

# Farmland - First Quarter 2021 Market Update

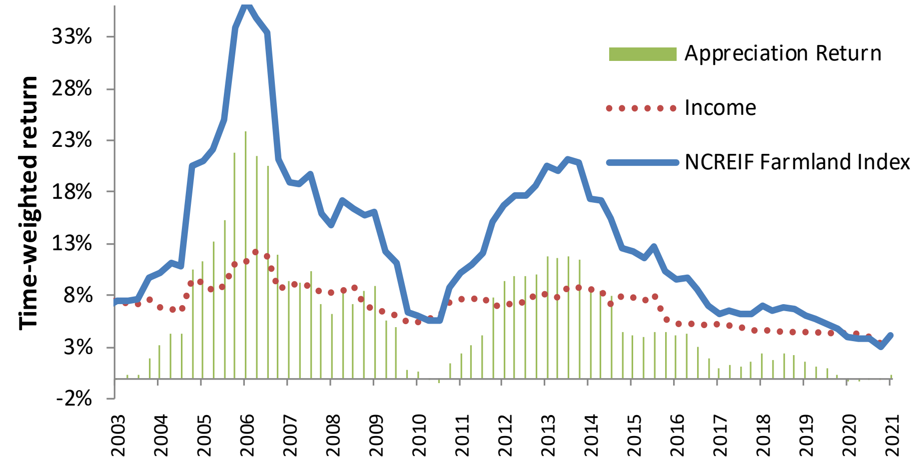
TOWNSEND® GROUP
an Aon company

## FARMLAND PERFORMANCE

- The NCREIF Farmland Index ("NFI") returned 0.86% for 1Q21, down from last quarter's 1.59% return and above 1Q 2020's -0.1%. The quarterly return consisted of a 0.79% income return and appreciation of 0.07%.
- Annual cropland values were down modestly during the quarter posting appreciation of 0.59% with permanent cropland saw value declines with appreciation of -0.71%, continuing last quarter's decline of -0.94%.
- The trailing 12-month total return was 4.08%, compared to 3.08% for the four-quarters ending 4Q 2020. The TTM total return was comprised of a 3.71% income return and 0.36% appreciation.
- Row crops outperformed permanent crops for the fourth consecutive quarter, returning a 1.56% return versus a -0.20% return for permanent crops. Performance for both was driven primarily by income as with the last few quarters, although row crop values experienced a slight uptick with a 0.59% appreciation return; permanent crop appreciation was -0.71%.
- Performance between farm types continues to converge and since the last commodity markets peak in 2012/2013. Permanent crops remain an outperformer over longer periods however, with the exception of the one-year period and three-year period in which row crops over-took permanent crops during the quarter.

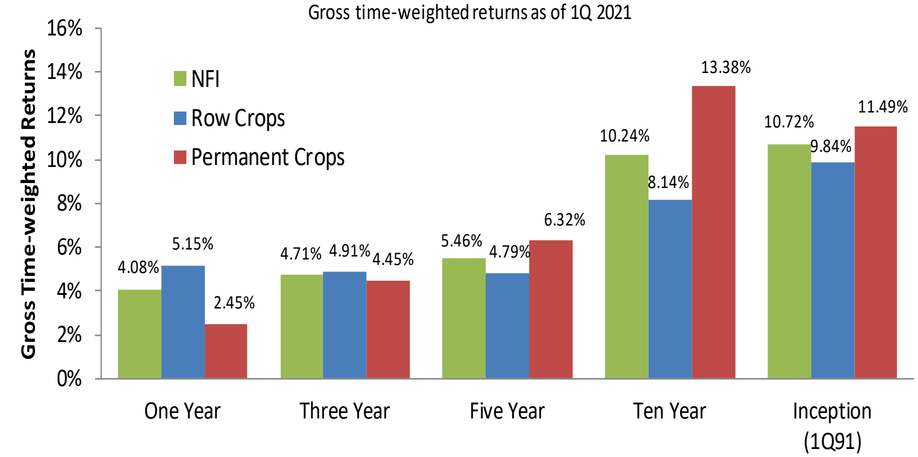
**NCREIF Farmland Index Performance**

(Rolling 1-year total returns through 1Q 2021)




**NCREIF Farmland Index Farm Type Returns**

Gross time-weighted returns as of 1Q 2021



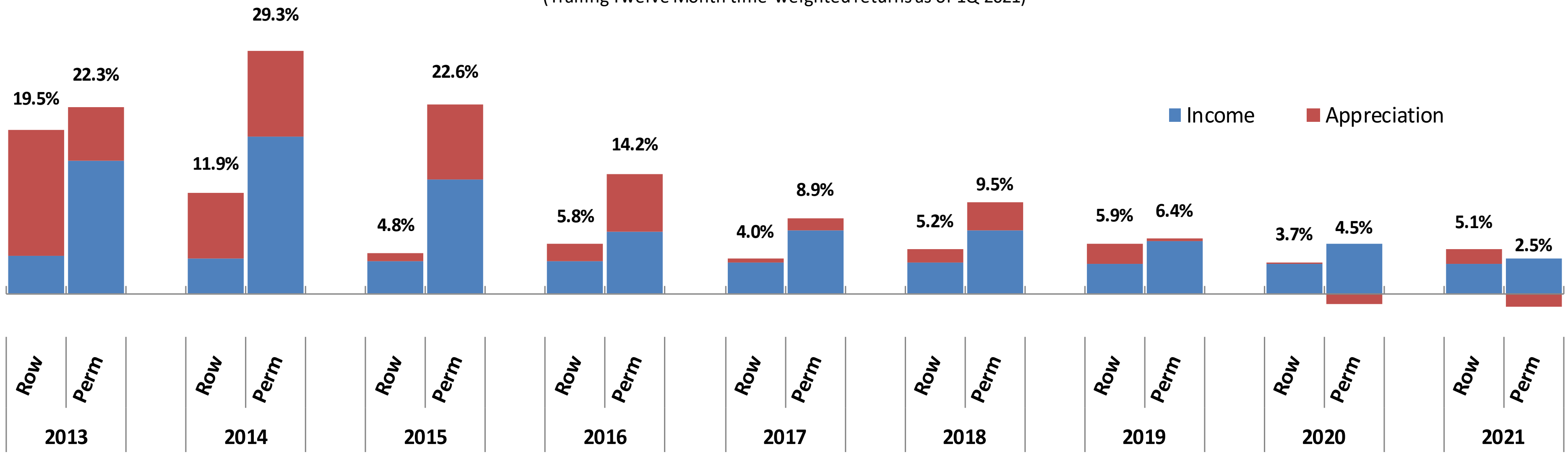
# Farmland - First Quarter 2021 Market Update

TOWNSEND® GROUP an Aon company

## FARMLAND PERFORMANCE

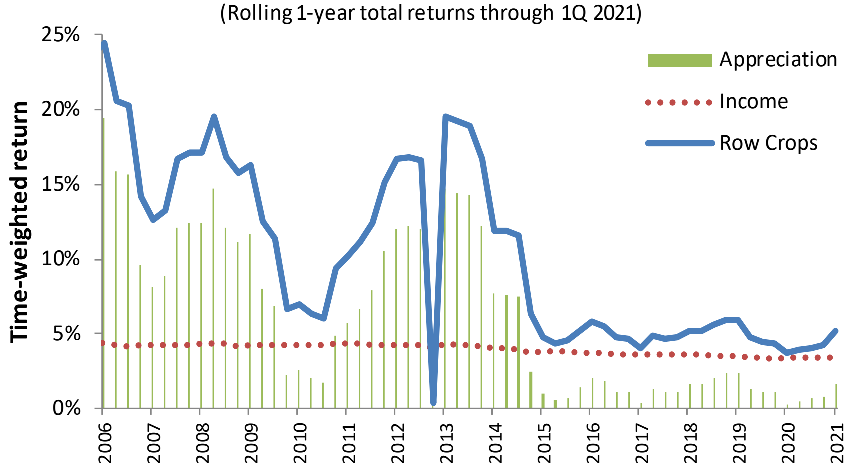
**NCREIF Farm Type Performance Attribution**

(Trailing Twelve Month time-weighted returns as of 1Q 2021)



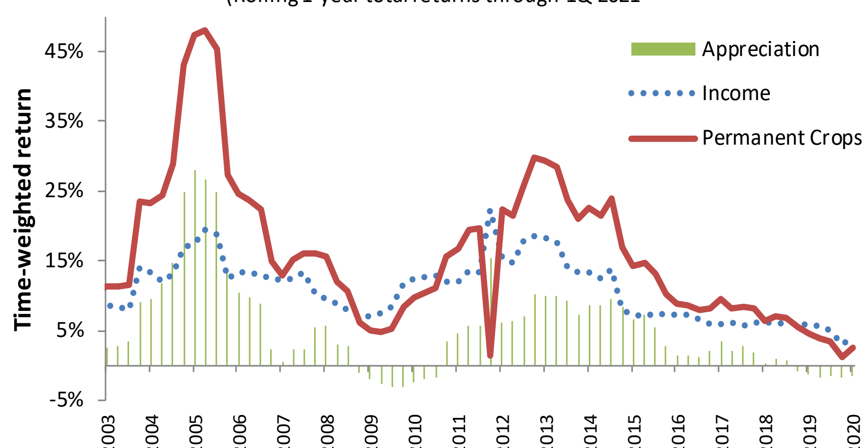

**NCREIF Row Crop Performance**

(Rolling 1-year total returns through 1Q 2021)




**NCREIF Permanent Crop Performance**

(Rolling 1-year total returns through 1Q 2021








Source: NCREIF

# Infrastructure – First Quarter 2021 Market Update

**General**

- Investment activity broke its recovery growth trend during the quarter, with the number of transactions falling by 13% quarter-over-quarter. Despite this, investment volumes have increased 28% year-over-year, showing strong recovery in the sector since the transaction volume lows reached in Q2 2020, driven by the initial impact of the global pandemic. In terms of fundraising, 27 funds reached their final close during Q1 2021; a decrease of 33% quarter-over-quarter and a decrease of 43% since the fundraising highs reached in Q4 2019. The average aggregate capital raised per fund took a significant hit during the onset of the global pandemic but has since had a strong recovery, up 93% from a year ago. Yet down 48% when compared to the highs reached in Q1 2020.

**Europe**

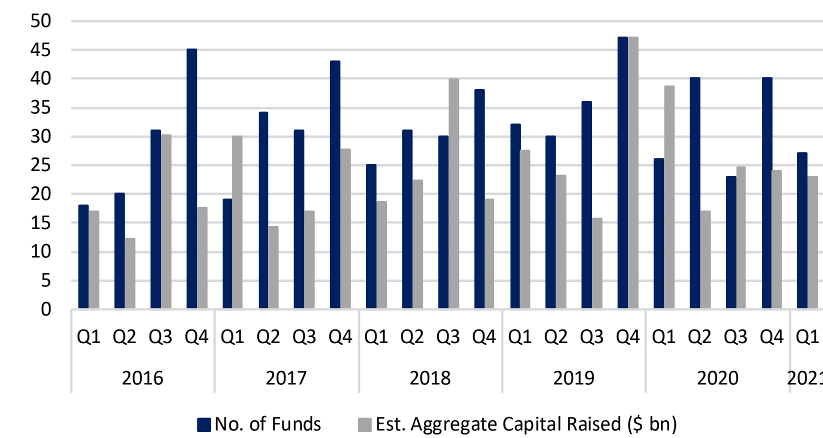
- Notable transactions for the quarter were headlined by the sale of Western Power Distribution, a UK-based power utility company, for US$20.1 billion. Two other significant transactions of note occurred through out the quarter, the sale of Telxius Telecom and the sale of Hivory. Telxius Telecom, a Spain-based telecommunications company, was officially acquired for the total sale price of US$8.5 billion in January 2021. Hivory, rounding out the most significant transaction for the quarter, is a France-based telecommunications company formerly known as SFR TowerCo. In February 2021, Hivory was acquired for a total aggregate deal size of US$8.4 billion.

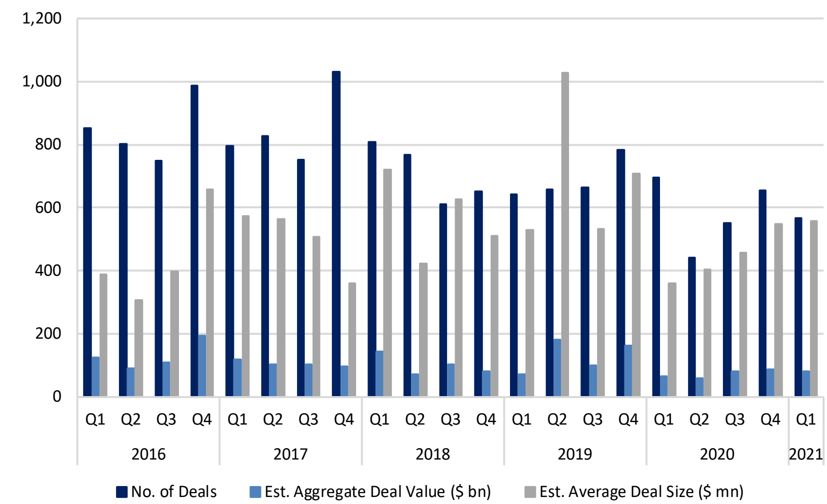
**North America**

- Narragansett Electric Company, a US-based infrastructure company that offers electric and gas service to over 750,000 customers, sold during Q1 2021 for US$5.3 billion. Another notable transaction included the sale of Hygo Energy Transition, a downstream LNG distribution company, for US$3.1 billion. Deal flow in the renewable energy sector was headlined by two assets, Mesquite Sky Wind Project and Amp Energy. Mesquite Sky Wind Project, a 345MW wind power facility located in Texas, sold for US$427 million. Amp Energy, a Canada-based renewable energy infrastructure manager, developer, and owner, was purchased by Carlyle Global for US$294 million.

**Asia Pacific**

- In Q1 2021, it is worth highlighting the sale of Rajasthan Solar and Wind Project, a portfolio of multiple solar and wind power facilities with a total generating capacity of 1.69GW located in India, for a total of US$1.4 billion. Other notable transactions, a portfolio of 4,200 telecommunication towers in Indonesia and a 1,500MW combined-cycle gas-turbine power plant located in Uzbekistan, both acquired for US$750 million.






*First Quarter 2021*

Sources: Preqin

# Timberland – First Quarter 2021 Market Update

TOWNSEND® GROUP
an Aon company

## TIMBERLAND MARKETS

- The extent of the COVID-19 impact on forest products remained relatively minimal during the quarter, as the U.S. sector was bolstered by strong housing starts combined with robust repair and remodel activity over the quarter.
- Lumber and panel prices reached all-time highs during the quarter (**FIGURE 1**). Despite record margins in wood products (eg, lumber) not directly passing through to the timber producers, timber prices generally increased across the board as a result of high-capacity utilization at mills, weather-related conditions constraining supply, and log exports picking up substantially - increasing 41% from the same period last year.
- Housing starts continued to rebound since the beginning of the pandemic with March 2021 housing starts increasing 4.2% versus December 2020 and 37.0% versus March 2020, driven in large part by increased interest in suburban living and low mortgage rates. The notable shift to increased levels of single-family home construction continued, while multifamily starts remained relatively muted. (**FIGURE 2**)
- Brazilian markets were strong broadly; manufactured products saw considerable growth, especially in terms of iron and pulpwood (paper products/packaging). Australian markets recovered significantly due to strengthening foreign demand as COVID restrictions eased.

**FIGURE 1: U.S. Framing Lumber Index and Panel Composite Index**

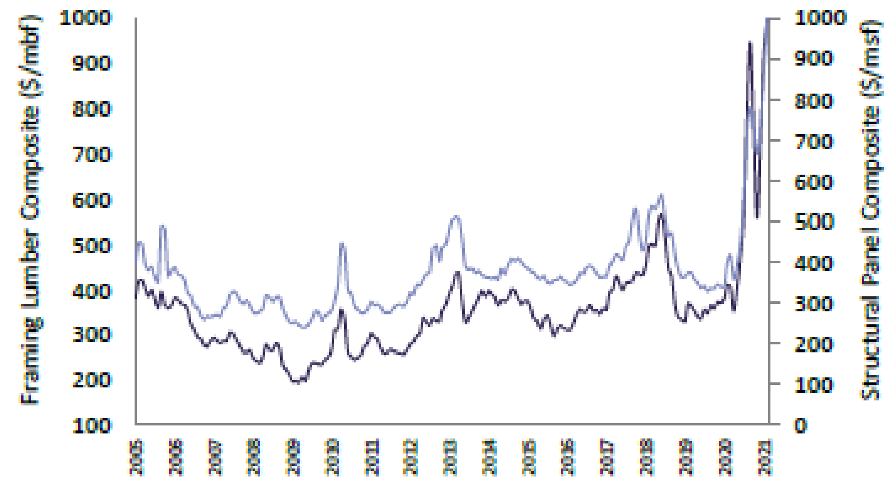
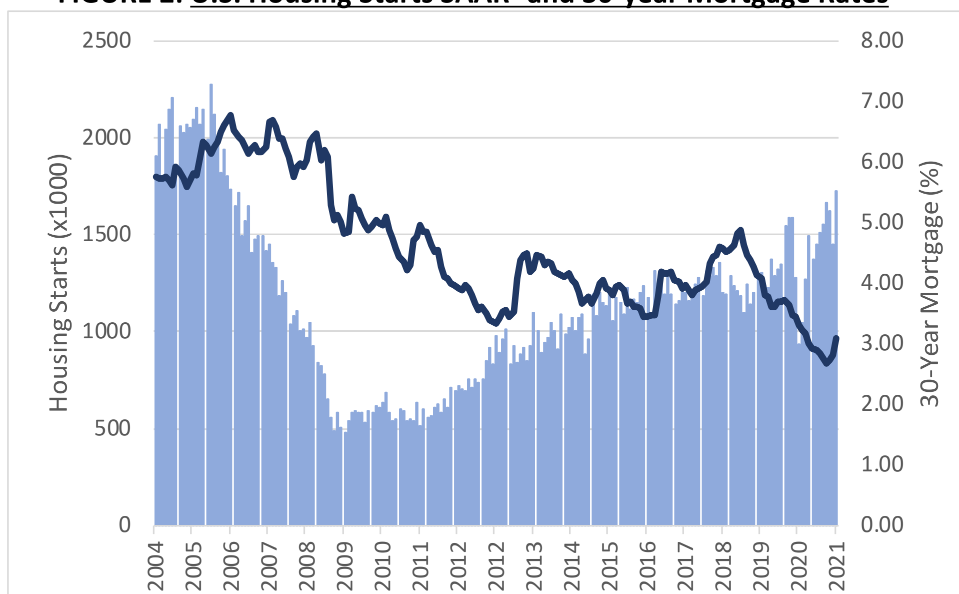



**FIGURE 2: U.S. Housing Starts SAAR[1] and 30-year Mortgage Rates**







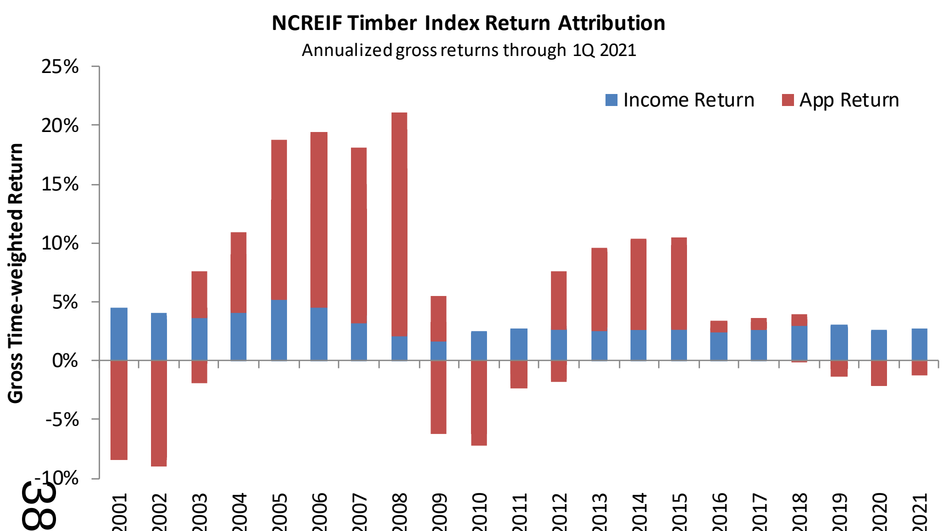

[1] *Seasonally Adjusted Annual Rate*

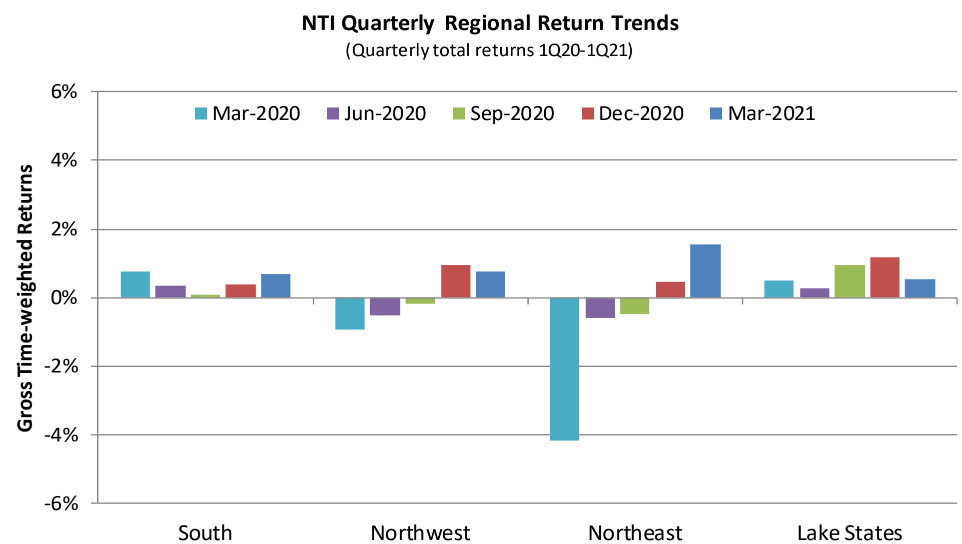
Sources by Figure: (1) TIG, Random Lengths (2) Federal Reserve Bank; US Census Bureau

# Timberland – First Quarter 2021 Market Update

## TIMBERLAND PERFORMANCE

- The NCREIF Timberland Index (“NTI”) returned 0.76% for the quarter, improving from last quarter’s 0.58% return and 1Q20’s 0.11% return. The return was comprised of a 0.88% income return and a negative appreciation return of -0.12% marking the seventh straight quarter of value declines. The Lake States and Northeast regions experienced increases in values during the quarter.
- The NFI’s largest timberland region - the U.S. South – returned 0.68% for the quarter consisting of a 0.81% income return and a -0.13% appreciation return as land values began to recover modestly amidst eased COVID restrictions increasing forestry activity, increased demands from the housing industry and transaction activity. The South continues to remain relatively resilient with only one negative quarterly return since 2011 coupled with consistent income returns averaging over 2.0% per year over the last ten years.
- The Northwest returned 0.76% for the quarter, down marginally from the previous quarter’s return of 0.94%. The return consisted of 1.18% income and -0.43% appreciation. This marks the second straight quarter of positive returns after experience five quarters of negative total returns. However, the region returns continue to be subdued by declines in values; declining 2.2% over the past 12-months.
- Timberland per acre values remained unchanged when compared with last quarter, holding at to $1,736/acre.





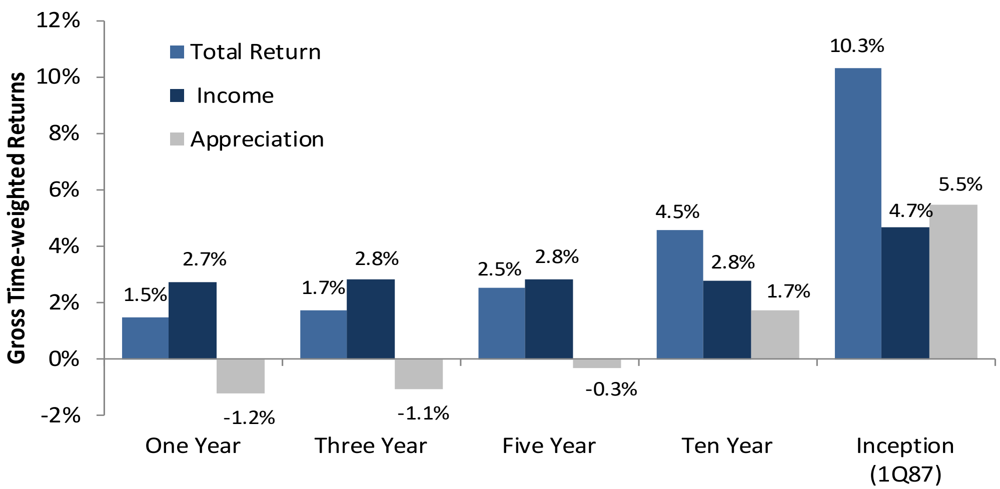
Sources: NCREIF

# Timberland – First Quarter 2021 Market Update

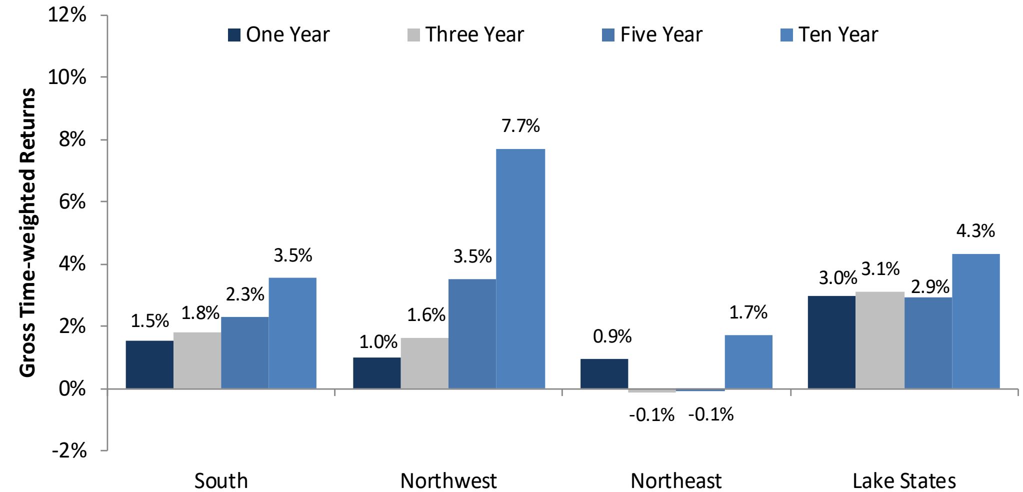
TOWNSEND® GROUP
an Aon company

## TIMBERLAND PERFORMANCE

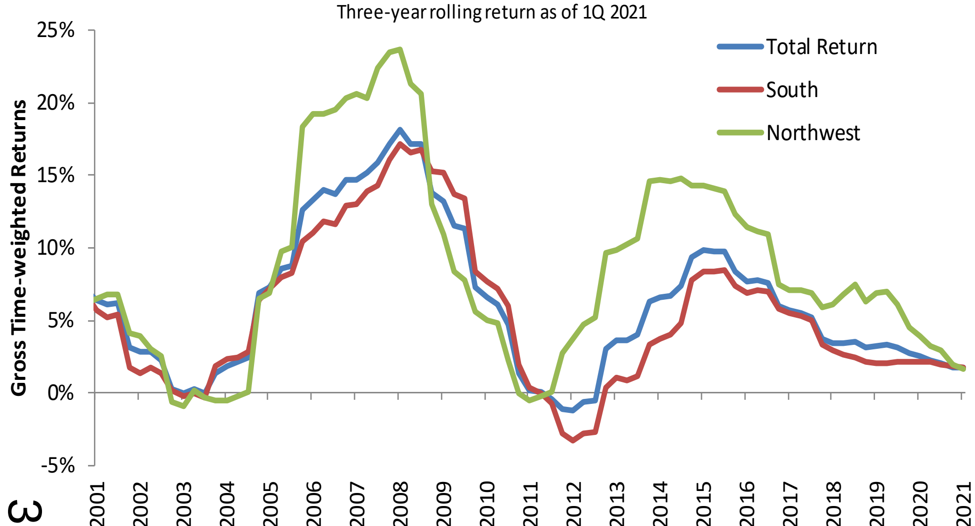
**NCREIF Timber Index Returns**
Gross time-weighted returns as of 1Q 2021



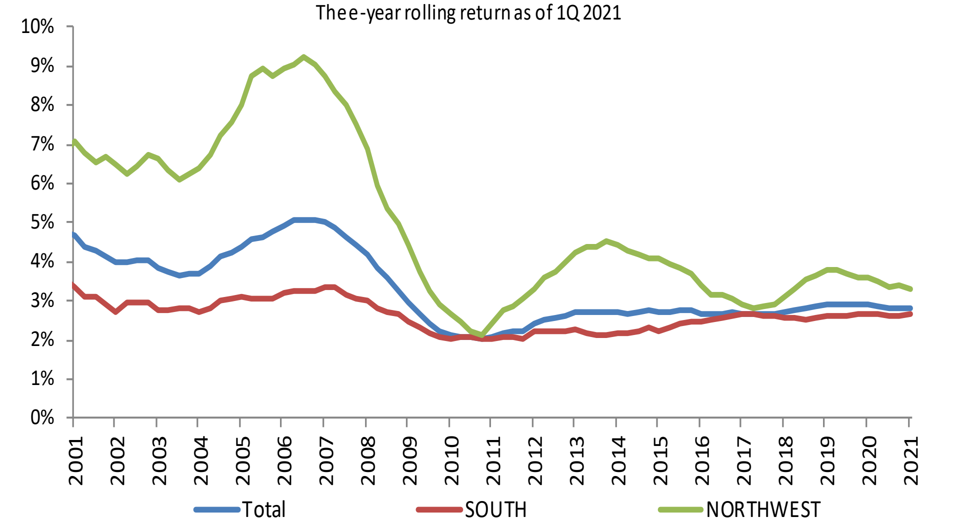

**NCREIF Timber Index Regional Returns**
Gross time-weighted returns as of 1Q 2021




**Total Returns by Region**
Three-year rolling return as of 1Q 2021




**EBITDA Returns by Region**
Thee-year rolling return as of 1Q 2021






*First Quarter 2021*
Sources: NCREIF

# Agenda

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# ATRS’ Real Estate Performance: Core Portfolio

As of 3/31/2021

| Funding Status ($) | Investment Vintage Year | Commitment Amount | Funded Amount | Unfunded Commitments | Capital Returned | Market Value | Market Value (%) | Market Value + Unfunded Commitments (%) |
|---|---|---|---|---|---|---|---|---|
| **Core** | | | | | | | | |
| Arkansas Investments | 2007 | 142,694,200 | 144,624,546 | 0 | 195,478,578 | 77,686,391 | 3.6 | 2.8 |
| JP Morgan Strategic Property Fund | 2006 | 220,000,000 | 170,000,000 | 50,000,000 | 74,521,428 | 283,000,836 | 13.1 | 11.8 |
| Metlife Commercial Mortgage Income Fund | 2018 | 50,000,000 | 50,000,000 | 0 | 3,926,557 | 49,103,380 | 2.3 | 1.7 |
| PRISA SA | 2005 | 170,000,000 | 184,182,196 | 0 | 112,392,647 | 275,417,862 | 12.8 | 9.8 |
| UBS Trumbull Property Fund | 2005 | 170,000,000 | 190,587,980 | 0 | 147,211,508 | 189,044,204 | 8.8 | 6.7 |
| UBS Trumbull Property Income Fund | 2016 | 50,000,000 | 50,000,000 | 0 | 5,721,006 | 52,126,313 | 2.4 | 1.8 |
| **Core** | **2005** | **802,694,200** | **789,394,722** | **50,000,000** | **539,251,724** | **926,378,986** | **43.0** | **34.6** |

| Returns (%) | Quarter | | | | 1 Year | | | | 3 Year | | | | 5 Year | | | | 10 Year | | | | Inception | | TWR Calculation Inception | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | TGRS | TNET | | | |
| **Core** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arkansas Investments | 0.0 | 1.3 | 1.3 | 1.3 | 0.0 | -12.6 | -12.6 | -12.6 | 0.0 | -3.4 | -3.4 | -3.4 | 0.0 | 7.4 | 7.4 | 7.4 | 0.0 | 6.2 | 6.2 | 6.2 | 7.4 | 7.4 | 1Q08 | 8.2 | 1.9 |
| JP Morgan Strategic Property Fund | 0.8 | 1.0 | 1.9 | 1.6 | 3.4 | -1.7 | 1.7 | 0.9 | 3.7 | 0.7 | 4.5 | 3.6 | 3.9 | 1.8 | 5.8 | 4.9 | 4.5 | 5.0 | 9.7 | 8.8 | 6.1 | 5.2 | 2Q07 | 6.4 | 2.1 |
| Metlife Commercial Mortgage Income Fund | 1.4 | -0.3 | 1.1 | 0.9 | 5.2 | -0.7 | 4.4 | 3.6 | | | | | | | | | | | | | 4.4 | 3.5 | 3Q19 | 3.5 | 1.1 |
| PRISA SA | 0.9 | 1.2 | 2.1 | 1.9 | 3.9 | -0.8 | 3.0 | 2.2 | 4.2 | 1.5 | 5.7 | 4.9 | 4.3 | 2.3 | 6.7 | 5.9 | 4.8 | 5.2 | 10.1 | 9.3 | 6.9 | 6.1 | 3Q05 | 6.3 | 2.1 |
| UBS Trumbull Property Fund | 1.0 | 0.2 | 1.3 | 1.1 | 3.9 | -6.9 | -3.2 | -3.9 | 4.4 | -4.3 | 0.0 | -0.8 | 4.5 | -1.8 | 2.6 | 1.8 | 4.8 | 2.0 | 6.9 | 6.0 | 5.3 | 4.4 | 2Q06 | 5.1 | 1.8 |
| UBS Trumbull Property Income Fund | 1.0 | 0.6 | 1.5 | 1.3 | 3.6 | -1.9 | 1.7 | 0.8 | 3.8 | 0.8 | 4.7 | 3.9 | | | | | | | | | 5.1 | 4.3 | 3Q17 | 4.4 | 1.2 |
| **Core** | **0.9** | **0.8** | **1.7** | **1.5** | **3.4** | **-3.6** | **-0.3** | **-1.0** | **3.7** | **-0.7** | **3.0** | **2.2** | **3.8** | **1.7** | **5.6** | **4.8** | **4.0** | **4.2** | **8.3** | **7.6** | **7.7** | **6.9** | **3Q05** | **6.2** | **1.9** |

Note: Arkansas Investments are included in Core portfolio

# ATRS' Real Estate Performance: Value-Add Portfolio

TOWNSEND® GROUP
an Aon company

As of 3/31/2021

| Funding Status ($) | Investment Vintage Year | Commitment Amount | Funded Amount | Unfunded Commitments | Capital Returned | Market Value | Market Value (%) | Market Value + Unfunded Commitments (%) |
|---|---|---|---|---|---|---|---|---|
| **Value Added** | | | | | | | | |
| Almanac Realty Securities V, LP | 2008 | 50,000,000 | 21,787,314 | 0 | 48,380,466 | 97,927 | 0.0 | 0.0 |
| Almanac Realty Securities VI | 2012 | 30,000,000 | 19,102,008 | 0 | 21,006,051 | 3,609,976 | 0.2 | 0.1 |
| Almanac Realty Securities VII | 2015 | 30,000,000 | 28,444,459 | 7,480,559 | 22,938,869 | 15,218,142 | 0.7 | 0.8 |
| Almanac Realty Securities VIII | 2018 | 30,000,000 | 7,328,228 | 22,671,772 | 336,751 | 7,424,421 | 0.3 | 1.1 |
| Calmwater Real Estate Credit Fund III | 2017 | 30,000,000 | 23,113,383 | 7,427,676 | 4,253,199 | 23,252,331 | 1.1 | 1.1 |
| CBRE Strategic Partners U.S. Value 8 | 2016 | 25,000,000 | 22,826,523 | 2,173,477 | 7,298,183 | 21,891,088 | 1.0 | 0.9 |
| CBRE Strategic Partners U.S. Value 9 | 2020 | 50,000,000 | 13,885,185 | 38,541,864 | 2,358,493 | 10,443,690 | 0.5 | 1.8 |
| FPA Core Plus Fund IV | 2018 | 30,000,000 | 19,800,000 | 10,200,000 | 1,700,660 | 19,442,650 | 0.9 | 1.1 |
| Harbert European Real Estate Fund IV | 2016 | 25,011,918 | 23,920,550 | 1,784,961 | 10,424,723 | 20,401,519 | 0.9 | 0.8 |
| LaSalle Income & Growth Fund VI | 2013 | 20,000,000 | 19,047,619 | 952,381 | 21,551,268 | 6,096,022 | 0.3 | 0.3 |
| LaSalle Income & Growth Fund VII | 2017 | 20,000,000 | 19,571,839 | 2,244,082 | 7,477,808 | 15,260,666 | 0.7 | 0.6 |
| LaSalle Income & Growth Fund VIII | 2018 | 50,000,000 | 11,645,795 | 38,354,205 | 0 | 11,339,235 | 0.5 | 1.8 |
| Long Wharf Real Estate Partners V | 2016 | 30,000,000 | 29,828,371 | 0 | 15,970,882 | 21,413,759 | 1.0 | 0.8 |
| Long Wharf Real Estate Partners VI, L.P. | 2020 | 50,000,000 | 11,237,146 | 38,721,506 | 5,153,617 | 7,470,121 | 0.3 | 1.7 |
| PGIM Real Estate Capital VII ("PRECap VII") | 2021 | 42,411,070 | 3,039,134 | 39,358,112 | 0 | 2,990,805 | 0.1 | 1.5 |
| Rockwood Capital Real Estate Partners Fund IX | 2012 | 30,000,000 | 27,422,960 | 2,577,040 | 31,097,878 | 5,637,315 | 0.3 | 0.3 |
| Rockwood Capital Real Estate Partners Fund XI | 2019 | 40,000,000 | 14,741,554 | 25,258,446 | 0 | 14,660,755 | 0.7 | 1.4 |
| Walton Street Real Estate Debt Fund II, L.P. | 2019 | 40,000,000 | 9,944,773 | 33,455,475 | 3,411,564 | 7,034,098 | 0.3 | 1.5 |
| Westbrook Real Estate Fund IX | 2012 | 40,000,000 | 46,228,470 | 3,603,488 | 45,995,329 | 9,989,189 | 0.5 | 0.5 |
| Westbrook Real Estate Fund X | 2015 | 25,000,000 | 24,035,219 | 2,016,766 | 14,947,368 | 13,748,938 | 0.6 | 0.6 |
| **Value Added** | **2007** | **687,422,988** | **396,950,529** | **276,821,810** | **264,303,110** | **237,422,647** | **11.0** | **18.6** |

# ATRS' Real Estate Performance: Value-Add Portfolio (Cont.)

**Time Weighted Returns:**

| Returns (%) | Quarter | | | | 1 Year | | | | 3 Year | | | | 5 Year | | | | Inception | | TWR Calculation Inception | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | TGRS | TNET | | | |
| **Value Added** | | | | | | | | | | | | | | | | | | | | | |
| Almanac Realty Securities V, LP | -1.4 | 0.3 | -1.1 | -1.1 | -32.4 | -0.2 | -31.5 | -31.9 | -4.5 | -5.6 | -8.4 | -9.3 | 7.2 | -5.9 | 2.9 | 1.7 | 8.1 | 6.5 | 4Q09 | 11.9 | 2.2 |
| Almanac Realty Securities VI | 0.0 | 1.3 | 1.3 | 1.0 | 0.2 | -3.6 | -3.3 | -4.5 | 6.1 | -17.7 | -12.3 | -13.1 | 6.6 | -11.1 | -5.0 | -5.8 | 4.3 | 2.8 | 1Q13 | 9.3 | 1.3 |
| Almanac Realty Securities VII | 1.9 | 1.7 | 3.6 | 3.3 | 7.7 | 7.0 | 15.1 | 13.8 | 8.2 | 4.9 | 13.4 | 12.1 | 8.5 | 6.4 | 15.3 | 13.0 | 15.6 | 12.5 | 3Q15 | 13.0 | 1.3 |
| Almanac Realty Securities VIII | 1.4 | 2.9 | 4.3 | 2.9 | 5.2 | 29.3 | 35.5 | 25.8 | | | | | | | | | 35.9 | -58.8 | 1Q19 | 5.9 | 1.1 |
| Calmwater Real Estate Credit Fund III | 2.6 | 0.0 | 2.6 | 1.9 | 11.1 | 0.0 | 11.1 | 7.8 | 11.5 | 0.0 | 11.5 | 7.4 | | | | | 11.5 | 7.5 | 1Q18 | 7.4 | 1.2 |
| CBRE Strategic Partners U.S. Value 8 | 1.9 | 0.6 | 2.5 | 2.2 | 7.2 | -1.6 | 5.5 | 5.4 | 6.7 | 4.4 | 11.3 | 9.9 | | | | | 11.6 | 10.0 | 2Q17 | 9.3 | 1.3 |
| CBRE Strategic Partners U.S. Value 9 | 0.4 | 2.5 | 2.8 | 1.5 | | | | | | | | | | | | | 2.7 | -0.2 | 4Q20 | -9.2 | 0.9 |
| FPA Core Plus Fund IV | 1.1 | 1.2 | 2.3 | 2.1 | 4.2 | 1.2 | 5.5 | 4.8 | | | | | | | | | 4.5 | 3.7 | 4Q18 | 3.3 | 1.1 |
| Harbert European Real Estate Fund IV | 0.4 | -2.7 | -2.3 | -2.6 | 2.9 | -5.7 | -2.7 | 3.3 | 6.6 | 2.6 | 9.6 | 9.2 | | | | | 8.3 | 7.1 | 3Q16 | 7.2 | 1.3 |
| LaSalle Income & Growth Fund VI | 1.2 | 0.0 | 1.2 | 0.9 | 4.4 | -16.3 | -12.4 | -9.8 | 3.5 | -6.6 | -3.3 | -2.4 | 4.3 | -2.2 | 2.0 | 2.0 | 7.8 | 6.7 | 4Q13 | 10.6 | 1.5 |
| LaSalle Income & Growth Fund VII | 0.3 | 0.0 | 0.3 | 0.0 | 0.7 | -3.0 | -2.4 | -3.1 | 0.5 | 4.6 | 5.1 | 3.6 | | | | | 7.0 | 5.5 | 3Q17 | 6.5 | 1.2 |
| LaSalle Income & Growth Fund VIII | 0.7 | 5.6 | 6.3 | 5.0 | 2.1 | 9.4 | 11.6 | 4.4 | | | | | | | | | 11.6 | 4.4 | 2Q20 | -3.3 | 1.0 |
| Long Wharf Real Estate Partners V | 0.4 | 1.1 | 1.5 | 1.2 | 1.5 | 1.1 | 2.6 | 3.1 | 1.4 | 7.7 | 9.1 | 7.8 | 2.6 | 8.0 | 10.7 | 7.8 | 10.4 | 7.1 | 1Q16 | 8.2 | 1.3 |
| Long Wharf Real Estate Partners VI, L.P. | 1.0 | 7.8 | 8.8 | 4.8 | 1.8 | 43.3 | 46.1 | 28.4 | | | | | | | | | 46.1 | 28.4 | 2Q20 | 16.6 | 1.1 |
| PGIM Real Estate Capital VII ("PRECap VII") | N/A | N/A | N/A | N/A | | | | | | | | | | | | | N/A | N/A | 2Q21 | -1.6 | 1.0 |
| Rockwood Capital Real Estate Partners Fund IX | 1.1 | 0.1 | 1.2 | 0.5 | 3.2 | 1.7 | 5.0 | 1.9 | 2.9 | -9.0 | -6.4 | -9.2 | 2.9 | -1.9 | 0.8 | -1.8 | 9.0 | 5.9 | 4Q13 | 10.5 | 1.3 |
| Rockwood Capital Real Estate Partners Fund XI | 0.1 | 5.5 | 5.6 | 4.6 | -6.7 | -55.1 | -61.3 | 5.3 | | | | | | | | | -79.3 | -14.9 | 1Q20 | -2.0 | 1.0 |
| Walton Street Real Estate Debt Fund II, L.P. | 2.5 | -0.7 | 1.8 | 1.5 | 11.5 | -3.0 | 8.3 | 6.5 | | | | | | | | | 9.2 | 7.2 | 3Q19 | 7.6 | 1.1 |
| Westbrook Real Estate Fund IX | -0.2 | 0.7 | 0.5 | 0.2 | -0.8 | -8.3 | -9.1 | -10.2 | -0.7 | -6.5 | -7.2 | -8.4 | -0.1 | 0.5 | 0.4 | -0.9 | 6.5 | 3.6 | 3Q13 | 7.6 | 1.2 |
| Westbrook Real Estate Fund X | 0.1 | 3.2 | 3.3 | 3.0 | 0.4 | 10.8 | 11.3 | 9.8 | -0.3 | 12.7 | 12.4 | 10.5 | | | | | 16.4 | 9.6 | 4Q16 | 10.8 | 1.2 |
| **Value Added** | **1.0** | **1.4** | **2.4** | **1.7** | **4.0** | **1.9** | **6.0** | **4.3** | **4.5** | **2.9** | **7.6** | **5.2** | **4.7** | **4.6** | **9.5** | **7.0** | **6.7** | **4.3** | **2Q07** | **6.7** | **1.3** |

# ATRS' Real Estate Performance: Opportunistic Portfolio

As of 3/31/2021

| Funding Status ($) | Investment Vintage Year | Commitment Amount | Funded Amount | Unfunded Commitments | Capital Returned | Market Value | Market Value (%) | Market Value + Unfunded Commitments (%) |
|---|---|---|---|---|---|---|---|---|
| **Opportunistic** | | | | | | | | |
| Blackstone Real Estate Partners Europe VI | 2019 | 49,096,184 | 15,214,367 | 36,800,662 | 35,714 | 16,100,865 | 0.7 | 1.9 |
| Blackstone Real Estate Partners VII | 2011 | 50,000,000 | 64,518,306 | 5,608,725 | 81,793,533 | 19,848,302 | 0.9 | 0.9 |
| Carlyle Realty Partners VII | 2014 | 30,000,000 | 28,541,236 | 14,406,050 | 30,294,386 | 11,199,116 | 0.5 | 0.9 |
| Carlyle Realty Partners VIII | 2018 | 25,000,000 | 12,163,080 | 16,613,816 | 3,776,895 | 9,739,335 | 0.5 | 1.0 |
| CBRE Strategic Partners U.S. Opportunity 5 | 2008 | 50,000,000 | 48,619,340 | 1,643,033 | 66,876,648 | 1,000,371 | 0.0 | 0.1 |
| Cerberus Institutional Real Estate Partners III | 2013 | 30,000,000 | 37,777,980 | 7,307,395 | 43,578,169 | 11,149,426 | 0.5 | 0.7 |
| Heitman European Property Partners IV | 2009 | 44,089,700 | 34,546,944 | 2,371,666 | 25,837,855 | 1,530,652 | 0.1 | 0.1 |
| Kayne Anderson Real Estate Partners V | 2018 | 25,000,000 | 22,000,000 | 4,095,149 | 1,095,149 | 25,907,700 | 1.2 | 1.1 |
| Landmark Real Estate Fund VI | 2010 | 40,000,000 | 35,090,608 | 4,909,392 | 52,625,921 | 1,764,987 | 0.1 | 0.2 |
| Landmark Real Estate Fund VIII | 2017 | 25,000,000 | 11,911,815 | 16,838,185 | 4,757,916 | 9,206,699 | 0.4 | 0.9 |
| LaSalle Asia Opportunity Fund IV | 2014 | 30,000,000 | 28,674,871 | 2,013,173 | 38,913,010 | 2,379,464 | 0.1 | 0.2 |
| LaSalle Asia Opportunity V | 2016 | 30,000,000 | 22,604,406 | 14,782,208 | 14,608,269 | 11,886,366 | 0.6 | 1.0 |
| Lone Star Real Estate Fund IV | 2015 | 24,260,817 | 19,445,848 | 4,814,970 | 19,495,892 | 6,993,795 | 0.3 | 0.4 |
| Metropolitan Real Estate Partners Co-Investments Fund | 2015 | 20,000,000 | 19,132,876 | 867,124 | 15,045,535 | 10,517,286 | 0.5 | 0.4 |
| O'Connor North American Property Partners II, L.P. | 2008 | 50,000,000 | 58,264,766 | 5,000,000 | 40,164,714 | 8,554,971 | 0.4 | 0.5 |
| Torchlight Debt Fund VII, LP | 2020 | 50,000,000 | 5,000,000 | 45,000,000 | 0 | 5,159,659 | 0.2 | 1.8 |
| Torchlight Debt Opportunity Fund IV | 2013 | 30,000,000 | 29,369,211 | 0 | 37,327,322 | 4,806,575 | 0.2 | 0.2 |
| Torchlight Debt Opportunity Fund V | 2015 | 25,000,000 | 20,001,024 | 5,000,000 | 18,715,311 | 6,944,101 | 0.3 | 0.4 |
| Torchlight Debt Opportunity Fund VI | 2017 | 25,000,000 | 24,979,558 | 0 | 0 | 26,309,959 | 1.2 | 1.0 |
| **Opportunistic** | **1998** | **652,446,701** | **537,856,236** | **188,071,547** | **494,942,239** | **190,999,629** | **8.9** | **13.7** |

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# ATRS' Real Estate Performance: Opportunistic Portfolio (Cont.)

TOWNSEND® GROUP
an Aon company

**Time Weighted Returns:**

| Returns (%) | Quarter | | | | 1 Year | | | | 3 Year | | | | 5 Year | | | | Inception | | TWR Calculation Inception | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | TGRS | TNET | | | |
| **Opportunistic** | | | | | | | | | | | | | | | | | | | | | |
| Blackstone Real Estate Partners Europe VI | 0.1 | 1.8 | 1.9 | 0.4 | -1.2 | 20.2 | 18.7 | 9.7 | | | | | | | | | 2.6 | -3.7 | 1Q20 | 9.3 | 1.1 |
| Blackstone Real Estate Partners VII | 0.2 | 3.5 | 3.7 | 2.7 | 1.1 | -6.9 | -5.9 | -5.6 | 2.7 | -5.6 | -3.1 | -3.2 | 3.2 | 1.1 | 4.3 | 2.7 | 15.1 | 10.5 | 2Q12 | 14.6 | 1.6 |
| Carlyle Realty Partners VII | 0.9 | 4.3 | 5.2 | 4.1 | 6.3 | 4.0 | 10.6 | 9.2 | 20.2 | -4.6 | 15.4 | 14.9 | 14.4 | 2.2 | 17.3 | 13.7 | 17.3 | 12.0 | 1Q15 | 14.2 | 1.5 |
| Carlyle Realty Partners VIII | 3.9 | 5.2 | 9.0 | 3.3 | 15.6 | 10.4 | 27.4 | 16.3 | | | | | | | | | 22.8 | 9.1 | 4Q18 | 9.7 | 1.1 |
| CBRE Strategic Partners U.S. Opportunity 5 | -0.8 | 4.6 | 3.8 | 3.8 | -1.6 | 17.1 | 15.3 | 15.3 | -0.8 | 10.2 | 9.4 | 9.1 | 2.2 | 5.2 | 7.8 | 7.2 | -10.1 | -11.8 | 4Q08 | 5.4 | 1.4 |
| Cerberus Institutional Real Estate Partners III | -0.2 | 2.5 | 2.3 | 1.7 | -0.2 | 14.0 | 13.7 | 11.5 | -0.2 | 13.2 | 13.0 | 9.8 | -0.1 | 10.6 | 10.5 | 7.9 | 16.3 | 11.7 | 4Q13 | 12.1 | 1.4 |
| Heitman European Property Partners IV | 1.6 | -4.3 | -2.7 | -2.7 | -8.7 | 6.0 | -2.8 | -2.8 | 1.4 | -23.0 | -21.7 | -22.6 | 3.7 | -14.8 | -11.5 | -12.7 | -4.5 | -5.9 | 1Q11 | -3.7 | 0.8 |
| Kayne Anderson Real Estate Partners V | 0.5 | 4.2 | 4.7 | 3.4 | 4.0 | 20.1 | 24.7 | 15.9 | | | | | | | | | 18.7 | 12.3 | 3Q18 | 12.4 | 1.2 |
| Landmark Real Estate Fund VI | -0.1 | 0.0 | -0.1 | -0.3 | 3.7 | -16.8 | -12.7 | -13.6 | -0.9 | -12.4 | -10.5 | -11.6 | 7.4 | -15.0 | -6.0 | -7.2 | 27.4 | 24.7 | 3Q10 | 18.8 | 1.6 |
| Landmark Real Estate Fund VIII | -0.3 | 0.0 | -0.3 | -0.9 | 16.2 | -8.0 | 7.1 | 3.5 | 16.8 | -5.4 | 12.0 | 6.2 | | | | | 24.5 | 16.3 | 3Q17 | 11.4 | 1.2 |
| LaSalle Asia Opportunity Fund IV | 0.2 | -0.1 | 0.1 | 0.0 | -7.9 | 23.1 | 14.4 | 13.6 | -11.8 | 9.4 | 0.9 | -11.3 | -2.8 | 12.7 | 12.7 | 3.7 | 20.2 | 11.5 | 4Q14 | 33.0 | 1.4 |
| LaSalle Asia Opportunity V | 4.7 | -4.4 | 0.3 | -0.3 | -11.3 | 26.2 | 14.3 | 11.3 | -1.8 | 17.5 | 17.3 | 10.6 | | | | | 15.4 | 8.6 | 4Q16 | 12.4 | 1.2 |
| Lone Star Real Estate Fund IV | 0.5 | -1.5 | -1.0 | 0.0 | 4.2 | 12.0 | 16.6 | 14.7 | 9.8 | -5.3 | 4.4 | 1.7 | 13.8 | -2.1 | 11.9 | 9.8 | 10.8 | 8.5 | 4Q15 | 12.8 | 1.4 |
| Metropolitan Real Estate Partners Co-Investments Fund | -0.1 | -0.9 | -1.0 | -1.1 | 1.2 | -11.7 | -10.7 | -10.4 | 1.6 | 1.8 | 3.5 | 2.7 | 0.7 | 6.7 | 7.6 | 5.8 | 7.3 | 5.4 | 1Q16 | 10.2 | 1.3 |
| O'Connor North American Property Partners II, L.P. | 1.2 | -0.1 | 1.1 | 0.9 | 1.1 | -14.7 | -13.8 | -14.5 | 0.2 | -11.0 | -10.8 | -11.5 | 1.4 | -8.2 | -6.9 | -7.9 | -5.7 | -8.5 | 2Q08 | -3.2 | 0.8 |
| Torchlight Debt Fund VII, LP | 1.2 | 4.9 | 6.1 | 3.4 | | | | | | | | | | | | | 12.6 | 6.7 | 4Q20 | 3.2 | 1.0 |
| Torchlight Debt Opportunity Fund IV | 0.3 | 0.2 | 0.5 | 0.8 | 2.0 | -3.7 | -1.8 | 1.3 | 4.7 | -6.7 | -2.3 | 1.5 | 6.9 | -1.7 | 5.0 | 5.7 | 7.7 | 7.5 | 4Q13 | 9.7 | 1.4 |
| Torchlight Debt Opportunity Fund V | 0.7 | 3.5 | 4.1 | 2.9 | 3.3 | 3.0 | 6.4 | 6.5 | 7.0 | 0.4 | 7.5 | 6.8 | 11.1 | 3.9 | 15.3 | 11.4 | 14.2 | 8.8 | 3Q15 | 10.4 | 1.3 |
| Torchlight Debt Opportunity Fund VI | 1.2 | 1.4 | 2.6 | 2.2 | 5.9 | 1.5 | 7.5 | 6.1 | 12.4 | 1.1 | 13.7 | 4.7 | | | | | 13.7 | 4.7 | 2Q18 | 3.9 | 1.1 |
| **Opportunistic** | **0.9** | **1.8** | **2.7** | **1.7** | **2.7** | **5.2** | **8.0** | **5.2** | **5.2** | **1.3** | **6.5** | **3.8** | **6.0** | **2.7** | **8.8** | **5.9** | **9.0** | **6.8** | **1Q98** | **10.2** | **1.3** |

# ATRS' Timberland, Agriculture, and Infrastructure Performance



As of 3/31/2021

| Funding Status ($) | Investment Vintage Year | Commitment Amount | Funded Amount | Unfunded Commitments | Capital Returned | Market Value | Market Value (%) | Market Value + Unfunded Commitments (%) |
|---|---|---|---|---|---|---|---|---|
| **Agriculture** | | | | | | | | |
| Agrivest Farmland Fund | 2013 | 50,000,000 | 50,000,000 | 0 | 7,320,345 | 55,226,041 | 2.6 | 2.0 |
| US Agriculture, LLC | 2011 | 125,000,000 | 160,019,470 | 14,696,915 | 50,229,476 | 157,957,359 | 7.3 | 6.2 |
| **Agriculture** | **2011** | **175,000,000** | **210,019,470** | **14,696,915** | **57,549,821** | **213,183,400** | **9.9** | **8.2** |
| **Timber** | | | | | | | | |
| BTG Pactual Open Ended Core U.S. Timberland Fund, LP | 2019 | 182,930,629 | 182,930,628 | 0 | 3,779,542 | 197,060,865 | 9.1 | 7.1 |
| BTG Timber Separate Account | 1998 | 133,069,371 | 155,996,479 | 0 | 315,750,000 | 105,444,978 | 4.9 | 3.8 |
| **Timber** | **1998** | **316,000,000** | **338,927,107** | **0** | **319,529,542** | **302,505,843** | **14.0** | **10.9** |

| Funding Status ($) | Investment Vintage Year | Commitment Amount | Funded Amount | Unfunded Commitments | Capital Returned | Market Value | Market Value (%) | Market Value + Unfunded Commitments (%) |
|---|---|---|---|---|---|---|---|---|
| **Infrastructure - Core** | | | | | | | | |
| AxInfra NA II LP | 2021 | 50,000,000 | 459,500 | 49,540,500 | 0 | 215,604 | 0.0 | 1.8 |
| DIF Infrastructure V | 2018 | 47,762,784 | 33,163,908 | 16,796,684 | 4,670,301 | 34,894,463 | 1.6 | 1.9 |
| IFM Global Infrastructure | 2017 | 50,000,000 | 50,000,000 | 0 | 2,009,550 | 59,730,219 | 2.8 | 2.2 |
| Macquarie Infrastructure Partners III | 2015 | 50,000,000 | 47,855,610 | 7,297,562 | 36,266,400 | 41,875,704 | 1.9 | 1.8 |
| Macquarie Infrastructure Partners V | 2013 | 50,000,000 | 9,808,821 | 40,191,179 | 0 | 9,307,818 | 0.4 | 1.8 |
| **Infrastructure - Core** | **2015** | **247,762,784** | **141,287,839** | **113,825,925** | **42,946,252** | **146,023,808** | **6.8** | **9.4** |
| **Infrastructure - Non-Core** | | | | | | | | |
| Antin Infrastructure Partners Fund II | 2014 | 47,696,920 | 35,953,565 | 5,337,243 | 46,425,272 | 17,693,032 | 0.8 | 0.8 |
| Global Energy & Power Infrastructure Fund II | 2014 | 50,000,000 | 53,048,712 | 2,350,248 | 43,046,092 | 29,254,815 | 1.4 | 1.1 |
| Global Infrastructure Partners III | 2016 | 50,000,000 | 45,259,813 | 9,661,110 | 9,801,377 | 44,836,840 | 2.1 | 2.0 |
| KKR Global Infrastructure Investors II | 2014 | 50,000,000 | 54,454,662 | 1,426,765 | 45,173,631 | 47,718,514 | 2.2 | 1.8 |
| **Infrastructure - Non-Core** | **2014** | **197,696,920** | **188,716,752** | **18,775,366** | **144,446,372** | **139,503,201** | **6.5** | **5.7** |
| **Infrastructure** | **2014** | **445,459,704** | **330,004,591** | **132,601,292** | **187,392,624** | **285,527,009** | **13.2** | **15.1** |

# ATRS' Timberland, Agriculture, and Infrastructure Performance (Cont.)

TOWNSEND® GROUP
an Aon company

**Time Weighted Returns:**

| Returns (%) | Quarter | | | | 1 Year | | | | 3 Year | | | | 5 Year | | | | 10 Year | | | | Inception | | TWR Calculation Inception | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | TGRS | TNET | | | |
| **Agriculture** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Agrivest Farmland Fund | 0.7 | 0.2 | 0.9 | 0.7 | 3.0 | 1.5 | 4.5 | 3.5 | 3.3 | 1.2 | 4.6 | 3.5 | 3.4 | 1.6 | 5.1 | 4.0 | | | | | 5.4 | 4.4 | 2Q15 | 4.3 | 1.3 |
| US Agriculture, LLC | 0.6 | 3.6 | 4.2 | 3.9 | 3.7 | 4.3 | 8.1 | 6.9 | 3.7 | 1.3 | 5.1 | 3.9 | 3.6 | 1.1 | 4.8 | 3.6 | | | | | 6.8 | 5.5 | 3Q11 | 5.2 | 1.3 |
| **Agriculture** | **0.7** | **2.7** | **3.4** | **3.1** | **3.5** | **3.6** | **7.2** | **6.0** | **3.6** | **1.3** | **4.9** | **3.8** | **3.6** | **1.3** | **4.9** | **3.8** | | | | | **6.7** | **5.5** | **3Q11** | **5.0** | **1.3** |
| Agriculture Benchmark* | | | 0.9 | | | | 4.3 | | | | 4.5 | | | | 4.3 | | | | | | 8.4 | | 3Q11 | | |
| **Timber** | | | | | | | | | | | | | | | | | | | | | | | | | |
| BTG Pactual Open Ended Core U.S. Timberland Fund, LP | -0.8 | 3.8 | 3.1 | 2.8 | -0.3 | 9.9 | 9.6 | 8.5 | | | | | | | | | | | | | 8.9 | 7.8 | 1Q20 | 7.8 | 1.1 |
| BTG Timber Separate Account | -0.2 | 0.9 | 0.7 | 0.5 | 3.0 | -3.2 | -0.3 | -1.0 | 17.0 | -20.3 | 4.0 | 3.2 | 11.1 | -11.8 | 4.6 | 3.7 | 6.3 | -5.7 | 3.6 | 2.8 | 7.2 | 6.5 | 2Q98 | 5.2 | 2.7 |
| **Timber** | **-0.5** | **2.8** | **2.2** | **2.0** | **0.9** | **4.9** | **5.8** | **4.9** | **15.9** | **-17.2** | **6.5** | **5.5** | **10.4** | **-9.8** | **6.1** | **5.1** | **6.0** | **-4.6** | **4.3** | **3.5** | **7.6** | **6.8** | **2Q98** | **5.2** | **1.8** |
| Timberland Property Benchmark* | | | 0.8 | | | | 1.6 | | | | 1.6 | | | | 2.2 | | | | 3.5 | | 5.2 | | 2Q98 | | |

| Returns (%) | Quarter | | | | 1 Year | | | | 3 Year | | | | 5 Year | | | | 10 Year | | | | Inception | | TWR Calculation Inception | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | TGRS | TNET | | | |
| **Infrastructure – Core** | | | | | | | | | | | | | | | | | | | | | | | | | |
| AxInfra NA II LP | N/A | N/A | N/A | N/A | | | | | | | | | | | | | | | | | N/A | N/A | 2Q21 | -72.5 | 0.5 |
| DIF Infrastructure V | -0.7 | -0.7 | -1.4 | -1.9 | 5.1 | 15.8 | 21.4 | 19.0 | | | | | | | | | | | | | 12.2 | 8.8 | 3Q18 | 9.8 | 1.2 |
| IFM Global Infrastructure | 0.6 | 1.5 | 2.1 | 1.9 | 2.9 | 7.2 | 10.2 | 9.4 | | | | | | | | | | | | | 10.5 | 8.9 | 4Q18 | 8.9 | 1.2 |
| Macquarie Infrastructure Partners III | 0.2 | 4.0 | 4.2 | 3.2 | 0.4 | 32.0 | 32.5 | 24.6 | 0.5 | 20.7 | 21.3 | 15.9 | 1.5 | 18.6 | 20.4 | 15.0 | | | | | 19.4 | 14.4 | 2Q15 | 14.6 | 1.6 |
| Macquarie Infrastructure Partners V | -0.3 | 0.0 | -0.3 | -1.5 | | | | | | | | | | | | | | | | | -0.3 | -1.5 | 1Q21 | -5.7 | 0.9 |
| **Infrastructure - Core** | **-0.1** | **1.6** | **1.5** | **0.9** | **2.3** | **17.2** | **19.7** | **16.1** | **2.1** | **12.8** | **15.0** | **11.2** | **2.5** | **13.9** | **16.6** | **12.1** | | | | | **16.3** | **12.0** | **2Q15** | **12.0** | **1.3** |
| **Infrastructure - Non-Core** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antin Infrastructure Partners Fund II | -0.1 | 3.2 | 3.1 | 2.9 | 2.5 | 26.1 | 29.2 | 28.3 | 1.9 | 16.2 | 18.4 | 17.6 | 2.2 | 13.0 | 15.4 | 14.3 | | | | | 14.3 | 12.6 | 4Q14 | 12.0 | 1.8 |
| Global Energy & Power Infrastructure Fund II | 1.2 | -0.5 | 0.7 | 0.1 | 5.4 | -2.2 | 3.1 | 0.6 | 9.4 | -1.9 | 8.1 | 5.0 | 18.3 | -1.7 | 26.3 | 19.7 | | | | | 20.0 | 9.6 | 1Q15 | 20.0 | 1.4 |
| Global Infrastructure Partners III | 1.0 | 3.5 | 4.5 | 4.0 | 2.3 | 25.9 | 28.7 | 26.2 | 4.2 | 7.8 | 12.6 | 10.3 | | | | | | | | | 11.1 | 6.4 | 4Q16 | 7.1 | 1.2 |
| KKR Global Infrastructure Investors II | 0.2 | 16.6 | 16.8 | 14.9 | 38.4 | -10.4 | 36.8 | 36.0 | 14.6 | 6.1 | 25.7 | 23.8 | 6.2 | 11.4 | 20.8 | 18.7 | | | | | 21.3 | 16.4 | 1Q15 | 18.5 | 1.7 |
| **Infrastructure - Non-Core** | **0.6** | **6.7** | **7.3** | **6.4** | **16.0** | **7.9** | **26.2** | **24.7** | **8.8** | **7.8** | **17.6** | **15.7** | **8.6** | **9.0** | **18.9** | **15.5** | | | | | **16.5** | **12.4** | **4Q14** | **14.2** | **1.5** |
| **Infrastructure** | **0.3** | **4.0** | **4.3** | **3.6** | **9.7** | **11.9** | **22.9** | **20.4** | **5.9** | **10.2** | **16.7** | **13.9** | **6.2** | **11.0** | **18.0** | **14.3** | | | | | **15.7** | **11.3** | **4Q14** | **13.4** | **1.4** |
| Infrastructure Benchmark* | | | 2.4 | | | | 6.2 | | | | 6.6 | | | | 6.9 | | | | | | 6.5 | | 4Q14 | | |



*The Timberland Property Benchmark was comprised of the NCREIF Timberland returns weighted according to ATRS' regional exposure based on Net Asset Value prior to 3Q20, gross of fees. The Agriculture Benchmark was comprised of the NCREIF Farmland returns weighted according to ATRS' regional and crop type exposure based on Net Asset Value prior to 3Q20, gross of fees. As of 3Q20, the Timberland and Agriculture benchmarks going forward will no longer be weighted and are just the NCREIF Timberland and NCREIF Farmland returns, gross of fees. Additionally, the Infrastructure Benchmark of CPI plus 500 bps has been adjusted to CPI plus 300 bps as of 3Q20 and the new Infrastructure Benchmark will be a blend of the two going forward.

# Portfolio Performance Detail: By Vintage Year

TOWNSEND® GROUP
an Aon company

As of 3/31/2021

| Investment Vintage Year | Commitment Amount | Funded Amount | Unfunded Commitments | Capital Returned | Market Value | Market Value (%) | Market Value + Unfunded Commitments (%) |
|---|---|---|---|---|---|---|---|
| 1997 | 75,000,000 | 80,737,536 | 0 | 120,795,230 | 0 | 0.0 | 0.0 |
| 1998 | 233,069,371 | 268,859,128 | 0 | 463,689,777 | 105,444,978 | 4.9 | 3.7 |
| 1999 | 178,794,401 | 189,842,518 | 0 | 316,052,650 | 0 | 0.0 | 0.0 |
| 2000 | 209,242,960 | 228,396,220 | 0 | 289,418,462 | 355,396 | 0.0 | 0.0 |
| 2005 | 340,000,000 | 374,770,177 | 0 | 259,604,156 | 464,462,065 | 21.5 | 16.5 |
| 2006 | 270,000,000 | 219,970,569 | 50,000,000 | 138,720,790 | 283,000,836 | 13.1 | 11.8 |
| 2007 | 197,694,200 | 198,972,143 | 0 | 244,204,926 | 77,686,391 | 3.6 | 2.8 |
| 2008 | 220,000,000 | 195,116,197 | 9,866,941 | 245,326,792 | 9,653,269 | 0.4 | 0.6 |
| 2009 | 44,089,700 | 34,546,944 | 2,371,666 | 25,837,855 | 1,530,652 | 0.1 | 0.1 |
| 2010 | 40,000,000 | 35,090,608 | 4,909,392 | 52,625,921 | 1,764,987 | 0.1 | 0.2 |
| 2011 | 175,000,000 | 224,537,776 | 20,305,639 | 132,023,009 | 177,805,661 | 8.2 | 7.0 |
| 2012 | 130,000,000 | 130,531,418 | 13,487,923 | 141,677,428 | 30,385,906 | 1.4 | 1.6 |
| 2013 | 150,000,000 | 146,272,441 | 8,249,943 | 102,465,336 | 108,004,341 | 5.0 | 4.1 |
| 2014 | 157,696,920 | 146,218,384 | 24,106,714 | 158,678,760 | 60,526,427 | 2.8 | 3.0 |
| 2015 | 204,260,817 | 195,342,458 | 21,606,184 | 152,287,489 | 122,554,534 | 5.7 | 5.1 |
| 2016 | 180,011,918 | 164,611,292 | 28,401,756 | 47,853,557 | 151,142,127 | 7.0 | 6.4 |
| 2017 | 150,000,000 | 129,576,595 | 26,509,943 | 18,498,473 | 133,759,874 | 6.2 | 5.7 |
| 2018 | 257,762,784 | 156,101,010 | 108,731,626 | 15,506,313 | 157,851,184 | 7.3 | 9.4 |
| 2019 | 312,026,813 | 222,831,322 | 95,514,584 | 7,226,820 | 234,856,583 | 10.9 | 11.7 |
| 2020 | 250,000,000 | 40,390,651 | 211,995,050 | 7,512,110 | 32,596,892 | 1.5 | 8.7 |
| 2021 | 42,411,070 | 3,039,134 | 39,358,112 | 0 | 2,990,805 | 0.1 | 1.5 |
| Total Portfolio (Including Current & Historical Activity) | | | | | | | |
| | 3,817,060,954 | 3,385,754,522 | 665,415,472 | 2,940,005,854 | 2,156,372,909 | 100 | 100 |

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# Portfolio Performance Detail: By Vintage Year (Cont.)

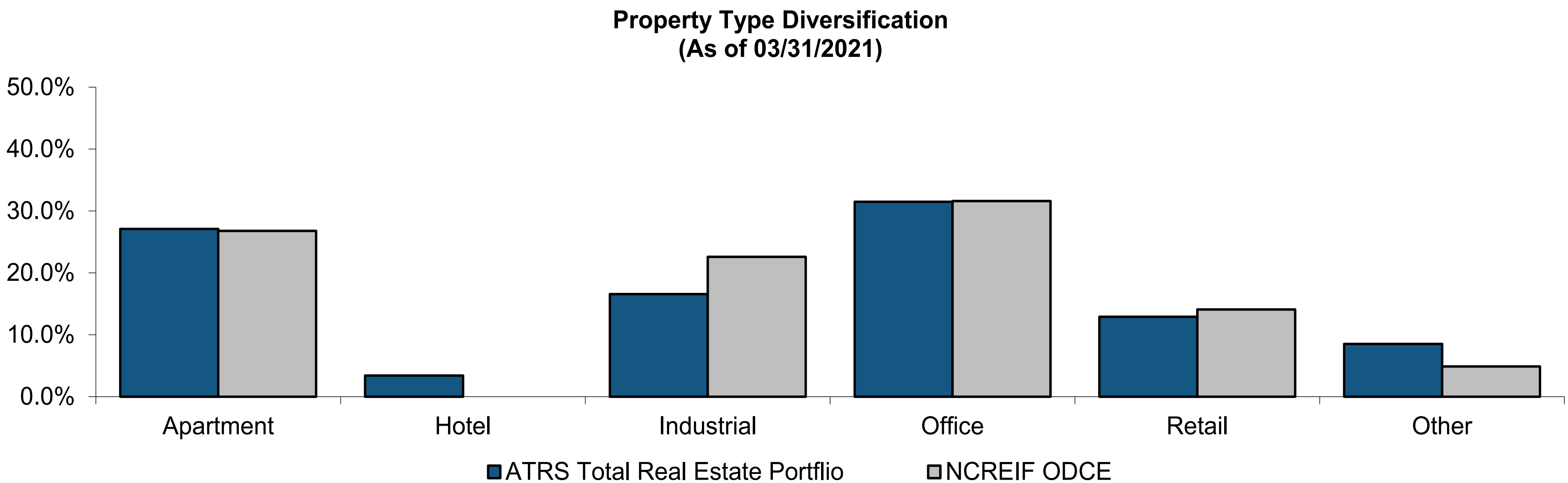
TOWNSEND® GROUP
an Aon company

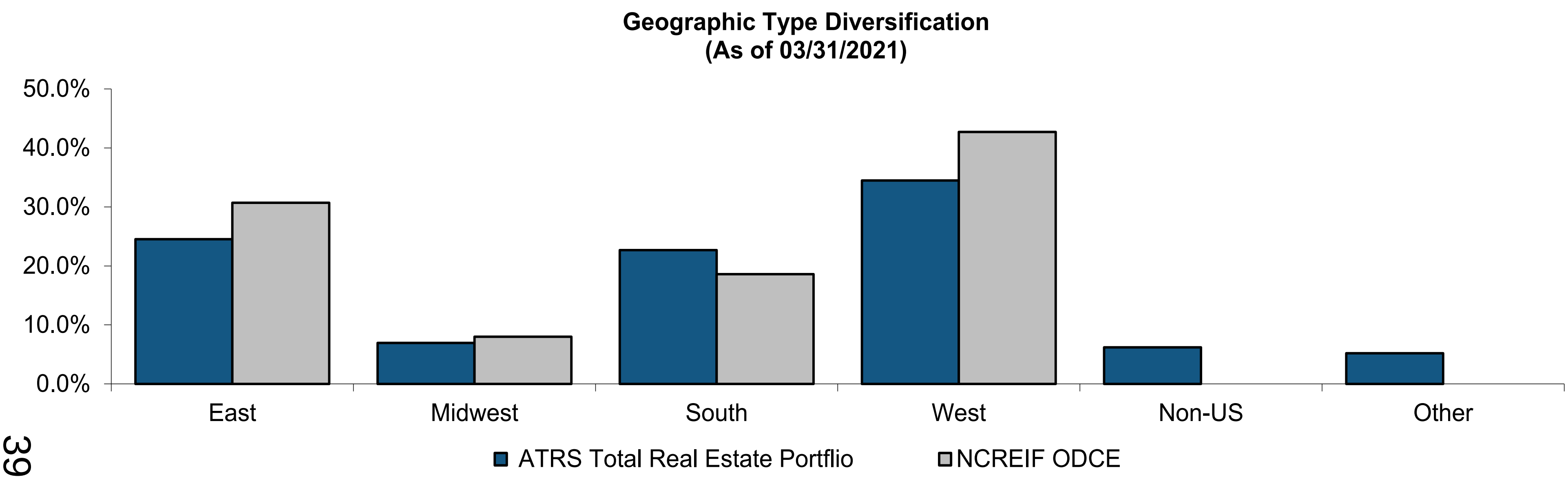
**Time Weighted Returns:**

| Investment Vintage Year | Quarter | | | | 1 Year | | | | 3 Year | | | | 5 Year | | | | Inception | | TWR Calculation Inception | Net IRR | Equity Multiple |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | INC | APP | TGRS | TNET | TGRS | TNET | | | |
| 1997 | | | | | | | | | | | | | | | | | 4.0 | 3.4 | 1Q98 | 13.4 | 1.5 |
| 1998 | -0.2 | 0.9 | 0.7 | 0.5 | 3.0 | -3.2 | -0.3 | -1.0 | 17.0 | -20.3 | 4.0 | 3.2 | 11.1 | -11.8 | 4.6 | 3.7 | 7.3 | 6.3 | 2Q98 | 5.5 | 2.1 |
| 1999 | | | | | | | | | | | | | | | | | | | 4Q99 | 15.9 | 1.7 |
| 2000 | | | | | | | | | 0.0 | -6.0 | -6.0 | -6.0 | 0.0 | -8.8 | -8.8 | -8.8 | 2.5 | 1.5 | 4Q00 | 8.5 | 1.3 |
| 2005 | 1.0 | 0.8 | 1.8 | 1.6 | 3.9 | -3.4 | 0.4 | -0.4 | 4.3 | -1.1 | 3.1 | 2.3 | 4.4 | 0.4 | 4.8 | 4.0 | 6.5 | 5.6 | 3Q05 | 5.7 | 1.9 |
| 2006 | 0.8 | 1.0 | 1.9 | 1.6 | 3.4 | -1.7 | 1.7 | 0.9 | 3.7 | 0.7 | 4.5 | 3.6 | 3.9 | 1.8 | 5.8 | 4.9 | 5.8 | 4.7 | 2Q07 | 5.8 | 1.9 |
| 2007 | 0.0 | 1.3 | 1.3 | 1.3 | 0.0 | -12.6 | -12.6 | -12.6 | 0.4 | -3.5 | -3.1 | -3.1 | 0.4 | 5.6 | 6.0 | 6.0 | 6.2 | 6.1 | 1Q08 | 6.2 | 1.6 |
| 2008 | 1.0 | 0.4 | 1.3 | 1.2 | 0.2 | -2.5 | -2.3 | -2.8 | 0.8 | -2.2 | -1.4 | -1.9 | 3.7 | -2.1 | 1.5 | 0.5 | 1.0 | -2.0 | 2Q08 | 5.1 | 1.3 |
| 2009 | 1.6 | -4.3 | -2.7 | -2.7 | -8.7 | 6.0 | -2.8 | -2.8 | 1.4 | -23.0 | -21.7 | -22.6 | 3.7 | -14.8 | -11.5 | -12.7 | -4.5 | -5.9 | 1Q11 | -3.7 | 0.8 |
| 2010 | -0.1 | 0.0 | -0.1 | -0.3 | 3.7 | -16.8 | -12.7 | -13.6 | -0.9 | -12.4 | -10.5 | -11.6 | 7.4 | -15.0 | -6.0 | -7.2 | 27.4 | 24.7 | 3Q10 | 18.8 | 1.6 |
| 2011 | 0.6 | 3.6 | 4.2 | 3.8 | 3.4 | 2.9 | 6.4 | 5.3 | 3.6 | 0.5 | 4.1 | 3.0 | 3.6 | 1.9 | 5.5 | 4.0 | 9.7 | 7.3 | 3Q11 | 7.4 | 1.4 |
| 2012 | 0.1 | 1.3 | 1.4 | 0.9 | 0.2 | 2.5 | 2.8 | 0.6 | 1.2 | -1.6 | -0.5 | -2.7 | 1.4 | 2.3 | 3.8 | 1.8 | 11.3 | 7.5 | 1Q13 | 10.0 | 1.3 |
| 2013 | 0.5 | 1.6 | 2.2 | 1.6 | 2.0 | 12.1 | 14.2 | 11.0 | 2.4 | 7.7 | 10.3 | 8.0 | 3.5 | 7.5 | 11.2 | 8.5 | 12.5 | 9.9 | 4Q13 | 9.1 | 1.4 |
| 2014 | 0.7 | 1.5 | 2.3 | 1.7 | 4.0 | 10.9 | 15.4 | 13.7 | 7.5 | 5.6 | 13.5 | 11.0 | 9.9 | 7.7 | 18.5 | 15.1 | 18.1 | 13.7 | 4Q14 | 15.9 | 1.5 |
| 2015 | 0.5 | 6.7 | 7.2 | 6.4 | 17.9 | -3.0 | 16.6 | 16.2 | 9.1 | 5.4 | 15.6 | 14.0 | 7.6 | 8.0 | 16.5 | 13.9 | 17.9 | 12.0 | 1Q15 | 13.4 | 1.4 |
| 2016 | 1.3 | 0.6 | 1.9 | 1.6 | 2.6 | 6.6 | 9.3 | 9.1 | 4.4 | 4.9 | 9.5 | 7.9 | | | | | 8.0 | 5.3 | 3Q16 | 6.8 | 1.2 |
| 2017 | 1.0 | 0.9 | 1.9 | 1.5 | 5.5 | 2.6 | 8.2 | 6.6 | 6.0 | 4.4 | 10.6 | 7.8 | | | | | 14.5 | 10.6 | 3Q17 | 7.8 | 1.2 |
| 2018 | 0.8 | 1.4 | 2.2 | 1.3 | 5.3 | 8.4 | 14.0 | 10.6 | | | | | | | | | 8.7 | 4.5 | 3Q18 | 6.6 | 1.1 |
| 2019 | -0.6 | 3.6 | 3.1 | 2.7 | 0.0 | 10.3 | 10.3 | 8.6 | | | | | | | | | 9.5 | 5.0 | 3Q19 | 7.7 | 1.1 |
| 2020 | -0.2 | 3.8 | 3.6 | 1.3 | -0.9 | 8.5 | 7.7 | -6.3 | | | | | | | | | 7.7 | -6.3 | 2Q20 | -1.2 | 1.0 |
| 2021 | | | | | | | | | | | | | | | | | | | | | |

# Portfolio Diversification – Real Estate

TOWNSEND® GROUP
an Aon company

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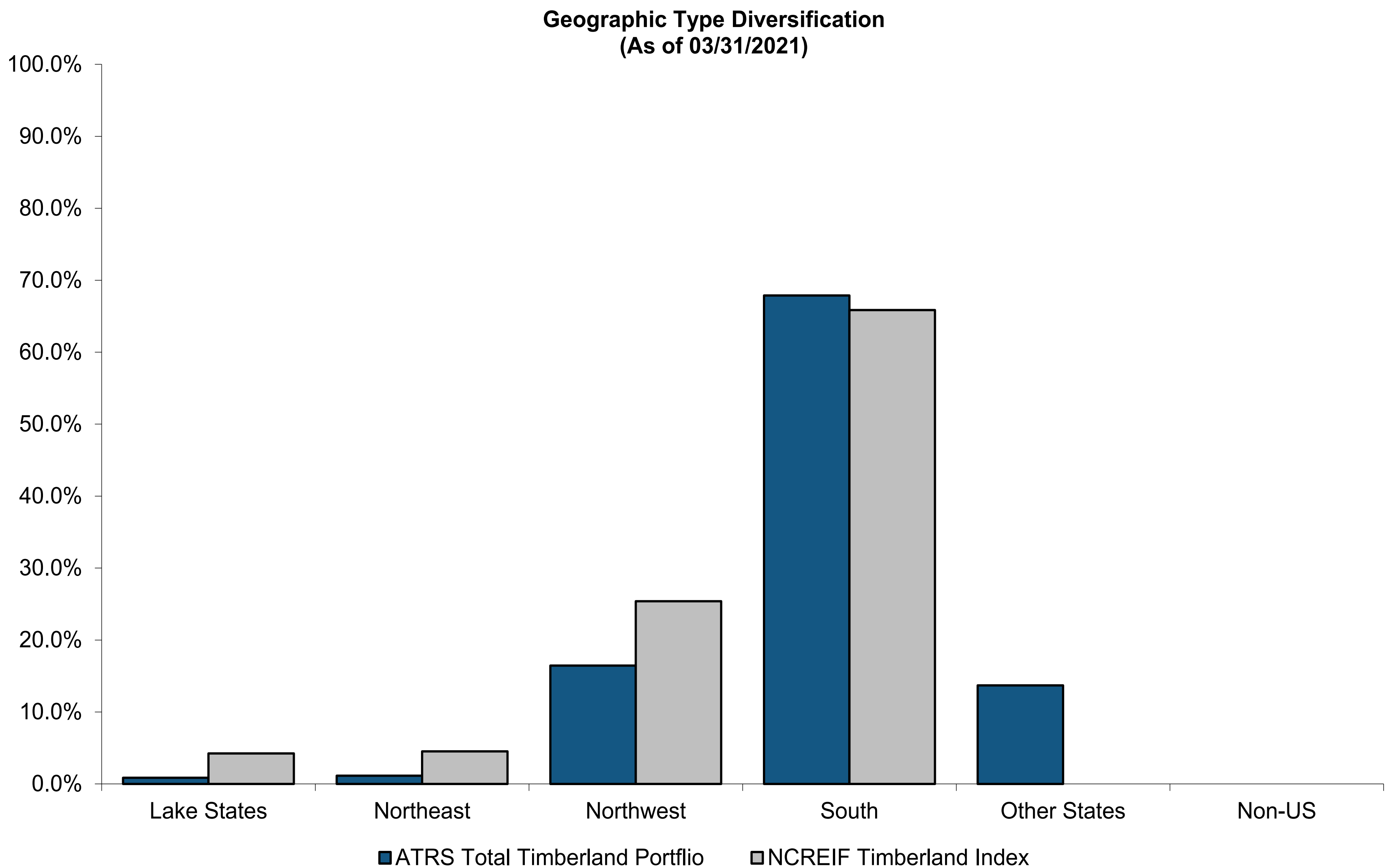
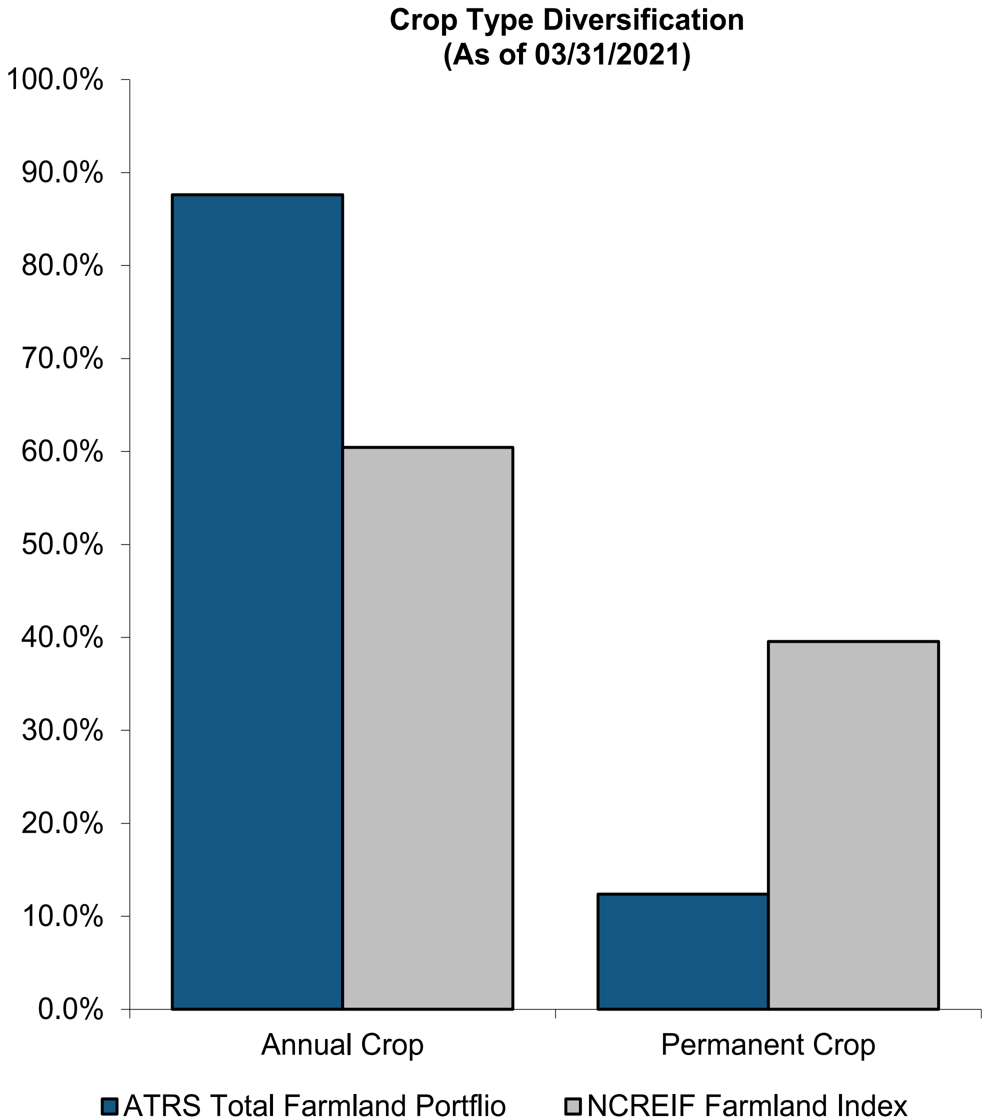
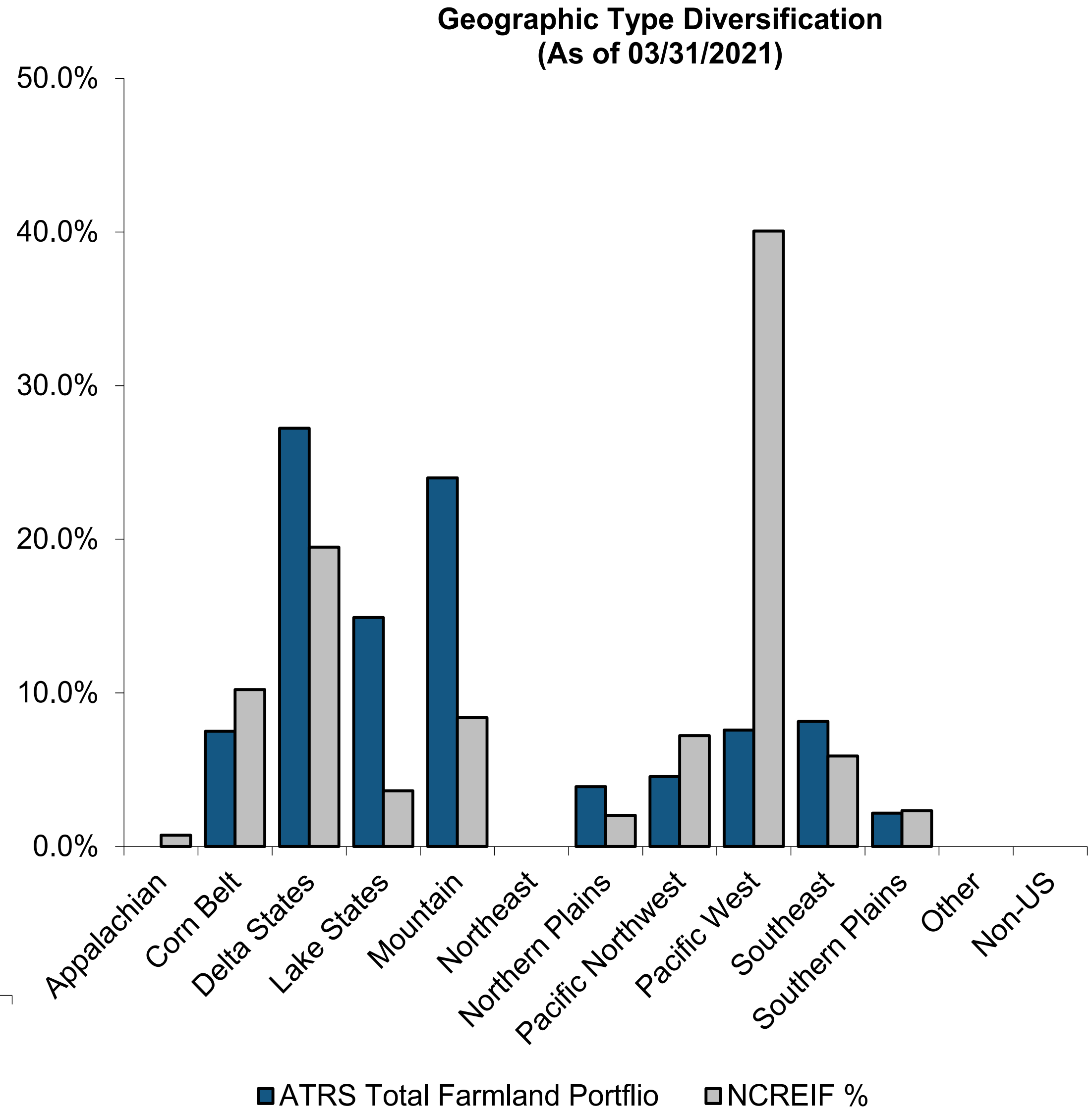
# Portfolio Diversification – Timberland



# Portfolio Diversification – Agriculture

TOWNSEND® GROUP
an Aon company

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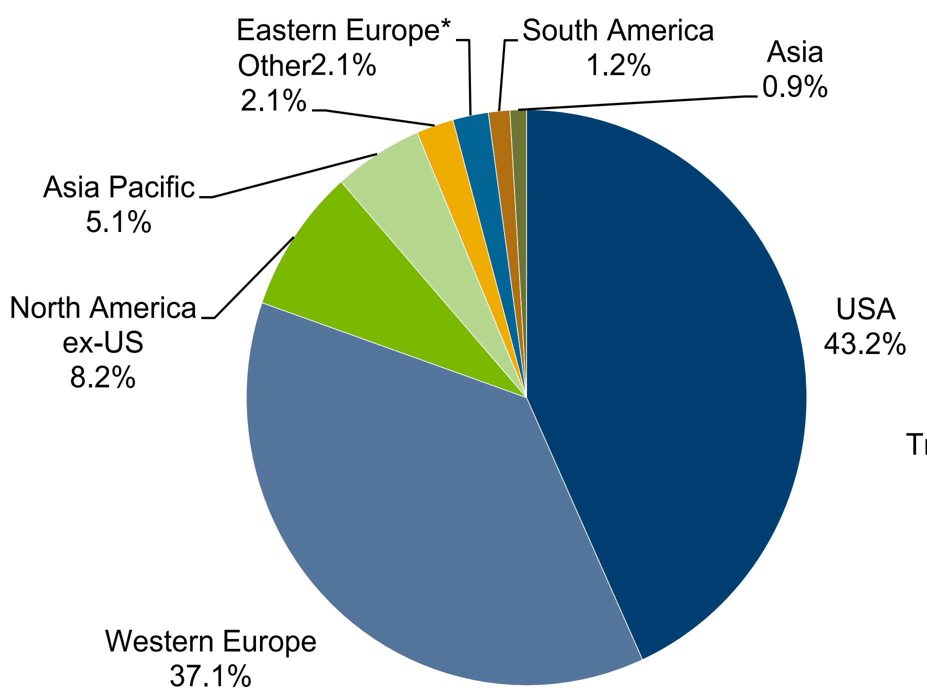
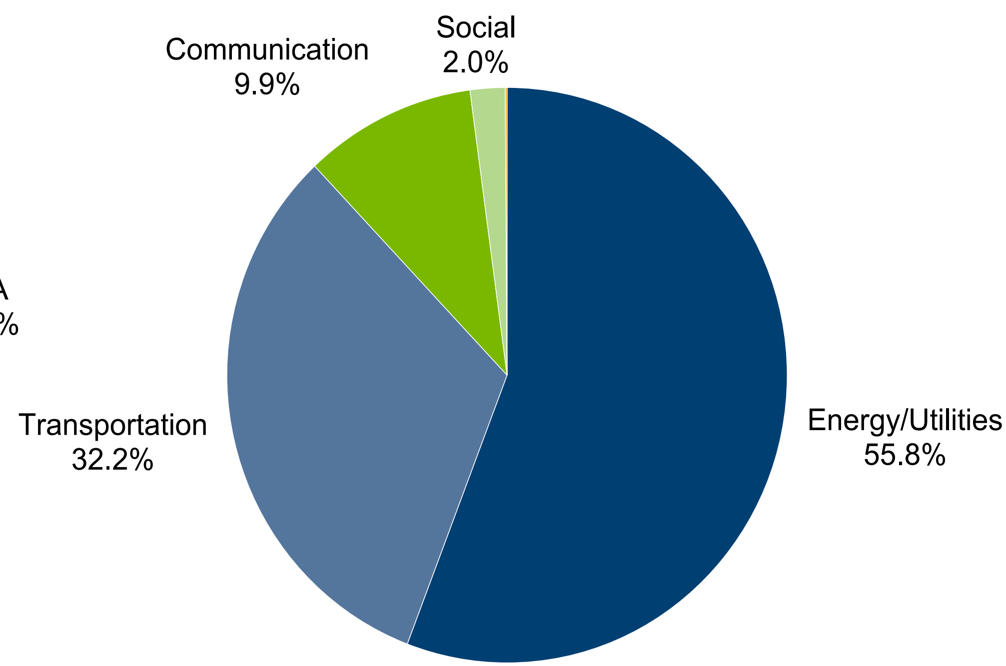
## Portfolio Diversification – Infrastructure

TOWNSEND® GROUP
an Aon company

**Geographic Diversification as % of Portfolio Company Value**




**Industry Diversification as % of Portfolio Company Value**

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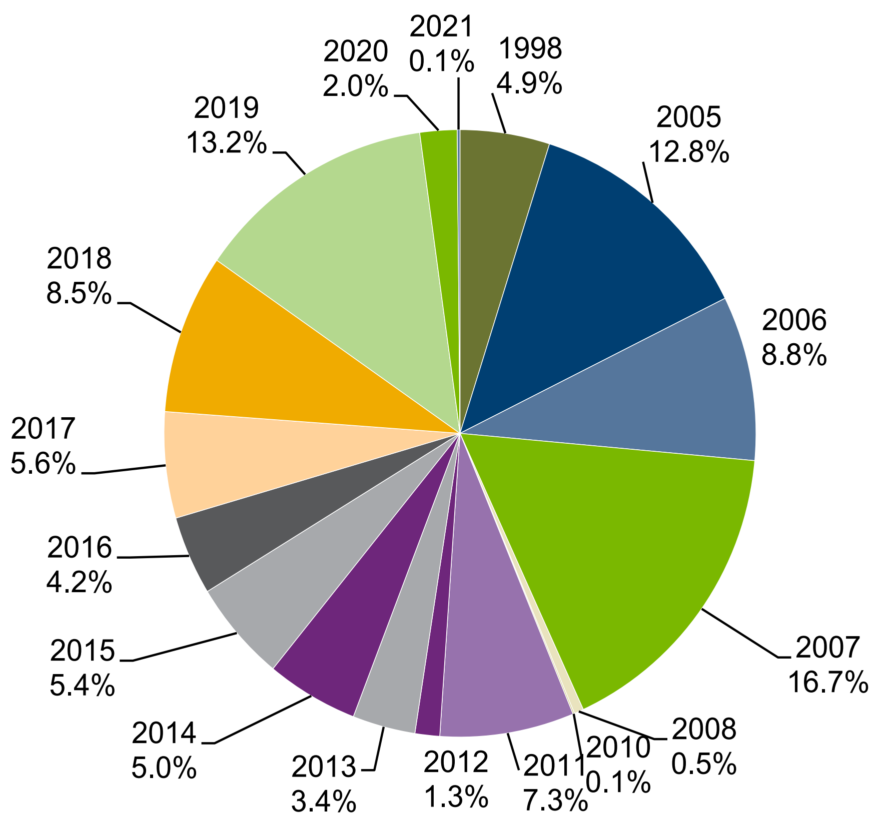
As of 3/31/2021

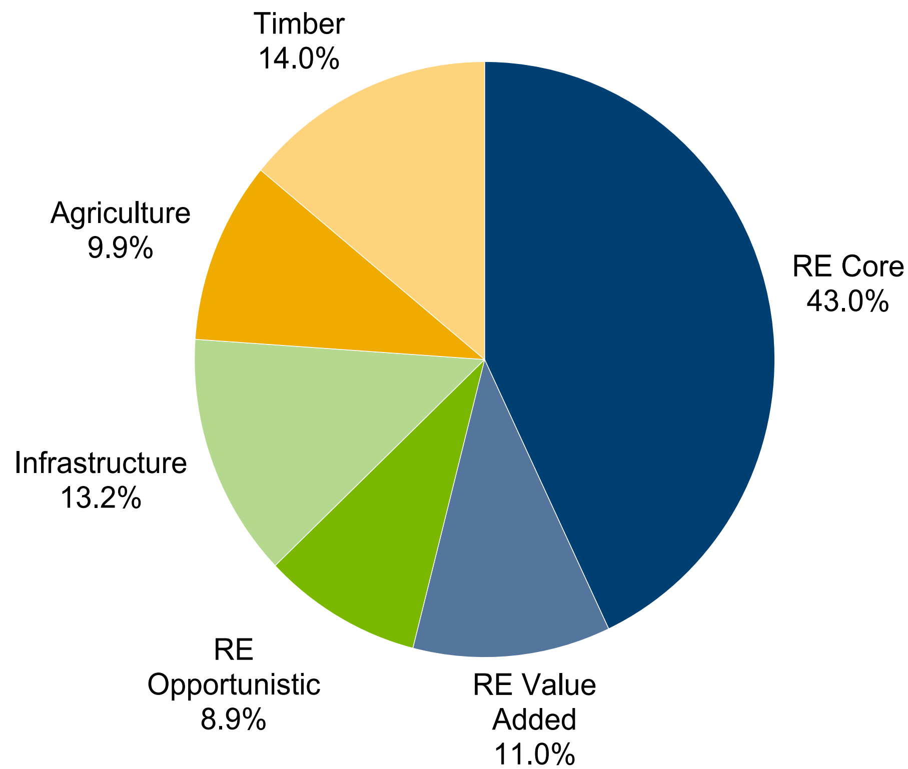
# Portfolio Diversification (cont'd)

TOWNSEND® GROUP
an Aon company

**Vintage Year Diversificiation by Net Asset Value (As of 03/31/2021)**



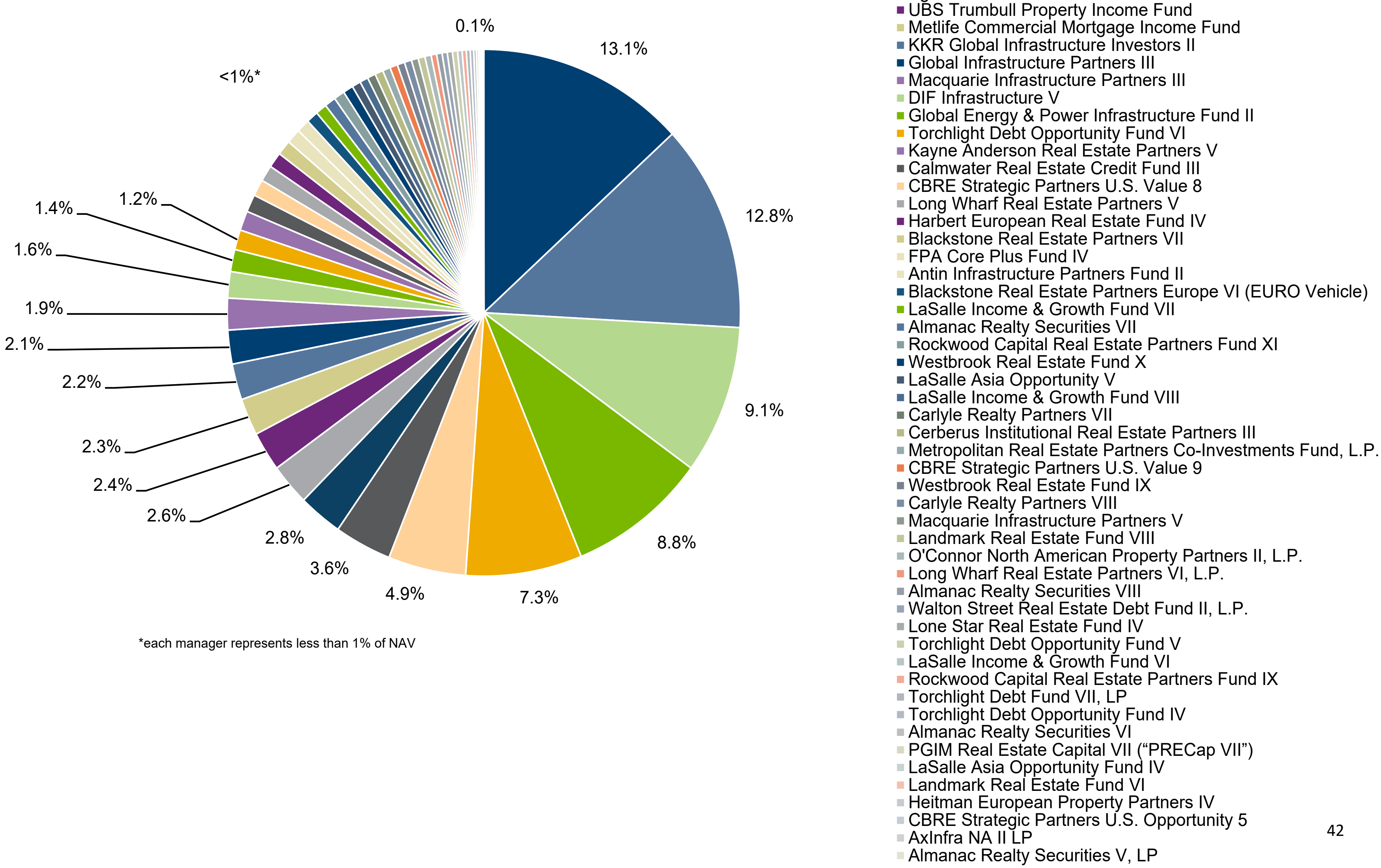

**Style Diversification by Net Asset Value (As of 03/31/2021)**




Note: Arkansas Investments are included in Core portfolio

## Manager Diversification






*each manager represents less than 1% of NAV



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# Management Fees

| Partnership Name | Current Quarter Management Fees | YTD Management Fees |
|---|---|---|
| **Core** | | |
| Arkansas Investments | 0 | 0 |
| JP Morgan Strategic Property Fund | -574,364 | -574,364 |
| Metlife Commercial Mortgage Income Fund | -100,000 | -100,000 |
| PRISA SA | -542,131 | -542,131 |
| UBS Trumbull Property Fund | -343,825 | -343,825 |
| UBS Trumbull Property Income Fund | -103,927 | -103,927 |
| **Core** | **-1,664,246** | **-1,664,246** |
| | | |
| **Value Added** | | |
| Almanac Realty Securities V, LP | 0 | 0 |
| Almanac Realty Securities VI | -11,018 | -11,018 |
| Almanac Realty Securities VII | -42,408 | -42,408 |
| Almanac Realty Securities VIII | -92,466 | -92,466 |
| Calmwater Real Estate Credit Fund III | -80,176 | -80,176 |
| CBRE Strategic Partners U.S. Value 8 | -49,224 | -49,224 |
| CBRE Strategic Partners U.S. Value 9 | -156,249 | -156,249 |
| FPA Core Plus Fund IV | -31,804 | -31,804 |
| Harbert European Real Estate Fund IV | -62,978 | -62,978 |
| LaSalle Income & Growth Fund VI | -14,880 | -14,880 |
| LaSalle Income & Growth Fund VII | -50,291 | -50,291 |
| LaSalle Income & Growth Fund VIII | -123,288 | -123,288 |
| Long Wharf Real Estate Partners V | -71,005 | -71,005 |
| Long Wharf Real Estate Partners VI, L.P. | -184,932 | -184,932 |
| PGIM Real Estate Capital VII (“PRECap VII”) | -25,249 | -25,249 |
| Rockwood Capital Real Estate Partners Fund IX | -38,442 | -38,442 |
| Rockwood Capital Real Estate Partners Fund XI | -110,419 | -110,419 |
| Walton Street Real Estate Debt Fund II, L.P. | -22,314 | -22,314 |
| Westbrook Real Estate Fund IX | -31,409 | -31,409 |
| Westbrook Real Estate Fund X | -43,632 | -43,632 |
| **Value Added** | **-1,216,935** | **-1,216,935** |

# Management Fees (cont'd)

| Partnership Name | Current Quarter Management Fees | YTD Management Fees |
|---|---|---|
| **Opportunistic** | | |
| Blackstone Real Estate Partners Europe VI (EURO Vehicle) | -193,548 | -193,548 |
| Blackstone Real Estate Partners VII | -61,908 | -61,908 |
| Carlyle Realty Partners VII | -39,789 | -39,789 |
| Carlyle Realty Partners VIII | -86,781 | -86,781 |
| Cerberus Institutional Real Estate Partners III | -10,885 | -10,885 |
| Kayne Anderson Real Estate Partners V | -109,375 | -109,375 |
| Landmark Real Estate Fund VI | -4,642 | -4,642 |
| Landmark Real Estate Fund VIII | -62,500 | -62,500 |
| LaSalle Asia Opportunity Fund IV | -3,819 | -3,819 |
| LaSalle Asia Opportunity V | -70,288 | -70,288 |
| Lone Star Real Estate Fund IV | -6,139 | -6,139 |
| Metropolitan Real Estate Partners Co-Investments Fund, L.P. | -23,432 | -23,432 |
| O'Connor North American Property Partners II, L.P. | -17,424 | -17,424 |
| Torchlight Debt Fund VII, LP | -137,500 | -137,500 |
| Torchlight Debt Opportunity Fund IV | -13,258 | -13,258 |
| Torchlight Debt Opportunity Fund V | -21,561 | -21,561 |
| Torchlight Debt Opportunity Fund VI | -79,688 | -79,688 |
| **Opportunistic** | **-967,786** | **-967,786** |
| | | |
| **Real Estate** | **-3,848,967** | **-3,848,967** |

# Management Fees (cont'd)

TOWNSEND® GROUP
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| Partnership Name | Current Quarter Management Fees | YTD Management Fees |
|---|---|---|
| **Infrastructure - Core** | | |
| AxInfra NA II LP | 0 | 0 |
| DIF Infrastructure V | -165,509 | -165,509 |
| IFM Global Infrastructure | -111,932 | -111,932 |
| Macquarie Infrastructure Partners III | -95,193 | -95,193 |
| Macquarie Infrastructure Partners V | -104,873 | -104,873 |
| **Infrastructure - Core** | **-477,506** | **-477,506** |
| **Infrastructure - Non-Core** | | |
| Antin Infrastructure Partners Fund II | -43,644 | -43,644 |
| Global Energy & Power Infrastructure Fund II | -170,538 | -170,538 |
| Global Infrastructure Partners III | -210,944 | -210,944 |
| KKR Global Infrastructure Investors II | -84,382 | -84,382 |
| **Infrastructure - Non-Core** | **-509,508** | **-509,508** |
| **Infrastructure** | **-987,015** | **-987,015** |
| **Agriculture** | | |
| Agrivest Farmland Fund | -137,789 | -137,789 |
| US Agriculture, LLC | -458,161 | -458,161 |
| **Agriculture** | **-595,950** | **-595,950** |
| **Timber** | | |
| BTG Pactual Open Ended Core U.S. Timberland Fund, LP | -494,014 | -494,014 |
| BTG Timber Separate Account | -177,796 | -177,796 |
| **Timber** | **-671,810** | **-671,810** |
| **Total Real Assets** | **-2,254,774** | **-2,254,774** |
| **Total Portfolio** | | |
| **Arkansas Teachers Retirement System** | **-6,103,742** | **-6,103,742** |

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## Compliance Matrix

TOWNSEND GROUP an Aon company

| RISK MANAGEMENT | | | | | | |
|---|---|---|---|---|---|---|
| **Property Type - Real Estate** | **NFI-ODCE** | **Target/Constraint** | **Minimum** | **Maximum** | **Actual** | **Compliant?** |
| Office | 31.60 | NFI-ODCE +/- 50% | 15.80 | 47.40 | 31.50 | Yes |
| Retail | 14.10 | NFI-ODCE +/- 50% | 7.05 | 21.15 | 12.90 | Yes |
| Industrial | 22.60 | NFI-ODCE +/- 50% | 11.30 | 33.90 | 16.57 | Yes |
| Multifamily | 26.80 | NFI-ODCE +/- 50% | 13.40 | 40.20 | 27.09 | Yes |
| Lodging/Hotel | 0.00 | NFI-ODCE +/- 50% | 0.00 | 0.00 | 3.43 | No |
| Other | 4.90 | n/a | 0.00 | 20.00 | 8.51 | Yes |
| **Geography - Real Estate** | **NFI-ODCE** | **Target/Constraint** | **Minimum** | **Maximum** | **Actual** | **Compliant?** |
| West | 42.70 | NFI-ODCE +/- 50% | 21.35 | 64.05 | 34.47 | Yes |
| East | 30.70 | NFI-ODCE +/- 50% | 15.35 | 46.05 | 24.52 | Yes |
| Midwest | 8.00 | NFI-ODCE +/- 50% | 4.00 | 12.00 | 6.94 | Yes |
| South | 18.60 | NFI-ODCE +/- 50% | 9.30 | 27.90 | 22.67 | Yes |
| Other | 0.00 | n/a | n/a | n/a | 5.20 | Yes |
| Non-U.S. | 0.00 | n/a | 0.00 | 40.00 | 6.20 | Yes |
| **Geography - Timber** | **NCREIF Timberland** | **Target/Constraint** | **Minimum** | **Maximum** | **Actual** | **Compliant?** |
| Lake States | 4.24 | NCREIF Timberland +/- 15% | 0.64 | 4.88 | 0.85 | Yes |
| Northeast | 4.52 | NCREIF Timberland +/- 15% | 0.68 | 5.20 | 1.14 | Yes |
| Northwest | 25.39 | NCREIF Timberland +/- 15% | 3.81 | 29.20 | 16.44 | Yes |
| South | 65.85 | NCREIF Timberland +/- 15% | 9.88 | 75.72 | 67.87 | Yes |
| Other | 0.00 | NCREIF Timberland +/- 15% | 0.00 | 0.00 | 13.69 | No |

# Compliance Matrix (cont'd)

TOWNSEND® GROUP an Aon company

| RISK MANAGEMENT | | | | | | |
|---|---|---|---|---|---|---|
| **Geography - Agriculture** | **NCREIF Farmland** | **Target/Constraint** | **Minimum** | **Maximum** | **Actual** | **Compliant?** |
| Appalachian | 0.74 | | 0.00 | 50.00 | 0.00 | Yes |
| Corn Belt | 10.21 | | 0.00 | 50.00 | 7.51 | Yes |
| Delta States | 19.49 | | 0.00 | 50.00 | 27.23 | Yes |
| Lake States | 3.63 | | 0.00 | 50.00 | 14.91 | Yes |
| Mountain | 8.39 | | 0.00 | 50.00 | 24.00 | Yes |
| Northeast | 0.00 | | 0.00 | 50.00 | 0.00 | Yes |
| Northern Plains | 2.03 | | 0.00 | 50.00 | 3.90 | Yes |
| Pacific Northwest | 7.22 | | 0.00 | 50.00 | 4.56 | Yes |
| Pacific West | 40.06 | | 0.00 | 50.00 | 7.58 | Yes |
| Southeast | 5.89 | | 0.00 | 50.00 | 8.15 | Yes |
| Southern Plains | 2.33 | | 0.00 | 50.00 | 2.18 | Yes |
| Other | 0.00 | | 0.00 | 50.00 | 0.00 | Yes |
| Non-U.S. | 0.00 | | 0.00 | 50.00 | 0.00 | Yes |
| | | | | | | |
| **Geography - Infrastructure** | **Target/Constraint** | | **Minimum** | **Maximum** | **Actual** | **Compliant?** |
| U.S. | | | n/a | n/a | 43.20 | No |
| Non-U.S. | | | 0.00 | 50.00 | 56.80 | No |
| | | | | | | |
| **Asset Type - Infrastructure** | **Target/Constraint** | | **Minimum** | **Maximum** | **Actual** | **Compliant?** |
| Energy/Utilities | | | 0.00 | 70.00 | 55.80 | Yes |
| Transportation | | | 0.00 | 70.00 | 32.15 | Yes |
| Social | | | 0.00 | 70.00 | 2.02 | Yes |
| Communications | | | 0.00 | 70.00 | 9.93 | Yes |
| Other | | | 0.00 | 70.00 | 0.10 | Yes |
| | | | | | | |
| **Manager** | **Target/Constraint** | | **Minimum** | **Maximum** | **Max** | **Compliant?** |
| Energy/Utilities | | | 0.00 | 30.00 | 14.03 | Yes |
| | | | | | | |
| **Style - Real Estate** | **Target/Constraint** | | **Minimum** | **Maximum** | **Actual** | **Compliant?** |
| Core | | | 50.00 | 70.00 | 68.36 | Yes |
| Non-Core | | | 30.00 | 50.00 | 31.61 | Yes |

## Agenda

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# Glossary of Terms

- Catch-up - The provision that dictates how cash flows from the fund will be allocated between the investors and the manager in order for the manager to receive their performance fee. This allocation of cash flows occurs once the investors have collected their capital and preferred return
- Core - The most conservative institutional real estate investing style
- Core-Plus - A style whereby investments have a slightly higher level of risk and expected return than Core, primarily through use of leverage
- Development - The construction of buildings from breaking the ground through building completion. This may also include entitlement of the land and the pursuit of permits prior to construction
- DPI – Distributions to Paid In; the ratio of distributions from investments to total invested capital
- First Closing - The point at which a manager receives and executes the subscription documents and can begin drawing capital from investors
- Final Closing - The final date at which new investors can subscribe to a fund
- Internal Rate of Return (IRR) - A method of measuring the performance of a portfolio from inception through a particular point in time. This method weights returns according to the dollars invested at each point in time. Hence, this is known as dollar-weighted return. This is a better measure when the manager controls when dollars must be invested and is the most commonly used method of real estate performance evaluation; Gross IRR is gross of fee and Net IRR is net of fee
- NFI-ODCE – NCREIF Fund Index Open-end Diversified Core Equity Index is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy; underlying funds are leveraged with gross and net returns available
    - NCREIF changed the basis of diversification for the NFI ODCE from NREA to GRE effective 1Q20
- NPI – NCREIF Property Index is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only; it is reported unlevered and gross of fee

## Glossary of Terms (Cont'd)

- FTSE-NAREIT Equity REIT – An unmanaged capitalization-weighted index of all equity real estate investment trusts
- FTSE EPRA/NAREIT Global REIT – An unmanaged market-weighted total return index, which consists of many companies from Global markets whose floats are larger than $100 million and derive more than half of their revenue from property-related activities
- Opportunistic - A style that is the riskiest form of real estate investing. The name derives from when such funds were formed after the early 1990s real estate market crash to take advantage of opportunities in unwanted properties. Such investments include ground-up development, highly-leveraged purchases, or transactions involving highly complicated legal or environmental situations
- Pre-Specified Deals – Investments that are purchased for a fund before its final close. The assets are typically warehoused on a line of credit
- Promote (Carried Interest) -The performance fee a manager receives once the investors have received their return of capital and the preferred return (return promised by the manager)
- RVPI – Residual Value to Paid In; the ratio of the residual value of an investment to total invested capital
- Time-Weighted Return - A method of measuring the performance of a portfolio over a particular period of time. Effectively, it is the return of one dollar invested in the portfolio at the beginning of the measurement period. This is a better return measure when the manager does not control when the dollars must be invested
- TVPI – Total value to paid-in ratio; the ratio of total value from an investment, including distributions, to total invested capital
- Value-Added - A style that represents moderate-risk real estate. A manager typically increases the future value of the investment by undertaking activities such as leasing, improving an existing building, or taking some risk through operating intensive assets, such as hotels or self-storage
- Vintage Year - The year in which a fund has its final closing. Typically coincides with the year a fund begins making investments

# Glossary of Terms (Cont'd)

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- NCREIF Timberland Index- The National Council of Real Estate Investment Fiduciaries (NCREIF) Timberland Index is a quarterly time series composite return measure of investment performance of a large pool of individual timber properties acquired in the private market for investment purposes only.
- NCREIF Farmland Index- The National Council of Real Estate Investment Fiduciaries (NCREIF) Farmland Index is a quarterly time series composite return measure of investment performance of a large pool of individual agricultural properties acquired in the private market for investment purposes only.

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# Disclosures

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Suite 1600
Cleveland, OH 44113

## Memorandum

**To:** Arkansas Teacher Retirement System ("ATRS")

**From:** Chae Hong

**CC:** PJ Kelly; Jack Dowd; Richard Ferguson

**Date:** September 27, 2021

**Re:** Almanac Realty Securities IX – $40 million Commitment Recommendation

---

### Background and Recommendation

Almanac Realty Investors, LLC ("Almanac", "ARI", or the "Sponsor") is sponsoring Almanac Realty Securities IX, LP (the "Fund" or "ARS IX"), the latest institutional offering in its flagship fund series. The Fund intends to make private placements of growth capital to real estate operating companies and companies with significant real estate assets. The Sponsor will make investments that target an unlevered 12% net return (15-16% gross) and a 1.5x-1.75x net multiple, assuming five-to-eight-year hold periods. Approximately 50% of the return is expected to be derived from income.

Aon Investments, USA is satisfied with the strategy of the Fund and its appropriateness for ATRS. Additionally, we believe that the merits of this offering outweigh its risks. An ARS IX InDetail is attached in the following Appendix for reference. We recommend that ATRS invest $40 million in the Fund to fulfill ATRS' 2021 non-core real estate allocation, in accordance with the previously approved 2021 ATRS Real Asset Pacing Schedule. Additionally, ARS IX provides investors with various investment vehicles, including but not limited to, a Delaware limited partnership, Cayman limited partnership, and potentially other parallel vehicles. Townsend recommends ATRS consult with its tax and legal counsel to determine the most appropriate vehicle for the Plan.

# Appendix

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InDetail

# Almanac Realty Securities IX, L.P.

A U.S. Diversified Value Added Fund

February 2021

## Table of Contents

# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Prior Fund Rating |
|---|---|---|
| February 2021 | Buy | Buy |

Almanac Realty Investors, LLC ("Almanac", "ARI", or the "Sponsor") is sponsoring Almanac Realty Securities IX, LP (the "Fund" or "ARS IX"), the latest institutional offering in its flagship fund series. The Fund intends to make private placements of growth capital to real estate operating companies and companies with significant real estate assets. The Sponsor will make investments that target an unlevered 12% net return (15-16% gross) and a 1.5x-1.75x net multiple, assuming five-to-eight-year hold periods. Approximately 50% of the return is expected to be derived from income.

Strategy: Almanac provide growth capital to: (1) real estate operating companies that have property portfolios with existing cash flow and value-added potential, and (2) companies with significant real estate assets integral to their business. This is entity level investment, typically in the form of convertible debt with a high current coupon (6% to 9%). Underlying properties may include traditional property types (office, retail, industrial, and multifamily), as well as specialty property types (e.g., self-storage, hospitality, senior living, MOBs, and RV parks). Unlike a traditional mezzanine fund that similarly provides current income, ARS IX participates in the upside of the entity value and thereby generates a more meaningful equity multiple.

*Sponsor:*

| | | | |
|---|---|---|---|
| **HQ Location** | New York, NY | **Parent** | Neuberger Berman |
| **Ownership** | Privately owned | **Founded** | 1981 |
| **Employees** | 33 | **Investment Staff** | 16 |
| **AUM** | $3.8 billion (gross) | **RIA** | Yes |

*Performance (as of June 30, 2020):*

| Vehicle | Fund Size (M) | Vintage | Assets | Projected Life-of-Fund Net IRR | Fair Market Value | | | Realizations | | DPI |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Net IRR | Net EM | IRR Quartile | % of Projection | % of Transactions | |
| ARS I | $317 | 1996 | 6 | 16% | 15.7% | 2.3x | 2Q | 100% | 100% | 2.30 |
| ARS II | $318 | 1998 | 6 | 14% | 14.3% | 1.5x | 2Q | 100% | 100% | 1.50 |
| ARS III | $232 | 1999 | 3 | 9% | 9.3% | 1.4x | 3Q | 100% | 100% | 1.40 |
| ARS IV | $445 | 2004 | 6 | 9% | 9.4% | 1.5x | 2Q | 100% | 100% | 1.50 |
| ARS V | $839 | 2007 | 8 | 12% | 11.7% | 1.5x | 1Q | 52% | TBD | 1.50 |
| ARS VI | $819 | 2011 | 7 | 13% | 9.6% | 1.3x | 4Q | 74% | 71% | 1.10 |
| CARS I | C $200 | 2014 | 1 | N/A | 19.0% | 2.1x | 1Q | 0% | 0% | 1.70 |
| ARS VII | $1,264 | 2015 | 8 | 12% | 13.3% | 1.3x | 2Q | 65% | 38% | 0.80 |
| ARS VIII | $1,909 | 2018 | 4 | 12% | -25.4% | 0.8x | 4Q | 6% | 0% | 0.00 |

*Fund/Portfolio Characteristics:*

| | | | |
|---|---|---|---|
| **Structure** | Closed end commingled fund | **Risk Segment** | Value Added |
| **Targeted Size** | $2.25 billion; No Hard Cap | **Sponsor Commitment** | 1% of aggregate commitments up to $22.5 million |
| **Fund Term** | 10 years from Final Close | **Investment Period** | 4 years from Final Close |
| **Avg Deal Size** | $275.2million in equity (Ranging from ~$100M to ~$500M) | **Typical Business Plan** | 5-8 years |

*Fees:*

| | | | |
|---|---|---|---|
| **Management Fees** | 1.25% on Committed during the Investment period, then on Invested Capital. | **Incentive Fees** | 20% of total profits, subject to an 8% preferred return followed by a 50/50 catch-up. |

*Fundraise Status/Timing:*

First Close expected 2/26/21 with a subsequent close on 4/1/21

## COMPARATIVE ADVANTAGES

1. Niche Specialist Investor

The Firm specializes solely in a corporate financing niche strategy, focusing on this strategy since the mid-1990's. Competition is reduced given that Almanac is focused specifically on (i) growth capital compared to buyout and venture capital, and (ii) real estate, together. The platform has been purpose-built to support the execution of the strategy. The Sponsor executes without partners and third-party service providers, either external or affiliated, saving fund LPs any leakage from double promotes and/or additional expense layers. The Firm/team has become a well-known source of growth capital to real estate owner- operators, with sourcing enhanced by over 20 years of direct industry contacts as well as with legal, accounting, investment banking, and brokerage intermediaries providing services to those owner-operators. The Fund promotes off the additional capital raised by the underlying investment companies, often taking a disproportionate amount of any earned promoted interest. There are now numerous firms with similar strategies, each playing to the strengths of the founding partners. Almanac remains one of, if not the, largest name in this space and continues to perform well with strong deal flow.

2. Track Record

Almanac has historically been a solid, consistent performer throughout its fund series. Although certain funds performed better than others, the fund series has primarily been strong on a relative and absolute basis. The deal structures that Almanac establishes guarantee alignment and downside protection through personal contributions by management teams and seniority in the capital stack. The Firm has generated a 12.7% net IRR and 1.5x net equity multiple since inception across this series using fair market valuations of the unrealized portion. About half of that return has been from income. Thirty-six of the fifty-one transactions have been fully realized, producing a 15.7% gross IRR and 1.6x gross equity multiple. Only two of 51 transactions are expected to lose capital; projected to produce 0.5x - 0.6x gross equity multiples. At the fund level, the net IRRs of the Manager's seven funds range from 9.3% to 19% (based on FMV for funds with unrealized investments). Six of the nine fund vehicles are above median (two are top quartile) of their respective vintages. The historical track record is proof positive of the efficacy of Almanac's structured investment strategy.

3. Alignment

In early 2020, Almanac was acquired by Neuberger Berman ("NB" or the "Firm"), another independent, employee-owned investment manager. Almanac has maintained its autonomy through the acquisition and operates as a distinct platform within Neuberger Berman. The Fund series remains Almanac's only business and is run by the original owners. The GP co-investment consists of personal contributions from the partners down to VPs with additional and separate contributions to be made by Neuberger Berman and its employees. Almanac retained a revenue sharing feature that entitles Almanac team members to a portion of the Firm's revenue. Carried interest points are also shared down to the Director level. These annual percentages are allocated at the sole discretion of Matt Kaplan (but with discussion of other senior team members). The GP co-investment represents a meaningful commitment from each of the senior team members.

4. Portfolio Considerations

- Risk
    - Performance of the Almanac fund series has a lower volatility than Value Added, Opportunistic, and even High Yield/Mezzanine indices[1].
    - Significant current income: The stable income return accounts for half of the overall return, which reduces the overall risk of this strategy.
    - Almanac capital is senior to the equity in any given entity; with the average LTV of an entity at inception approximately 55%-65% exclusive of Almanac capital, in the form of first mortgages on the properties held by the entity.
    - No fund-level leverage
- (Net) Return
    - Upside potential exists in the form of participation in future value growth through convertibility into common equity and/or participation rights and options.
    - J-curve mitigated by 6% to 9% current income up front and no fees charged during the fundraise.
- Correlation[2]
    - Diversification: Almanac structures are less directly correlated to hard asset real estate exposure.
- Sharpe Ratio[3]
    - Using long term historical data, Almanac is an attractive risk-adjusted return relative to Index averages.

1,2,3

| | Almanac Composite | U.S. Fund Indices* | | | |
|---|---|---|---|---|---|
| | | Value-Add | Opportunistic | Mezz/High Yield Debt | NFI ODCE |
| 15-year Net TWR | 8.8% | 6.3% | 6.8% | 5.5% | 6.3% |
| St Dev | 9.7% | 9.9% | 10.9% | 10.9% | 7.3% |
| Correlation (to ARS) | 1.0 | 0.3 | 0.2 | 0.1 | 0.1 |
| Sharpe Ratio | 0.8 | 0.6 | 0.6 | 0.4 | 0.8 |

*Compiled from Townsend database; period from 2005 to 2020

5. New Platform Resources

Almanac now benefits from the larger platform, resources, and reach of Neuberger Berman. Neuberger Berman is a private, independent global investment manager with over 2,300 employees in 35 cities worldwide. The Firm currently has $357 billion in AUM spread across the public and private markets groups, both of which have four underlying business lines. Almanac will benefit from broader and more robust back office support, additional sourcing avenues, on-the-ground market knowledge, and financial support of Neuberger Berman. Almanac contends that the synergies of the two companies will ensure Almanac's future success and operational efficiency.

## POTENTIAL ISSUES AND CONCERNS

1. Organizational Change - New Ownership

In early 2020, Neuberger Berman wholly acquired Almanac. Multiple issues can arise from any organizational change, including dilutive oversight from the new parent and other cultural challenges, which can lead to retention issues. Overall, continued alignment within the GP and with LP Fund investors is critical.

**Discussion**: Almanac maintains its autonomy and continues to operate as a distinct platform within Neuberger Berman. Almanac was acquired under a 15-year ownership and revenue sharing agreement, similar to the agreements governing other underlying brand verticals within NB. The former managing members will continue to run the day-to-day operations of the funds and approve all material matters relating to investments. There are no compensation earn-out hurdles for the Almanac senior partners. However, each of the senior team members has signed a five-year employment agreement including requirements to fund a portion of their compensation from this sale into future Almanac vehicles and cliff vesting for a significant amount of the remaining compensation. Senior employees will also sign long-term non-compete agreements. The structured compensation and restrictive covenants help motivate the senior team members and ensure strong alignment between Almanac investment professionals and Almanac fund LPs. Additionally, every non-partner employee at Almanac will receive a retention bonus that is sized to reflect seniority and contribution to the future success of the platform. Almanac has cited Neuberger Berman's resources, capabilities, and reputation as potential benefits that could enhance sourcing capabilities. Finally, while this change is significant, this is a similar structure to how Almanac operated prior to 2007 under the Rothschild umbrella.

2. Limited Initial Control Rights

Almanac relies on flexible terms and deal structure to win deals. This is part of what differentiates Almanac capital from competition that may be less flexible, demand more control, or lack the knowledge/ability to structure the sophisticated financial arrangements that Almanac uses to protect the Fund's investments. This sourcing advantage comes at a price, where Almanac may not have exclusive rights over certain major decisions. Without a number of explicit rights, the Manager's primary asset management tool is a non-majority board level ability to represent the best interests of the Fund. Boards are typically formed with equal voting members from the operating company/borrower and Almanac.

**Discussion**: Almanac deals require the borrower to agree to a high level of authority granted to the board, very much akin to an organization's Investment Committee. The underlying company continues to be managed day-to-day by its existing management, but they become subject to governance by the board regarding acquisitions, dispositions, capital raising, and changes in senior management, and full information is required such as monthly operating statements and quarterly GAAP financial statements subject to annual audit and fair market value analysis by a qualified accounting firm. This board formation is key to the strategy and has been one reason in the past that deals have not been made. Underlying companies will agree to such governance because the boards are intentionally comprised of an even number of members in keeping with the aligned and cooperative partnership spirit of the transaction. Effectively each side has an ability to block any/every authorization by deadlocking a vote (not every public company can accommodate this, limiting a few transactions to a single seat).

Almanac retains additional management/control capabilities in several ways: (i) Protective contingency provisions that take effect upon an event, granting the Manager increased ability to control during more critical periods should such a period/event occur. For instance:

- "Springing directors" if necessary to provide additional controls - the right to appoint an additional director to assume greater control (majority) in the event of payment default or other triggers (can include some or all: maturity default, change in control, key man issue, consolidated entity LTV and Debt Service Coverage, breach of representations and warranties, and/or legal/regulatory compliance requirements);
- Put provisions triggered upon a change of control;
- Anti-dilution provisions.

And also (ii) via liquidity provisions. Investments are structured to provide several options for liquidity, including transferability and registration rights and liquidity down to the asset level. Almanac has for instance, using prior fund exits as example:

- Directly sold/transferred its position as-is to an institutional buyer;
- Liquidated its position through thru sale of the entity to a strategic buyer or via IPO;
- Sold the underlying assets of the entity in a partial or complete liquidation of the properties;
- Recapitalized the company, through a debt or equity placement.

3. Fund Life

The Fund has a potential term of 14 years from the Final Close, an increase from the already longer than average prior funds. Such a fund life is longer than the typical closed end non-core real estate vehicle and investors should consider that factor when they do their portfolio planning and modeling.

**Discussion**: The strategy is not a credit-distress play based on a short-term turnaround, but rather a growth capital strategy aimed at achieving value-add returns plus equity multiple over time. The Fund life is consistent with the typical 5 to 8-year term of a transaction initiated over the course of the Fund's four-year commitment period. The term is not excessive but rather the requirement to execute this type of strategy, which may not fit investors with shorter term opportunistic allocations.

4. Management Incentive Leakage

While not specifically a double-promote, most Almanac deals are structured with management stock option incentives granted upon formation. A number of these have been structured at-the-money, effectively serving as a promoted interest to management with no hurdle rate. There are variations, but generally when such incentives are built in, they represent management's right to purchase additional shares up to 10% to 20% of the total outstanding shares established upon formation.

**Discussion**: Many grants are also structured with higher strike prices that are only in the money once substantial value has been created. That higher strike price effectively serves as a hurdle rate for management. It only has value once substantial value has already been created. Either way though, set at-the-money or above, it is an incentive fee borne by Almanac, and it can create some amount of leakage at all positive return levels. It does reinforce alignment, keeping management focus on share price. Because such grants may not be in all deals, and not all will be struck at-the-money, the aggregate cost across the entire fund will be similar or less than typical joint venture structures at the Fund's targeted returns.

5. Fund Size and Capacity

Almanac's funds have grown significantly in recent years. From a ~$800 million fundraise in 2011, the Sponsor is now targeting nearly three times that amount in Fund IX. This is also twice the capital raised in the 2015 vintage Fund VII only 5 years ago. Almanac to increased investment deal size in more recent fund; we expect this to continue as fundraises get larger. This was a successful tactic for groups like Blackstone whose size eventually became a competition-limiting factor. Almanac may achieve similar success. However, the Fund may be forced to pursue different deals or structures in order to fully deploy this new, larger offering.

The strategy's single greatest limiting growth factor has always been senior bodies to sit on operating company boards. While growth at the firm has been positive, there has been some turnover primarily at the Associate level. The NB transaction should take alleviate some of the administrative burden on senior partners and allow them to focus more on investment matters. However, the revenue sharing feature negotiated in the Almanac/NB transaction is meant to encourage growth.

**Discussion**: Though capacity has historically been a concern, Almanac is currently positioned with more senior members capable of sitting on boards than at any other time in its history. We will continue to monitor the growth of the platform and team as measured growth will be critical to maintaining the team's culture and quality.

6. Blind Pool Vehicles

Unlike predecessor funds, Almanac is not restricted from investing in blind pool vehicles related to manager affiliated portfolio company investments and/or where the portfolio company is a general partner of the blind pool vehicle. The flexibility often afforded to blind pool funds can lead to scope drift, conflicts of interest, and less restrictive investment guidelines.

**Discussion:** Almanac is restricted from investing in blind pool vehicles that would lead to an increase of the management fees and carried interest paid by LPs. Further, none of the prior portfolio company investments made by the Manager are considered blind pool vehicles that would violate this restriction.

# STRATEGY

## OVERVIEW

Almanac's primary strategy is to provide entity-level growth capital to proven, experienced real estate operators with a sound organizational structure and business plan, who possess an existing portfolio and have identifiable growth opportunities. Further, the manager will pursue emerging companies with validated strategies but limited track records, underperforming businesses in need of rescue capital, and firms focused on real estate technology.

Almanac's return target is an unlevered[2] 12% net IRR with half generated from current income, with 5% to 6% stabilized net annual yields. The Fund anticipates making 8 to 12 investments ranging from $100 million to $500 million[3] at a pace of 2 to 3 deals per year, with projected holds of 6 to 8 years. Almanac's will continue the structured debt, preferred equity, and common equity investment strategies employed in prior funds. However, ARS IX will expand its opportunity set to include portfolio level co-investments and joint ventures, toehold positions in public companies, take private acquisitions, and placements of convertible debt/preferred equity in public companies.

- Most commonly deals will be structured as an unsecured fixed rate fixed term[4] loan with a 5% to 6% current coupon plus a participation in the value creation of the borrowing company/entity. That participation is achieved directly through conversion into common equity at a pre-set strike, or through equity warrants or equity-like participation rights. Transaction terms include the formation of a board authorized with a minimum standard set of governance features, and establishment of covenants for the underlying company. Other structures used are (i) a mix of non-convertible debt along with common equity securities options or warrants, (ii) a preferred equity position, (iii) a guaranteed minimum return or rarely (iv) non-convertible debt.

The Firm utilizes a co-investment sidecar to accommodate larger sized transactions, typically soliciting capital at its sole discretion from the largest fund LPs that have a co-investment capability. Historically, such capital has totaled roughly 10%-15% of fund capital. Investments also often include an accordion feature whereby the underlying operator can request up to a pre-specified additional commitment amount above the initial commitment, which they will receive if Almanac approves the request. Almanac never requires operating companies to deploy all the capital committed and there is no guarantee that the companies will be provided the full commitment amount if they are unable to generate deal flow of a size and quality that Almanac deems acceptable. On average, Almanac's deals often include between 40- 60% debt (excluding Almanac's investment) in the capital stack, 20-30% investment from Almanac (in debt, equity, or a hybrid structure), and some significant equity contribution (10%+) from the senior partners within the portfolio company for the remainder. This has equated to an attachment point for ARS capital at approximately 51% LTV in Fund VII, and 56% LTV in both Fund VI and VIII portfolio companies (prior to Almanac's investment). Any origination or placement fee paid by the borrower to Almanac accrues to the benefit of the Fund either directly or through Management Fee offset and is included within the expected Current Income component.

The Firm has invested relatively consistently over time[5], even as the size of each fund has grown. None of the Firm's historic deals have been greater than $200 million and deals over $100 million have made up less than 50% of commitments in each period (all shown in the chart on the following page). While deal size within the funds has

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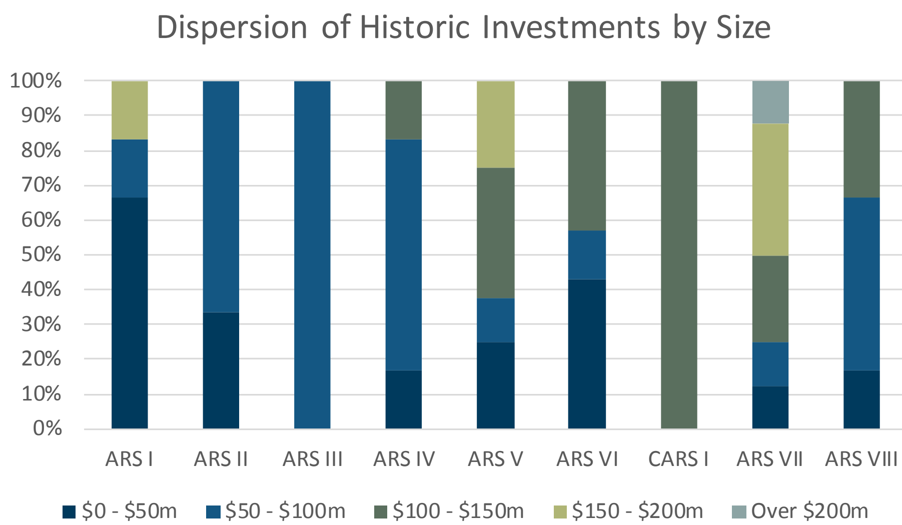
[2] While Almanac does not utilize investment or portfolio level leverage, investors are exposed to leverage within each portfolio company via mortgage debt on assets included in the transaction or (less frequently) debt on the portfolio company's balance sheet.

[3] Historically, equity commitments have averaged $275.2 million across the Fund series.

[4] Senior to equity, subordinate to mortgage debt, bank debt, and any other secured lenders or lines of credit as applicable.

[5] Average investment size across prior funds: Fund I ($52.9 million) Fund II ($53.3 million), Fund III ($79.4 million), Fund IV ($74.2 million), Fund V ($103.6 million), Fund VI ($72.4million), CARS I (C$140.0 million), Fund VII ($136.6 million), and Fund VIII ($78.1 million).

been consistent, one thing that has grown is the co-investment opportunities Almanac has offered[6]. To date, close to $194 million has been committed to co-investments in Fund VIII, consistent with the increase seen in Fund VII. Almanac intends to limit the total size of transactions in Fund VIII by limiting investors eligible to co-invest to those committing over $150 million. A chart illustrating the dispersion of historic fund investments by size is included below.




Though previously mentioned, another way Almanac intends to help maintain the Fund's average deal size is through the relatively new accordion feature included in most deals, which was first used in Fund VII. Rather than waiting for portfolio companies to request follow-on capital commitments, Almanac has been including the potential for a pre-determined amount of follow-on capital commitments to be granted to a portfolio company. The mechanism is triggered by a request from the portfolio company and a subsequent approval from Almanac. Neither party can force this capital to be drawn and Almanac retains approval over the use of this additional capital just as it does with the initial capital commitment. This structure benefits investors as the accordion capital commitments are invested at the same strike price per share as the initial commitment. Previously, the entry share price for follow-on commitments had to be negotiated at the time of the request and generally at a higher share price as the portfolio company had grown in value.

More than 75% of prior Almanac deals have been via existing platforms, as shown in the table below. Even when creating a new venture, these teams have significant operating experience in the strategy proposed for the portfolio company (i.e., "Standing Start").

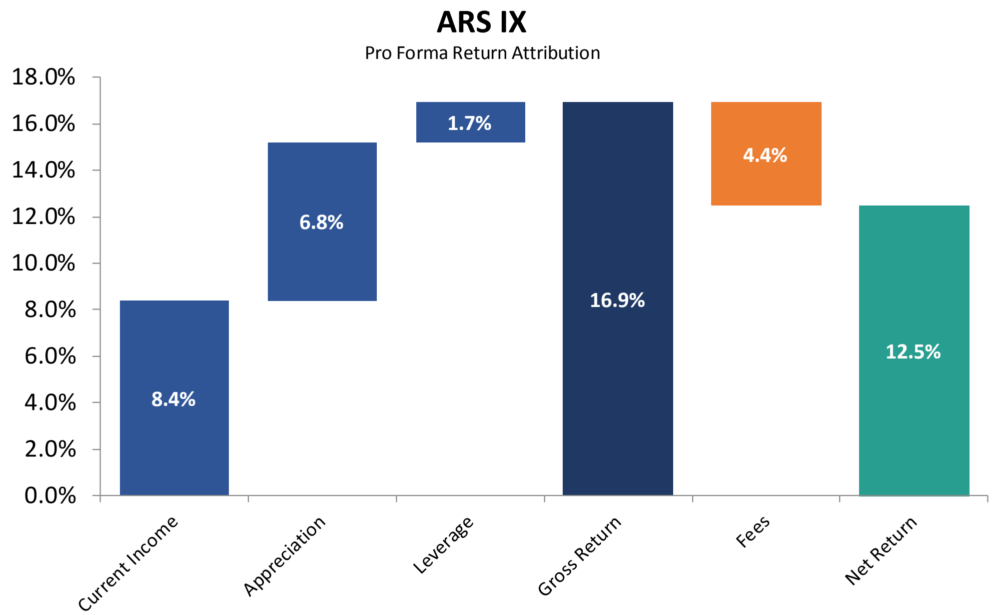
**Historic Almanac Investment Profile**

| Investment Type | ARS I | ARS II | ARS III | ARS IV | ARS V | ARS VI | CARS I | ARS VII | ARS VIII |
|---|---|---|---|---|---|---|---|---|---|
| Existing Team | 5 | 4 | 3 | 5 | 5 | 6 | | 6 | 6 |
| Open Market | | 1 | | | 1 | | | | |
| Standing Start | 1 | 1 | | 1 | 2 | 1 | | 2 | |
| **Total** | **6** | **6** | **3** | **6** | **8** | **7** | **0** | **8** | **6** |

[6] Co-investment capital from prior funds as follows: Fund IV ($53.2 million), Fund V ($81.7 million), Fund VI ($70.8 million), Fund VII ($199.4 million), and Fund VIII ($194.4 million)

The Fund model assumes deal level gross IRRs of 16.9%, roughly 440bps in fund fees and expenses, partially offset by a minor increase in the overall fund net IRR from the use of a subscription facility, netting to the targeted 12.5%.

The chart below outlines the expected return attribution for the Fund:




## UNDERLYING ENTITIES

Portfolio companies are real estate owner-operators, typically smaller to medium-sized companies, and may be privately or publicly owned. In order to form an underlying entity, borrowers contribute (i) mostly cash-flowing non-core properties (given their size and location) plus an amount of core-plus properties; and (ii) their management/operating company.

- Properties will have varying amounts of mortgage debt, 45% to 70% for a general range.
  - The existing debt on the contributed portfolio plus new debt incurred in the future is subject to Almanac imposed leverage constraints at the property level and for the consolidated entity. The consolidated entity is also subject to Almanac imposed debt service covenants.
  - Recourse and cross-collateralization provisions required for any property level debt are assessed/approved by the boards of the companies on a case-by-case basis and thereby not expressly capped or limited.
  - Borrowers who like to operate with high leverage and look for additional leverage thru an Almanac type deal are not the candidates Almanac transacts with.
- Management/operating companies vary from small captive property management businesses with little enterprise value to more substantially established companies with significant third- party property management and other service revenue.
  - There are varying degrees of operating leverage within the companies depending upon the property type, with senior housing and hospitality companies having notably higher fixed costs.
  - Almanac's simplest offset to higher operating company leverage is lower financial leverage.

### LEVERAGE

The Sponsor does not leverage the Fund's investments, so there will be no permanent leverage at the Fund level. However, the Fund may use a credit/subscription facility or provide guarantees related to bridging any gaps between closing/funding a transaction and the associated capital call. The Fund has the later of 45 days after the Final Close Date or the date that is 6 months from the date of entering the obligation to repay otherwise this indebtedness will be treated as a Sponsor contribution in the calculation of the preferred return. Investors are also exposed to leverage within each portfolio company via mortgage debt on assets included in the transaction or (less frequently) debt on the portfolio company's balance sheet.

### INVESTMENT GUIDELINES

- No more than 30% of commitments in one single portfolio company
- No more than 50% of the commitments invested as common equity
- No more than 10% of commitments used for open market purchases of securities
- No more than 15% of commitments will be made to a non-US portfolio company, defined as one expected to have more than 25% of the value of its assets located outside of the United States and is expected to derive more than 25% of its revenue from business conducted outside of the United States
- The Fund is restricted form investing in another blind pool investment vehicle

We recommend prohibiting open market purchases. Development is not limited but has been less than 15% of prior funds.

### SEED ASSETS & PIPELINE

No Seed Assets to date.

Almanac currently has four investments in its pipeline that will represent an initial equity contribution of $364.9 million and with potential total commitments of up to $1.150 billion. Three of the four portfolio companies have strategies focused on the multifamily sector with the fourth investment targeting industrial assets. The companies have established teams and existing portfolios. The underlying entities' assets are dispersed throughout the country with concentrations in the Pacific, Mid-Atlantic, and Southeast.

**Exhibit A** is a summary of the Firm's pipeline report.

## SPONSOR

### OVERVIEW

Almanac's predecessor (Rothschild Realty, Inc.), a real estate corporate finance division and wholly owned subsidiary of The Rothschild Group North America, was founded in 1981. ARS IX is the follow-on to the Firm's fully discretionary fund series Almanac Realty Securities Funds I thru VIII. That series started in 1996, run by John McGurk, Mathew Kaplan, and Pike Aloian. Messrs Kaplan and Aloian joined the division in 1990 and 1988, respectively. These three senior members of the team completed a multi-year buyout of the business from Rothschild in 2007. In January 2020, Almanac was purchased by Neuberger Berman from senior partners Matthew Kaplan, Andrew Silberstein, Justin Hakimian, David Haltiner, Josh Overbay, and D. Pike Aloian. Today, Almanac continues to operate as a distinct business unit managed by the aforementioned senior partners.

## NEUBERGER BERMAN

*Ownership:* Private, independent investment manager owned by 550 employee-owners
*AUM*: $357 billion gross throughout all business lines
The firm operates in both the public and private markets
Public Markets (Gross AUM $278B): Equity ($97B), Fixed Income ($168B), Hedge Funds & Liquid Alternatives ($16B), and Real Estate ($2B).
Private Markets (Gross AUM $79B): Private Equity ($64B), Private Credit ($9B), Specialty Alternatives ($2B), and Private Real Estate ($4B).
*Staffing and Organization:* 2,300 employees (888 investment professionals) located throughout 35 offices worldwide. More than half of the employees operate out of the firm's headquarters in New York, NY.

- An organizational chart is attached as **Exhibit B**.

## ALMANAC REALTY INVESTORS

*Ownership:* Wholly owned by Neuberger Berman

*AUM*: $3.8 billion gross, inclusive of unfunded commitments, all in the Fund series

*Staffing and Organization:* 31 employees (17 investment professionals) located in New York, NY.

- Of the 31 employees, 2 are senior advisors are dedicated to Almanac.
- An organizational chart is attached as **Exhibit B**.
- Biographies of the Investment team are included in **Exhibit C**.

## TURNOVER, COMPENSATION, AND RETENTION

*Turnover*: No issues; notably stable. The Firm has had no turnover at senior levels, and at the mid-level, a VP of finance left in 2014 for personal relocation reasons.
*Compensation*: Industry standard salary plus cash bonus. Employees above the Analyst level may invest in the funds and are awarded participations in a carry pool based on performance. The Firm retains 50% of carry and 50% goes to the non-owner employee pool.
*Retention*: 80% of carry awards are subject to a vesting schedule over a five-year period.

## INVESTOR BASE

Public pensions (36%), corporate/private pensions (20%), endowment/foundation (14%), foreign sovereign/pension (11%), insurance (11%), Taft Hartley (5%), other (3%).

## COMPLIANCE AND LITIGATION DISCLOSURE

Neuberger Berman has been periodically involved in civil legal proceedings and investigations or examinations by regulatory organizations. Pertinent highlights have been summarized below:

- At the end of 2018, a separate division of NB was the subject of an SEC Order focused on specific expense allocations relating to Dyal Capital Partner's Business Services Platform ("BSP"). The SEC Order found no intentional wrongdoing or fraud and noted the issue had previously been resolved in 2017. NB made payments to certain Dyal Funds and a civil monetary penalty to the SEC as a result.
- NB settled a class-action lawsuit related to a fund previously offered within the 401(k) plan. NB paid a nominal settlement and all claims were dropped.

- None of this prior litigation has or was likely to directly impact either NB's real estate investments or Almanac specifically.
- Neither the Firm nor any of its senior member have ever filed for bankruptcy. However, Neuberger Berman's former parent, Lehman Brothers Holdings Inc., filed for bankruptcy in 2008. Neuberger Berman became an independent firm in May 2009.

## ESG Policies & Practices

### OVERVIEW

Almanac is considered "Limited" in terms of ESG implementation within real estate investments. Neuberger Berman contends that it has incorporated ESG into its business practices since 1940 with the use of "avoidance screens" and the Firm has continued to actively bolster its policies and procedures since. The Firm has established four pillars by which it incorporates ESG into its operations. These include:

Avoid: Repudiating certain companies and sectors from the investment universe
Assess: Weighing ESG advantages and disadvantages in tandem with traditional metrics in the valuation process.
Amplify: Favoring companies that uphold high ESG standards.
Aim for Impact: Delivering solid financial returns while achieving environmental and social impact.

The level of factors incorporated into the underwriting process vary at the deal level depending on the asset class and strategy. Regarding socially responsible practices impacting employees and stakeholders, the Firm takes care of its employees as evidenced by near zero turnover above Associate/Analyst positions, and the stakeholders are the three Managing Partners who each have their individual causes for charitable giving.
Neuberger Berman has reported to GRESB since June 29, 2012;
Firm has been a member of UNPRI since 2014;
In 2020, NB achieved a A+ ranking from PRI for overall ESG strategy and governance as well as for their ESG integration across all of the asset classes they manage in 2020.

Almanac is in the process of establishing its own ESG framework that is tailored specifically to its investment strategy and targeted investments. While NB's ESG policies and procedures are strong, Almanac currently scores below average in this area.

## OPERATIONAL DUE DILIGENCE

### OVERVIEW

Independent of Investment Due Diligence, the Aon Operational Risk Solutions and Analytics ("Aon ORSA") group reviewed the sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions looking for established controls and operating procedures that align with best practice. Areas covered during review include: (i) corporate governance, (ii) transaction execution, (iii) cash controls, (iv) valuations, (v) compliance, regulatory, and legal controls, (vi) counterparty risk oversight, (vii) business continuity/disaster recovery, (viii) cyber security, and (ix) service provider selection and monitoring.

The review concluded the Firm has an institutional operating infrastructure with proper oversight and controls, with a few minor issues common for ARS IX's investment strategy; overall garnering an A2-Pass rating. Minor issues were cited included:

- The Fund does not intend to use external appraisal-based valuations, third-party fund administration, or outside internal control reviews; granted limited authorities and controls to the Board of Advisors with significant discretion to qualify conflicts of interest.

## INVESTMENT PROCESS

### OVERVIEW

*Sourcing/Origination:* Almanac has internally sourced many of its investments through the Managing Principals networks and extensive relationships within the real estate, financial services, and private equity industries.

- ARS IV (6 companies)
  - *Sourcing:* 33% off market and 67% through a broker
  - *Origination*: 33% on a proprietary basis, 50% through limited auction and 17% through auction
- ARS V (7 companies and 1 series of open market purchases)
  - *Sourcing:* 43% off market and 57% through a broker
  - *Origination*: 63% on a proprietary basis and 38% through limited auction
- ARS VI (6 companies)
  - *Sourcing:* 33% off market and 67% sourced through a broker
  - *Origination*: 71% on a proprietary basis and 29% through limited auction
- ARS VII (7 companies)
  - *Sourcing:* 50% off market and 50% sourced through a broker
  - *Origination*: 88% on a proprietary basis and 12% through limited auction
- ARS VIII (6 companies)
  - *Sourcing:* 86% off market and 14% sourced through a broker
  - *Origination*: 83% on a proprietary basis and 17% through limited auction

*Due Diligence & Underwriting:* The investment team is responsible for sourcing, underwriting, structuring, and managing investments. Investment teams are led by a senior partner and responsibilities are shared amongst team members as they work closely with each portfolio company throughout the life of the investment. After an investment is identified, the team conducts an in-depth review that includes business strategy evaluation, reputation analysis, site visits/valuations of underlying portfolio assets, and a tax review (no tax event triggered upon contribution). The team negotiates pricing/structure, establishes covenants, and ensures the management team has appropriate capabilities, governance, and internal controls in place. Almanac will build in additional downside protections through "springing" board seat triggers, change of control put/anti-dilution provisions, voting rights, and other beneficial clauses that are triggered by negative events.

*Investment Committee:* Reviews/approves all major investment decisions, acquisitions, dispositions, financings, valuations, affiliated transactions, and significant capital expenditures, by unanimous vote. Further, the members determine business plans and enforce covenants.

| Member | Title | Responsibility | Years of Experience | Years with Firm |
|---|---|---|---|---|
| Matthew W. Kaplan | Head of Almanac & Managing Director | Oversees Almanac and is the Portfolio Manager of the ARS Fund Series | 32 | 30 |
| D. Pike Aloian | Managing Director | Origination, economic analysis, transaction execution, and ongoing review of the investments of Almanac's funds | 42 | 32 |
| Justin Hakimian | Managing Director | Origination, economic analysis, transaction execution, and ongoing review of the investments of Almanac's funds | 19 | 15 |
| David Haltiner | Managing Director | Origination, economic analysis, transaction execution, and ongoing review of the investments of Almanac's funds | 13 | 12 |
| Josh Overbay | Managing Director | Capital raising, investor relations, economic analysis, and ongoing review of the investments of Almanac's funds | 18 | 6 |
| Andrew Silberstein | Managing Director | Origination, economic analysis, transaction execution, and ongoing review of the investments of Almanac's funds | 29 | 11 |

*Asset management*: Almanac takes an active role in the management of its portfolio companies. In order to ensure that performance is maximized, Almanac sits on the board as well as other governing bodies providing guidance on acquisitions, dispositions, financings, valuations, affiliated transactions, annual business plans, and monitoring/enforcing covenants. Further investment professionals supported by senior management, contribute experience and input to enhance corporate growth, business decisions, operations, technology, reporting, budgeting, and financial planning.

*Dispositions:* Almanac exits portfolio companies in a variety of ways including:

- Property-level recapitalization, refinancing, and/or disposition
- Entity-level recapitalizations, which may include merger, IPO or entity-level private capital
- Outright sale of business to a public REIT or other investors looking for a platform company
- Management teams prepaying or redeeming Almanac’s interest in the company prior to the maturity date
- Given the nature of an Almanac investment, at the entity level and with a shared growth objective/incentive, no transaction is structured with a traditional buy/sell provision more typical of a single asset venture.

As of October 2020, approximately 71% of prior transactions (by number) are realized. The following charts lists the exit strategies utilized:

| **Realized Exit Type** | ARS I (6 Deals) | ARS II (6 Deals) | ARS III (3 Deals) | ARS IV (6 Deals) | ARS V (8 Deals) | ARS VI (7 Deals) | ARS VII (8 Deals) |
|---|---|---|---|---|---|---|---|
| Open Market Sale[1] | X | X | X | | X | | |
| Public Merger[2] | X | X | | | | X | |
| Sale of Company | X | X | | X | X | X | X |
| Asset Sale | X | X | X | X | X | X | |
| Recapitalization | X | | | X | X | X | |
| Management Repayment/Redmeption[3] | | | | X | X | X | |

[1]Refers to publicly traded securities acquired through conversion or option

[2]Refers to cash sale of securities directly to an exisiting public entity

[3]Refers to management teams prepaying / redeeming ARS interest in the company prior to the maturity date

### EXCLUSIVITY

The Fund will be the exclusive Almanac investment vehicle within this specific strategy during the Fund's investment period. Another fund may not be closed until the earlier of either the end of the investment period or 75% of the Fund's capital has been committed. The Fund can offer co-investments to limited partners and third parties at the sole discretion of the GP.

### VALUATIONS

The Sponsor utilizes the expressly stated valuation policy that is unchanged from prior funds. Valuations are conducted internally on a quarterly basis and ultimately approved by NB's Valuation Committee. The Fund is also subject to an annual external audit. There is an amount of inherent smoothing given that the value of the conversion (i.e., degree the Fund's investment is "in-the-money") for those transactions involving convertible debt on private entities, is determined by annual audited financials of the underlying entities and therefore not a quarterly exercise. From Townsend's perspective, a clear, transparent, and reasonable policy governs.

### LP ADVISORY COMMITTEE

The Fund will establish a Board of Advisors ("LPAC") that will consist of voting representatives designated by the General Partner, none of whom may be affiliated with the General Partner. The LPAC will consult periodically with the General Partner to review the Fund's operations and plans. The Advisory Committee will not participate formally in the management of the Fund, except that, if requested by the General Partner, it will be empowered to resolve conflicts of interest between the Fund and the General Partner, as well as opine on other matters that may require investor approval. Any voting matter requires a majority for approval. Fund VIII members are Alaska Retirement Management Board, Alberta Investment Management Corporation, GIC Real Estate, New Mexico State Investment Council, The City of New York Office of the Comptroller, Pennsylvania Public School Employees' Retirement System, StepStone Group, Teacher Retirement System of Texas, and the Townsend Group.

### USE OF PLACEMENT AGENT

Sponsor is not currently using a placement agent.

## FUND STRUCTURE

### OVERVIEW

Formed as a Delaware limited partnership. The Fund structure is illustrated in Exhibit E.

- Investment Sponsor: Almanac Realty Investors, LLC,
- Investment Manager: NB Almanac Realty Advisers LLC
    - Registered as an Investment Advisor with the SEC since 2009.
- General Partner: NB Almanac Realty Investors IX GP LLC

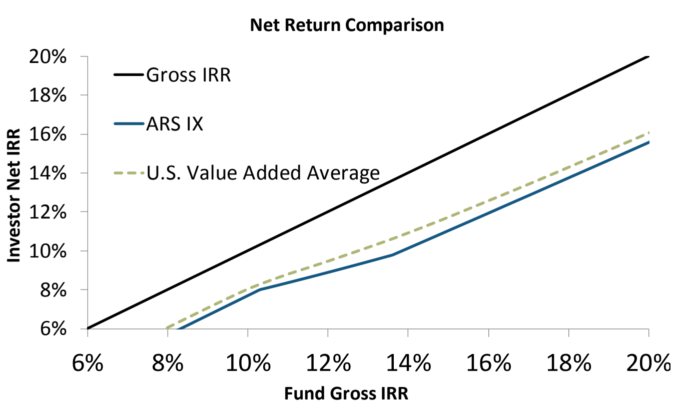
## TERMS & CONDITIONS

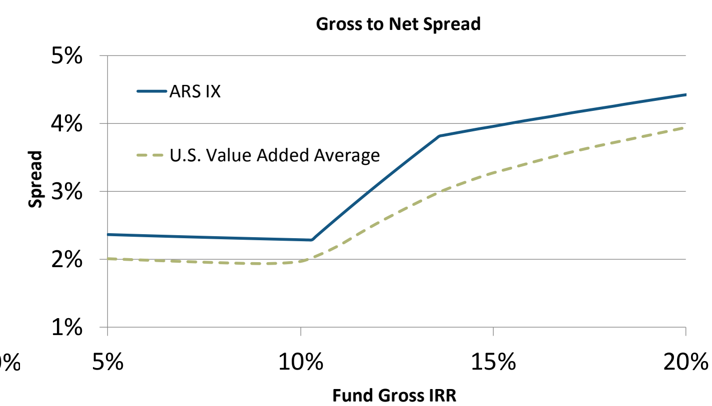
| Key Terms | | Townsend Comments | |
|---|---|---|---|
| **Target Return:** | 15%-16% gross IRR; 12% net | **Neutral** | Unlevered at the fund level |
| **Fund Size:** | $2.25 billion; no hard cap | **Negative** | We would not be comfortable with a fund much larger than this and will push to negotiate the hard cap at $2.25 billion |
| **Sponsor Commitment:** | 1% up to $22.5 million | **Positive** | This is in-line with the minimum expected GP co-investment given the size of the Fund. Additionally, Neuberger Berman and its affiliates will make commitments to the fund. Contributions will be in the form of cash. |
| **Investment Period:** | 4 years from Final Close | **Neutral** | |
| **Fund Term:** | 10 years from Final Close | **Negative** | Three one-year extension options at the discretion of the GP. The third extension can be blocked if the Board of Advisors provides written notice of its disapproval within 30 days of receiving the GP's proposal to extend the term. This provides greater than average flexibility to the GP |
| **Key Person Provision:** | Matthew Kaplan, Pike Aloian, Andrew Silberstein, Justin J. Hakimian, Josh Overbay, and David Haltiner are named<br><br>Triggered by either (i) the voluntary departure of Matthew Kaplan or (ii) at least three of the six Key Person are not devoting substantial time to the Fund | **Neutral** | Results in a suspension of the Commitment Period. GP will have 90 days to cure with approval from Board of Advisors |
| **No-Fault Remedies:** | GP/manager removal by 75% of LP capital.<br>Termination of Investment Period by 75% of LP capital. | **Neutral** | These provisions offer reasonable thresholds that are standard and LP-friendly. Orderly fund liquidation with vote from 75% of LP capital |
| **For Cause Provisions** | A majority in interest of LPs | **Neutral** | If triggered, provision calls for termination of the Fund or a new GP to be appointed by approval of a majority in interest of LPS. |

| Fees and Distribution Waterfall | |
|---|---|
| **Org Expenses:** | Fund will bear formation expenses up to 0.15% of Offering Size |
| **Investment Management Fees:** | 1.25% on committed capital beginning at the Final Close (ending the earlier of full investment or 3 years from the Final Close); then, 1.25% on invested capital thereafter<br><br>10 bps discount for early closers until end of Commitment period<br><br>No fees will be charged until the Final Close |
| **Incentive Fee/Waterfall Distribution:** | 20% of profits, subject to an 8% preferred return (compounded quarterly); 50% catch-up<br><br>Fully pooled waterfall |
| **Clawback:** | Triggered if cumulative LP distributions fall below a return of capital plus a complete preferred return or if the cumulative GP distributions exceed 20%<br><br>Secured by escrowing 25% of carried interest otherwise distributed |

## FEE AND EXPENSE ANALYSIS

Compared to 104 Value Added fund offerings, the Fund fee structure is in line with market. Given the Fund fee structure, Townsend estimates that a gross IRR of 16.4% will produce approximately a 12.4% net IRR. This is in-line with Almanac's projections. The overall fee load is slightly worse than average at all gross IRRs of (given an average 8% preferred return across the peer set).



## PERFORMANCE (As of June 30, 2020)

| Vehicle | Fund Size (M) | Vintage | Assets | Projected Life-of-Fund Net IRR | Fair Market Value | | | Realizations | | DPI |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Net IRR | Net EM | IRR Quartile | % of Projection | % of Transactions | |
| ARS I | $317 | 1996 | 6 | 16% | 15.7% | 2.3x | 2Q | 100% | 100% | 2.30 |
| ARS II | $318 | 1998 | 6 | 14% | 14.3% | 1.5x | 2Q | 100% | 100% | 1.50 |
| ARS III | $232 | 1999 | 3 | 9% | 9.3% | 1.4x | 3Q | 100% | 100% | 1.40 |
| ARS IV | $445 | 2004 | 6 | 9% | 9.4% | 1.5x | 2Q | 100% | 100% | 1.50 |
| ARS V | $839 | 2007 | 8 | 12% | 11.7% | 1.5x | 1Q | 52% | TBD | 1.50 |
| ARS VI | $819 | 2011 | 7 | 13% | 9.6% | 1.3x | 4Q | 74% | 71% | 1.10 |
| CARS I | C $200 | 2014 | 1 | N/A | 19.0% | 2.1x | 1Q | 0% | 0% | 1.70 |
| ARS VII | $1,264 | 2015 | 8 | 12% | 13.3% | 1.3x | 2Q | 65% | 38% | 0.80 |
| ARS VIII | $1,909 | 2018 | 4 | 12% | -25.4% | 0.8x | 4Q | 6% | 0% | 0.00 |

Almanac Realty Securities I-III (Investment Period: 1996-1998); 100% Realized

- ARS I – III were funds of one managed on behalf of a large institutional investor. The Sponsor legally had discretion over these investments, but practically discussed each investment with this large investor.
- ARS I and II performed above the same vintage peer fund with all but two assets achieving IRRs above a 14% gross IRR and all investments returning a 1.3x or greater gross EM.
- ARS III performed below the average peer set. However, the fund was highly concentrated in three assets, one of which, Advance Realty, was amongst the lowest performing investments in the entire fund series.
    - Advance Realty was a real estate management company with a portfolio of suburban office buildings in New Jersey Assets in both Fund I and Fund III were held longer than a traditional commingled fund at the influence of the single LP investor; this significantly impacted returns.

Almanac Realty Securities IV (Investment Period: 2004-2007); 100% Realized

- 6 investments; Other (26%), Hospitality (22%), Office (19%), Retail (17%), and Hotel (17%).
    - Of the 6 investments, deal structures included Convertible Debt (5) and Unsecured Debt/Common Equity (1).
    - Performance of the Fund's investments were mixed. One asset, Denholtz Holdings, was among the worst performers in Sponsor's history. Denholtz Holdings was a real estate management company with a portfolio of suburban office buildings in New Jersey targeting smaller tenants.

Almanac Realty Securities V (2007-2011)

- 8 investments; Office (29%), Mixed-use (26%), Multifamily (22%), Industrial (19%), and Hotel (4%).
    - Of the 8 investments, deal structures included Convertible Debt (4), Unsecure Debt/Convertible Debt/Preferred Stock (1), Mixed (1), Common Equity (1), and Unsecured Debt/Common Equity (1).
    - To date, seven of the eight assets have been realized.
    - The Fund's investments have performed well with all but one asset achieving over a 14% gross IRR and a gross 1.4x EM.
        - The underperforming asset, Vanta Commercial Properties, was commercial real estate management and development company of office buildings in Madison WI. Ultimately, Almanac removed the CEO.

Almanac Realty Securities VI (2011-2016)

- 7 investments; Mixed Use (67%), Multifamily (12%), Other (20%), and Hotel (1%).

- Of the 7 investments, deal structures included Convertible Debt (3), Unsecured Debt/Warrants/Common Equity (1), Preferred Equity/Warrants/SARS (1), Non-Convertible Debt (1), and Unsecured Debt/Common Equity (1).
- To date, five of the seven investments have been realized. Four of the five realized investments achieved gross IRRs of greater than 17% and equity multiples of 1.4x or higher.
- The two remaining assets are producing mixed performance. Unfortunately, the strong performer (Shaner) is also a miniscule portion of the fund, even today. The other investment, HRI Properties, is struggling. HRI focuses on the acquisition, redevelopment, and development of residential and commercial properties. This investment was a mix of multifamily and hotel assets. The company has reported net aggregate losses 2017, 2019, and 2020. The significant (unrealized) losses marked in 2020 were the primary reason for the fund's recent underperformance. These assets are currently "non-performing" and values reflect this. Almanac expects valuations to improve once the assets begin performing. The team has already seen improvement from the nadir this summer.

Almanac Realty Securities Canada I (2014-2016)

- The Fund has one investment, Slate Asset Management. Slate Asset Management is a public Canadian real estate manager focused on office and retail assets. The capital structure is unsecured debt with warrants. The business plan is to provide capital for accelerated growth and continue its value added strategy.

Almanac Realty Securities VII (2015-2019)

- 8 investments; Mixed Use (36%), Other (23%), Multifamily (16%), Retail (14%), and Senior Housing (11%).
- The structures of the eight investments consisted of Unsecured Debt/Common Equity (3), Unsecured Debt/Warrants/Convertible Preferred Equity (1), Unsecured Debt/PPUs (1), Convertible Preferred Equity (1), Participating Preferred Equity (1), and Preferred/Common Equity (1).
- To date, three assets have been realized achieving gross IRRs in excess of 19% and EMs of 1.3x.
- All but one of the remaining assets are performing in-line or above expectations. The underperforming asset, ReNew Senior Living's, a senior living focused investment manager, portfolio experienced significant loss in NOI due to COVID. The NOI has slowly rebounded and will likely contribute to an increase in performance.

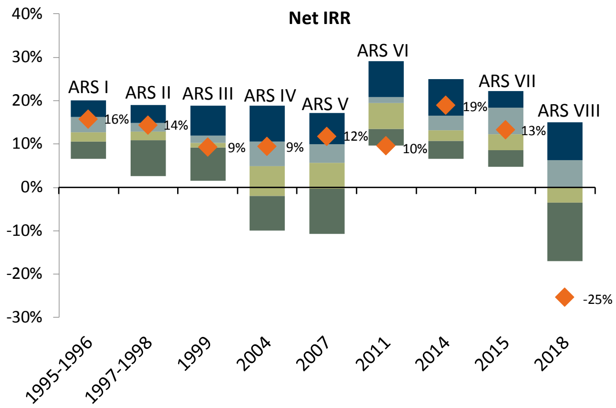
Almanac Realty Securities VIII (2018-2022)

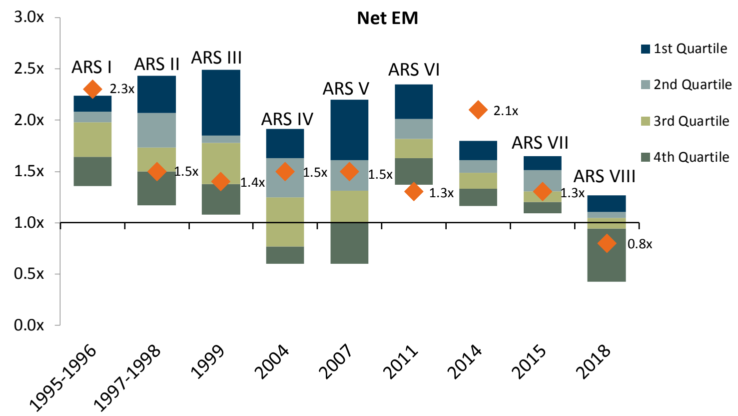
- 4 investments; Industrial (44%), Multifamily (21%), Hospitality (18%), and Retail (17%). The fund is closing investments in two multifamily companies.
    - The structure of the four investments consists of Preferred Equity/PPUs (1), Unsecured Debt/Warrants/Preferred Common Equity (1), Preferred Common Equity/PPUs (1), and Unsecured Debt/Common Equity/PPUs (1).
    - To date, performance has been mixed with two assets exceeding underwriting expectations and two assets underperforming initial underwriting. However, these assets are still early in their business plans. We discuss the two underperforming assets, McNeill and L3, in further detail below. There is still significant risk attached to the business plans of both they are hospitality and retail investments, respectively.
    - The pronounced J-curve in this fund, which investors did not experience in Funds VI and VII, is primarily a result of slower capital calls from the underlying portfolio companies.

  - As of 4Q2020, the fund has adequate cashflows to cover committed capital fees. According to Almanac, the fund has reached a tipping point and should achieve a 1% - 2% yield by the end of 2021.
- McNeill is focused on the development and ownership of US premium branded select service hotels. Almanac initially committed $100 million (80% debt and 20% preferred senior equity) in 2018 and upsized its commitment in 2019 to $150 million with an optional add-on commitment of $50 million subject to approval.
  - Through the pandemic, EBITDA dropped falling $17.3 million (-73%) short of budgets, driven by a reduction in RevPAR ($59 vs $101 expected). April 2020 marked the nadir for occupancy and RevPAR at 25% and $20, respectively. However, both occupancy and RevPAR have recovered reaching 72% and $65, respectively. Despite the drop in NOI, the company is still cash flowing, has reserves, and was able negotiate with mortgage lenders to pay interest-only on outstanding debt in the short term.
  - McNeil asked Almanac and was subsequently granted relief on their coupon in the near term. This will be deferred rather than waived. Almanac does not expect to exit the deal for at least four to five more years.
  - As of September 2020, this investment has achieved a 2.3% IRR and 1.0x multiple including fair market value and distributions to date. The remaining investment in McNeill is being held at ~4% discount to cost.
  - Almanac currently expects McNeill will achieve an 8.1% gross IRR and 1.5x multiple. Townsend has reviewed the revised assumptions and agrees that these returns appear reasonably achievable.
- L3 Capital targets urban street retail and mixed-use properties in gateway markets. Almanac originally committed $200 million (75% unsecured debt and 25% common equity with participation units) with an optional $100 million add-on commitment subject to approval.
  - Underperformance is largely due to the portfolio company's development activities. Approximately 25% of the L3 portfolio (both owned and managed) is targeted for development/redevelopment.
  - Developed assets have experienced store closures and slower than expected leasing, leading to significant vacancy. However, demand from omni-channel retailers has increased, offering some opportunity to increase occupancy. Permitting, pre-construction, and development efforts have mostly progressed as planned.
  - L3 will continue to pursue a targeted approach focusing on specific areas in Chicago, Los Angeles, and Miami.
  - As of September 2020, this investment has achieved a 1.8% IRR and 1.0x multiple including fair market value and distributions to date. The remaining investment in L3 is being held at ~4% discount to cost.
  - Almanac currently expects McNeill will achieve an 16.2% gross IRR and 2.0x multiple. Townsend has reviewed the revised assumptions and remains cautious on future results. Based on the expected continued challenges faced by retail assets and the general concentration of this portfolio, it may be challenging for the investment to achieve these projected returns.

**Exhibit E** lists out all the investments comprising the track record for the Fund/Firm.

## RELATIVE TO PEERS

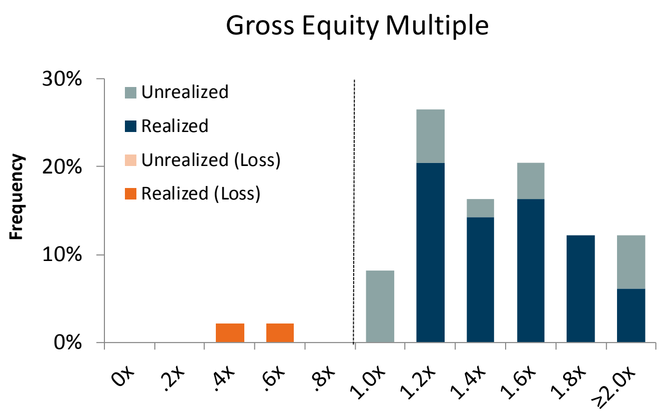


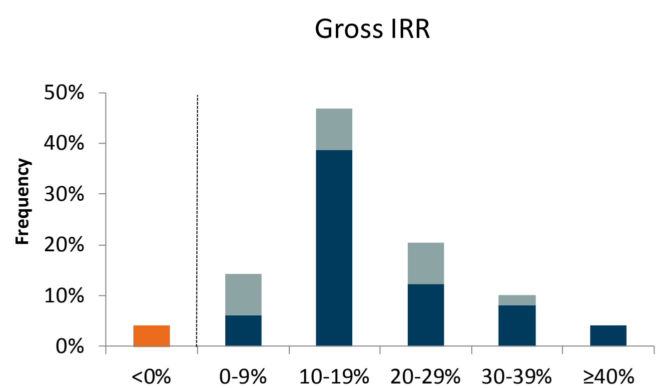




**Source: Townsend Value Add fund database as of June 30, 2020. Range shown is 95th to 5th percentile.**

** Not a direct comparison due to separate account structure and asset concentration in Canada*

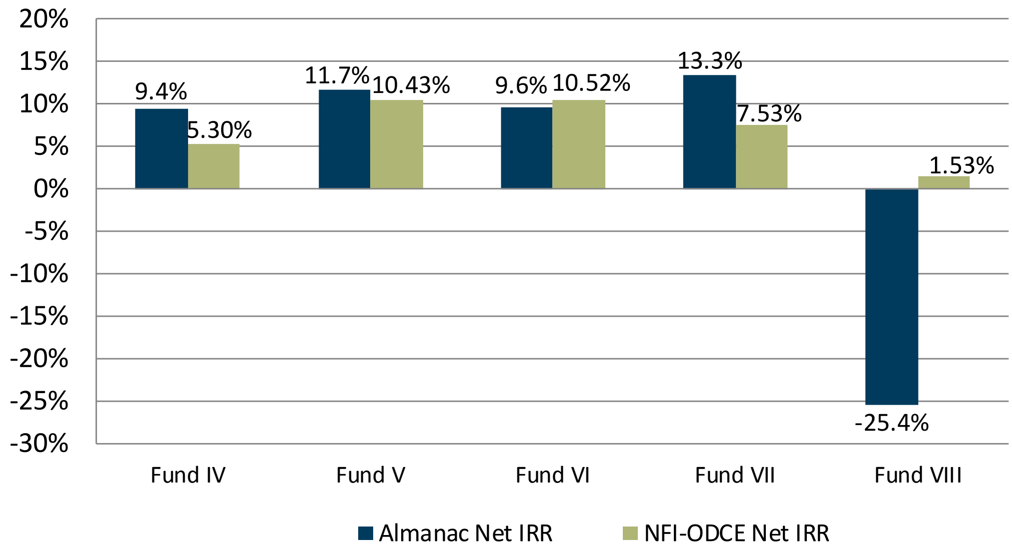
## DISPERSION OF RETURNS



## RELATIVE TO INDEX

The following analysis assumes the Almanac commingled fund net cash flows were instead invested into and out of the NFI-ODCE index.



## Exhibit A: Pipeline

### ARS Funds Investment Pipeline[1]

| | Company 1 | Company 2 | Company 3 | Company 4 |
|---|---|---|---|---|
| Investment Type | Multifamily | Primarily Multifamily | Multifamily | Industrial |
| Geographic Focus | Pacific | Mid-Atlantic | Southeast | National |
| Asset Quality | High | Medium/High | High | High |
| Management Team Quality | High | High | High | High |
| Company Founded | 1993 | 1948 | 1988 | 2010 |
| Total Size of Contributed Portfolio | 873 units | 2.3 million SF | TBD | 18.9 million SF |
| Value of Contributed Assets | $281.6 million | $874.8 million | TBD | $562.3 million |
| Initial Partner Equity Contribution | $65.3 million | $133.4 million | $50 million | $116.2 million |
| Expected Loan to Value[3] | 65% | 65% | 65% | 70% |
| Investment Structure | Debentures and Warrants | Debentures, Preferred Equity and Warrants | Preferred Equity and Warrants | Common Equity, Preferred Equity and PPUs |
| Potential Commitment Size | Up to $300 million | Up to $200 million | Up to $250 million | Up to $400 million |
| Time Horizon | 8 Years | 7.5 Years | 8 years | 7.5 Years |

## Exhibit B: Organization Charts

### Corporate Governance

**Partnership Committee**

- Comprises the firm's senior investment and client-facing professionals
- Provides advice and counsel on Neuberger Berman's most important strategic decisions.

**Board of Directors**

- George Walker, CEO,
- Joseph Amato, President, CIO
- Robert D'Alelio, Portfolio Manager
- Richard Worley
- Lawrence Zicklin
- Steven A. Kandarian
- Sharon Bowen

**Operational Risk Committee**

- Comprised of senior managers across all support and control functions as well as business management
- Provides oversight of the risk evaluation process with a focus on those operational risk matters identified, monitored and reported by Operational Risk Management

**Investment Risk Committee**

- Risk management and senior Portfolio Managers across all asset classes
- Provides oversight of the investment risk evaluation process including the measuring and monitoring of investment performance and risk.

**Operating Committee**

- Consists of business heads, distribution leaders and representatives from support and control functions
- Provides advice and counsel for the day-to-day activities of Neuberger Berman.

### Neuberger Berman Organization

**George Walker**
Chairman of the Board and Chief Executive Officer

**Investment Leadership**

**Joseph Amato** – President, CIO – Equities
- **Brad Tank** – CIO – Fixed Income
  - **Erik Knutzen** – CIO – Multi-Asset Class and Co-Head of Quantitative Multi-Asset Class
  - **Doug Kramer** – Co-Head of Quantitative Multi-Asset Class
- **Tim Creedon** – Director of Global Equity Research
- **Jonathan Bailey** – Head of ESG Investing

**Anthony Tutrone** – Head of NB Alternatives
- Alternatives
- Private Equity

**Anne Brennan** – Chief Risk Officer
- Asset Management Guideline Oversight
- Operational Risk
- Performance Analysis and Investment Risk

**Client Coverage and Support**

**William Arnold** – Chief Financial Officer
- Financial Controller and Reporting Team
- Finance Operations and Systems
- Private Equity Fund Finance
- Financial Planning & Analysis
- EMEA Finance
- APAC Finance
- GP and AUM Reporting
- Tax

**Andrew Komaroff** – Chief Operating Officer
- Global Client Coverage Group
- Product Strategy & Marketing
- Fiduciary and Trust Services
- Technology / Operations

**Jacques Lilly** – Head of Corporate Development
- Corporate Development

**Heather Zuckerman** – Chief of Staff
- Audit
- Corporate Social Responsibility
- Human Capital Management
- Information Security
- Legal & Compliance
- Real Estate and Corporate Services

## Neuberger Berman Client Coverage and Operational Platforms

### Operational Leadership

**William Arnold**
Chief Financial Officer

- **Michael Beebe** – GP and AUM Reporting
- **Milca Beltre** – Tax
- **Jon Colbear** – APAC Finance
- **James Harvey** – EMEA Finance
- **Michael Magee** – Private Equity Finance - Fund Financials, Operations and Tax
- **Leo Viola** – Financial Controller and Reporting
- **Amanda Ziegler** – Finance Operations and Systems
- Financial Planning & Analysis and Treasury

**Anne Brennan**
Chief Risk Officer

- **Stephen Wright** – Asset Management Guideline Oversight & Operational Risk
- Performance Analysis & Investment Risk

**Andrew Komaroff**
Chief Operating Officer
Head of Global Client Coverage

- **Patrick Lomelo** – Operations
- **Francis Verdier** – Technology
- **Stephanie Luedke*** – Private Wealth Management
- **Scott Kilgallen** – North American Intermediary
- **Matthew Malloy** – North American Institutional, Global Insurance Solutions & Australia/New Zealand
- **Dik van Lomwel** – EMEA & LATAM
- **Ryo Ohira** – East Asia
- **Patrick Lui** – China
- **Jovi Chen** – Taiwan
- **Alan Isenberg** – Product Strategy & Marketing
- **Barbara Wenig** – Client Platform

**Heather Zuckerman**
Chief of Staff

- **William Braverman** – Legal & Compliance
- **Lisa Dimoulas** – Real Estate and Corporate Services
- **Meg Gattuso** – Human Capital
- **James Gribbin** – Audit
- **Anthony DeSantis**** – Information Security
- Corporate Social Responsibility

### Investment Committee

| | | |
|---|---|---|
| Matthew W. Kaplan | 1990 | Head of Almanac |
| D. Pike Aloian | 1988 | Managing Director |
| Justin J. Hakimian | 2005 | Managing Director |
| Josh K. Overbay | 2014 | Managing Director |
| Andrew M. Silberstein | 2009 | Managing Director |
| David K. Haltiner | 2008 | Managing Director |

### Investments

| | | |
|---|---|---|
| Kenny K. Moon | 2009 | Managing Director |
| Matthew J. Wolpert | 2016 | Portfolio Manager* |
| Rob W. Salisbury | 2018 | Director of Research* |
| Scott J. Peters | 2007 | Senior Vice President |
| Michael H. O'Neill | 2014 | Senior Vice President |
| Madeline K. Wick | 2013 | Senior Vice President |
| Matthew P. Marshall | 2015 | Vice President* |
| Colin M. Foley | 2019 | Senior Associate |
| Trip Burke | 2018 | Associate |
| Lara Graham | 2019 | Associate |
| Emma Yabs | 2020 | Analyst |

### Finance & Reporting

| | | |
|---|---|---|
| Henry C. Herms | 2012 | Chief Financial Officer - Almanac |
| Joseph M. Sacchetti | 2012 | Controller - Almanac |
| Scott P. Gross | 2019 | Senior Manager - Accounting |
| Danielle Matfess | 2019 | Tax Manager - Almanac |
| Vincent M. Parente | 2015 | Senior Associate |
| Daniel J. Lee | 2018 | Senior Associate |
| Christopher Scotto | 2020 | Senior Associate |

### Legal & Compliance and Investor Relations

| | | |
|---|---|---|
| Jennifer M. Cattier | 2015 | General Counsel - Almanac |
| Spencer J. Reiter | 2019 | Associate, Investor Relations |
| Engy W. Gadelmawla | 2019 | Paralegal |

### Senior Advisors

| | | |
|---|---|---|
| Andrew Batinovich | 2017 | Senior Advisor |
| Simon R.C. Wadsworth | 2012 | Senior Advisor |

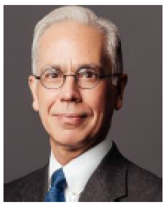
## Exhibit C: Team Biographies

**Matthew W. Kaplan, Head of Almanac and Managing Director**

Mr. Kaplan is the Chairman of Almanac's investment committee and responsible for overseeing the activities of Almanac and portfolio management of the ARS Funds. He currently serves on the boards of PREP Property Group, ReNew Senior Living and Westcore Properties. He has also served on the boards of Allegro Holdings, Ambassador Apartments Inc., CNL Financial Services, CNL Hospitality Properties, Encore Hospitality, Hallmark Holdings, National RV Communities, Parkway Properties, RXR Realty, Vanta Commercial Properties, Winter Properties, and WNY Group.

Prior to joining Almanac in 1990, he served in the Corporate Finance Department of Rothschild Inc. He is a member of NAREIT's Real Estate Investment Advisory Council, a Research Sponsor at the Zell/Lurie Real Estate Center of the Wharton School, an Associate Member of the Pension Research Council of the Wharton School, and a member of the Advisory Board of the Ohio State University Center for Real Estate.

Mr. Kaplan began his career as a management consultant at Touche Ross & Co. Mr. Kaplan graduated cum laude from Washington University in 1984 and received an MBA from The Wharton School in 1988.

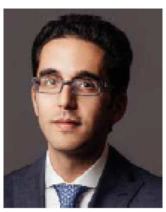


**D. Pike Aloian, Managing Director**

Mr. Aloian is a member of Almanac's investment committee and is responsible for the origination, structuring and management of the investments of Almanac's funds. He currently serves on the boards of EastGroup Properties (NYSE:EGP), Merritt Properties, Shaner Hospitality Finance, and Welcome Group. He has also served on the boards of Brandywine Realty Trust (NYSE:BDN), BSR Trust (formerly known as Summit Housing Partners), CRT Properties (NYSE:CRO), Denholtz Holdings, Drawbridge Realty Trust, Metrogate LLC, Morningstar Mini-Storage, Shaner Hotel Holdings, Shaner Mortgage REIT, Victory Real Estate Investments and Mount Auburn.

Prior to joining Almanac in 1988, he was a vice president at The Harlan Company, where he was responsible for property acquisition, development and financing. He has also served as an adjunct professor of the Columbia University Graduate School of Business.

Mr. Aloian graduated from Harvard College in 1976 and received an MBA from Columbia University in 1980.



**Justin J. Hakimian, Managing Director**

Mr. Hakimian is a member of Almanac's investment committee and is responsible for the origination, structuring and management of the investments of Almanac's funds. He currently serves on the board of HRIP Holdings, ReNew Senior Living and McNeill Hotel Investors. He has also served on the boards of CA Student Living, Drawbridge Realty Trust, JH Real Estate, and Vanta Commercial Properties.

Prior to joining Almanac in 2005, he was an Associate in the Equity Research department at Morgan Stanley, with coverage of oil & gas companies.

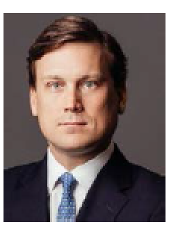
Mr. Hakimian graduated from the University at Albany in May 2001 with a Bachelor of Science in Finance.

**David K. Haltiner, Managing Director**

Mr. Haltiner is a member of Almanac's investment committee and is responsible for the origination, structuring and management of the investments of Almanac's funds. He currently serves on the boards of CIP Real Estate, Claros Mortgage Trust, Shaner Hospitality Finance, Welcome Group, and Westcore Properties, and has also served on the board of Winter Properties.

Prior to joining Almanac in 2008, he was in the Real Estate Finance and Securitization Group of Credit Suisse.

Mr. Haltiner graduated from the University of Georgia in December 2006 with a Bachelor of Business Administration in Finance.



**Josh K. Overbay, Managing Director**

Mr. Overbay is a member of Almanac's investment committee. Mr. Overbay is responsible for leading the firm's capital raising and investor relations activities. He currently serves on the board of L3 Capital.

Prior to joining Almanac in 2014, he was a Director at Lazard Frères & Co. ("Lazard") in the Private Fund Advisory Group, with specific responsibility for advising and raising capital for real estate private equity fund managers. Before his time at Lazard, he was a Vice President of Perseus Realty Partners, a Washington, DC based real estate private equity firm, where he led the firm's global capital raising and investor relations activities. Previously, he worked in financial services public policy roles at the U.S. Chamber of Commerce.

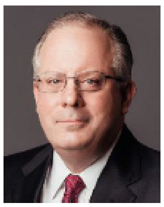
Mr. Overbay graduated from Roanoke College in 2002, received a Master's Degree in Legislative Affairs and Public Policy from The George Washington University in 2007, and a Master's Degree in Real Estate from Georgetown University in 2010.

**Andrew M. Silberstein, Managing Director**

Mr. Silberstein is a member of Almanac's investment committee and is responsible for the origination, structuring and management of the investments of Almanac's funds. He currently serves on the boards of CIP Real Estate, L3 Capital, PREP Property Group, Claros Mortgage Trust and Westcore Properties. He has also served on the boards of NRES Holdings, RXR Realty, Welsh Property Trust, Winter Properties, WPT Industrial Real Estate Investment Trust (TSX:WIR), RAIT Financial Trust (NYSE: RAS) and Slate Asset Management.

Prior to joining Almanac in 2009, he served as the Chief Investment Officer and Chief Operating Officer for Stoltz Real Estate and during the same period established AMS Real Estate Partners. Prior to that, he worked in real estate investment banking and private equity, first at Bear Stearns and then Morgan Stanley. He has been a member of National Association of Real Estate Investment Trusts, the Urban Land Institute, ICSC and the Real Estate Roundtable.

Mr. Silberstein graduated from Yale University in 1989 and received an M.B.A. in 1995 from New York University Stern School of Business where he was a Glucksman Fellow.

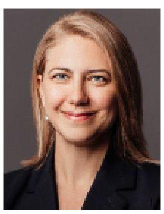


**Henry C. Herms, Chief Financial Officer – Almanac**

Mr. Herms leads the team responsible for all aspects of the financial management and reporting processes of Almanac. In that regard, he is responsible for establishing the operating policies and procedures governing the department, including: investor reporting; performance measurement; tax compliance; investment and fund structuring; treasury management; investor capital management, including subscription credit facilities; and monitoring portfolio company reporting. Mr. Herms is the Finance Representative on the Almanac Valuation Committee.

Prior to joining Almanac in 2012, he was employed by Lazard, where he served in a similar role related to a series of real estate private equity and mezzanine debt funds, as well as the Chief Financial Officer of one of the portfolio companies. Mr. Herms was previously employed by Arthur Andersen LLP, where he was responsible for audit and consulting engagements for real estate and construction entities, and private equity real estate investment funds.

Mr. Herms graduated from Adelphi University in 1989 with a Bachelor of Business Administration in Accounting, magna cum laude. He is a member of the American Institute of Certified Public Accountants, the National Association of Real Estate Investment Trusts, and represents Almanac with respect to the National Council of Real Estate Investment Fiduciaries. He is a Certified Public Accountant, licensed in the state of New York.



**Jennifer M. Cattier, General Counsel – Almanac**

Ms. Cattier is responsible for all of Almanac's legal matters, and previously served as Almanac's Chief Compliance Officer prior to the transaction with Neuberger Berman. Prior to joining Almanac in 2015, she was a Director & Senior Counsel at Deutsche Bank AG providing counsel to Deutsche Asset & Wealth Management's alternative investments business and on various regulatory matters. Prior to her time at Deutsche Bank, she was an Executive Director at Morgan Stanley, where she held various roles in the Legal and Compliance Department, including as senior counsel and as Chief Compliance Officer for the Merchant Banking and Real Estate Investing businesses. Ms. Cattier was previously an associate at Sullivan & Cromwell, LLP. She serves as Almanac's representative on National Association of Real Estate Investment Managers.

Ms. Cattier graduated from Trinity College in 1992 and received her JD, summa cum laude, from Brooklyn Law School in 1997. She is admitted to the bar in the states of New York and Connecticut.

**Kenny K. Moon, Managing Director**

Mr. Moon is a member of Almanac's investment team and is responsible for investment origination, analysis, underwriting, structuring, transaction execution, and ongoing management of the investments of ARS Funds. He currently serves on the boards of HRIP Holdings and PREP Property Group.

Prior to joining Almanac in 2009, he was an Associate at ING Clarion Partners. Prior to joining Almanac, he was an Analyst in the Real Estate Investment Banking Group at Citigroup.

He graduated from the University of California, Berkeley in May 2005 with a Bachelor of Science in Business Administration.

**Matthew J. Wolpert, Managing Director and Portfolio Manager**

Mr. Wolpert serves as the Portfolio Manager for Almanac Realty Public Securities, L.P, Almanac's REIT/real estate public securities investment platform.

Prior to joining Almanac in 2016, he was a Principal at V3 Capital Management, L.P., a hedge fund focused on value and event-driven investing in real estate securities across the capital structure. He was previously an Analyst at High Rise Capital Management, a $1.5 billion public real estate securities fund, and at two Citi groups: Citi Global Transaction Services and Real Estate & Lodging Investment Banking Group.

Mr. Wolpert graduated from Washington University in St. Louis in May 2005 with a Bachelor of Science in Business Administration and is a CFA Charterholder.

**Scott J. Peters, Senior Vice President**

Mr. Peters is a member of Almanac's investment team and is responsible for conducting operational due diligence on behalf of Almanac for potential investee companies and interfacing with Almanac portfolio companies. Mr. Peters possesses more than 28 years of commercial real estate financial and operational experience.

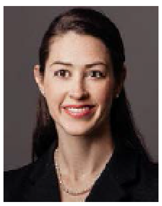
Prior to joining Almanac in 2007, Mr. Peters held the position of Executive Vice President of Asset Management for Combined Properties, Inc. Prior to that, he was the Chief Financial Officer and Chief Operating Officer of Charter Oak Group, Ltd., a subsidiary of Rothschild Realty Inc. and the Chief Financial Officer of Charter Oak Group, concurrently. Mr. Peters previously served as a director of Slate Asset Management and National RV Communities.

Mr. Peters graduated from the University of Wisconsin in 1982 with a Bachelor of Business Administration and is a Certified Public Accountant.

**Rob W. Salisbury, Senior Vice President and Director of Research**

Mr. Salisbury serves as the Director of Research for Almanac's ARPS Fund.

Prior to joining Almanac in 2018, he was an Analyst at Citadel LLC, where he managed a global real estate equity portfolio in the Surveyor Capital Program. Before his time at Citadel LLC, Mr. Salisbury was an Analyst at V3 Capital Management LP, a hedge fund focused on value and event-driven investing in real estate securities across the capital structure. He was previously employed as an Analyst at UBS Investment Bank in the Equity Research Department, responsible for publishing research reports on public real estate companies in the US and Canada. Additionally, he was an Analyst at both Bank of America Merrill Lynch and Citi in their Equity Research Departments. Mr. Salisbury graduated from Duke University in May 2004 with a Bachelor of Arts in Philosophy and is a CFA Charterholder.

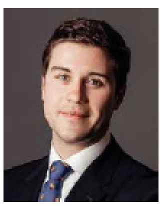


**Madeline K. Wick, Senior Vice President**

Ms. Wick is a member of Almanac's investment team and is responsible for investment origination, analysis, underwriting, structuring, transaction execution, and ongoing management of the investments of the ARS Funds. She currently sits on the board of Merritt Properties.

Prior to joining Almanac in 2013, she was an Analyst in the Industrials Investment Banking Group at Macquarie Capital.

Ms. Wick graduated from The University of Notre Dame in May 2010 with a Bachelor of Arts in the Program of Liberal Studies and Economics, received a Master of Science in Commerce from the University of Virginia in August 2011 and a Masters in Finance from Claremont McKenna College in May 2012.

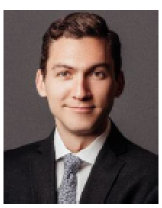


**Michael H. O'Neill, Senior Vice President**

Mr. O'Neill is a member of Almanac's investment team and is responsible for investment origination, analysis, underwriting, structuring, transaction execution, and ongoing management of the investments of the ARS Funds. He currently serves on the board of L3 Capital.

Prior to joining Almanac in 2014, he was an Analyst in the Real Estate & Lodging Investment Banking group at Citi. Prior to joining Citi's Real Estate & Lodging team, he was an Analyst in Citi's Treasury and Trade Solutions.

Mr. O'Neill graduated Phi Beta Kappa and with distinction from Krannert School of Management at Purdue University in May 2010 with a Bachelor of Science in Honors Economics.



**Matthew P. Marshall, Vice President**

Mr. Marshall is a member of Almanac's investment team and is responsible for conducting analysis, underwriting, valuation, and transaction execution for the ARS Funds.

Prior to joining Almanac in 2015, he was an Analyst in the Real Estate & Lodging Investment Banking group at J.P. Morgan. Prior to joining J.P. Morgan, he was an Analyst in INTL FCStone's Investment Banking group in New York.

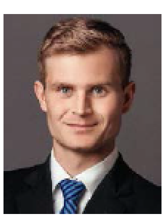
He graduated cum laude from the University of Texas at Austin in May 2012 with a Bachelor of Business Administration in Finance.

**Colin M. Foley, Senior Associate**

Mr. Foley is a member of Almanac's investment team and is responsible for conducting securities and sector analysis, valuation, and transaction execution for the ARS Funds.

Prior to joining Almanac in 2019, he was an Associate in the Real Estate Private Equity group at Ares Management. Before that, he was an Analyst in the Real Estate & Lodging Investment Banking group at J.P. Morgan.

Mr. Foley graduated from Cornell University in May 2014 with a Bachelor of Arts in Economics and a minor in French.



**Trip Burke, Associate**

Mr. Burke is a member of Almanac's investment team and is responsible for conducting securities and sector analysis, valuation, and transaction execution for the ARS Funds.

Prior to joining Almanac 2018, he was an analyst in the Industrials M&A group at Rothschild & Co.

Mr. Burke graduated from the McIntire School of Commerce at the University of Virginia in 2016, with a Bachelor of Science in Finance and Economics.

**Lara Graham, Associate**

Ms. Graham is a member of Almanac's investment team and is responsible for conducting securities and sector analysis, valuation, and transaction execution for the ARS Funds.

Prior to joining Almanac in 2019, she was an Associate in the Investment Banking group at Morgan Stanley.

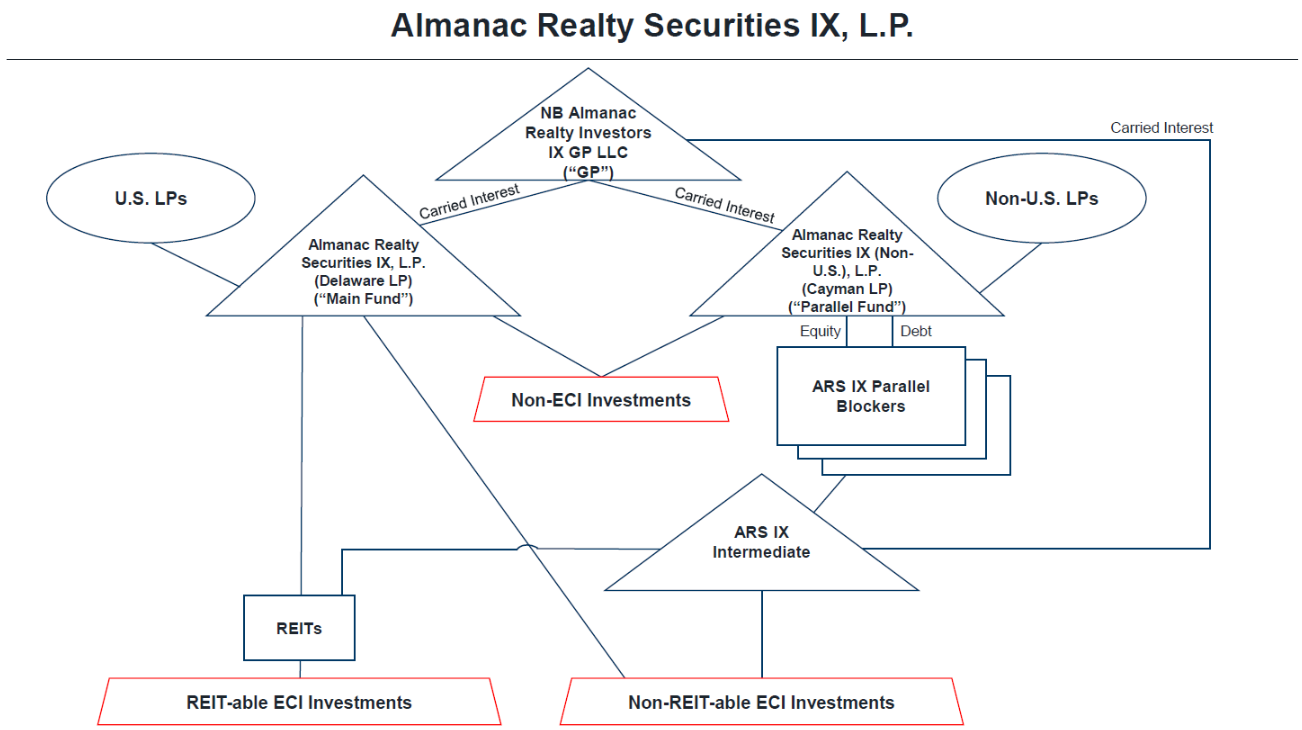
Ms. Graham graduated cum laude from the Wharton School at the University of Pennsylvania in 2013 and received an MBA from MIT Sloan in 2017.

**Emma Yabs, Analyst**

Ms. Yabs is a member of Almanac's investment team and is responsible for conducting securities and sector analysis and valuation for the ARS Funds.

Ms. Yabs graduated magna cum laude from Fisher College of Business at The Ohio State University in May 2020 with a Bachelor of Science in Business Administration with specializations in Finance and Real Estate.

## Exhibit D: Fund Legal Structure



# Exhibit E: Deal Level Track Record

| Deal Level Information | | | | | | | | | | | | | | Projected Returns[5] | | Fair Market Value Returns | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Investment | Fund | Deal Descriptor / Business Plan | Partner | Property Type | Location | Acquisition Date | Sale Date or Modeled Sale Date | Total Transaction Size[1] | Total Equity ($mm)[1] | Fund Equity ($mm)[2] | Realized Proceeds to Fund Equity ($mm)[3] | Realized Proceeds & Projected Proceeds to Fund Equity[4] | Gross Equity Multiple | Gross IRR | Gross Equity Multiple | Gross IRR[6] | Sourcing Professional | |
| ***REALIZED INVESTMENTS*** | | | | | | | | | | | | | | | | | | |
| Ambassador Apts (AAH) | Almanac Realty Securities, LLC | Value-Add | | Multifamily | Lancaster, PA | 08/96 | 05/98 | 25 | 25 | 25 | 33 | NA | 1.3x | 17.9% | 1.3x | 17.9% | Matthew Kaplan | |
| Lexington Corp (LXP) | Almanac Realty Securities, LLC | Value-Add | | Divesified Triple Net Lease REIT | New York, NY | 01/97 | 10/02 | 25 | 25 | 25 | 44 | NA | 1.8x | 14.3% | 1.8x | 14.3% | Matthew Kaplan | |
| Pacific Gulf (PAG) | Almanac Realty Securities, LLC | Value-Add | | Small tenant industrial | Newport Beach, CA | 04/97 | 01/04 | 55 | 55 | 55 | 94 | NA | 1.7x | 19.4% | 1.7x | 19.4% | Matthew Kaplan | |
| CNL Financial | Almanac Realty Securities, LLC | Value-Add | | Restaurant Mortgage Finance | Orlando, FL | 09/97 | 10/04 | 40 | 40 | 40 | 50 | NA | 1.2x | 14.8% | 1.2x | 14.8% | D. Pike Aloian | |
| Merritt Properties | Almanac Realty Securities, LLC | Value-Add | | Industrial/Office | Baltimore, MD | 10/97 | 12/17 | 150 | 150 | 150 | 546 | NA | 3.6x | 18.8% | 3.6x | 18.8% | D. Pike Aloian | |
| Acadia (AKR) | Almanac Realty Securities, LLC | Value-Add | | Retail | Rye, NY | 08/98 | 06/03 | 23 | 23 | 23 | 30 | NA | 1.3x | 7.6% | 1.3x | 7.6% | D. Pike Aloian | |
| EastGroup (EGP) | Almanac Realty Securities II, LLC | Value-Add | | Industrial | Ridgeland, MS | 12/98 | 12/03 | 69 | 69 | 69 | 112 | NA | 1.6x | 14.7% | 1.6x | 14.7% | D. Pike Aloian | |
| Morningstar | Almanac Realty Securities II, LLC | Value-Add | | Self-Storage | Matthews, NC | 12/98 | 07/03 | 60 | 60 | 60 | 78 | NA | 1.3x | 9.7% | 1.3x | 9.7% | Matthew Kaplan | |
| HealthCare REIT (HCN) | Almanac Realty Securities II, LLC | Value-Add | | Sale lease back and mortgage finance to health care facilities | Toledo, OH | 01/99 | 02/04 | 75 | 75 | 75 | 119 | NA | 1.6x | 13.5% | 1.6x | 13.5% | Matthew Kaplan | |
| CNL Hosp | Almanac Realty Securities II, LLC | Value-Add | | Triple net lease hospitality REIT | Orlando, FL | 02/99 | 08/07 | 64 | 64 | 64 | 116 | NA | 1.8x | 21.7% | 1.8x | 21.7% | D. Pike Aloian | |
| WNY | Almanac Realty Securities II, LLC | Value-Add | | Multifamily | Manalapan, NJ | 04/99 | 09/00 | 20 | 20 | 20 | 26 | NA | 1.3x | 25.4% | 1.3x | 25.4% | Matthew Kaplan | |
| Open Market | Almanac Realty Securities II, LLC | Value-Add | | N/A | N/A | 04/99 | 07/02 | 32 | 32 | 32 | 43 | NA | 1.3x | 17.5% | 1.3x | 17.5% | NA | |
| Brandywine (BDN) | Almanac Realty Securities III, LLC | Value-Add | | Office/Industrial | Philadelphia, PA | 04/99 | 02/05 | 99 | 99 | 99 | 166 | NA | 1.7x | 15.2% | 1.7x | 15.2% | D. Pike Aloian | |
| Parkway (PKY) | Almanac Realty Securities III, LLC | Value-Add | | Office | Orlando, FL | 06/01 | 04/07 | 74 | 74 | 74 | 132 | NA | 1.8x | 16.8% | 1.8x | 16.8% | D. Pike Aloian | |
| Advance Realty Group | Almanac Realty Securities III, LLC | Value-Add | | Office | Bedminster, NJ | 08/01 | 08/18 | 66 | 66 | 66 | 33 | NA | 0.5x | -11.5% | 0.5x | -11.5% | Matthew Kaplan | |
| Victory Real Estate | Almanac Realty Securities IV, L.P. | Value-Add | | Retail | Columbus, OH | 11/04 | 12/11 | 100 | 100 | 75 | 156 | NA | 1.6x | 10.2% | 1.6x | 10.2% | D. Pike Aloian | |
| Encore Hospitality | Almanac Realty Securities IV, L.P. | Value-Add | | Hospitality | Gulfport, MS | 04/05 | 09/07 | 45 | 45 | 37 | 101 | NA | 2.2x | 64.3% | 2.2x | 64.3% | Matthew Kaplan | |
| National RV Communities | Almanac Realty Securities IV, L.P. | Value-Add | | RV Parks / Manufactured Homes | Scottsdale, AZ | 04/05 | 06/13 | 115 | 115 | 115 | 216 | NA | 1.9x | 14.4% | 1.9x | 14.4% | Matthew Kaplan | |
| Denholtz Holdings | Almanac Realty Securities IV, L.P. | Value-Add | | Office | Matawan, NJ | 12/05 | 12/14 | 104 | 104 | 84 | 65 | NA | 0.6x | -17.8% | 0.6x | -17.8% | D. Pike Aloian | |
| Allegro Senior Living | Almanac Realty Securities IV, L.P. | Value-Add | | Senior Housing | St. Louis, MO | 03/07 | 10/14 | 75 | 75 | 75 | 142 | NA | 1.9x | 15.2% | 1.9x | 15.2% | Matthew Kaplan | |
| Shaner Holdings | Almanac Realty Securities IV, L.P. | Value-Add | | Hospitality | State College, PA | 11/07 | 04/15 | 60 | 60 | 60 | 118 | NA | 2.0x | 12.5% | 2.0x | 12.5% | D. Pike Aloian | |
| Vanta Commercial Properties | Almanac Realty Securities V, L.P. | Value-Add | | Office | Middleton, WI | 08/07 | 12/17 | 101 | 101 | 101 | 131 | NA | 1.3x | 4.2% | 1.3x | 4.2% | Matthew Kaplan | |
| Open Market | Almanac Realty Securities V, L.P. | Value-Add | | Mixed | N/A | 10/08 | 07/02 | 18 | 18 | 18 | 25 | NA | 1.4x | 73.4% | 1.4x | 73.4% | NA | |
| Shaner Mortgage REIT | Almanac Realty Securities V, L.P. | Value-Add | | Hospitality | State College, PA | 08/09 | 09/11 | 30 | 30 | 30 | 48 | NA | 1.6x | 32.4% | 1.6x | 32.4% | D. Pike Aloian | |
| BSR Trust | Almanac Realty Securities V, L.P. | Value-Add | | Multifamily | Montgomery, AL | 03/09 | 05/15 | 100 | 100 | 85 | 157 | NA | 1.6x | 15.9% | 1.6x | 15.9% | D. Pike Aloian | |
| RXR Realty Holdings | Almanac Realty Securities V, L.P. | Value-Add | | Office | New York, NY | 05/10 | 12/13 | 175 | 175 | 140 | 370 | NA | 2.1x | 31.2% | 2.1x | 31.2% | Andrew Silberstein | |
| Welsh Property Trust | Almanac Realty Securities V, L.P. | Value-Add | | Industrial | Minnetonka, MN | 12/10 | 06/16 | 190 | 190 | 158 | 303 | NA | 1.6x | 14.7% | 1.6x | 14.7% | Andrew Silberstein | |
| JH | Almanac Realty Securities V, L.P. | Value-Add | | Multifamily | Newport Beach, CA | 08/11 | 01/15 | 100 | 100 | 100 | 158 | NA | 1.6x | 21.3% | 1.6x | 21.3% | Justin Hakimian | |
| Drawbridge | Almanac Realty Securities VI, L.P. | Value-Add | | Office / R&D | San Francisco, CA | 01/12 | 12/14 | 150 | 150 | 132 | 204 | NA | 1.4x | 20.4% | 1.4x | 20.4% | Justin Hakimian | |
| Nolan | Almanac Realty Securities VI, L.P. | Value-Add | | Multifamily | Leawood, MO | 07/12 | 12/14 | 70 | 70 | 61 | 107 | NA | 1.5x | 28.3% | 1.5x | 28.3% | Andrew Silberstein | |
| RAIT (RAS) | Almanac Realty Securities VI, L.P. | Value-Add | | Commercial Loans, Multifamily, Office, Retail | Philadelphia, PA | 10/12 | 02/19 | 100 | 100 | 100 | 148 | NA | 1.5x | 10.4% | 1.5x | 10.4% | Andrew Silberstein | |
| Winter Properties | Almanac Realty Securities VI, L.P. | Value-Add | | Mixed Use | New York, NY | 03/14 | 11/16 | 55 | 55 | 48 | 76 | NA | 1.4x | 20.4% | 1.4x | 20.4% | Andrew Silberstein | |
| HRI Properties (non-convertible) | Almanac Realty Securities VI, L.P. | Value-Add | | Hospitality, Multifamily, Commercial | New Orleans, LA | 01/16 | 10/19 | 50 | 50 | 41 | 82 | NA | 1.6x | 17.9% | 1.6x | 17.9% | Justin Hakimian | |
| CA Student Living | Almanac Realty Securities VII, L.P. | Value-Add | | Student Housing | Chicago, IL | 04/15 | 10/17 | 118 | 118 | 99 | 191 | NA | 1.6x | 32.7% | 1.6x | 32.7% | Justin Hakimian | |
| Mount Auburn | Almanac Realty Securities VII, L.P. | Value-Add | | Multifamily | Los Angeles, CA | 05/15 | 08/19 | 150 | 150 | 134 | 258 | NA | 1.7x | 19.2% | 1.7x | 19.2% | Pike Aloian | |
| Mount Auburn (additional commitment) | Almanac Realty Securities VII, L.P. | Value-Add | | Multifamily | Los Angeles, CA | 12/17 | 08/19 | 50 | 50 | 40 | 66 | NA | 1.3x | 30.4% | 1.3x | 30.4% | Pike Aloian | |
| ***Subtotal*** | | | | | | | | **2,829** | **2,829** | **2,607** | **4,740** | **0** | | | | | | |

## Exhibit E: Deal Level Track Record (cont'd)

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ***PARTIALLY REALIZED / UNREALIZED INVESTMENTS*** | | | | | | | | | | | | | | | | |
| Westcore Properties | Almanac Realty Securities V, L.P. | Value-Add | Industrial/ Office | San Diego, CA | 06/11 | 10/19 | 198 | 198 | 198 | 411 | 412 | 2.1x | 17.8% | 2.1x | 17.8% | Andrew Silberstein |
| Shaner Hospitality Finance | Almanac Realty Securities VI, L.P. | Value-Add | Hospitality | State College, PA | 06/13 | 09/20 | 3 | 3 | 3 | 2 | 10 | 3.4x | 20.7% | 3.5x | 24.3% | Pike Aloian |
| HRI Properties (convertible) | Almanac Realty Securities VI, L.P. | Value-Add | Hospitality, Multifamily, Commercial | New Orleans, LA | 04/14 | 09/20 | 150 | 150 | 122 | 62 | 148 | 1.6x | 7.4% | 1.2x | 4.4% | Justin Hakimian |
| Claros REIT | Almanac Realty Securities VII, L.P. | Value-Add | Mortgage REIT | New York, NY | 08/15 | 09/20 | 175 | 175 | 150 | 82 | 270 | 2.6x | 16.2% | 1.8x | 15.1% | Andrew SIlberstein |
| Westcore Properties II | Almanac Realty Securities VII, L.P. | Value-Add | Industrial / Office | San Diego, CA | 09/16 | 08/20 | 270 | 270 | 222 | 361 | 362 | 1.6x | 27.7% | 1.6x | 28.3% | Andrew Silberstein |
| PREP Property Group | Almanac Realty Securities VII, L.P. | Value-Add | Retail | Park City, UT | 06/17 | 09/20 | 200 | 200 | 156 | 21 | 182 | 1.6x | 12.3% | 1.2x | 10.2% | Andrew Silberstein |
| Merritt | Almanac Realty Securities VII, L.P. | Value-Add | Industrial / Office | Baltimore, MD | 12/17 | 09/20 | 220 | 220 | 175 | 32 | 261 | 2.1x | 13.3% | 1.5x | 17.2% | Pike Aloian |
| ReNew Senior Living | Almanac Realty Securities VII, L.P. | Value-Add | Senior Housing | Toledo, OH | 01/18 | 09/20 | 117 | 117 | 117 | 6 | 104 | 1.6x | 10.0% | 1.1x | 5.7% | Justin Hakimian |
| McNeill Hotel Investors | Almanac Realty Securities VIII, L.P. | Value-Add | Hospitality | Memphis, TN | 07/18 | 09/20 | 151 | 151 | 81 | 7 | 84 | 1.5x | 8.1% | 1.0x | 2.3% | Justin Hakimian |
| Welcome Group | Almanac Realty Securities VIII, L.P. | Value-Add | Industrial | Houston, TX | 01/19 | 09/20 | 117 | 117 | 103 | 7 | 119 | 1.9x | 13.6% | 1.2x | 22.2% | David Haltiner |
| L3 Capital | Almanac Realty Securities VIII, L.P. | Value-Add | Urban Retail | Chicago, IL | 07/19 | 09/20 | 200 | 200 | 82 | 5 | 84 | 2.0x | 16.2% | 1.0x | 1.8% | Andrew Silberstein |
| CIP Real Estate | Almanac Realty Securities VIII, L.P. | Value-Add | Industrial/Flex | Irvine, CA | 09/19 | 09/20 | 200 | 200 | 103 | 3 | 107 | 2.0x | 14.8% | 1.1x | 33.1% | David Haltiner |
| Sherman Associates Ventures | Almanac Realty Securities VIII, L.P. | Value-Add | Multifamily | Minneapolis, MN | 10/20 | 09/20 | 250 | 250 | 44 | 3 | 47 | 2.3x | 14.8% | NA | NA | Michael O'Neill |
| ACRE | Almanac Realty Securities VIII, L.P. | Value-Add | Multifamily | New York, NY | 10/20 | 09/20 | 320 | 320 | 56 | 2 | 58 | 1.6x | 16.1% | NA | NA | Justin Hakimian |
| Slate Asset Management | Almanac Realty Securities Canada I, LP | Value-Add | Investment Manager, Office, Retail | Toronto, ON | 11/14 | 09/20 | C$ 140.0 | C$ 140.0 | C$ 140.0 | C$ 268.4 | C$ 331.8 | NA | NA | 2.4x | 22.1% | Andrew Silberstein |
| ***Subtotal*** | | | | | | | **2,372** | **2,372** | **1,413** | **592** | **1,836** | | | | | |
| ***TOTAL*** | | | | | | | **5,202** | **5,202** | **4,020** | **5,332** | **1,836** | | | | | |

# APPENDIX

## Rating Rationale

| | |
|---|---|
| *Strategy* | Consistent with previous successful iterations of the fund series. Funds in similar vintage conditions have generally performed well. |
| *Sponsor/Manager* | Proven, aligned, experienced manager executing within core competencies. |
| *ESG Policy & Practices* | Poor today with few tangible efforts; not a strength or reason behind the overall investment rating. Should improve with integration and influence from the parent, who has taken far greater efforts to incorporate ESG into the ethos of the organization. |
| *Operational Due Diligence* | Rated A2 Pass by dedicated Aon ORSA team. |
| *Investment Process* | Day-to-day is led by the three founders, each responsible for their key part of the investment process and management of the Firm. |
| *Fund Structure, Terms & Conditions* | Collectively appropriate and in-line with market. |
| *Performance* | Good absolute performance for moderate risk level; consistent positive returns. |
| ***Overall*** | **Buy-Rated** |

## Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product, its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

- **Buy** - Suitable for institutional investors that have a portfolio construction need. Appropriate overall risk profile given the strategy.
- **Qualified** - Suitable for institutional capital. In addition to customary risks, contains one or more heightened risks that should be weighed against an investor's preferences, risk tolerances, and portfolio construction needs.

Operation due diligence rating provided by Aon's dedicated multi-asset class Operational Due Diligence team according to its autonomous review of the Sponsor's policies and procedures, infrastructure and capabilities across a range of operations, middle and back office, and control functions.

- **A1-Pass:** No material operational concerns; firm's operations largely align with a well-controlled operating environment.
- **A2-Pass:** Firm's operations largely align with a well-controlled operating environment, with limited exceptions due to resource limitations or where isolated areas do not align with best practice.
- **Conditional Pass:** Aon noted specific operational concerns that the firm has agreed to address in a reasonable timeframe.

*About Townsend Group – An Aon Company*

*Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.*

TOWNSEND® GROUP
an Aon company

950 Main Avenue
Suite 1600
Cleveland, OH 44113

## Memorandum

**To:** Arkansas Teacher Retirement System ("ATRS")

**From:** Chae Hong

**CC:** PJ Kelly; Jack Dowd; Richard Ferguson

**Date:** September 27, 2021

**Re:** Almanac Realty Securities IX – $40 million Commitment Recommendation

---

### Background and Recommendation

Almanac Realty Investors, LLC ("Almanac", "ARI", or the "Sponsor") is sponsoring Almanac Realty Securities IX, LP (the "Fund" or "ARS IX"), the latest institutional offering in its flagship fund series. The Fund intends to make private placements of growth capital to real estate operating companies and companies with significant real estate assets. The Sponsor will make investments that target an unlevered 12% net return (15-16% gross) and a 1.5x-1.75x net multiple, assuming five-to-eight-year hold periods. Approximately 50% of the return is expected to be derived from income.

Aon Investments, USA is satisfied with the strategy of the Fund and its appropriateness for ATRS. Additionally, we believe that the merits of this offering outweigh its risks. An ARS IX InDetail is attached for reference. We recommend that ATRS invest $40 million in the Fund to fulfill ATRS' 2021 non-core real estate allocation, in accordance with the previously approved 2021 ATRS Real Asset Pacing Schedule. Additionally, ARS IX provides investors with various investment vehicles including, but not limited to, a Delaware limited partnership, Cayman limited partnership, and potentially other parallel vehicles. Townsend recommends ATRS consult with its tax and legal counsel to determine the most appropriate vehicle for the Plan.

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
## No. 2021-42

## Approving Investment in Almanac Realty Securities IX, LP

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its real assets investment consultant, Aon Hewitt Consultant, Inc., along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Almanac Realty Securities IX, LP,** a closed end value added fund that invests in both public and private real estate operating companies.

***NOW, THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$40 million dollars ($40,000,000.00)** in **Almanac Realty Securities IX, L.P.** The total investment amount is to be determined by the real assets investment consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED,*** That the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

________________________________

**Mr. Danny Knight, *Chair***
***Arkansas Teacher Retirement System***

TOWNSEND® GROUP
an Aon company

950 Main Avenue
Suite 1600
Cleveland, OH 44113

## Memorandum

**To:** Arkansas Teacher Retirement System ("ATRS")

**From:** Chae Hong

**CC:** PJ Kelly; Jack Dowd; Richard Ferguson

**Date:** September 27, 2021

**Re:** LaSalle Asia Opportunity VI – $50 million Commitment Recommendation

---

### Background and Recommendation

LaSalle Investment Management ("LaSalle", the "Manager" or the "Sponsor") is raising LaSalle Asia Opportunity VI ("LAO VI" or the "Fund"), a Pan Asia focused closed-end private equity real estate fund targeting to generate returns through value-add/opportunistic strategies such as repositioning/converting office, retail, residential and hospitality assets and develop-to-core strategies such as modern logistics facilities (30% limit). The Fund targets to raise USD1.5 billion of commitment with target net IRR of 18% after all fees with maximum leverage of 70% during the investment period.

Aon Investments, USA is satisfied with the strategy of the Fund and its appropriateness for ATRS. Additionally, we believe that the merits of this offering outweigh its risks. A LAO VI InDetail is attached in the following Appendix for reference. We recommend that ATRS invest $50 million in the Fund to fulfill ATRS' 2021 non-core real estate allocation, in accordance with the previously approved 2021 ATRS Real Asset Pacing Schedule. Additionally, LAO VI provides investors with various investment vehicles, including but not limited to, a Singaporean limited partnership, Luxembourg special limited partnership, and potentially other parallel vehicles. Townsend recommends ATRS consult with its tax and legal counsel to determine the most appropriate vehicle for the Plan.

# Appendix

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REAL ESTATE INDETAIL

# LASALLE ASIA OPPORTUNITY VI

A Closed-ended Diversified Opportunistic Fund Focused on Developed Markets in Asia Pacific

July 2021

## Table of Contents

# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Previous Rating |
|---|---|---|
| July 2021 | Buy | Buy (LAO V) |

LaSalle Investment Management ("LaSalle", the "Manager" or the "Sponsor") is raising LaSalle Asia Opportunity VI ("LAO VI" or the "Fund"), a Pan Asia focused closed-end private equity real estate fund targeting to generate returns through value-add/opportunistic strategies such as repositioning/converting office, retail, residential and hospitality assets and develop-to-core strategies such as modern logistics facilities (30% limit).

The Fund targets to raise USD1.5 billion of commitment with target net IRR of 18% after all fees with maximum leverage of 70% during the investment period. The Fund targets to have a Founding Close by end of Jul 2021 with four potential investors having aggregated total commitment of USD600 million, followed by a First Close at the end of Sep 2021 with seven potential investors having aggregated total commitment of USD435 million. Together with the Sponsor co-investment of USD30 million as alignment of interest, the total First Close will add up to circa USD1,065 million of commitment.

LaSalle is an independent subsidiary of Jones Lang LaSalle ("JLL"). JLL is a global commercial real estate services company listed on the New York Stock Exchange (NYSE: JLL) with a market cap of around USD10 billion as of May 2021. LaSalle was established in 1980 and its Asia Pacific platform was set up in 2000. As of Dec 2020, LaSalle had a global AUM of USD70.9 billion which included the USD13.1 billion of AUM in the Asia Pacific platform.

LAO VI is the sixth fund of the LaSalle Asia Opportunity Fund Series ("LAO Fund Series"). With the first fund launched in 2001, the LAO Fund Series has invested USD4.1 billion of equity into 174 assets of which 149 assets have been realized generating gross IRR/EM returns of 15%/1.4x. Within the LAO Fund Series, LAO II (2005 vintage) and LAO III (2007 vintage) underperformed against their target returns, partly due to the global financial crisis ("GFC") in 2008. Since LAO IV (2013 vintage), LaSalle has restructured the Asia Pacific team and business to enhance investment strategies, improve risk management and increase alignment of interest with better governance structures. More details are provided in the "**Comparative Advantages"** section.

With the appointment of Mark Gabbay as LaSalle Asia CIO in 2010 and the lessons learned from the GFC-era, LAO IV and LAO V have performed strongly. Over the past 10 years, LaSalle has invested USD1.8 billion of equity into 78 assets which are projected to generate gross IRR/EM returns of 25%/1.6x, of which 53 assets were realized generating gross IRR/EM returns of 32%/1.7x. In terms of the fund level performance, LAO IV is liquidating the remaining two assets and is projected to generate net IRR/EM returns of 28%/1.5x and LAO V has finished its investment period in May 2021 and is projected to generate net IRR/EM returns of 17%/1.4x. LAO VI will continue the investment strategy of its' predecessor funds by creating core assets through repositioning, development and active asset management with a focus in Australia, Japan, China, South Korea, Hong Kong, Singapore, Taiwan, New Zealand and Macau ("Target Markets").

*Sponsor:*

| | | | |
|---|---|---|---|
| **No. of Offices** | 22 (Asia: 6) | **Parent** | Jones Lang LaSalle ("JLL") |
| **Ownership** | JLL listed on New York Stock Exchange (NYSE: JLL) | **Founded** | 1980 (Asia: 2000) |
| **No. of Employees** | 850 (Asia: 204) | **Investment Staff** | 64 (LAO Fund Series professionals) |
| **AUM (GAV)** | USD70.9 billion (APAC: USD13.1 billion) | **RIA** | N/A |

*Portfolio Characteristics, Terms and Timing:*

| | | | |
|---|---|---|---|
| **Fund Structure** | Closed-ended | **Risk Segment** | Opportunistic |
| **Fund Size** | Target USD1.5 billion | **Sponsor Commitment** | USD30 million |
| **Target Return** | Net IRR 18% | **Leverage** | Max 70% LTV during investment period |

<table>
<tr><td>Investment Period</td><td>3 years from Final Close</td><td>Term</td><td>8 years from Final Close with two 1-year extension options</td></tr>
<tr><td>Avg. Asset Size</td><td>USD50-200 million</td><td>Typical Business Plan</td><td>3 to 5 years</td></tr>
<tr><td>Guidelines</td><td>- Max 5% outside of Target Markets<br>- Max 15% in a single asset<br>- Max 20% to a single portfolio<br>- Max 30% to speculative development</td><td>Valuation</td><td>Externally valued every 12 months</td></tr>
<tr><td>Management Fee</td><td>
<table>
<tr><td>Type of Investor</td><td>Management Fee[1]</td></tr>
<tr><td>Founding[2]</td><td>- 1.05%<br>- No fee holiday</td></tr>
<tr><td>First Close</td><td>- 1.50% for <USD75m<br>- 1.40% for ≥USD75m & <150m<br>- 1.25% for ≥USD150m<br>- Fee holiday till 31 Mar 2022</td></tr>
<tr><td>Post First Close</td><td>- 1.50% for <USD75m<br>- 1.40% for ≥USD75m & <150m<br>- 1.25% for ≥USD150m<br>- No fee holiday</td></tr>
</table>
Note 1: Fee on committed equity during Investment Period and on invested equity after Investment Period<br>
Note 2: According to LaSalle the Founding Investors will each commit over USD150 million
</td><td>Incentive Fee Waterfall</td><td>
<table>
<tr><td>Type of Investor</td><td>Incentive Fee</td></tr>
<tr><td>Founding</td><td>- 20% over a 10% hurdle rate with 50%/50% catch-up</td></tr>
<tr><td>Non-Founding</td><td>- 20% over a 9% hurdle rate with 50%/50% catch-up</td></tr>
</table>
</td></tr>
<tr><td>Organization Expense</td><td>Up to USD2.5 million</td><td>Co-investment Rights</td><td>- For Korea logistics, offered to anchor investor side car and then to other investors at GP discretion.<br>- Other co-investments offered at GP discretion.</td></tr>
<tr><td>Timing</td><td>- Founding Close targeted by end of Jul 2021<br>- First Close targeted by end of Sep 2021</td><td></td><td></td></tr>
</table>

## COMPARATIVE ADVANTAGES

### 1. Favorable Market Fundamentals and Demand for Core Real Estate in Asia Pacific

Asia Pacific economies and real estate markets offer strong performance potential from both structural and cyclical perspectives, which provides a favorable context for the Fund to execute its investment strategy. With 4.2 billion people, the region contains 54% of the world's population[1] and accounts for about 42% of world's nominal GDP of USD81 trillion and 42% of the world's trade in goods of USD18 trillion[2]. Asia Pacific's growth is supported by fundamentals such as i) urbanization, ii) high national savings rates, iii) the rise of the middle-class and the accompanying consumption growth, and iv) rapid growth of e-commerce. Moreover, Asia Pacific's diverse real estate market cycles and economic and demographic structure continues to provide the benefit of portfolio diversification and the region has also come through the pandemic in stronger shape than any other region. All these trends are expected to offer strong performance from both structural and cyclical considerations, which provide a favourable context for opportunistic real estate investments.

In addition, the growing demand for core real estate fuelled by the continued growth of the public REIT market in Asia Pacific, an increasing focus on real estate investments among large and growing sovereign wealth funds and pension plans, and the dominance of domestic capital in Asia Pacific provides prudent exit liquidity. Based on the 2020 ANREV Capital Raising Survey, about half of the capital raised in Asia Pacific targeted core real estate. The capital raised for core real estate in Asia Pacific has also increased significantly in recent years. In 2017-2019, the annual average capital raised targeting Pan Asian core real estate increased by over 110% from the level in 2014-16.

[1] Oxford Economics, as of Dec 2020
[2] UN ESCAP, as of Dec 2020 and Statista, as of May 2021

## 2. Strong Sponsorship and Alignment of Interest

LaSalle is a leading global real estate investment manager with USD70.9 billion in AUM by GAV servicing over 500 investors from 30 countries. LaSalle was recently named as the 'Firm of the Year' in Japan and France at the PERE Awards 2020, and as the 'Best Place to Work in Money Management' by Pensions & Investments for 5 consecutive years in 2020. LaSalle Asia was established in 2000 and currently employs over 200 employees across 6 offices (Shanghai, Hong Kong, Tokyo, Seoul, Sydney and Singapore) managing USD13.1 billion in AUM. The Fund's parent company, Jones Lang LaSalle, provides a broad range of real estate services that include acquisition and disposition brokerage, services required to be provided by locally licensed entities (including Korean asset management company), financing, research, development management, and leasing and property management. There may be instances where JLL is determined to be the best service provider at a competitive market fee for the Fund.

LaSalle is committed to co-invest USD30 million (ie. 2.0% of the target fund size) from its senior executives. The total amount is in line against market peers (circa 2-3% co-investment) with similar investment strategy. Furthermore, the interest of LAO VI fund team is aligned with up to 40% of performance fees allocated directly to team members significantly involved in the Fund's performance.

## 3. Strong Track Record After GFC and Execution Capabilities in Asia Pacific

LaSalle has extensive track record in executing Pan Asian real estate strategy with its first fund raised in 2000. While LAO II and LAO III had underperformance partly due to the GFC, LaSalle has successfully turned around the performance of LAO Fund Series over the last 10 years, by undertaking initiatives such as: i) focusing on investment strategies aligned to LaSalle's strengths, ii) increasing alignment of interest, improving investor reporting and restructuring the fund, iii) enhancing the team and increasing focus on risk management, and iv) partnering with best-in-class developers and negotiating downside protection, led by Mark Gabbay (Global CEO of LaSalle) and support from Marc Montanus (Fund Manager of the LAO Fund Series) and Yen Tjin Chan. Over the last 10 years, LaSalle has invested USD1.8 billion of equity into 78 assets which is projected to generate gross IRR/EM returns of 25%/1.6x, among which 53 assets were realized and generated gross IRR/EM returns of 32%/1.7x.

<u>LAO Fund Series Asset Level Track Record (Last 10 years)</u>

| Year | No. of Assets | Total Cost[1] | Invested Equity[2] | Gross IRR[3] | Gross EM[3] |
|---|---|---|---|---|---|
| 2011 | 10 | 1,635 | 419 | 12% | 1.5x |
| 2012 | 4 | 89 | 30 | 60% | 3.1x |
| 2013 | 1 | 14 | 4 | 118% | 2.1x |
| 2014 | 14 | 599 | 177 | 31% | 1.6x |
| 2015 | 13 | 410 | 139 | 49% | 1.7x |
| 2016 | 11 | 801 | 266 | 26% | 1.7x |
| 2017 | 2 | 39 | 17 | 39% | 2.1x |
| 2018 | 9 | 929 | 408 | 25% | 1.6x |
| 2019 | 12 | 700 | 277 | 17% | 1.5x |
| 2020 | 2 | 215 | 83 | 36% | 1.4x |
| **Total - Last 10 Years** | **78** | **5,431** | **1,820** | **25%** | **1.6x** |
| **Total – LAO Fund Series (since 2001)** | **174** | **12,229** | **4,576** | **15%** | **1.4x** |

1. Total acquisition cost of equity and financing at the point of acquisition.
2. Aggregated total of fund equity and co-investment partner equity.
3. Projected USD returns.

In terms of the fund level performance after GFC, LAO IV is liquidating the remaining two assets and projected to generate net IRR/EM returns of 28%/1.5x. LAO IV's projected net IRR 28% outperforms the target return of 18% and is a reflection of LaSalle's capabilities of executing business plan and realize at short hold period (average 2.5 years over last 10 years). LAO V has finished its investment period in May 2021 and is projected to generate net IRR/EM returns of 17%/1.4x. Overall projected returns of the two funds are 21%/1.4x, which are above the target net IRR of 18%.

LAO Fund Series Track Record

| Vehicle | Vintage Year | Status | Fund Size (USD m) | Fund Invested Equity[1] (USD m) | Number of Assets (Total / Current) | Target Net IRR | Realized/ Projected Net IRR[2]/EM | Since Inception Net IRR[3]/EM |
|---|---|---|---|---|---|---|---|---|
| **Realized** | | | | | | | | |
| LaSalle Asia Recovery Fund | 2001 | Liquidated | 242 | 267 | 12 / 0 | 18% | 26.7%/1.8x | 26.7%/1.8x |
| LaSalle Asia Opportunity II | 2005 | Liquidated | 1,000 | 1,112 | 59 / 0 | 18% | 1.6%/1.1x | 1.6%/1.1x |
| LaSalle Asia Opportunity III | 2007 | Liquidated | 1,932 | 1,673 | 34 / 0 | 18% | 0.3%/1.0x | 0.7%/1.0x |
| **Sub-total** | | | 3,174 | 3,052 | 105 / 0 | 18% | 3.1%/1.1x | 3.3%/1.1x |
| **Unrealized / Partially Realized** | | | | | | | | |
| LaSalle Asia Opportunity IV | 2013 | Liquidating | 485 | 426 | 41 / 2 | 18% | 28.0%/1.5x | 29.9%/1.5x |
| LaSalle Asia Opportunity V | 2016 | Stabilizing | 974 | 649 | 28 / 23 | 18% | 16.7%/1.4x | 12.6%/1.2x |
| **Sub-total** | | | 1,459 | 1,075 | 69 / 25 | 18% | 21.2%/1.4x | 19.5%/1.3x |
| **TOTAL** | | | **4,633** | **4,127** | **174 / 25** | **18%** | **7.8%1.2x** | **7.5%/1.2x** |

1. As of Dec 2020.
2. For LARF, LAO II and LAO III, returns are actual realized returns after local taxes, after fund level fees and expenses and after performance fee. For LAO IV and LAO V, returns are projected returns after local taxes, after fund level fees and expenses and after performance fees, as of Dec 2020.
3. Unrealized/Partially Realized funds, returns are as of Dec 2020, less fund expenses and fees and after accrued performance fees. For realized funds, returns stated refers to realized net returns less fund expenses and fee and after performance fees.

## POTENTIAL ISSUES AND CONCERNS

### 1. Deal Exclusivity for Logistics Investments

LAO VI has various vehicles that dilutes its deal exclusivity for logistics investments in China, Japan and South Korea. As Townsend has high conviction in the logistics sector, these exclusivity arrangements between the various mandates are not favourable for LAO VI investors. Additionally, Townsend is aware LaSalle is planning to raise another separate account for Japan logistics, which will have higher priority over LAO VI for Japan logistics opportunities. This creates an issue on LaSalle's deal allocation policy for Japan logistics.

Discussion:

The Fund's exclusivity arrangement for logistics investment opportunities is stated below:

For China, LaSalle has established the 2020 vintage LaSalle China Logistics Venture ("LCLV") with circa USD484 million of equity. For all China logistics deals with opportunistic risk/return profile, the required equities of these deals will be allocated to LAO VI / LCLV on a 40% / 60% basis. LCLV also takes the lead on deal sourcing and execution while LAO VI will be a passive co-investor.

For South Korea, LaSalle has agreed with an anchor investor of LAO VI to establish a side-car vehicle ("Korea Logistics Side-Car") with equity of USD100 million to invest into Korea logistics. For all Korea logistics deals with opportunistic risk/return profile, the required equity of these deals will be allocated to LAO VI / Korea Logistics Side-Car on a 60% / 40% basis.

For Japan logistics with value-add/opportunistic risk/return profile, it has been carved out and not allocated to LAO Fund Series since LAO IV. LaSalle explains that at the time when they raised LAO IV in 2013, they already had the dedicated Japan logistics vehicle - 2013 vintage LaSalle Japan Logistics Fund III - in place having exclusivity on non-core Japan logistics investments, and LAO IV therefore did not receive allocation for Japan logistics. LaSalle states that LAO V did not receive Japan logistics allocation for similar reason. LaSalle describes that when they started raising LAO V in 2015, they were already in discussion with an European investor to establish a separate managed account - LaSalle Japan Logistics Fund IV ("JLF IV") - with size of EUR660 million which closed in Oct 2017 with first look right on all non-core Japan logistic investments until the end of investment period in Oct 2023. Moreover, JLF IV can re-invest proceeds from realizations into new deals. Townsend considers the above arrangement not investor friendly to LAO IV and LAO V but justifiable.

For LAO VI, Townsend understand that it is the plan of LaSalle to continue carving out Japan logistics for the Fund due to the existence of JLF IV. Moreover, Townsend understands that LaSalle is currently in discussion with an Asian investor to establish another separate managed account ("Asian SMA") with size of JPY60 billion (circa USD550 million) to invest into non-core Japan logistics deals. Based on the PPM of LAO VI and LaSalle's explanation, until the end of the investment period of JLF IV in Oct 2023, JLF IV will still have the first look right for all non-core Japan logistics deals while the Asian SMA will have the second look right. In the event that both JLF IV and the Asian SMA choose not to exercise their rights, the deals will be offered to LAO VI. After the investment period of JLF IV ends in Oct 2023, the non-core logistics deals in Japan will be allocated to JLF IV and the Asian SMA on a rotation basis.

LaSalle believes the above mentioned arrangements for Japan logistics will not impact the overall performance of LAO VI given i) LAO VI follows the investment strategy of its predecessors LAO IV and LAO V which also do not have exposure in Japan logistics; ii) target gross returns for Japan logistics (15-17%) are lower than LAO VI's target gross returns (c. 20%); and iii) LAO VI could utilize the development bucket (max 30% allocation) for opportunities in China and/or Korea logistics which can generate higher returns. While Townsend is of the view that carving out Japan logistics may not impact the performance of LAO VI, we consider the allocation policy of LaSalle as well as setting up the new Asian SMA for Japan logistics not in line with market and not favourable to LAO VI. As the first look right of JLF IV expires in Oct 2023 while at that time LAO VI will still be in its investment period (investment period of LAO VI ends in Sep 2025), we believe LAO VI should not be excluded from Japan logistics given the Fund has a Pan Asian investment strategy and Japan logistics is considered as a sector providing compelling investment opportunities to investors in particular post COVID-19. Moreover, the plan of LaSalle to set up the Asian SMA with the priority over LAO VI to invest into non-core Japan logistics creates concern on whether LaSalle is providing best effort for the interests of LAO VI's investors.

**2. Track Record of LAO II and LAO III**

LAO II and LAO III have underperformed against the target net IRR of 18%, generating net IRR of 1.6% and 0.3%, respectively. The two funds are 2005 and 2007 vintage vehicles and the performances were impacted partly due to GFC, especially in the assets in Japan, South Korea and Macau.

<u>Discussion:</u>

LAO II and LAO III has invested circa 50% of equity into deals in Japan before the GFC and utilized high leverage of 60-75%. The underperformance of these investments was mainly due to the valuation drop of 20-40%, office developments impacted by the oversupply leading to decline in rent/value, and the lack of liquidity of the entity level investments which targeted public market exit.

LaSalle notes that Mark Gabbay joined LaSalle in 2010 as Asia CIO. Shortly after Gabbay on board he had restructured the Asian team, directly involved in the LAO III's post-GFC investments, resolved challenging investments in LAO II and LAO III and re-established the investment strategy for LAO IV and LAO V as listed below:

- Investment strategy
  - Focus on asset management strategies over development;
  - Target smaller equity ticket size of USD20-50 million;
  - Take active approach on dispositions (avg. hold period 2.5 years in last 10 years);
  - Target developed countries and the liquid markets;
  - Not pursue public companies unless used as an entry point to acquire assets.
- Fund governance
  - Increased co-investment from senior management to the funds;
  - Reduced portfolio leverage cap to 65% and development cap to 25%;
  - Restructure management and performance fee for improved alignment.
- Risk management
  - Established development, structure finance and fund management teams;
  - Additions in internal legal and tax departments to support investment process;
  - Thorough development partner selection process and negotiate downside protection structures;
  - Office expansion in Sydney for local presence in Australia.
- Client reporting
  - Investor reporting align with INREV and other guidelines;
  - Investor update/presentation two times a year.

Gabbay has led the restructuring with support from Marc Montanus and Yen Tjin Chan. Gabbay is now the Global CEO of LaSalle and Chairman of the Asia Pacific Investment Committee. The restructuring has proven relatively successful by the performance of LAO IV and LAO V, which are projected to generate net IRR/EM returns of 28%/1.5x and 17%/1.4x, respectively, ranking in the 1st and 2nd quartile, respectively, among peers.

**3. Mark Gabbay Removed from Key Person Provision**

Mark Gabbay is the Key Person for LAO IV and LAO V but is removed from the provision clause for LAO VI. As Gabbay has been instrumental in heading the LaSalle Asia team since 2010 and leading the turnaround in performance for the LAO Fund Series, there might be concern on LAO VI's investment strategy execution and performance.

Discussion:

LaSalle explains that since the Provision contains strong wordings regarding the time to be devoted by the Key Person to the Fund, for prudent purpose the firm decides to remove Gabbay as a Key Person due to his recent promotion to the Global CEO (effectively from January 1, 2021) and may need to allocate some of his time for the global business of LaSalle. LaSalle describes that though Gabbay is removed from the Provision of LAO VI, he will continue to put his focus in LaSalle's Asian business particularly in LAO VI, with the support from the four Executive Officers (Marc Montanus, Kunihiko Okumura, Claire Tang, Yen Tjin Chan).

In addition, LaSalle believes LAO VI continues to have a strong Key Person Provision when compared with LAO V. While Mark Gabbay and Marc Montanus are in the Provision for LAO V, Montanus will remain as a Key Person for LAO VI and the Fund will also have three executives comprising Kunihiko Okumura (Co-CIO Asia Pacific), Claire Tang (Co-CIO Asia Pacific) and Yen Tjin Chan (Senior Managing Director) be included in the Key Person Provision. The four senior executives have worked with Gabbay closely to create the performances of LAO IV and LAO V.

# STRATEGY

## OVERVIEW

LaSalle Asia Opportunity Fund VI ("LAO VI" or the "Fund") is a closed-ended USD denominated real estate private equity fund with value-add/opportunistic investment strategies. The Fund targets USD1.5 billion in capital commitments and aims to deliver a net IRR of 18% over an eight-year fund life with maximum 70% loan-to-value.

The Fund seeks to construct a diversified risk-adjusted portfolio across the Asia Pacific region in sectors/markets with proven resiliency and liquidity that attract and retain tenants. Based on the structural themes identified by the LaSalle Research team, the region's major economies and real estate markets are benefiting from structural and cyclical drivers including continued urbanization, growing middle-class and consumption growth, increasing intra-regional trade, accelerated growth of e-commerce and high domestic tourism volumes. Asia Pacific is also emerging through the pandemic in relatively stronger shape than other regions supported by a rebound in economic activity, low unemployment rates, unprecedented fiscal and monetary stimulus packages and vaccination rollouts. The Fund will have a focus in the Target Markets of Japan, Australia, China, South Korea, Singapore, Hong Kong, Macau, Taiwan and New Zealand. The following table provide information in relation to indicative exposures of the Fund.

| | | Office | Retail | Logistics | Residential | Hotel |
|---|---|---|---|---|---|---|
| | **Potential Allocation** | **35 – 40%** | **0 – 10%** | **30 – 35%** | **10 – 15%** | **0 – 10%** |
| Japan | **30 – 40%** | Reposition | Distressed | | Reposition | Distressed |
| China | **20 – 30%** | Reposition, Distressed | Distressed | Reposition, Develop | Reposition | Distressed |
| Australia | **10 – 15%** | Reposition | Distressed | | Develop | Distressed |
| South Korea | **10 – 15%** | Reposition, Distressed | | Reposition, Develop | | Distressed |
| Singapore | **5 – 10%** | Reposition | Distressed | | | Distressed |

Reposition Distressed Develop

Note: LAO VI investment strategy guidelines are indicative and for illustrative purposes, subject to market conditions.

To achieve its target return, the Fund's investment strategies seek to acquire assets at attractive price points, reposition/develop-to-core and increase net operating income through active leasing/asset management primarily in the liquid, developed markets across Asia Pacific. Potential deals will be structured with multiple exit strategies in order to maximize returns and realize value within short hold periods, when possible.

1) Repositioning properties through asset management strategies which include improving income through leasing, restructuring leases and optimizing tenant mix, improving income through active expense management, reposition underperforming assets to more optimal use, refurbishing to modernize assets and enhance value and identifying asymmetric risk/return opportunities;
2) Development to create core assets particularly developing modern logistics with attractive development margins and yield on cost and selectively develop modern logistics with temperature-controlled facilities to enhance yield;
3) Restructuring distressed properties including conversion, targeting distressed sellers due to the pandemic. LaSalle will attempt to mitigate the risk associated with these activities through extensive asset management, in-house logistics

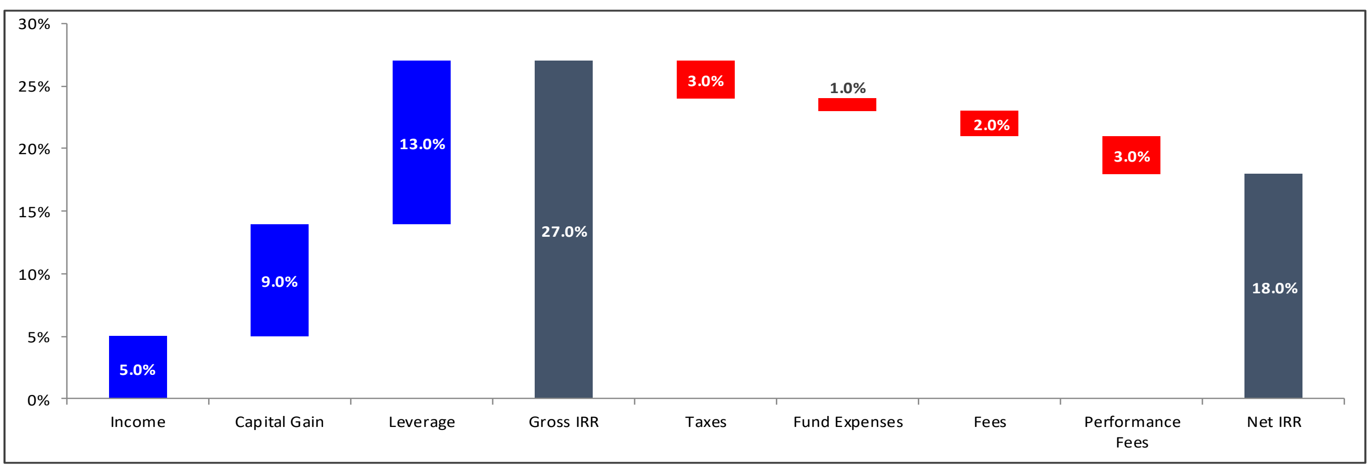
leasing and development management platforms. LaSalle may also work with local development partners to share or take over risks related to development opportunities. Below chart provides an example of the investment opportunities post pandemic, stemming from pandemic implications across various sectors. LaSalle's focus is on resilient markets through the recovery phase.

| | Pandemic Implications | Investment Opportunities |
|---|---|---|
| **Logistics** | ▪ Accelerated e-commerce penetration<br>▪ Growing tenant demand<br>▪ Growing investor demand | ▪ Develop new facilities<br>▪ Reposition/re-develop underperforming assets<br>▪ Expand into cold chain logistics |
| **Office** | ▪ Increased uncertainty for occupier demand<br>▪ Tenants seek for greater flexibility<br>▪ Work from Home as one option, but not a permanent solution<br>▪ Asia Pacific to lead recovery | ▪ Repricing/mispricing assets<br>▪ Invest into flexible concepts - speculative fit outs and set-up offices<br>▪ Location and tenancy becoming more important |
| **Residential** | ▪ Emerging institutional asset class in Asia Pacific<br>▪ Attractive theme of rent vs. own metrics<br>▪ Investor recognition of stable cash flows, low volatility and diversification benefits | ▪ Develop/re-develop residential for rent<br>▪ Reposition/convert under performing asset to residential for rent<br>▪ Enhance amenities to accommodate flexible Work from Home |
| **Retail** | ▪ Discretionary retail suffering - significant e-commerce disruption<br>▪ Non-discretionary retail more resilient | ▪ Reposition/re-pricing resilient retail malls<br>▪ Conversions |
| **Hotel** | ▪ REVPAR suppressed for over 12 months<br>▪ Operator profitability under pressure<br>▪ Recovery to be led by domestic travel | ▪ Reposition conversion of distress hotel<br>▪ Restructure/recapitalize/rescue capital |

## RETURN ATTRIBUTION

The following chart illustrates the components of LAO VI's pro forma return attribution assuming eight-year fund term. Pro forma net return based on 70% equity into value-add investments and 30% into development investments utilizing leverage of 65% and 60%, respectively.

LAO VI Pro Forma Return Attribution




Note: Gross IRR is after local JV partner fees but before taxes.

## LEVERAGE

- Maximum 70% on portfolio leverage during the Investment Period. There is no limit after the investment period, which Townsend recommends applying a leverage limit to be in line with market peers. Leverage limit applying only during the investment period is consistent with LAO IV and LAO V. For LAO IV and LAO V, LaSalle has shown discipline

and complied with the LTV limit (65% for LAO IV and LAO V). LAO IV's average LTV during the investment period is 53% and after investment period is 40%. LAO V's average LTV during the investment period is 59%.
- Target leverage is around 70% in Japan and 60-65% across other regions. Target 50-60% for development projects.
- The Fund will utilize non-recourse loans with loan covenants in line with business plan of each asset, which LaSalle will assess during the underwriting process.
- Loans will be drawn in local currency and interest rates will be fixed when possible.
- The Fund will perform quarterly loan compliance review, including LTV projection and DSCR compliance over next 4 quarters.

## HEDGING

- The Fund will typically hedge between 50-75% of equity exposure with currency forward contracts, taking into consideration cost, value and net proceeds. The Fund will seek to use local currency denominated debt for majority of the Fund's capital structure to reduce risk of aggregating currency exposure.

## INVESTMENT GUIDELINES

The Fund's investment strategy will be subject to the following limitations and restrictions:
- Max 5% of commitments outside of the Target Markets being Australia, Japan, China, South Korea, Hong Kong, Singapore, Taiwan, New Zealand and Macau; and
- Max 15% of commitments in any single investment;
- Max 20% of commitments in a single portfolio;
- Max 30% of commitments in speculative developments.

## SEED ASSETS

The Fund targets a Founding Close at the end of Jul 2021 and has not yet closed any investments.

## PIPELINE DEALS

The Fund has 15 pipeline investments with estimated equity requirement of USD964 million across its Target Markets and sectors which are diversified into Japan (43%), China (37%), South Korea (12%), Singapore (8%) as country diversification and office (44%), logistics (28%), residential (27%) and hotel (2%) as sector diversification. The first three pipeline deals showed in the below table are in more advanced stage due diligence and Townsend has reviewed/discussed the three opportunites with LaSalle, which are consistent with the Fund's investment strategy. High level information of the pipeline deals is summarized in the table below and detailed description of the advanced pipeline deals are provided in **Exhibit D**.

| Project | Location | Asset Class | Strategy | Target Closing Date | NLA (sqm) | Equity (USD mio) | Target Stab. Yield (%) | Target Returns (Local CCY) | | Investment Description |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Net IRR | Net EM | |
| Project Platinum | Tokyo | Resi. | Value-add | Q3 2021 | 5,772 | 21 | 3.6% | 19% | 1.6x | Acquire an undermanaged multifamily asset and execute capex works to improve rent. |
| Project LA | Greater Beijing | Logistics | Development | Q4 2021 | 128,037 | 46 | 6.9% | 18% | 1.7x | Acquire a land site for logistics development. Negotiating on initial terms and exclusivity. |
| Project Solitaire | Singapore | Office | Redevelopment | Q4 2021 | 17,656 | 73 | 3.6% | 17% | 1.8x | Acquire a freehold office in CBD and redevelop it into a Grade A office. |
| Project Gemstone | Shanghai | Resi. | Value-add | Q3 2021 | n/a | 64 | 5.3% | 17% | 1.5x | Acquire a distressed service apartment and add extra rooms to maximize rent. |
| Tokyo, serviced apartment | Tokyo | Resi. | Value-add | Q3 2021 | 6,169 | 25 | 3.7% | 18% | 1.6x | Acquire a service apartment and convert it into multi-family with extra amenity to maximize rent. |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Nagoya, Hotel portfolio | Nagoya | Hotel | Value-add | Q3 2021 | 4,131 | 17 | 5.7% | 17% | 1.6x | Capitalize on the post-pandemic theme to acquire a hotel portfolio and replace the operator. |
| Nagoya Office | Nagoya | Office | Value-add | Q3 2021 | 11,132 | 58 | 4.6% | 18% | 1.5x | Acquire a forward commitment office asset with strategy to lease-up before closing. |
| Project L | Beijing | Logistics | Development | Q4 2021 | 110,856 | 33 | 7.5% | 21% | 1.8x | Acquire a land site for logistics development. |
| Project O | Shanghai and two 2nd Tier cities | Logistics | Value-add | Q4 2021 | 210,500 | 70 | 6.6% | 18% | 1.6x | Acquire one turn-key asset in Shanghai and two assets in two 2nd Tier cities. Lease-up vacant space at market rent. |
| Project Trinity | Shanghai | Resi. | Value-add | Q4 2021 | n/a | 34 | 5.6% | 18% | 1.5x | Acquire a mixed-used office/retail asset and convert into multi-family. |
| Tokyo Office | Tokyo | Office | Value-add | Q4 2021 | 23,300 | 292 | 3.2% | 18% | 1.5x | Acquire a Grade A office for refurbishment and lease-up. Seek for co-investors due to deal size. |
| Project Parkview | Shanghai | Resi. | Value-add | Q1 2022 | n/a | 113 | 5.0% | 20% | 1.4x | Acquire a service apartment with preferred return structure guaranteed by the local partner. Strata sale exit strategy with upside on profit sharing. |
| Project A-III | Greater Seoul | Logistics | Development | Q2 2022 | n/a | 20 | n/a | 18% | 1.8x | Acquire a land site for logistics development. |
| Project A | Greater Seoul | Logistics | Value-add | Q2 2022 | n/a | 38 | n/a | 22% | 2.0x | Forward purchase a warehouse from an over-levered developer. Strategy to create value through leasing up the vacant space. |
| Project G | Greater Seoul | Logistics | Value-add | Q4 2022 | n/a | 60 | n/a | 19% | 1.5x | Forward purchase a warehouse asset with potential lease guarantees. |
| **TOTAL** | | | | | | **964** | | 18% | 1.6x | |

## POTENTIAL INVESTORS

The Fund is targeting a Founding Close at the end of Jul 2021. LaSalle indicates that there are four potential Founding Investors with an aggregate commitment of around USD600 million undertaking due diligence. A formal First Close is targeted in Sep 2021. The table below indicates the potential Founding and First Close Investors currently conducting due diligence on the Fund. 9 out of the 11 investors (excluding LaSalle employees) are existing LAO IV or LAO V investors.

| No. | Description | Estimated Timing | Commitment/ Potential Amount (USD m) | % of Total Commitment |
|---|---|---|---|---|
| 1 | LaSalle Employees | Founding Close | 30 | 2.8% |
| 2 | Middle East Sovereign Wealth Fund | Founding Close | 150 | 14.1% |
| 3 | Asian Sovereign Wealth Fund | Founding Close | 150 | 14.1% |
| 4 | US Public Pension Fund | Founding Close | 150 | 14.1% |
| 5 | US Public Pension Fund | Founding Close | 150 | 14.1% |
| 6 | US Public Pension Fund | First Close | 100 | 9.4% |
| 7 | Middle East Public Pension Fund | First Close | 200 | 18.8% |
| 8 | US Endowment / Foundation | First Close | 25 | 2.3% |
| 9 | European Endowment / Foundation | First Close | 20 | 1.9% |
| 10 | European Corporate Pension Fund | First Close | 50 | 4.7% |
| 11 | US Public Pension Fund | First Close | 30 | 2.8% |

| | | | | |
|---|---|---|---|---|
| 12 | European Family Office | First Close | 10 | 0.9% |
| **Subtotal - Founding Close** | | | 630 | 59.2% |
| **Subtotal - First Close** | | | 435 | 40.8% |
| **TOTAL** | | | **1,065** | **100%** |

# SPONSOR

## OVERVIEW

LaSalle Investment Management (the "Sponsor" or "LaSalle") is an independent subsidiary of Jones Lang LaSalle ("JLL"). JLL is a global commercial real estate services company and is listed on New York Stock Exchange (NYSE: JLL) with a market cap of around USD10 billion as of May 2021. LaSalle was established in 1980 as LaSalle Advisors, a subsidiary of LaSalle Partners, founded in 1960 and based in Chicago, Illinois. In 1999, LaSalle Partners merged with Jones Lang Wootton, an international real estate services firm headquartered in London, UK, to become Jones Lang LaSalle Incorporated. LaSalle Investment Management merged with Jones Lang Wootton's fund management business to become LaSalle Investment Management. Lasalle established its Asia Pacific platform in 2000. As of Dec 2020, LaSalle had a global AUM of USD70.9 billion and Asia Pacific AUM of USD13.1 billion.

LaSalle provides real estate management services to over 500 investors from 30 countries, including public and private pension funds, sovereign wealth funds, banks and financial institutions, insurance companies and high net worth individuals. LaSalle is one of the largest real estate investment managers across the globe and was recently named as the 'Firm of the Year' in Japan and France at the PERE Awards 2020, and as the 'Best Place to Work in Money Management' by Pensions & Investments for 5 consecutive years in 2020.

## ORGANIZATION

As of Dec 2020, LaSalle had over 850 employees across 22 offices around the globe. The Asia Pacific platform operates with over 200 employees across 6 offices. Below table provides the Asia Pacific staff breakdown by city and function.

Asia Pacific Staff Breakdown by City and Function

| Function | Shanghai | Hong Kong | Tokyo | Seoul | Singapore | Sydney | Total |
|---|---|---|---|---|---|---|---|
| Acquisitions | 7 | 1 | 16 | 3 | 3 | 5 | **35** |
| Asset Management and development | 7 | 4 | 25 | 1 | - | 9 | **46** |
| Client Capital Group | - | 2 | 6 | 4 | - | 1 | **13** |
| Finance & Accounting | 3 | - | 14 | 1 | 23 | 2 | **43** |
| Fund Management and Administration | - | 3 | 19 | 3 | 7 | - | **32** |
| Legal & Compliance | 1 | - | 2 | 1 | 5 | - | **9** |
| Research & Strategy | 1 | - | 1 | - | 5 | - | **7** |
| Corporate | 1 | - | 5 | - | 6 | - | **12** |
| Global Partner Solutions | - | - | - | - | 4 | - | **4** |
| Public Securities | - | 1 | 2 | - | - | - | **3** |
| **TOTAL** | **20** | **11** | **90** | **13** | **53** | **17** | **204** |

## LASALLE ASIA PACIFIC TEAM

LaSalle has USD13.1 billion of AUM in Asia Pacific with over 200 employees across 6 offices. Since 2001, LaSalle has acquired over 400 investments valued at USD31.8 billion and disposed over 290 investments valued at USD28.0 billion. Below table provides the AUM breakdown by country and sectors as of Dec 2020.

Asia Pacific AUM Breakdown

| Country | Core | | Non-Core | | TOTAL | |
|---|---|---|---|---|---|---|
| | GAV (USD m) | % | GAV (USD m) | % | (USD m) | % |
| Australia | 724 | 6% | 966 | 7% | **1,690** | **13%** |
| China | 221 | 2% | 1,442 | 11% | **1,663** | **13%** |
| Japan | 7,479 | 57% | 2,010 | 15% | **9,490** | **72%** |
| Singapore | 48 | 0% | 153 | 1% | **201** | **2%** |
| South Korea | 27 | 0% | 25 | 0% | **51** | **0%** |
| **TOTAL** | **8,499** | **65%** | **4,596** | **35%** | **13,095** | **100%** |

| Sector | Core | | Non-Core | | TOTAL | |
|---|---|---|---|---|---|---|
| | GAV (USD m) | % | GAV (USD m) | % | (USD m) | % |
| Office | 2,288 | 17% | 1,896 | 14% | **4,184** | **32%** |
| Retail | 1,478 | 11% | 185 | 1% | **1,662** | **13%** |
| Logistics | 3,926 | 30% | 2,176 | 17% | **6,101** | **47%** |
| Residential | 808 | 6% | 76 | 1% | **884** | **7%** |
| Hospitality | 0 | 0% | 264 | 2% | **264** | **2%** |
| **TOTAL** | **8,499** | **65%** | **4,596** | **35%** | **13,095** | **100%** |

The Fund will be managed by four senior executives comprising Marc Montanus, Claire Tang , Kunihiko Okumura and Yen Tjin Chan, with support from the regional senior investment professionals. The below table provides the key members and respective functions. The team organization chart is provided in **Exhibit A** and biographies of key professionals are in **Exhibit B**.

LAO VI Senior Management

| Name | Title | Responsibility | Years in Industry | Years with Firm |
|---|---|---|---|---|
| Keith Fujii | Head of Asia Pacific | Overseeing all operations in Asia Pacific | 25 | 3 |
| Marc Montanus | Senior Managing Director | Fund Management | 26 | 26 |
| Claire Tang | Co-CIO, Asia Pacific | Co-CIO and Head of Greater China | 16 | 14 |
| Kunihiko Okumura | Co-CIO, Asia Pacific | Co-CIO and Head of Acquisition & Asset Management Japan | 23 | 9 |
| Yen Tjin Chan | Senior Managing Director | Fund Management | 17 | 17 |
| Steve Kim | Senior Managing Director | Acquisitions and Asset Management, Korea | 21 | 7 |
| Michael Stratton | Head of Acquisitions, Australia | Acquisitions and Asset Management | 27 | 10 |
| George Goh | Head of Acquisitions / Asset Management, Southeast Asia | Acquisitions and Asset Management | 17 | 6 |
| Naoki Hayama | Managing Director | Asset Management, Japan | 22 | 6 |
| Miki Arai | Managing Director | Asset Management, Japan | 21 | 15 |
| Simon Howard | Senior Managing Director | Asset Management, Australia | 24 | 10 |
| Tom Miller | Head of Development and Sustainability, Asia Pacific | Development, Asia Pacific | 35 | 14 |
| Matthew Bailey | Senior Managing Director | Development, Australia | 23 | 10 |
| Hidenori Uchida | Managing Director | Development, Japan | 21 | 8 |
| Jason Zhang | Senior Vice President | Development, China | 12 | 3 |
| Se Hwan Oh | Senior Vice President | Development, South Korea | 20 | 5 |

## TURNOVER AND RETENTION

Turnover of LaSalle in Asia Pacific over the last 5 years was between 6% to 13% with the most notable departure being former Global CEO, Jeff Jacobson announcing the leadership transition to Mark Gabbay (previously the Asia CEO and CIO), effective Jan 2021. Jacobson will stay on as LaSalle Chairman and will continue to work with the leadership team to ensure a smooth transition. Other changes include Keith Fujii (previously the Japan CEO) promoting to Asia Pacific CEO, and Claire Tang (previously Head of Greater China) and Kunihiko Okumura (previously Head of Japan Acquisitions) promoting to Co-CIOs of Asia Pacific.

LaSalle Employee Turnover (Asia Pacific)

| Department | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|
| Sr. VP and Above (Turnover rate) | 3% | 12% | 7% | 4% | 4% |
| LaSalle Total (Turnover rate) | 13% | 6% | 7% | 11% | 8% |
| **Total Employees** | **210** | **179** | **189** | **199** | **204** |

Employees of LaSalle are remunerated in terms of base salaries, plus annual performance incentives tied to the performance of the funds, asset strategic plans and the organization as well as the individual contributions during the year. Up to 40% of the Fund's carried interest is shared with team members actively and significantly involved in the Fund's performance. Another 15% of the incentive fee is typically paid to the general bonus pool for that year and distributed to the broader Asia team for an individual's contribution to realizing above-hurdle performance for the Fund. 80% of allocation will be vested over the investment period and 20% will be vested at full realization of the Fund.

In addition, LaSalle offers 75-80% financing on co-investment within the funds. Upon departure, LaSalle buys back employees' interests at NAV, thus incentivizing retention during the Fund's investment period, as departing employees potentially face a loss on a highly levered basis before the Fund's J-curve is realized.

### ALIGNMENT

- LaSalle's senior executives and employees will commit USD30 million (2% of target Fund Size of USD1.5 billion).
- In terms of performance fees, up to 40% is allocated directly to team members involved in the Fund's performance with a vesting period to incentivize retention. Another 15% of the incentive fee is typically paid to the general bonus pool for that year and distributed to the broader Asia team for an individual's contribution to realizing above-hurdle performance for the Fund.

# OPERATIONAL RISK PROFILE

An Aon specialist team conducted operational due diligence on the Fund in June 2021 and assigned an 'A2' or '✓' rating, indicating a well-controlled operating environment with limited exceptions. The team reviewed the Sponsor's policies, procedures and capabilities across a wide range of operations including middle and back office and control functions including: (i) corporate governance and fund administration/operations; (ii) compliance and audit/testing; (iii) valuation; iv) counterparty risk oversight; (v) cyber security, IT systems and business continuity; and (vi) key service providers.

# ESG POLICY & PRACTICES

LaSalle's has a Global Sustainability Committee ("GSC") which is responsible for coordinating and monitoring ESG issues at the vehicle and organizational levels. GSC was established in 2009 and since then, LaSalle has been publishing its ESG policy, Equal Employment Opportunity policy and Code of Ethics on an annual basis. The GSC is led by the Global COO and Global Head of ESG with support from Regional Sustainability Officers in each region whom are responsible for implementation of ESG initiatives at the regional level and report to the Global Head of ESG. LaSalle provides ESG training to all staff twice a year and imbed ESG into all aspects of the business through the company Intranet which provides overview and implementation procedures for the ESG policies and programs.

GSC is responsible to identify and implement near and long-term strategic ESG initiatives. LaSalle seeks to develop the best ESG practices and apply to their clients' real estate portfolio across the globe by following the below goals:

- Minimize environmental impact of client properties, monitor climate change effects and improve investment performance;
- Reduce environmental impacts of LaSalle's operations in conjunction with JLL;
- Deliver the best solutions to clients through meeting and exceeding environmental regulations and requirements;
- Collaborate with clients, tenants, property managers and other service providers to ensure the best sustainable solution to the management of properties, whilst maximizing investment performance;
- Drive innovation on sustainable property investment.

LaSalle is dedicated to ESG leadership standards and principles such as Principles for Responsible Investment ("PRI"), Global Real Estate Sustainability Benchmark ("GRESB"), United Nations Environmental Program – Finance Initiative ("UNEP FI"), Task Force on Climate-related Financial Disclosures ("TCFD"), Fitwel Champion, Better Building Partnership Climate Change Commitment (Europe) and Urban Land Institute's Greenprint Center for Building Performance Net Zero x 2050 goal. At the fund and asset level, LaSalle uses a third-party platform called "Measurabi" to track the ESG related metrics and initiatives.

LaSalle received an "A+" rating for Strategy & Governance (for consecutive 5 years); an "A" rating for Listed Equity - Incorporation; an "A+" rating for Property; and an "A" rating for Listed Equity - Active Ownership in 2020 from PRI. In terms of GRESB, LaSalle submitted nine real estate assessments representing USD17 billion and scored one 5-Star, five 4-Star and three 3-Star GRESB ratings in 2020. Related to the LAO Fund Series, LAO V received total 79 points and 4-Star rating in 2020, which is an improvement from the first submission in 2018 (72 points and 3-Star rating). LAO V achieved 30 out of 30 points for Management score, which was consistent with our expectations. The Performance score was 49 out of 70 points, which was slightly above GRESB's average of 44 points, indicating there are areas for improvement such as asset level monitoring and measurement. For the separate "Development" component assessment, LAO V scored 76 points with 4-Star rating against the GRESB average of 74 points.

Based on the above referenced factors, our recommended rating is "Integrated". While the Firm's policies and procedures are considered best-in-class with global and regional leadership integrating ESG process throughout the organization, the real asset level integration requires improvement, as the Performance component of GRESB was slightly above average with improvements required in the asset level monitoring and measurement components for higher rating assessment.

# INVESTMENT PROCESS

## DEAL SOURCING & ACQUISITIONS

LaSalle will use its network of relationships with corporates, local property owners, developers, hotel operators, brokers as well as the legal and banking community to source deals. For development opportunities, LaSalle may seek to leverage on local joint venture partners to enhance sourcing capabilities such as for China logistics. LaSalle has expanded its local joint venture partnerships and arranged exclusivity agreements for first-look rights of China logistics deals and will also utilize JLL's strong reputation as a Fortune 500 company for various deal sourcing opportunities.

Investment opportunities for the Fund are approved in three stages:

1. Screening – The Fund Management team evaluates the transaction in the context of the entire portfolio. Investment opportunities are screened and reviewed by the relevant Co-Chief Investment Officer ("Co-CIO"). The Co-CIO gives final approval before presenting an opportunity to the Investment Committee for preliminary approval. The Asia Pacific Investment Committee provides preliminary and final review and approval for each transaction.
2. Due Diligence – After preliminary approval of a transaction, due diligence comprising physical, design and construction cost, project design, partner, environmental, legal economic reviews will commence. Upon the completion of due diligence, and before final approval of an acquisition, the Acquisition Officers prepare a presentation that reflects due diligence results and makes a recommendation to proceed with the transaction.
3. Final Approval – The Asia Pacific Investment Committee formally reviews the recommendation and on approval, the transaction will proceed to closing. Final approval of all acquisitions and dispositions in the region is required by the firm's Asia Pacific Investment Committee.

Sourcing of financing is performed by the Finance team together with the Acquisition team. Documentation of contractual/ transactional agreements is outsourced to external legal counsel and reviewed by the Acquisition, Finance and Fund Management teams before execution.

For development projects, upon closing of a land site, Acquisition officers oversee the development progress with the Development team and regular meetings are set up to review the development progress with the development partners. On completion, the asset is transitioned to the Asset Management team.

## ASSET MANAGEMENT & LEASING

LaSalle has an in-house Asset Management team which works closely with the Fund Management team to support on annual strategic plans, monitoring of property management and development progress, financing, performance, lease schedules, bi-weekly management meetings, cashflow and return projections, valuations, hold/sell recommendations, leading the disposition and other material items. Regular loan compliance reviews are also part of asset management process with a loan compliance checklist completed on a quarterly basis for all assets and reviewed by the Fund Management team and the Finance team.

## EXIT

The Fund will be closely monitoring the market and consider multiple exit strategies to maximize returns to investors and realize value with short hold period, when possible. All dispositions are reviewed by the Fund Management team and approved by the Investment Committee and the Asset Manager will lead the closing.

## INVESTMENT COMMITTEE

The Fund's Investment Committee ("IC") will approve all acquisitions and dispositions as well as changes in investment strategy or follow on investments. Decisions are made by a majority vote. Below table provides high level information on the IC members and their biographies are provided in **Exhibit B**.

LaSalle Investment Committee Members

| Name | Title | Responsibility | Years in Industry | Years with Firm |
|---|---|---|---|---|
| Mark Gabbay | Global CEO | Overseeing both private and public real estate across all major markets globally | 26 | 11 |
| Keith Fujii | Head of Asia Pacific | Overseeing all operations in Asia Pacific | 25 | 3 |
| Marc Montanus | Senior Managing Director, Asia Pacific | Fund Manager of LaSalle Asia Opportunistic Series | 26 | 26 |
| Elysia Tse | Head of Research & Strategy, Asia Pacific | Overseeing Asian investment strategy and manages the regional Research & Strategy team | 21 | 5 |
| Claire Tang | Co-CIO, Asia Pacific | Co-CIO and head of acquisition and asset management in Greater China | 16 | 14 |
| Kunihiko Okumura | Co-CIO, Asia Pacific | Co-CIO and head of acquisition and asset management in Japan | 23 | 9 |
| Yasuo Nakashima | Representative Director, Japan | Review and execution support for transactions in Japan and logistics deals in the region. | 27 | 19 |

## FUND GOVERNANCE

The LaSalle global business is led by the Global Management Committee consisting of 14 members listed in the below table.

LaSalle Global Management Committee

| Name | Title | Location | Years in LaSalle |
|---|---|---|---|
| Mark Gabbay | Global Chief Executive Officer | Hong Kong | 11 |
| Jeff Jacobson | Chairman of LaSalle Investment Management | Chicago | 21 |
| Keith Fujii | Head of Asia Pacific | Tokyo | 3 |
| Alok Gaur | Global Head of Investor Relations | Chicago | 5 |
| Jacques Gordon | Global Head of Research & Strategy | Chicago | 27 |
| Brad Gries | Co-Head of The Americas | Chicago | 4 |
| Kristy Heuberger | Co-Head of The Americas | Chicago | 6 |
| Lisa Kaufman | Head of Global Securities | Baltimore | 26 |
| Tim Kessler | Global Chief Operating Officer | Chicago | 3 |
| Philip La Pierre | Head of Europe | Munich | 2 |
| Gordon Repp | General Counsel | Chicago | 19 |
| Mike Ricketts | Global Chief Financial Officer | Chicago | 32 |
| Darline Scelzo | Global Head of Human Resources | Chicago | 30 |
| Jon Zehner | Head of Global Partner Solutions | London | 9 |

Regional Operational Risk Committee
Oversight of internal controls and risk management and timely and effective client reporting. Comprised of seven senior management in Asia Pacific.

Corporate Compliance Committee
Oversight of compliance with laws, regulations and the Code of Business Ethics. Comprised of five members in Asia Pacific offices.

Advisory Board
The Fund will have an Advisory Board, comprised of at least four members including one non-voting representative of LaSalle, at the discretion of the Sponsor. Subject to availability, all investors with USD100 million commitment to the Fund will have the right to appoint a representative on the Advisory Board. The Advisory Board will review and approve/consent on the key matters below by a majority vote.

- Exceeding investment guidelines of the Fund;
- Exceeding diversification guidelines of the Fund;
- Exceeding Fund's leverage limitation;
- Approve extension of Fund Term;
- Conflict of interest and other matters.

## VALUATIONS

The Fund will conduct external valuations at end of each calendar year and internal valuations at semi-annual basis. The Fund Management team and Asset Management team will review the external valuations and submit to IC for approval. External valuations comply with International Valuation Standards and internal valuations comply in all material aspects with International Valuation Standards. Valuation policy is consistent with prior LAO Fund Series.

## EXCLUSIVITY & ALLOCATIONS

The Fund has priority to all investment opportunities meeting its investment strategy with the exception of logistics investment opportunities stated below:

- Japan logistics: First offer to JLF IV, thereafter to Asian SMA (currently being finalized), then to LAO VI;
- South Korea logistics: 60% / 40% split between LAO VI / LAO VI's Korea Logistics Side-Car;
- China logistics: 40% / 60% split between LAO VI / LCLV. LCLV has full discretion on day-to-day operations as well as disposition.

Details of exclusivity & allocation is provided in the "**Potential Issues and Concerns**" section.

## USE OF JOINT VENTURE PARTNERS

LaSalle has joint venture arrangements for China logistics development, which will be led by LCLV. LaSalle will leverage on its four local joint venture partners to source and develop logistics investments. Each partner has strong local network relationships in respective markets that the Fund will utilize to source investments. Out of the four partners in China, LaSalle has exclusivity of first-look rights on logistics investment opportunities with three partners including Zenith, ABM and CNLP. Other than China logistics, LaSalle does not have exclusive agreement with any partners and work with partners on a deal-by-deal basis.

## USE OF AFFILIATES

The Fund may utilize its parent company, JLL and its subsidiaries to provide a broad range of real estate services that include acquisition and disposition brokerage, services required to be provided by a locally licensed entities (including Korean asset management company), financing, research, development management, and leasing and property management in instances where they are determined to be the best service provider at a competitive market fee. Townsend has reviewed the summary of affiliate transaction fees in 2020 for LAO IV and LAO V, which were mostly related to accounting and administrative fees and in line with comparable market fees.

The Sponsor is an independently operated subsidiary of JLL but does not have any exclusivity agreements with JLL, or any third-party service provider, and do not believe the above description of services would create a conflict of interest. As LaSalle manages its business autonomously, it is LaSalle's policy to employ the best provider and negotiate competitive fees for services on behalf of each investment. LaSalle negotiates at arms' length with JLL and commercial contracts are in place for the supply of services. LaSalle's asset management team is responsible for ensuring that all third-party fees paid to both affiliates and non-affiliates are market-rate fees.

Additionally, affiliate fees are disclosed to investors in quarterly report and presented to Advisory Board for review annually.

# FUND STRUCTURE

## OVERVIEW

Closed-end fund organized as a Singaporean limited partnership and a Luxembourg special limited partnership.

- Sponsor/Manager : LaSalle Investment Management Asia Pte Ltd.
- Parent Company : Jones Lang LaSalle
- General Partner : LaSalle Asia Opportunity VI General Partner Ltd

## REVIEW OF TERMS & CONDITIONS

| **Key Terms** | | **Townsend Comment** | |
|---|---|---|---|
| **Target Return** | Net IRR: 18% | **Neutral** | Higher target return compared to opportunistic peer funds in market. Consistent with prior fund series. |
| **Target Fund Size** | USD1.5 billion | **Negative** | Increased from LAO V's target USD750 million (raised: USD974 million). LaSalle has prior experience on raising and deploying funds over USD1 bn in LAO II and LAO III. There is no hard cap for Fund size. |
| **Sponsor Commitment** | USD30 million (2.0% of target fund size) from employees | **Neutral** | The Sponsor commitment will be direct co-investment from the senior employees. Overall amount of USD30m is equal to the Sponsor commitment from LAO V and in line with market peers of 2-3% co-investment. |
| **Investment Period** | 3 years after the Final Close | **Neutral** | Changed from 4 years after First Close in LAO V. In line with market. |
| **Term** | 8 years after Final Close with two 1-year extension options subject to Advisory Board approval | **Neutral** | Changed from 9 years after First Close in LAO V. In line with market. |
| **Leverage** | Max LTV 70% during investment period | **Negative** | Max LTV increased from LAO V's 65%. Limit is higher than market peer average of 60%. LTV limit only applied during investment period is consistent with LAO IV and LAO V. |
| **Geographical Allocations** | Pan Asia (Japan, Australia, China, South Korea, Hong Kong, Macao, Taiwan, New Zealand and Singapore) | **Neutral** | Focused in developed Asia countries. Consistent with LAO IV and LAO V. |
| **Investment Restrictions** | - Max 5% outside of Target Markets<br>- Max 15% in a single asset<br>- Max 20% to a single portfolio<br>- Max 30% to development | **Neutral** | General investment restrictions. Development limit increased from LAO V's 25% limit. |
| **Key Person Provision** | - More than two of Marc Montanus, Nick Okumura, Claire Tang or Yen Tjin Chan cease to devote substantially/reasonably their business time to the Fund.<br>- If triggered during the Investment Period, the Investment Period will be suspended until the GP presents replacement for AC approval. If not approved, Investment Period will be terminated. | **Neutral** | Key Person Provision in line with market. Mark Gabbay (Global CEO) has been removed from Key Person Provision compared to LAO IV and LAO V due to promotion to Global CEO. Replacement are the two Co-CIOs (Nick and Claire) and Yen Tjin Chan. |
| **GP Removal** | - With cause: Majority vote<br>- Without cause: Two-third majority vote | **Neutral** | GP Removal clause in line with market. |

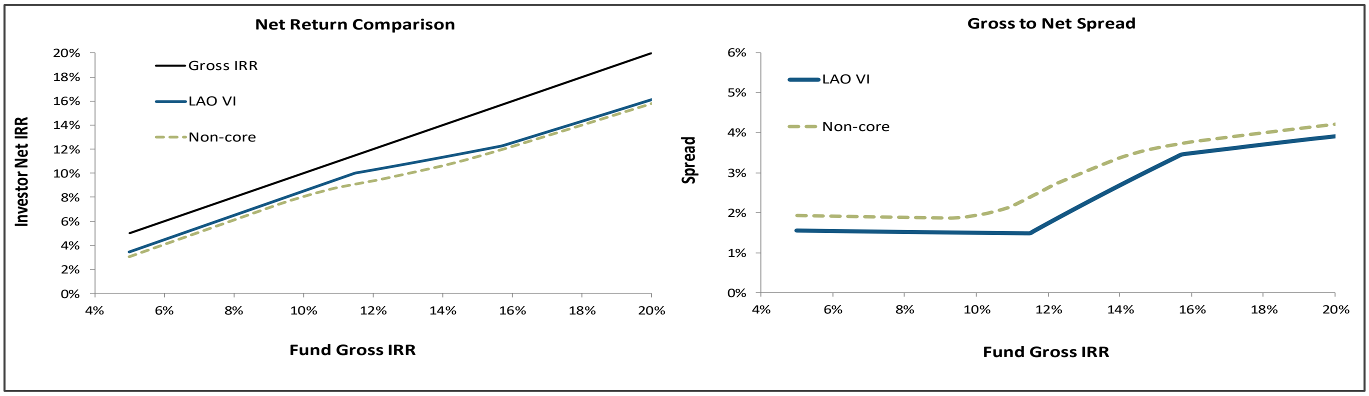
<table>
<tr>
<td>Management Fee</td>
<td>
<table>
<tr><td>Type of Investor</td><td>Management Fee[1]</td></tr>
<tr><td>Founding[2]</td><td>- 1.05%<br>- No fee holiday</td></tr>
<tr><td>First Close</td><td>- 1.50% for <USD75m<br>- 1.40% for ≥USD75m & <150m<br>- 1.25% for ≥USD150m<br>- Fee holiday till 31 Mar 2022</td></tr>
<tr><td>Post First Close</td><td>- 1.50% for <USD75m<br>- 1.40% for ≥USD75m & <150m<br>- 1.25% for ≥USD150m<br>- No fee holiday</td></tr>
</table>
Note 1: Fee on committed equity during Investment Period and on invested equity after Investment Period<br>
Note 2: According to LaSalle the Founding Investors will each commit over USD150 million
</td>
<td>Positive/ Neutral</td>
<td>- Founding Investor’s fee structure is favourable compared to peers<br>- First Close Investor’s fee structure is slightly favourable compared to peers due to the fee holiday<br>- Post-First Close Investor’s fee structure is in line with peers</td>
</tr>
<tr>
<td>Performance Fee</td>
<td>
<table>
<tr><td>Type of Investor</td><td>Incentive Fee</td></tr>
<tr><td>Founding[2]</td><td>- 20% over a 10% hurdle rate with 50%/50% catch-up</td></tr>
<tr><td>Non-Founding</td><td>- 20% over a 9% hurdle rate with 50%/50% catch-up</td></tr>
</table>
</td>
<td>Positive/ Neutral</td>
<td>- Founding Investor’s fee structure is favourable compared to peers due to a higher hurdle rate<br>- Non-Founding Investor fee structure is in line with peers</td>
</tr>
<tr>
<td>Organizational Expenses</td>
<td>Up to USD2.5 million</td>
<td>Neutral</td>
<td>Increased from LAO V’s USD1.5m. Reasonable considering increase of target fund size (LAO V USD750m vs. LAO VI USD1.5bn)</td>
</tr>
<tr>
<td>Other Fees</td>
<td>Applicable to logistics development:<br>- Development Management Fees: 5% of development costs<br>- Leasing Fees: 1.5 months’ base rent for lease term less than 5 years or 2 months’ base rant for lease term at least 5 years<br><br>Applicable to Luxembourg Partnership:<br>- Average USD180-200k p.a.</td>
<td>Neutral</td>
<td>Fees charged on logistics developments is in line with market and Luxembourg Partnership is a new structure mainly for European investors who have a specific requirement for a regulated fund structure. Management fee for this structure is charged to investors who invested through this structure.</td>
</tr>
</table>

## FEES ANALYSIS

Townsend has compared the fee structure of LAO VI against 10 other funds currently in the market raising capital which are Pan Asia focused non-core funds. For LAO VI, the Founding Investors with minimum commitment of USD150 million will be offered fee discount, which is 1.05% on commitment during Investment Period and 1.05% on invested equity after Investment Period and performance fee hurdle of 10%, compared to the base fee rate for non-Founding Investors with commitment over USD150 million of 1.25% and performance fee hurdle of 9%.

The following diagram illustrates the gross-to-net return comparison. Based on Townsend’s fee model, LAO VI requires gross IRR of 22.1% to achieve the target net IRR of 18.0% (after fees and promote), which is a leakage of approximately 4.1%. Overall, LAO VI’s Founding Investor fee structure is favorable compared to peers. First Close Investor fee structure is marginally favorable compared to peers due to the fee holiday of two quarters until Mar 2022. Post-First Close Investor fee structure is in line with peers.

## Founding Investor Fee Analysis



# PERFORMANCE

## PERFORMANCE

LaSalle has raised five Pan Asia focused closed-end opportunistic real estate funds since 2001 and invested USD4.1 billion of equity into 174 assets. Among the five funds, three funds are liquidated. LAO II and LAO III underperformed against its target returns partly due to the impact of GFC. After the GFC, LaSalle has restructured the Asia team, aligned investment strategy to LaSalle's strengths and enhanced governance, risk management and client reporting. LAO IV and LAO V are the two funds raised after the GFC and projected to generate net IRR/EM returns of 28%/1.5x and 17%/1.4x, respectively.

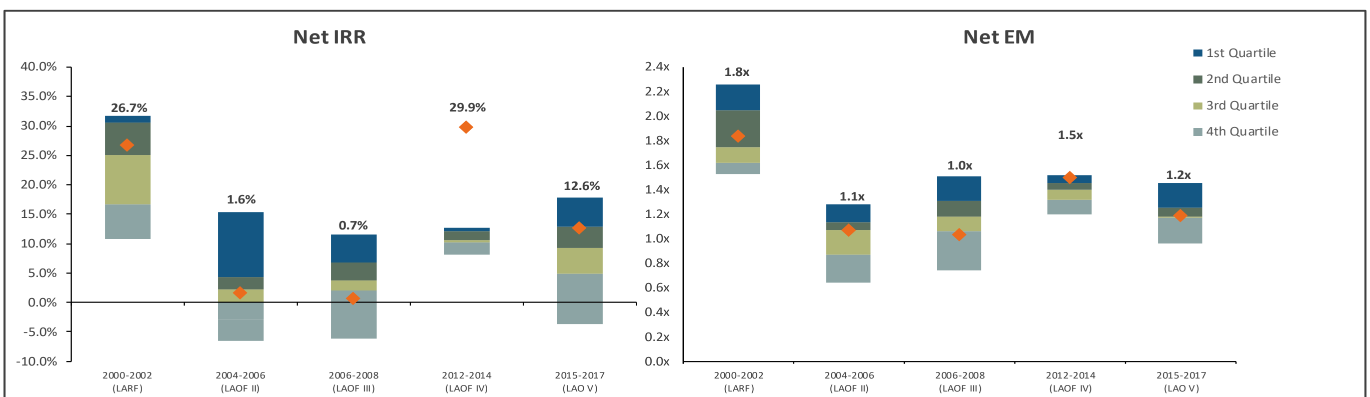
| Vehicle | Vintage Year | Status | Fund Size (USD m) | Fund Invested Equity[1] (USD m) | Number of Assets (Total / Current) | Target Net IRR | Realized/ Projected Net IRR[2]/EM | Since Inception Net IRR[3]/EM |
|---|---|---|---|---|---|---|---|---|
| **Realized** | | | | | | | | |
| LaSalle Asia Recovery Fund | 2001 | Liquidated | 242 | 267 | 12 / 0 | 18% | 26.7%/1.8x | 26.7%/1.8x |
| LaSalle Asia Opportunity II | 2005 | Liquidated | 1,000 | 1,112 | 59 / 0 | 18% | 1.6%/1.1x | 1.6%/1.1x |
| LaSalle Asia Opportunity III | 2007 | Liquidated | 1,932 | 1,673 | 34 / 0 | 18% | 0.3%/1.0x | 0.7%/1.0x |
| **Sub-total** | | | 3,174 | 3,052 | 105 / 0 | 18% | 3.1%/1.1x | 3.3%/1.1x |
| **Unrealized / Partially Realized** | | | | | | | | |
| LaSalle Asia Opportunity IV | 2013 | Liquidating | 485 | 426 | 41 / 2 | 18% | 28.0%/1.5x | 29.9%/1.5x |
| LaSalle Asia Opportunity V | 2016 | Stabilizing | 974 | 649 | 28 / 23 | 18% | 16.7%/1.4x | 12.6%/1.2x |
| **Sub-total** | | | 1,459 | 1,075 | 69 / 25 | 18% | 21.2%/1.4x | 19.5%/1.3x |
| **TOTAL** | | | **4,633** | **4,127** | **174 / 25** | **18%** | **7.8%1.2x** | **7.5%/1.2x** |

1. As of Dec 2020.
2. For LARF, LAO II and LAO III, returns are actual realized returns after local taxes, after fund level fees and expenses and after performance fee. For LAO IV and LAO V, returns are projected returns after local taxes, after fund level fees and expenses and after performance fees, as of Dec 2020.
3. Unrealized/Partially Realized funds, returns are as of Dec 2020, less fund expenses and fees and after accrued performance fees. For realized funds, returns stated refers to realized net returns less fund expenses and fee and after performance fees.

## PEER COMPARISON

Townsend has conducted peer comparison of LAO Fund Series against the similar vintage and non-core strategy Pan-Asia real estate funds within Townsend and Preqin data base. LAO II and LAO III has underperformed against their target returns while LAO IV's performance is top quartile among the peers and LAO V is performing as 2nd quartile against the peers.

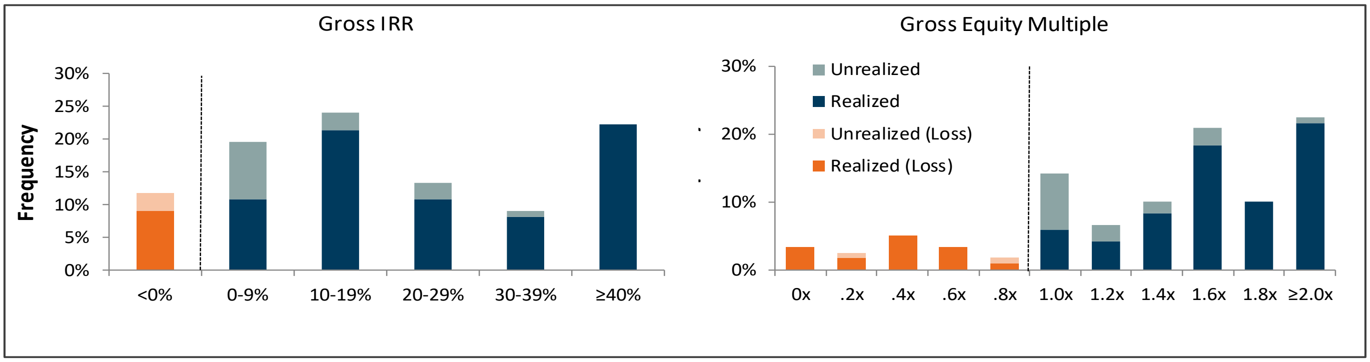
| Fund | Status | Vintage | Realized/ Since Inception Returns | | Peer Description | Ranking (Net IRR/Net EM) |
|---|---|---|---|---|---|---|
| | | | Net IRR | Net EM | | |
| LaSalle Asia Recovery Fund | Liquidated | 2001 | 26.7% | 1.8x | 7 peers, vintage between 2000-02 | 2nd quartile / 2nd quartile |
| LaSalle Asia Opportunity II | Liquidated | 2005 | 1.6% | 1.1x | 7 peers, vintage between 2004-06 | 3rd quartile / 2nd quartile |
| LaSalle Asia Opportunity III | Liquidated | 2007 | 0.3% | 1.0x | 11 peers, vintage between 2006-08 | 4th quartile / 4th quartile |
| LaSalle Asia Opportunity IV | Liquidating | 2013 | 29.9% | 1.5x | 5 peers, vintage between 2012-14 | 1st quartile / 1st quartile |
| LaSalle Asia Opportunity V | Stabilizing | 2016 | 12.6% | 1.2x | 6 peers, vintage between 2015-17 | 2nd quartile / 2nd quartile |




Source: Townsend non-core fund database and Preqin as of Dec 2020. Range shown is 95th to 5th percentile.

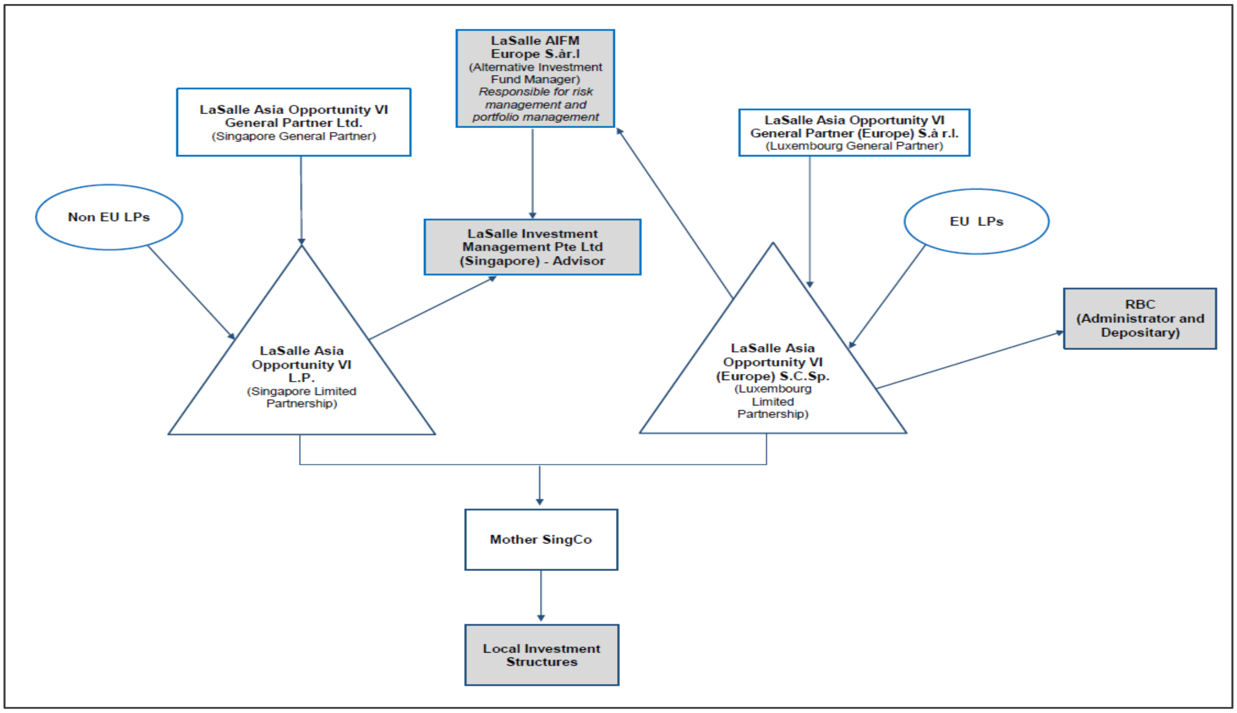
## DISPERSION OF RETURNS

Below chart provides the dispersion of LAO Fund series based on fair market value. Most of the losses are from LAO II and LAO III investments. There is one unrealized investment from LAO V which is projected to have negative return. The investment is a hotel investment in Japan which performance has been significantly impacted by the pandemic.



## EXHIBIT A: FUND STRUCTURE AND ORGANIZATION

Fund Structure




LAO VI Organization Chart (as of Apr 2021)

## EXHIBIT B: SENIOR MANAGEMENT BIOGRAPHIES

Executive Officers of LAO VI

**Marc Montanus – Senior Managing Director, Fund Management**

Montanus is a Senior Managing Director of LaSalle and the Fund Manager of the LaSalle Asia Opportunistic Fund Series. In this role, he is responsible for working w ith the Chief Investment Off icer to deliver fund performance from acquisition through disposition. Working with a dedicated team, he is also responsible for overseeing and executing all of the operational and reporting functions of the funds. He is one of the four Executive Officers of the Fund. Montanus has been in the real estate industry for over 25 years, working for the LaSalle Group in the United States and Europe before joining the Asia Pacific business in 2001. Montanus has worked extensively in different disciplines of institutional real estate investment management including acquisitions, asset management, portfolio management, real estate securities and investor relations. Prior to assuming his current role in 2008, he was responsible for managing the Asia Property Fund, the Sponsor's core plus open-ended pan-regional fund in Asia Pacific, which significantly exceeded its return targets during his tenure. Before that, he was the portfolio manager for a regional separate account mandate, acquiring ten direct and indirect investments across Asia, all of which exceeded their acquisition underwriting projections during his tenure. Montanus holds a B.S. in Business Administration from Miami University (Ohio).

**Kunihiko Okumura – Head of Acquisitions & Asset Management Japan, Co-CIO, Asia Pacific**

Okumura is a Senior Managing Director of LaSalle and serves as Head of Acquisitions and Asset Management in Japan. He has been appointed co-Chief Investment Officer of LaSalle Asia Pacific in 2020 and he is a member of the Investment Committee. Okumura joined LaSalle in 2011 and has been leading LaSalle's value-add/opportunistic side of businesses in Japan across multiple mandates. His key responsibilities include overseeing origination, underwriting, execution, and asset management of investments. He has over 23 years of real estate experience and completed over USD15 billion of debt and equity transactions in various asset types. Prior to joining LaSalle, Okumura served as Principal at Westbrook Partners, and Senior Vice President of Global Real Estate Group of Lehman Brothers. During his tenure in Lehman Brothers, he executed over USD15 billion of debt transactions, coordinated loan syndications and completed 9 CMBS issuance. Okumura earned a M.A. in International Studies from University of Washington, and a B.A. in English from Kwansei Gakuin University.

**Claire Tang – Head of Greater China, Co-CIO, Asia Pacific**

Tang is a Senior Managing Director of LaSalle Group and the Head of LaSalle's Greater China platform, responsible for overseeing acquisition, development and asset management teams in the region. Previous to the current role, Tang spearheaded the acquisition team in China. She is also responsible for managing LaSalle's key partner relationships in the Greater China region. Her key responsibilities for the LaSalle China Logistics Venture will include origination, capital structuring, as well overseeing development and deal execution. She is one of the four Executive Officers of the Fund. Since joining LaSalle in 2007, she has led and completed over USD2.5 billion of commercial and logistics acquisitions in China, via direct investment as well as programmatic joint ventures. She played an instrumental role in building LaSalle's dedicated logistics team in China, which has executed over USD1 billion of logistics transactions with a total portfolio size exceeding 1.1 million sqm. Prior to joining LaSalle, Tang held investment roles with Jones Lang LaSalle and GE. Tang earned a Master of Business Administration from the Kellogg School of Management at Northwestern University and Hong Kong University of Science and Technology, and holds a Bachelor of Business Administration from Babson College.

**Yen Tjin Chan – Senior Managing Director, Fund Management**

Chan is a Senior Managing Director of LaSalle and serves as the Fund Manager of LaSalle China Logistics Venture. She joined LaSalle in 2003 and has over 16 years of experience in real estate investment fund management and is one of the four Executive Officers of the Fund. She is responsible for delivering fund performance from acquisition through disposition. Chan is also responsible for overseeing and executing all of the operational and reporting functions of the Fund. She is also part of fund management team for the LaSalle Asia Opportunistic Fund Series since 2011 and is the portfolio manager managing the China Logistics co-investment program since 2014. Chan has worked extensively in different disciplines of institutional real estate investment management including finance, treasury, asset management, portfolio management and investor relations. Prior to her role in Fund Management, Chan was responsible for managing the treasury function in Asia Pacific and implementing the foreign exchange and interest rate hedging strategy across all LaSalle funds in Asia. She was also part of the loan origination and restructuring team responsible for originating and restructuring loans across Asia Pacific. Chan is a Chartered Accountant with the Institute of Singapore Chartered Accountants and has a Bachelor of Accountancy from Nanyang Technological University.

Investment Committee

**Mark Gabbay – Global Chief Executive Officer**
Mark Gabbay joined LaSalle in 2010 as Chief Investment Officer for Asia Pacific. In 2015, he became CEO of the region and is responsible for formulating and implementing LaSalle's investment strategy across Asia Pacific, sourcing opportunities and overseeing the investment process. On January 1, 2021, Gabbay succeeded Jeff Jacobson as Global CEO of LaSalle. Prior to joining LaSalle, Gabbay served as Managing Director and Head of the Asia Asset Finance Division at Nomura, and was Co-Head of the Asia Pacific Global Real Estate Group at Lehman Brothers, where he was in charge of the firm's expansion into new markets for both debt and equity real estate investments. Gabbay also worked at GMAC Commercial Mortgage Corporation as the Head of Real Estate Lending for Japan in the late 90s. Gabbay has a BA from the University of California, Berkeley.

**Marc Montanus – Senior Managing Director, Fund Management**
Montanus is one of the four Executive Officers and detailed biography is provided above.

**Keith Fujii – Head of Asia Pacific**
Fujii is the Head of LaSalle Asia Pacific business, a role he was appointed in January 2021. Having joined LaSalle in March 2018 as the CEO of Japan, Fuji is a Representative Director and President of LaSalle Investment Management K.K. and he sits on the board of directors at LaSalle REIT Advisors K.K, asset manager to the firm's Japan logistics REIT, LaSalle Logiport REIT.Fujii has a distinguished background in Asia. He has over 26 years of experience in real estate principal investment/investment management and held senior positions at Bank of America Merrill Lynch, Grove International Partners, Shinsei Bank and Lehman Brothers. Throughout his career, Fujii's focus has been exclusively on real estate and he has achieved this through both equity and debt investments. In addition to his 20 years in the Japanese real estate market, Fujii has invested in and/or created investment platforms in South Korea, Taiwan, Germany, Spain, Australia, the USA, and India. He has also led acquisitions in China, Philippines, Singapore, the UK, and France. Fujii received a B.S. in Civil Engineering from the University of California at Irvine and a M.B.A. from New York University.

**Kunihiko Okumura – Co-CIO, Asia Pacific**
Okumura is one of the four Executive Officers and detailed biography is provided above.

**Claire Tang – Head of Greater China, Co-CIO, Asia Pacific**
Tang is one of the four Executive Officers and detailed biography is provided above.

**Elysia Tse – Head of Research & Strategy, Asia Pacific**
Tse is the Head of Research & Strategy for LaSalle Asia Pacific, based in Singapore. She leads the regional Research & Strategy team, which assists in the formulation of fund/separate account strategies; carries out asset-level underwriting; helps determine strategic plans for existing assets; contributes to decisions about the timing of disposals; and enhances LaSalle's thought leadership in the region. Prior to rejoining LaSalle in 2016, Tse was with Citigroup and Blackrock in New York before moving to Singapore to join Aviva Investors taking on the role of Head of Investment Governance, Strategy & Research – Asia Pacific Real Estate and a voting member of the investment committee in Asia Pacific. Tse holds a B.S. from Xiamen University and a Master in Real Estate from Cornell University. She was the recipient of the inaugural 2015 Cornell University Baker Program in Real Estate Alumnus of the Year Award. She sits on the advisory board of Cornell University Baker Program in Real Estate.

**Yasuo Nakashima – Representative Director, Japan**
Nakashima is the Representative Director of LaSalle Investment Management in Japan. Since joining LaSalle in 2002, Nakashima has successfully grown LaSalle's Japanese business to over USD5 billion of assets under management. Nakashima has in excess of 28 years of experience in direct real estate in both Japan and the United States. His experience includes development, acquisitions, asset management, property management, and leasing and investment brokerage. Prior to joining LaSalle, Nakashima was a co-founder of Prospect Development Corp., a New York based developer specializing in public-private partnership developments. Before moving to the United States in 1999, he worked as a project manager for Cosmos Initia Co., one of Japan's largest multi-family residential developers. Nakashima has a M.S. in Real Estate Development from Columbia University and a B.S. in Architecture from Waseda University (Tokyo). He is a licensed Real Estate Broker (Japan) and a licensed Architect (1st Class, Japan).

Acquisitions Team

**Kunihiko Okumura – Co-CIO, Asia Pacific**
Okumura is one of the four Executive Officers and detialed biography is provided above.

**Claire Tang – Head of Greater China, Co-CIO, Asia Pacific**
Tang is one of the four Executive Officers and detialed biography is provided above.

**Steve Kim – Senior Managing Director, South Korea**
Kim is a Senior Managing Director responsible for leading deal sourcing and asset management in South Korea, and special situation investing regionally. He joined LaSalle in 2013. He has worked in the Asia-Pacific real estate industry since 2000 focused on development projects and opportunistic investments in private equity and non-performing loans. Prior to joining LaSalle, Kim was Managing Partner at Bellevue Capital Management focused on cross-border real estate investments on behalf of family offices. Prior to that he worked in Nomura's Asia Asset Finance Division and subsequently the Real Estate Investment Banking Division (Asia Ex-Japan) as an Executive Director where he helped build the advisory business as one of the original senior members. Prior to that, he was Vice President of Lehman Brothers' Global Real Estate Group focused on principal debt and equity investments in South Korea, Australia, and China. He also worked at Deutsche Bank's Real Estate Private Equity Group acquiring multi-borrower collateralized loan portfolios and distressed real estate companies in South Korea post-Asian Financial Crisis in 2000. He started his career at Merrill Lynch & Co. in US and interned at The United States Senate. Kim holds a B.S. from Georgetown University.

**Michael Stratton – Head of Acquisitions, Australia**
Stratton is serves as Head of Acquisitions, Australia and is responsible for acquisitions in Australia. Having joined LaSalle in 2011, Stratton has over 25 years of experience in the Australian real estate industry and has experience in valuation, asset management and acquisitions, and completed over USD8.5 billion of transactions across all asset classes including residential, mixed use and office development. Prior to joining the LaSalle Group, he was Head of Capital Transactions at Lendlease and Fund Manager for the Lendlease Core Plus Fund. In that role, he helped increase the assets under management of the Core Plus Fund from USD275 million to USD540 million between 2008 and 2010. Stratton holds a Bachelor of Business (Land Economy) from University of Western Sydney.

**George Goh – Head of Acquisitions & Asset Management, Southeast Asia**
Goh is the Head of Acquisitions and Asset Management, Southeast Asia and is responsible for acquisition and asset management activities in the Southeast Asia region. Goh has over 17 years of experience in the real estate industry and has worked in various functions including acquisitions, asset management and portfolio management. Goh first joined LaSalle in April 2005. During his time at LaSalle, he completed USD1.5 billion of investments for the opportunistic fund series and core fund, which includes direct investments and joint ventures in office, hotel, residential and logistics standing assets and developments in Singapore, Thailand and Australia. Prior to re-joining LaSalle in 2014, he was Head of Investments, Southeast Asia at Mapletree Investments. Goh holds a Bachelor of Business degree (Finance), First Class Honours from Nanyang Technological University in Singapore and is a CFA Charterholder since 2006.

Asset Management Team

**Naoki Hayama – Asset Management, Japan**
Hayama joined LaSalle in 2014 and is responsible for day to day management of office, retail and hotel assets in Japan. He has over 17 years of experience in the Japanese real estate industry including acquisitions, finance and asset management. Before joining LaSalle, he spent 5 years in Asia Pacific Land Japan focusing primarily on acquisitions and re-financing. Hayama received a Bachelor of Economics from Hosei University and Master of Science in Urban Planning from University of Wales, Cardiff.

**Miki Arai – Asset Management, Japan**
Arai is a Managing Director in the Asset Management team in Japan. She joined LaSalle in 2006 and has been responsible as lead retail asset manager for over USD4 billion of retail assets during her tenure, including more than 1,900 leases. Arai has over 20 years in the asset management field with a particular expertise in the operational retail asset sector. Prior to LaSalle, she worked at Asia Pacific Land. Arai holds a Bachelor degree in International Communications from the University of Kyoritsu Women's University in Tokyo, Japan and a Bachelor degree in Fashion Merchandising Management from Fashion Institute of Technology (New York State University) in the US.

**Simon Howard – Head of Asset Management, Australia**

Howard is Head of Asset Management in Australia. In this role, Simon develops and implements asset management strategies to maximize real estate returns for funds and other institutional clients. He has experience across a broad range of real estate sectors including retail, office, industrial, hotel, residential and retirement. Howard joined LaSalle in 2011 and has over 25 years of experience in the Australian real estate industry and has experience across a broad range of asset classes including office, retail, industrial, hotels, retirement villages and residential. Prior to joining LaSalle, Howard was employed by Lendlease for almost 15 years gaining experience in asset and portfolio management, fund analysis and finance. His most recent role with Lendlease was as Investment Manager for the Lendlease Core Plus Fund. Howard is a Certified Practicing Accountant in Australia and holds a Graduate Diploma in Applied Finance and Investment and Bachelor of Business (Accounting and International Business) from University of Technology, Sydney.

Development Team

**Tom Miller – Head of Development and Sustainability, Asia Pacific**

Miller is Head of Development and Sustainability across Asia Pacific and is responsible for overseeing development management projects throughout the region. He is also a member of the LaSalle Group's Global Sustainability Committee and the Regional Sustainability Officer for LaSalle Asia Pacific. Miller has over 32 years of experience in real estate development projects throughout Asia, Europe and the US. He has held senior executive positions in the real estate development/construction industry worldwide, including over 16 years of regional experience in Asia. His experience in these markets includes commercial, residential, retail, hospitality, industrial, institutional, and infrastructure projects. Internationally, Miller has been responsible for overseeing the execution of development projects in many countries, but most significantly in China, Japan, South Korea, Australia, Hong Kong, Malaysia, the Philippines, Indonesia, the UK, Spain and Portugal. Miller holds a Bachelor of Science in Civil Engineering from the University of Notre Dame, a Master's Degree in Engineering Administration from George Washington University, an Executive MBA from the IE Business School (Instituto de Empresa) in Madrid, Spain, and a Master of Science degree in Real Estate from Hong Kong University.

**Matthew Bailey – Development, Australia**

Bailey is a responsible for development management projects across Australia. Bailey has over 20 years' experience in the Australian real estate industry. He has worked in the design, construction, development and asset management of properties across multiple asset classes including office, residential, retail and hotel. Prior to joining the LaSalle Group Bailey worked for two of Australia's largest construction firms, Multiplex and Grocon, and then spent five years working in the Real Estate Capital Division of Macquarie Bank, managing its portfolio of REITS as a Senior Development Manager. Following this Bailey was Head of Development at a boutique fund manager specialising in residential and hotel development. Bailey holds a Bachelor of Engineering (Structure / Civil) and a Bachelor of Commerce (Accounting / Industrial Relations) from the University of Sydney.

**Jason Zhang – Senior Vice President, Greater China**

Zhang is a Senior Vice President of Development for Great China. He joined LaSalle in 2018 and has 12 years of overseas and local experience in development. He specializes in managing full development projects covering site selection due diligence, design, permit application, construction and operations startup. Prior to joining LaSalle, Zhang was a Project Director at ARCADIS China and delivered various types of industrial and commercial projects. He also worked at Honeywell APAC Real Estate, and at a design firm SOM in San Francisco. Zhang holds a Master of Structural and Materials Engineering from Stanford University and a Bachelor's Degree in Civil & Environmental Engineering from UC Berkeley.

**Hidenori Uchida – Development, Japan**

Uchida joined LaSalle in 2012 and is responsible for overseeing development management projects and is also responsible for overseeing the physical and environmental due diligence process for all deals in Japan. Uchida has more than 20 years' experience in managing real estate development projects in Japan. His experience includes overseeing the development management, project management and asset management of various projects across multiple sectors including commercial, retail, residential, mixed use, industrial, hospitality. Prior to joining LaSalle, he worked at Invesco Real Estate, AIG Global Real Estate and Hazama. Uchida holds a BE in Architecture & Engineering from National Muroran Institute of Technology. He is a Certified First-Class Architect and has a Real Estate Brokerage license in Japan.

**Se Hwan Oh – Development, South Korea**

Oh joined LaSalle in 2016 as the lead development manager for South Korea. He is responsible for overseeing the day-to-day management of ground-up developments across multiple asset classes, distressed and/or problematic assets that are in need of significant renovations. With 19 years of experience in the South Korea real estate industry, he has significant experience in tackling on the ground issues working closely with staff and outside third-party advisors. Oh holds a Bachelor of Architectural Engineering from Korea University. He is a CFA Charterholder, a Certified Investment Manager, Korea Financial Investment Association and a Certified Architectural Engineer, and a member of the Human Resource Development Service of Korea.

Finance and Accounting Team

**Angelia Lim – Chief Financial Officer, Asia Pacific**
Lim is Chief Financial Officer of LaSalle Asia Pacific. She is responsible for financing strategy and initiatives and oversees the regional finance function on behalf of LaSalle's clients. She has worked with major international institutional clients in the Asia Pacific real estate fund management industry since 1998 and the Asian capital markets (mainly focusing on corporate securitization) since 1996. She previously acquired diverse financial markets skills predominantly in the key financial markets of London and Hong Kong, having serviced a range of financial markets intermediaries to real estate developers and companies since 1989. She has successfully originated up to USD12 billion of debt and structured credit products in Asia and forged strong relations with global financial intermediaries. She is proactively involved in investment formulation, due diligence, risk, treasury and liquidity management for both direct and indirect investments and dispositions. Lim is a Charted Accountant, Singapore and has a Bachelor in Accountancy and Finance (Honors) from the National University of Singapore.

**Yen Tang Chae – Managing Director, Treasury and Loan Originations**
Chae is a Managing Director of LaSalle. He leads the treasury function in LaSalle Asia Pacific including loan originations in China. He joined LaSalle in 2004 and since then has been Fund Controller for various co-mingled funds and separate accounts mandates. He has over 22 years of experience in financial reporting and has acquired diverse financial market skills over the years, having worked as an auditor and as a product controller with an oil company and a bank. He has successfully originated USD3 billion of loans for China investments and fund level facilities with a diverse group of financial institutions. Chae is a Chartered Accountant with the Institute of Singapore Chartered Accountants and has a Bachelor of Accountancy (Honors), minoring in Banking and Finance from the Nanyang Technological University.

**Alicia Leow – Fund Controller**
Leow is a Managing Director and the Fund controller for the Fund. She joined LaSalle in 2006 and is responsible for the financial reporting and liquidity management of the co-mingled and separate account mandates under her charge. She has acquired a range of financial skills over the years, having worked as an auditor with Ernst & Young and an accountant with a listed hotel and property conglomerate. Leow has a Bachelor of Accountancy from the Nanyang Technological University.

## EXHIBIT C: Track Record

LaSalle Track Record in Asia Pacific

| Vehicle | Strategy | Vintage Year[3] | Size (USD m) | Number of Investments[3] | Projected/ Realized Net IRR[3] | FMV Net IRR[3,4] | FMV Net EM[3,4] |
|---|---|---|---|---|---|---|---|
| LaSalle Asia Recovery Fund | Opportunistic | 2001 | 242 | 12 | 27% | 27% | 1.8x |
| LaSalle Asia Opportunity Fund II | Opportunistic | 2005 | 1,000 | 29 | 2% | 2% | 1.1x |
| LaSalle Asia Opportunity Fund III | Opportunistic | 2007 | 1,932 | 29 | 0% | 1% | 1.0x |
| LaSalle Asia Opportunity Fund IV | Opportunistic | 2013 | 485 | 26 | 28% | 30% | 1.5x |
| LaSalle Asia Opportunity Fund V | Opportunistic | 2016 | 974 | 25 | 17% | 13% | 1.2x |
| LaSalle China Logistics Venture | Opportunistic | 2020 | 484 | 8 | 17% | n/a | n/a |
| LaSalle Japan Logistics Fund I | Opportunistic | 2004 | 392 | 25 | 11% | 11% | 1.4x |
| LaSalle Japan Logistics Fund II | Opportunistic | 2007 | 407 | 15 | 13% | 13% | 1.5x |
| LaSalle Japan Logistics Fund III | Opportunistic | 2013 | 361 | 14 | 44% | 44% | 1.9x |
| LaSalle Logiport REIT[1] | Core | 2015 | 3,414 | 19 | n/a | n/a | n/a |
| LaSalle Japan Property Fund[1] | Open-end | 2019 | 1,053 | 6 | n/a | n/a | n/a |
| Global Separate Account A[1] | Core / Non-Core | n/a | 1,266 | n/a | n/a | n/a | n/a |
| Global Separate Account B[1] | Non-Core | n/a | 558 | n/a | n/a | n/a | n/a |
| Separate Account Series[1] | Core | n/a | 414 | n/a | n/a | n/a | n/a |
| Other Core Separate Accounts[1,2] | Core | n/a | 2,855 | 8 | n/a | n/a | n/a |
| Other Non-Core Separate Accounts[1,2] | Non-Core | n/a | 878 | 10 | n/a | n/a | n/a |
| Co-investments, Sidecars, Joint Ventures[1,2] | Non-Core | n/a | 916 | 14 | n/a | n/a | n/a |

1. Size for these vehicles is GAV. Others are total commitment.
2. Number of investments for the three vehicles are total number of accounts.
3. Not available due to confidentiality.
4. USD returns after expenses, management fees and performance fees. Japan vehicles are local currency returns.

LAO Series Last 10 Year Asset Level Track Record (Per Vintage Year)

| Year | No. of Assets | Total Cost[1] | Invested Equity[2] | Gross IRR[3] | Gross EM[3] |
|---|---|---|---|---|---|
| 2011 | 10 | 1,635 | 419 | 12% | 1.5x |
| 2012 | 4 | 89 | 30 | 60% | 3.1x |
| 2013 | 1 | 14 | 4 | 118% | 2.1x |
| 2014 | 14 | 599 | 177 | 31% | 1.6x |
| 2015 | 13 | 410 | 139 | 49% | 1.7x |
| 2016 | 11 | 801 | 266 | 26% | 1.7x |
| 2017 | 2 | 39 | 17 | 39% | 2.1x |
| 2018 | 9 | 929 | 408 | 25% | 1.6x |
| 2019 | 12 | 700 | 277 | 17% | 1.5x |
| 2020 | 2 | 215 | 83 | 36% | 1.4x |
| **Total - Last 10 Years** | **78** | **5,431** | **1,820** | **25%** | **1.6x** |
| **Total - LAO Series (since 2001)** | **174** | **12,229** | **4,576** | **15%** | **1.4x** |

1. Total acquisition cost of equity and financing at the point of acquisition.
2. Aggregated total of fund equity and co-investment partner equity.
3. Projected USD returns.

LAO Series Last 10 Year Asset Level Track Record (Per Sector and Country)

| | Logistics | Office | Residential | Retail | Hotel | Total |
|---|---|---|---|---|---|---|
| No. of Assets Acquired/Disposed | 18 / 8 | 34 / 25 | 15 / 14 | 5 / 3 | 6 / 3 | **78 / 53** |
| Invested Equity[1] (USD m) | 338 | 785 | 355 | 147 | 195 | **1,820** |
| Disposition Value (USD m) | 407 | 1,361 | 1,995 | 354 | 236 | **4,353** |
| Gross Returns[2] | 24% / 1.7x | 33% / 1.7x | 17% / 1.5x | 17% / 1.6x | 15% / 1.6x | **25% / 1.6x** |
| | **Australia** | **China** | **Japan** | **South Korea** | **Singapore** | **Total** |
| No. of Assets Acquired/Disposed | 18 / 17 | 20 / 9 | 37 / 25 | 2 / 2 | 1 / 0 | **78 / 53** |
| Invested Equity[1] (USD m) | 507 | 640 | 580 | 33 | 60 | **1,820** |
| Disposition Value (USD m) | 2,403 | 509 | 1,304 | 137 | - | **4,353** |
| Gross Returns[2] | 16% / 1.6x | 16% / 1.5x | 41% / 1.7x | 68% / 1.9x | 11% / 1.6x | **25% / 1.6x** |

1. Aggregated total of fund equity and co-investment partner equity
2. Projected USD returns

## EXHIBIT D: Advanced Pipeline Deals

1) Project Platinum – Japan Multi-family

### Project Platinum, Japan

IMPROVE NET OPERATING INCOME TO DRIVE RETURNS

- A multi-family asset located in central Tokyo
- The asset is not efficiently managed with in-place rent below market.
- The strategy is to improve net operating income through active leasing to increase the rent and lease up vacant spaces. The asset is currently at 91% occupancy and is expected to stabilised at 96% occupancy.
- Refurbishment works will be undertaken to support the increase in rent, which include improvements to tenant areas as well as common areas, addition of amenities such as business center and gym.
- Expecting to secure exclusivity and enter into SPA in July 2021.

**Property Summary**

Tokyo, Japan

| **Status** | Pipeline |
|---|---|
| Property Type | Residential |
| Size (NLA) | 5,772 sqm |
| Target Acquisition Date | Sep 2021 |
| Entry Yield | 2.7% |
| Stabilised Yield | 3.6% |
| Equity | $21 million |
| Underwritten Gross Returns[3] | 19% IRR, 1.6x EM |

[1] Asset returns are leveraged returns in local currency, after fees and fund-level expenses and after local taxes. The target returns are based on preliminary assumptions made and are subject to change, pending further due diligence.

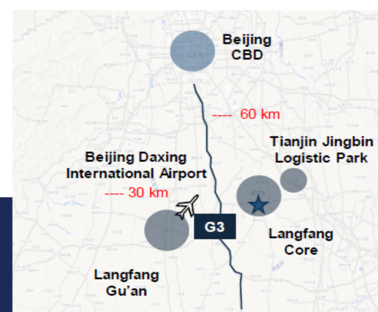
Information provided above is as of Apr 2021.

2) Project Langfang – China Logistics Development

### Project Logiport Langfang

MODERN WAREHOUSE DEVELOPMENT OPPORTUNITY

- An opportunity to enter into a 80%:20% joint-venture with ABM, to develop 5 double-storey warehouses with 128,037 sqm leasable area in Langfang.
- With good accessibility, the project is located in core area of Langfang, approximately 60km from Beijing CBD and 30km from Beijing Daxing International Airport.
- Given the very limited supply in Beijing alongside Langfang's favourable rental discount, Langfang has benefited largely from the positive spillover effects from Beijing. The proximity to Tianjin and the rest of Hebei Province also enables Langfang to serve the demand of the regional distributors serving the whole Jing-Jin-Ji area (Beijing, Tianjin and Hebei area). The vacancy rate for Langfang is 0.6% in Q1 2021.




**Property Summary**

Langfang, Greater Beijing

| **Status** | Pipeline |
|---|---|
| Property Type | Logistics |
| Size (NLA) | 128,037 sqm |
| Target Acquisition Date | Q4 2021 |
| Development Margin | 37% |
| Equity | 46 million |
| Underwritten Gross Returns[1] | 18% IRR, 1.7 x EM |

[1] Asset returns are leveraged returns in local currency, after fees and fund-level expenses and after local taxes. The target returns are based on preliminary assumptions made and are subject to change, pending further due diligence.

Information provided above is as of June 2021.

3) Project Solitaire – Singapore Office Redevelopment

# Project Solitaire, Singapore

FREEHOLD CBD GRADE A OFFICE DEVELOPMENT OPPORTUNITY

- Acquire a freehold ("FH") prime CBD site at attractive discounts
- Redevelop into a grade A office building with a reputable partner on 70/30% basis. Site has untapped GFA of 48%.
- High scarcity value as FH institutional grade A strata office is limited. Most FH buildings are aged stock facing obsolescence risk while most grade A office buildings sit on leasehold land.
- Strategy is to sell on strata basis pre-completion in market with limited institutional grade strata FH office. This thesis is supported by high liquidity, growth of family offices in Singapore, increasing participation from global institutions and recovery of office sector.
- Developing a new office building eliminates building obsolescence risk, which is increasingly of concern in a post COVID-world where occupiers are likely to demand ESG elements and modern specifications to cater to a hybrid remote/ office working model.
- Projected recovery of CBD office rents which has shown signs of bottoming out. Sector has enjoyed high occupancy for over two decades with historical 20Y/10Y/5Y average of 93% and 3Y average of 94%.

## Property Summary

Singapore

| **Status** | Pipeline |
|---|---|
| Property Type | Office |
| Size (NLA) | 17,656 sqm |
| Target Acquisition Date | Q4 2021 |
| Development Margin | 28% |
| Equity | $73 million |
| Underwritten Gross Returns[1] | 17% IRR, 1.8 x EM |

[1] Asset returns are leveraged returns in local currency, after fees and fund-level expenses and after local taxes. The target returns are based on preliminary assumptions made and are subject to change, pending further due diligence.

Information provided above is as of Apr 2021.

## EXHIBIT E: TERM COMPARISON LAO VI & LAO V

| | LAO VI | LAO V |
|---|---|---|
| **Fund Structure** | Singapore LP and Luxembourg SCSp | English LP |
| **Fund Size** | Target USD1.5 billion | Target USD750m / Raised USD974m |
| **Sponsor Co-investment** | USD30m from employees | USD20m from Sponsor, USD10m from employees |
| **Investment Period** | 3 years from Final Close | 4 years from First Close |
| **Executive Officers** | Marc Montanus, Nick Okumura, Claire Tang, Yen Tjin Chan | Mark Gabbay, Marc Montanus |
| **Leverage Limit** | 70% during investment period | 65% during investment period |
| **Development Limit** | 30% | 25% |
| **Management Fees** | During Investment Period: On commitment<br>Post Investment Period: On invested equity<br><br>Founding Investor Fee Rate: 1.05% p.a.<br><br>First Close Investor Fee Rate:<br>Fee holiday until Mar 31, 2022<br>- 1.50% for commitment less than USD75m<br>- 1.40% for commitment equal or greater than USD75m but less than USD150m<br>- 1.25% for commitment equal or greater than USD150m<br><br>Post-First Close Fee Rate<br>- 1.50% for commitment less than USD75m<br>- 1.40% for commitment equal or greater than USD75m but less than USD150m<br>- 1.25% for commitment equal or greater than USD150m | During Investment Period: Unfunded commitment + invested equity<br><br>First close<br>- 0.75% on unfunded commitment for investor commitment less than USD75m<br>- 0.50% on unfunded commitment for investor commitment equal or greater than USD75m<br><br>Post-First close:<br>- 1.50% on unfunded commitment for investor commitment less than USD75m<br>- 0.75% on unfunded commitment for investor commitment equal or greater than USD75m<br><br>Post Investment Period: 1.50% on invested equity |
| **Other Fees** | Logistics development and logistics leasing | n/a |
| **Luxembourg Entity Fees** | Minimum USD100-180k | n/a |
| **Organization Expenses** | Cap at USD2.5m | Cap at USD1.5m |
| **Performance Fee** | - 20% over 10% hurdle rate, 50%/50% catch-up for Founding Investor<br>- 20% over 9% hurdle rate, 50%/50% catch-up for Non-Founding Investor | 20% over 10% hurdle rate, 50%/50% catch-up |
| **Advisory Board** | Minimum commitment of USD100m | Minimum commitment of USD75m |
| **Allocation between other LaSalle vehicles** | - Japan logistics: First JLF IV and second Asian SMA<br>- China logistics: 40% LAO VI, 60% LCLV<br>- Korea logistics: 60% LAO VI, 40% co-investment | - Japan logistics: First right to JLF IV<br>- China logistics: 51% LAO V, 49% co-investment<br>- Korea logistics: n/a |

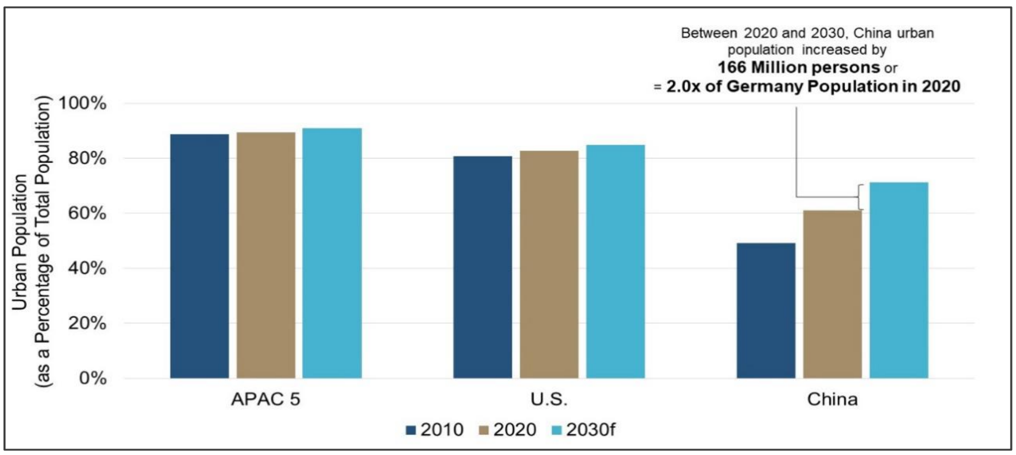
## EXHIBIT F: Market Overview

**Asia Pacific Overview**

Asia Pacific is the largest economic region and most populous region in the world. With 4.2 billion people, the region contains 54% of the world's population[3] and accounts for about 42% of world's nominal GDP USD81 trillion and 42% of the world's trade in goods of USD18 trillion[4]. Asia Pacific's growth is supported by fundamentals such as i) urbanization, ii) high national savings rates, iii) the rise of the middle-class and the accompanying consumption growth, and iv) rapid growth of e-commerce. All these trends are expected to benefit real estate investment performance.

Over the past ten years, the proportion of Asia Pacific's population that lives in cities has risen from 42% (2010) to 48% (2020), which represents an additional 417 million people residing in urban areas[5]. Over the next ten years, the proportion of the urban population is expected to rise to about 54%[6], primarily driven by urbanization in China. This is equivalent to 385 million people, or 1.2 times of the US population in 2020, moving to urban areas[7]. At the same time, the urban population in China is expected to increase by 166 million people or equivalent to twice the population of Germany in 2020. In the highly urbanized five Asia Pacific countries, urbanization rates are projected to remain high and above that of the US.

Urbanization in Asia Pacific and US

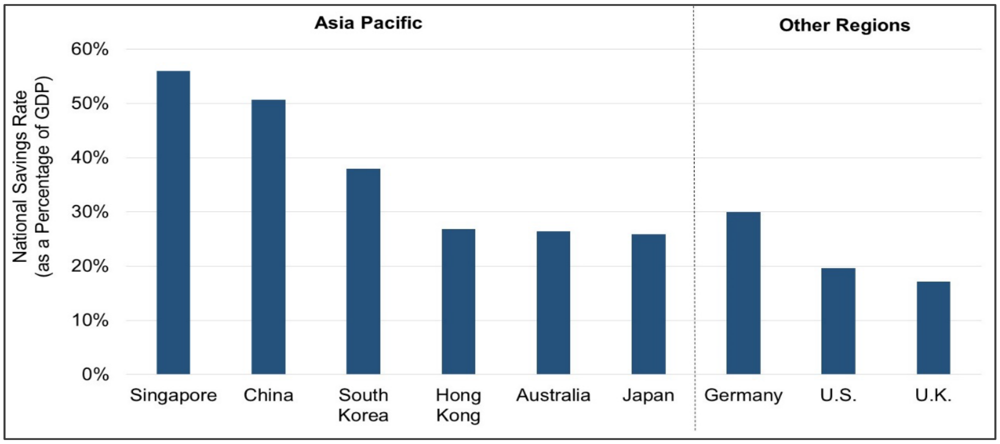



Note: APAC 5 are Australia, Hong Kong, Japan, Singapore, and South Korea. Source: LaSalle

The national savings as a percentage of GDP in Asia Pacific countries is generally higher than those of the US and UK. High national savings mean that there is more capital available for investments (from companies' balance sheets or bank lending to companies), all which boost productivity in the domestic economy over the medium to long term. Therefore, countries with higher national savings tend to exhibit stronger growth prospects. Furthermore, high national savings act as a shock absorber in the macro-economic environment, making the economy less vulnerable to external shocks. During the GFC and pandemic, households, companies, and governments in Asia Pacific drew upon their savings to support domestic demand, which in turn dampened the adverse impacts (e.g. unemployment) on their economies.

[3] Oxford Economics, as of Dec 2020
[4] UN ESCAP, as of Dec 2020 and Statista, as of May 2021
[5] Oxford Economics, as of Mar 2021
[6] Oxford Economics, as of Mar 2021
[7] Oxford Economics, as of Mar 2021

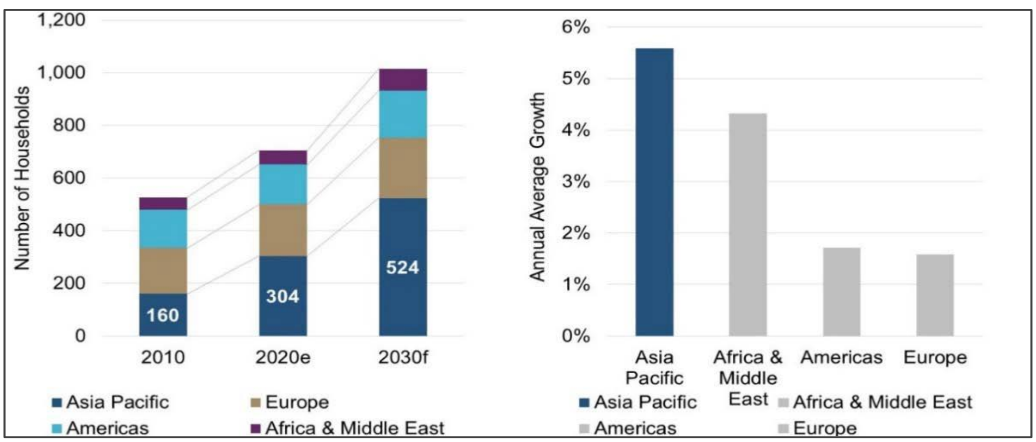
National Savings (% of GDP)




Source: Oxford Economics, as of Mar 2021

Consumption is expected to grow with the number of middle-class households in Asia Pacific projected to grow from 304 million in 2020 to 524 million in 2030, equivalent to 5.6% growth p.a. which is substantially higher than the projected growth of 1.7% p.a. in the Americas and 1.6% p.a. in Europe. As middle-class incomes increase and social safety nets improve, consumption is expected to become one of the main drivers of economic growth and real estate demand in the region. For example, China's transition towards a consumption-led economy is progressing quickly. Household consumption in China is expected to grow at a pace (7.1% p.a.) well above the expected GDP growth (4.8% p.a.) over the next decade[8].

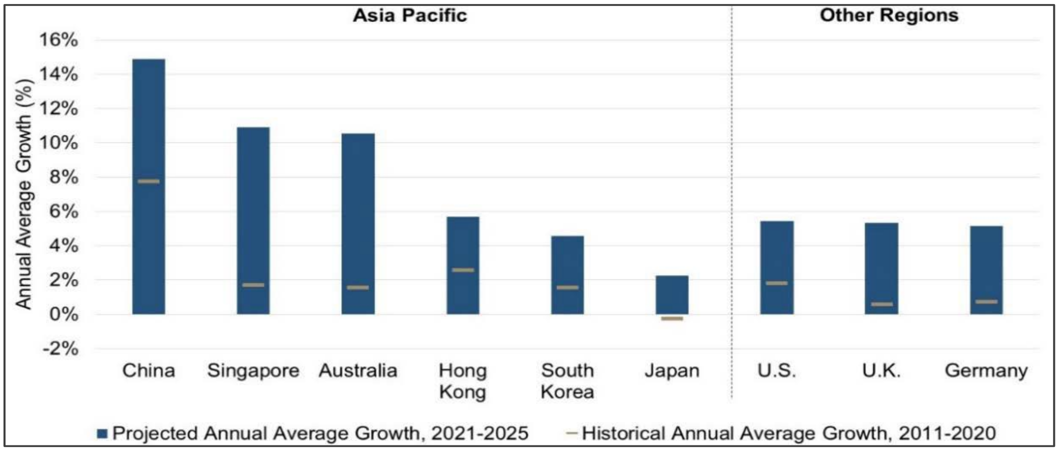
Middle Class Households Growth




Note: Middle class income range is from USD35k-USD150k based on Pew Research Center's definition. Source: Oxford Economics, as of Mar 2021.

[8] Oxford Economics, as of Dec 2020

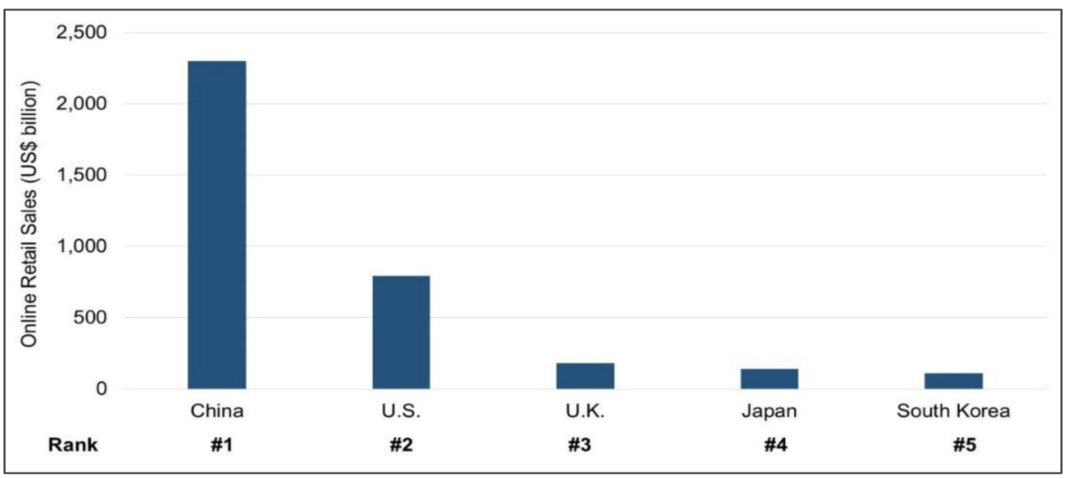
Annual Average Growth of Private Consumption




Note: Private consumption refers to the goods and services consumed by households and non-profit institutions serving households. Source: Oxford Economics, as of Mar 2021.

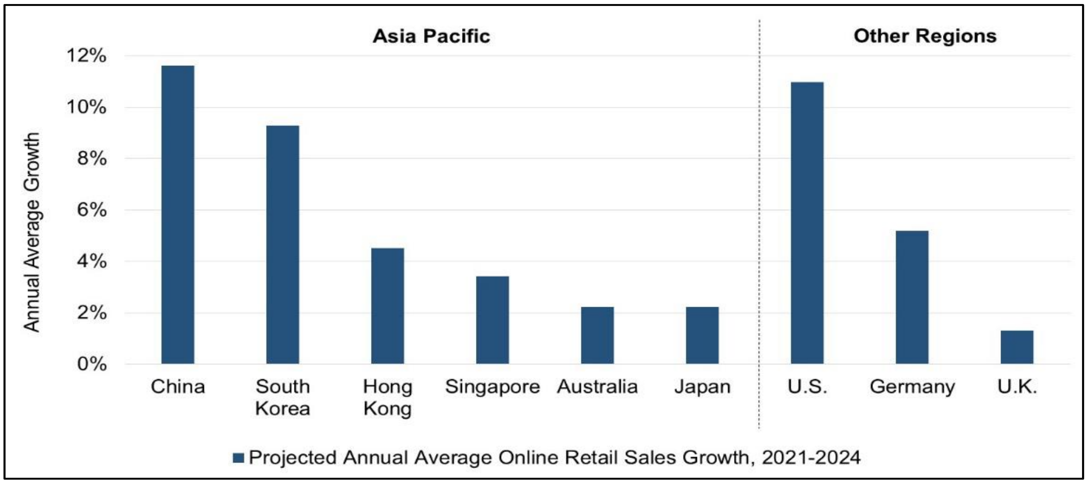
Since 2012, Asia Pacific has become the largest regional e-commerce market in the world. The region accounts for three out of the top five online retail sales markets globally or about 60% of the global online retail sales according to e-Marketer. The pandemic has accelerated the e-commerce trend across the globe. China, the largest e-commerce market globally, is expected to continue to be the main driver of e-commerce growth in the region. The online sales growth in South Korea is also projected to be robust going forward. All these trends bode well for modern logistics demand in the region, among third-party logistics and e-commerce operators. The rapid growth of e-commerce and an undersupplied logistics stock compared to developed economies is expected to favor the Fund's modern industrial development strategies, particularly in China and South Korea.

Top 5 Online Retail Sales Countries




Source: e-Marketer, as of Oct 2020

Online Retail Sales Growth Projection




Source: e-Marketer, as of Oct 2020

**Asia Pacific Capital Markets Overview**

Despite the pandemic, there is abundant capital targeting real estate in Asia Pacific. The interest rate environment is expected to remain accommodative in most Asia Pacific countries in the near term, while real estate capital market liquidity is expected to remain abundant in the near term.

Among major Asia Pacific countries, the bank delinquency rates are either near their historical lows or remain substantially lower than the peak levels seen during the GFC. In Japan, the bank delinquency rate is at a 20-year low, leading to healthy real estate capital market liquidity. Although delinquency rates have increased slightly in Australia and China, they are still substantially lower than those during the early 2000s or the GFC. In China, the PBOC is unlikely to further loosen monetary policies in the near term. The Chinese government took serious measures to cut leverage among real estate developers in 2020. The borrowing costs for some developers are relatively high in China as compared to other countries. This phenomenon could create capital stack opportunities for equity investors who have a higher risk appetite. However, broad-based distress is unlikely in China, as the Chinese property market remains resilient and continues to attract various sources of capital. In Australia, monetary policies are expected to remain accommodative for an extended period. The accommodative loan repayment moratoriums and other emergency pandemic measures that have helped forestall bankruptcies in 2020 are expected to end as businesses reopen. The withdrawal of these measures could increase financial distress, which could result in pockets of opportunities. However, widespread distress in the real estate market in Australia is not expected, as the real estate sector is well-supported by domestic superannuation capital and cross-border capital due to the country's highly transparent real estate market.

Furthermore, most companies are expected to evaluate their hiring plans over the near term, since those that are benefitting from government stimulus measures might not survive once these measures end. In a normal economic environment, it typically takes about six months for macroeconomic trends to filter through to real estate fundamentals. The pandemic has accelerated structural trends in both positive and negative ways. There is a possibility that rental revenues and occupancies (or rental income) could deteriorate in the near term, which could present pockets of opportunities from financially challenged developers or property owners.

**Asia Pacific Real Estate Market Overview**

Office Market

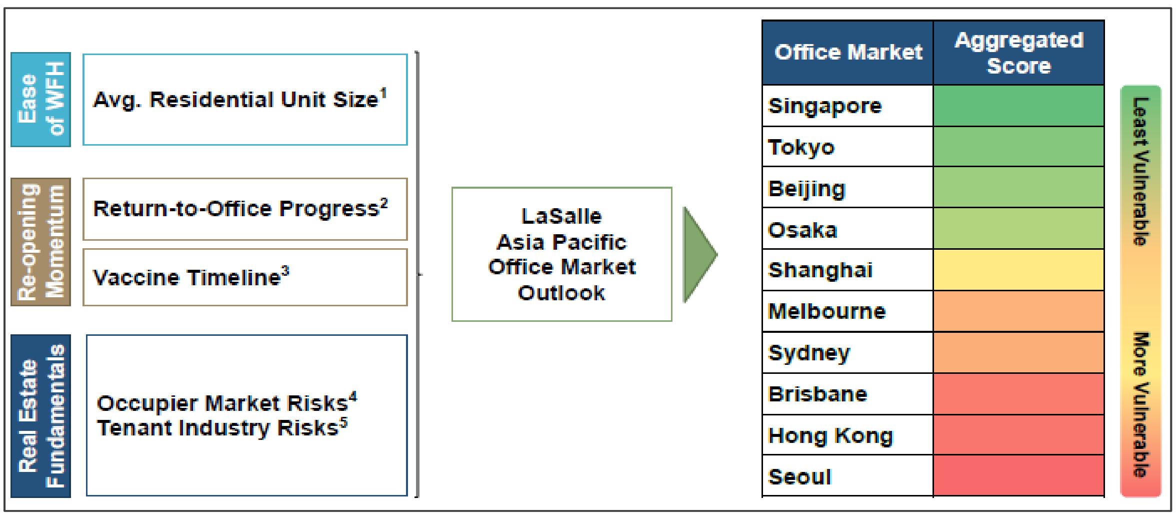
Despite the uncertainty across the office sector, LaSalle believes the sector to remain resilient post the pandemic based on the below factors.

- Residential unit size: The relatively small residential unit size in several highly urbanized Asian cities (e.g., Hong Kong, Seoul, Singapore, Tokyo) makes Working from Home ("WFH") challenging as a permanent alternative option.

- Cultural elements: Face-to-face meetings are viewed as essential business rituals in countries such as China, Japan and South Korea. There are high business values for meeting in person in a formal office setting.
- Human behavioral influences on tenant occupancy: The sooner employees can and are willing to return to work in their corporate offices (or offices with a kind of "new normal"), the lower the permanent impact of remote working on the future of offices. Many office markets in the region have achieved high return-to-office ratios of leased space, which signals that the willingness to return to offices is much higher than anticipated. In China, the return-to-office ratio is almost 100%.

Despite the success of WFH, it will be a one work option, not a permanent replacement for corporate office space in the Asia Pacific markets. Among the markets, Singapore, Tokyo, Osaka and Beijing office markets are expected to outperform the rest of the region in the near term. Singapore markets are attractive as financial firms and Chinese tech firms are pivoting to Singapore from Hong Kong to set up regional hubs. Tokyo and Osaka office markets are well positioned in the region, partly since office vacancy rates were circa 1% before the pandemic. Net effective rents in Australia and Hong Kong will remain weak as demand declines due to the worst recession in decades. One of the permanent impacts arising from the pandemic could be having more office space for collaboration, as well as higher quality building specifications for health considerations. LaSalle believes these trends could create opportunities to renovate or reposition office assets in the markets where the outlook is ranked high as shown in below chart.

LaSalle's Asia Pacific Office Market Outlook




Source: 1) The occupier market risk scores are based on a factor model that takes into account the respective market/sector's current vacancy rate by region (comparing to all AP markets/sectors included in this analysis), the respective market/sector's current vacancy rate by historical comparison (comparing to the respective market/sector's historical high and low), projected supply as a percentage of the respective market/sector's historical net absorption, current gross face rent in comparison to the respective market/sector's historical high and low, and disruption in the market/sector (e.g., e-commerce or geopolitical events), LaSalle Investment Management, as of 2019; 2) The projected 3-year annual average projects under construction and historical annual average net absorption data are sourced from JLL REIS (Asia Pacific excluding Japan), as of Q3 2020, Sanko Estate (Japan), as of November 2020. The historical annual average net absorption data are based on the last five years for all markets except for Japan which is based on the last three years. 3) The pandemic impact on tenant industry is based on two factors: 3a) Tenant Risk Exposure evaluates the vulnerability of the tenant's respective industry to COVID-19, based on the following criteria: i) Stock price declines by industry since their price peaks in January 2020; ii) Are they still open or closed due to social distancing measures? iii) Do they rely on foreign tourists, international students or customers? iv) Are they affected by supply chain disruptions? v) How likely/possible is it for these industries to implement WFH or other BCP measures to carry on their businesses? vi) Are they benefiting from any stimulus or additional demand due to the COVID-19 outbreak? 3b) Tenant Industry Profile for each market (except Japan cities) is based on JLL and CBRE's leasing transactions in 2019, for Japan cities, the tenant profile is based on employment data from the Japan Statistics Bureau, as of 2018; 4) The pandemic impact on office vacancy rate is sourced from JLL REIS (Asia Pacific excluding Japan), as of Q3 2020 and Sanko Estate (Japan), as of November 2020; 5) The progress of returning to office is based on the rolling monthly average of the Google Mobility - Workplace sub-index, as of December 2020, and the cumulative COVID-19 cases per 1,000 people data sourced from various government website, as of January 7, 2021; Mobility score for China is based on LaSalle's estimate. 6) The vaccine timeline is based on various government announcement except China Tier 1 cities which is based on LaSalle's estimate; 7) The average residential unit size (in sqm per capita) is a proxy for ease of WFH, from various local sources, as of May 2020.

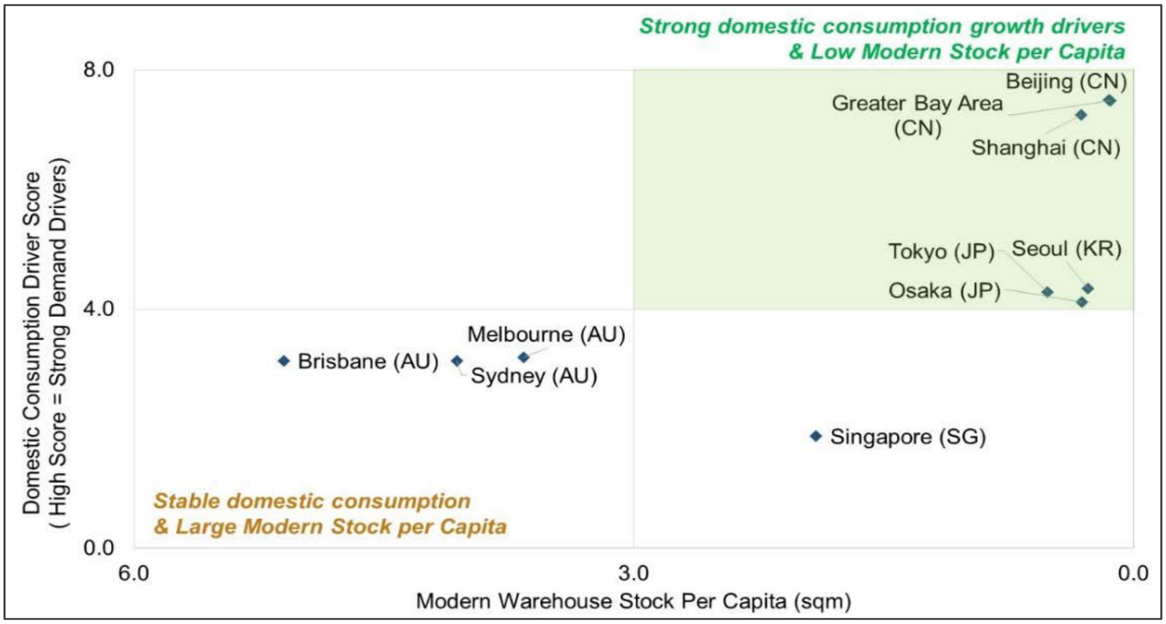
Logistics/Industrial Market

The resiliency of logistics demand during the pandemic suggests that it is primarily supported by domestic consumption, particularly e-commerce demand. China and South Korea where domestic consumption is driving the recovery and their structurally low logistics stock per capita are considered as favorable markets. Logistics demand is partly driven by China and South Korea's high e-commerce penetration rates, along with the attractive development yields.

The increasing adoption of online grocery shopping in the region is expected to raise demand for cold storage facilities. Online penetration rates for grocery shopping are the highest in China and South Korea within the region, but they are still below their respective country's overall e-commerce penetration rate. In 2020, online grocery sales in China and South

Korea grew by 15%[9] and 27%[10] from 2019 respectively. There is potential for further growth, as consumers have started to shift their food shopping from offline to online, seeking convenience. This trend is expected to support temperature-controlled warehouses, particularly in China and South Korea.

Domestic Consumption and Modern Warehouse Stock per Capita




Note: The Domestic Consumption Driver Score includes indicators such as population (2019, except select cities in China), share of domestic demand for domestic production (2016), mobile subscription (2018), domestic consumption growth (2020-2022), e-commerce penetration (2019), and non-discretionary spending as a percentage of total retail sales (2019).
Shanghai includes Shanghai Suzhou, Nantong, Jiaxing, Kunshan, Taicang, and Changshu; Beijing includes Beijing, Tianjin, and Langfang; The Greater Bay Area includes Guangzhou, Shenzhen, Dongguan, Foshan, Zhongshan, and Huizhou, as of Q1 2020.
Source: OECD (share of domestic demand for domestic production), as of 2016; JLL REIS (Modern warehouse stock data except Australia, Japan and South Korea), as of Q1 2020; CBRE (Modern warehouse stock data for South Korea), as of 2019; BIS Oxford Economics (Modern warehouse stock data for Australia), as of May 2020, Ichigo Real Estate (Modern warehouse stock data for Japan), as of January 2020; World Bank (Mobile subscription except China); The National Statistics Bureau of China (Mobile subscription, Population), as of 2018; The World Population website (population data for Greater Seoul), as of 2019; Various national statistics departments (e-commerce penetration rate data); Oxford Economics (population, excluding China and Greater Seoul, domestic consumption growth, non-discretionary spending, import and export of goods), as of May 2020; LaSalle Investment Management.

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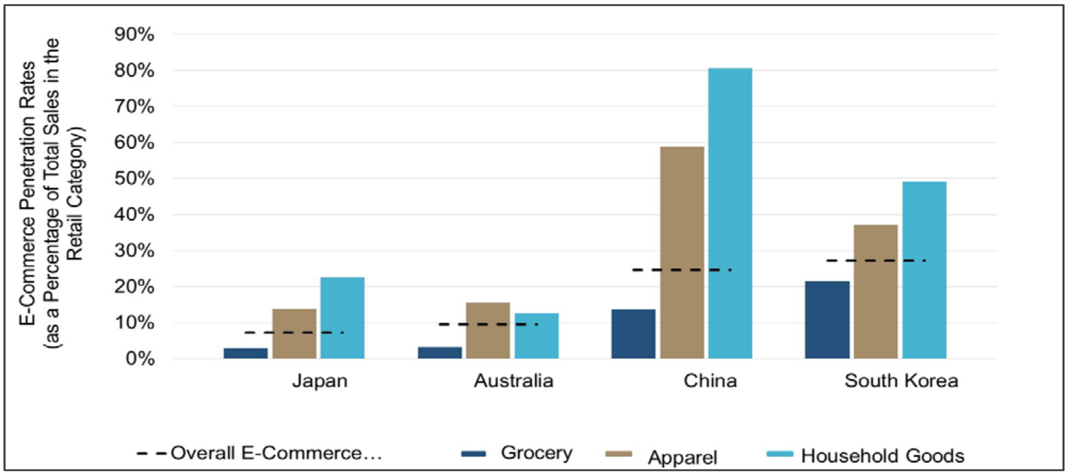
[9] The National Bureau of Statistics of China, as of Dec 2020
[10] The Statistics Korea, as of Dec 2020

E-commerce Penetration Rate




Note: The overall e-commerce penetration rate for Japan is full year 2019 and Australia, China, and South Korea is full year 2020.
The e-commerce penetration rate by category for Japan is full year 2019 and China, Australia, and South Korea is for full year 2020.
Sources: The Ministry of Economy, Trade and Industry of Japan, as of 2019; the Ministry of Commerce of China, the National Bureau of Statistics of China, LaSalle Investment Management, The Statistics Korea, NAB, and The Australia Bureau of Statistics, as of December 2020.

Retail Market

Retail sector is expected to remain weak in most Asia Pacific markets over the near term due to cyclical weaknesses and the structural disruption of e-commerce. While e-commerce sales growth is expected to taper from the peak of the pandemic, the structural disruption to the sector is expected to continue. The downward pressure on traditional retailers' profits is expected to force more retailers to move to or add online platforms. The reduction in liquidity for retail assets globally is another headwind for the sector.

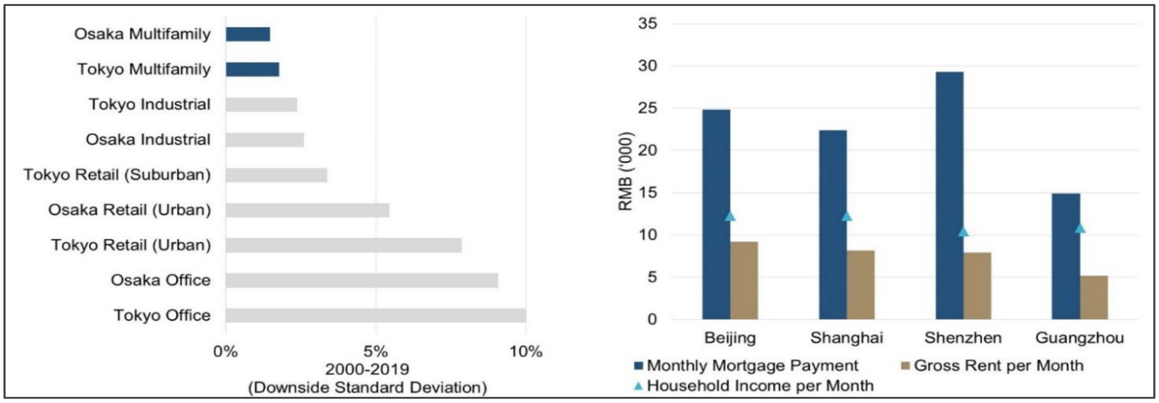
The retail sector in China has been the most advanced in adapting to the e-commerce disruption in Asia Pacific. It is expected to perform relatively better than other retail markets in Asia pacific over the short term, due to China's early containment of COVID-19 and the large domestic consumption base. Additionally, the increasing share of experience-based tenants (e.g., health and beauty, education, foods, and online retailers' offline showrooms) demonstrates the transformation of retail formats in China. Relatively low vacancies and low levels of projected supply, especially for infill shopping malls, support the retail sector's performance in China. Japan is another area of resiliency within the region. The e-commerce penetration rate in Japan is still lower than its global peers (especially in the online grocery category), which offers relative resiliency for brick and mortar retail demand. Most importantly, curating the tenant mix could reduce the negative impact of online retailing on incomes of brick and mortar retail. Grocery, food and beverage, entertainment and pharmaceutical tenants are less vulnerable to the disruption from e-commerce.

Residential Market

Japan is the only country in the region with an institutional multifamily rental sector in the region. WFH is likely to become one of the work options going forward, however, the average housing units in large cities in Japan typically do not provide enough space for a comfortable work environment. There is opportunity to offer working space to tenants in professionally managed rental apartments. The largest metropolitan areas with job opportunities in the submarkets of Tokyo, Osaka, and Nagoya, will be target markets of this strategy.

The build-to-core strategies or conversion to multifamily in Australia and China the growing pool of renters in China due to unaffordable ownership housing is expected to support demand for multifamily properties. Well-managed multifamily rental units experience accelerated demand in the post-pandemic era. Investor demand for multifamily assets in Asia Pacific is increasing, which should provide exit liquidity.

Japan and China Multifamily Market




Source: Japan from JLL REIS and CBRE as of 2Q20. China from CEIC and creprice cn, as of 2019

Hotel Market

The hotel industry remains the hardest hit sector in the region due to pandemic-related travel restrictions. Each country has a different vaccination rollout schedule, and it could take some time for herd immunity to be achieved. In the meantime, domestic travel and travel bubbles (among countries with well-managed COVID-19 conditions and advanced vaccine rollouts) are expected to recover faster than broad-based global travel. The International Air Transport Association projects that global travel is unlikely to return to the pre-pandemic level until 2023-2024, so in the interim, there could be distressed opportunities. Most businesses should be well-adapted to conduct their activities virtually before then, which could lead to less business travel going forward. This may be an impact from the pandemic that remains. Leisure travel is expected to drive the recovery of hotel demand in the near term. This trend is expected to benefit hotels targeting domestic leisure travelers as the re-opening in several Asia Pacific countries progresses. It is expected that there could be tactical but highly selective opportunities in the hotel sector.

Japan Market

The Japanese real estate market remains resilient, despite the impact of the pandemic. While the State of Emergency declared in Jan 2021 has constrained economic activities, the impact on the economy is projected to be milder than that of the 2020 State of Emergency, according to Oxford Economics. Economic activities are expected to recover once restrictions are eased and the vaccine implementation is rolled out to a large majority of the population.

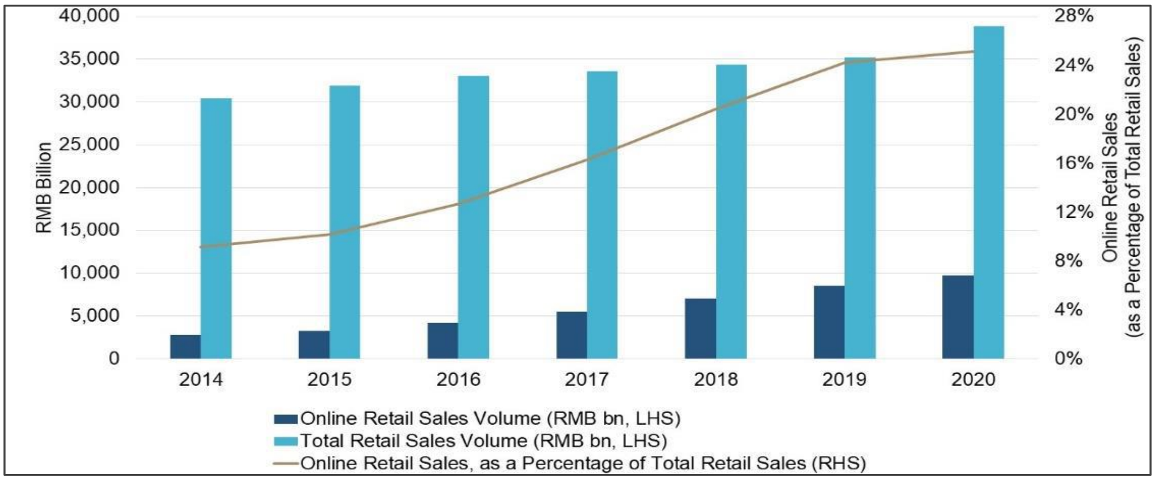
The areas of greatest near-term weaknesses are those most exposed to changing modes of consumption, as lower levels of mobility have dampened spending on travel, accommodation, dining, and recreational activities. The logistics and multifamily sectors are projected to continue to outperform retail and hotel sectors. While in-migration, a key driver of multifamily occupier demand, is expected to slow in the near term due to the pandemic, demand for multifamily properties in Tokyo, Osaka, and Nagoya are expected to remain stable as they are the largest metropolitan areas in Japan that offer job opportunities. Between 2014 and 2019, 75% of Japan's new jobs were concentrated in these three metros. Job opportunities in these metros are expected to continue to drive demand for multifamily properties.

The Japan office sector is expected to be relatively less vulnerable to the impact of remote working than many office markets in the West (e.g., the US and the UK), since the local business culture and the relatively low average living space make remote working as a permanent option challenging. With the high willingness to return to office among employees, companies are expected to prioritize health and safety at the workplace post pandemic. The trend is likely to benefit office properties with high specifications that meet the health and safety requirements, in addition to strong location attributes. Opportunities will arise in high-quality offices located in submarkets with favorable demand and supply dynamics in Tokyo and Osaka for lease-up strategies or refurbishing office properties to meet new tenant requirements in the post-pandemic era. Retail has been one of the most negatively impacted sectors by the pandemic when combined with the structural disruption from e-commerce pre-pandemic. Core investor demand for income-generating assets remains strong in Japan, which is expected to provide exit liquidity. The lingering uncertainty on economic and real estate market recovery could create one-off opportunities to purchase assets at discounted prices in the near term.

China Market

The V-shaped recovery of the Chinese economy can be largely attributed to the successful containment of COVID-19. In the post-pandemic era, the economy is likely to be driven again by the long-term fundamental drivers, among which domestic consumption and investment in high-tech industries are expected to become prominent. The rapid growth of e-commerce and an under-supplied logistics market compared to developed economies will continue to favor modern industrial development. E-commerce sales now account for a quarter of total retail sales in China and are expected to increase further as more people shop online due to the COVID-19 pandemic. The growth of online retail sales is expected to continue to outpace that of overall retail sales.

China Online Retail Sales




Source: China National Bureau of Statistics, via CEIC, as of Dec 2020

The regional logistics hubs in China with a large local demand base, such as Greater Shanghai, Greater Beijing and the Greater Bay Area, are expected to offer attractive development returns. In Tier II cities, submarkets with balanced demand and supply dynamics are also expected to provide attractive returns, as growing domestic consumption supports local demand.

The growing pool of renters in China due to unaffordable ownership housing is expected to support demand for multifamily properties in the shape of conversion or build-to-core assets. Well-managed multifamily rental units experience accelerated demand in the post-pandemic era. Investor demand for multifamily assets in Asia Pacific is increasing, which should provide exit liquidity. The risks for the sector include capital market liquidity and untested pricing evaluation. However, as an increasing number of domestic and overseas investors are attracted to the sector by its healthy fundamentals, the risks are likely to be alleviated over time.

Office market fundamentals have deteriorated during the pandemic, partly due to the high level of supply. The impact of WFH on the Chinese office market is likely to be short lived, as almost all office tenants have returned to their corporate office space. Demand is expected to recover, along with the economy in the post-pandemic era. However, a high supply pipeline is projected for the next few years.

The retail sector in China is adapting to the e-commerce disruption, with an increasing share of experience-based tenants (such as health and beauty, education, foods, and online retailers' offline showrooms) in retail centers. Relatively low vacancies and manageable projected supply also support the performance of the retail sector in Tier I markets especially in in-fill shopping malls.

Cold storage facilities and data centers are two niche sectors that have limited modern stock, but have been experiencing robust demand (e.g., increasing adoption of online grocery shopping supportive of cold storage demand, technological advancements supportive of data centers).

South Korea Market

South Korea has been relatively successful in managing the pandemic compared to other countries, despite pockets of COVID-19 resurgences. A shortage of logistics stock, including temperature-controlled facilities, should offer opportunities for development strategies in the Greater Seoul area. South Korea's high e-commerce penetration rate in the region has accelerated amidst the pandemic, with the penetration rate at 27% in Oct 2020. While the online grocery penetration rate is still below the overall e-commerce penetration rate, it is the highest in the region. In contrast, the logistics stock per capita in Greater Seoul remains low at 0.3 sqm, which is substantially lower than that of the average 2.9 sqm of the top 10 markets in the US. The growth potential of e-commerce, particularly online grocery sales, and the shortage of logistics stock are expected to support development or lease-up strategies for both logistics and temperature-controlled facilities in South Korea.

Furthermore, domestic institutional investors are expected to increase demand for logistics properties to achieve higher yields. Cap rates for logistics assets are about 100-150 bps higher than prime office assets in Seoul. As the logistics sector gradually becomes institutionalized, the liquidity of the sector is expected to improve.

Singapore Market

In Singapore, the success in containing the COVID-19 pandemic has allowed partial re-opening of the economy in 2020. The government has secured enough vaccines for its adult population, with vaccine deployment scheduled to be completed in the third quarter of 2021. These factors, coupled with the high domestic trust in government, are expected to support the recovery, which is expected to be uneven. The financial services, technology and high-tech manufacturing (e.g., biomedical and precision engineering) industries are expected to fare better, while challenges in the trade-related and tourism-related industries are likely to persist in the near term.

Most real estate sectors in Singapore have been impacted by the pandemic and it is expected to have opportunities from the pricing gap narrows between buyers and sellers, particularly in the office and high-tech industrial/business park sectors.

The office sector is expected to remain weak by historical standards, due to the impact of the pandemic and the projected supply pipeline in 2021-2023. However, Singapore continues to outperform other major office markets in the region by attracting multi-national corporations, foreign technology companies and family offices even during the pandemic. The trend is expected to support occupier demand post-pandemic and offset some negative impacts from WFH. It could be an attractive strategy to re-position, actively lease and stabilize CBD offices to exit to core buyers.

Singapore has embraced Industry 4.0 even before the pandemic. The pace of industrial transformation has accelerated due to the pandemic and the deployment of 5G technology. These trends are expected to support occupier demand for high-quality space, especially in key industrial parks. However, the sector remains a two-tier market with new and high specification space outperforming the other assets.

## APPENDIX – RATINGS

### Rating Rationale

| | |
|---|---|
| *ESG Policy & Practices* | Sponsor is dedicated to ESG with integrated processes to financially mitigate ESG risk. Improvements required in GRESB asset level measurements and data tracking. |
| *Strategy* | Leverage on Sponsor's extensive investment experience and integrated team. Follow the strategy of predecessor funds. |
| *Sponsor* | A reputable Sponsor with global AUM of USD71 billion and USD13 billion in Asia Pacific. Parent company JLL is a NYSE listed company and Fortune 500 company. |
| *Operational Due Diligence* | 'A2' or '✓' rating provided by the Aon ORSA team. Rating definition provided below. |
| *Investment Process* | General investment process with standard governance. |
| *Fund Structure* | General closed-end fund structure. |
| *Performance* | Strong track record over the past 10 years. |
| *Terms & Conditions* | Setting up a new SMA for Japan logistics with higher priority over LAO VI is not in line with market nor favorable to LAO IV investors. |
| *Overall* | Buy |

### Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product, its strengths and weaknesses in general and in the context of Townsend's View of the World and same vintage alternative choices.

**Buy** – Suitable for institutional investors that have a portfolio construction need. Appropriate overall risk profile given the strategy and targeted returns.

**Qualified** – Suitable for institutional capital. In addition to customary risks, contains one or more heightened risks that should be weighed against an investor's preferences, risk tolerances, and portfolio construction needs.

### ESG Rating Explanation

| ESG Rating | Interpretation |
|---|---|
| **Limited** | The fund management team has taken limited steps to address ESG considerations in the portfolio. |
| **Integrated** | The fund management team has taken essential steps to identify, evaluate, and mitigate potential financially material ESG risks within the portfolio. |
| **Advanced** | The fund management Team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate, and potentially mitigate these risks across the entire portfolio. |
| **Not Applicable** | ESG risks and considerations are not applicable to this strategy. |

### Operational Risk Profile Rating Explanation

Operational risk profile rating provided by Aon's dedicated multi-asset class Operational Risk Solutions and Analytics group according to its autonomous review of the Sponsor's policies & procedures, infrastructure and capabilities across a range of operations, middle and back office, and control functions.

**A1** or **✓+:** Aon completed its review process and noted no material operational concerns within the areas it reviewed and finds that these aspects of the firm's operations largely align with a well-controlled operating environment.
**A2** or **✓:** Aon completed its review process and the firm's operations within the areas Aon reviewed largely align with a well-controlled operating environment, with limited exceptions. Managers may be rated within this category due to resource limitations or asset class limitations or where isolated areas do not align with best practice.
**Fail or No Rating:** Aon was unable to complete its review process due to incomplete information, policies and procedures that are under development or in transition, or for other reasons. Aon may review the rating if these items are addressed.
**Conditional Pass** or **✓-:** Aon completed its review process and noted material operational concerns that introduce the potential for economic loss or reputational risk exposure.

## About Townsend Group – An Aon Company

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than USD130 billion of worldwide assets under management and has advised on more than USD240 billion of real estate assets.

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REAL ESTATE INDETAIL

# LASALLE ASIA OPPORTUNITY VI

A Closed-ended Diversified Opportunistic Fund Focused on Developed Markets in Asia Pacific

July 2021

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# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Previous Rating |
|---|---|---|
| July 2021 | **Buy** | Buy (LAO V) |

LaSalle Investment Management ("LaSalle", the "Manager" or the "Sponsor") is raising LaSalle Asia Opportunity VI ("LAO VI" or the "Fund"), a Pan Asia focused closed-end private equity real estate fund targeting to generate returns through value-add/opportunistic strategies such as repositioning/converting office, retail, residential and hospitality assets and develop-to-core strategies such as modern logistics facilities (30% limit).

The Fund targets to raise USD1.5 billion of commitment with target net IRR of 18% after all fees with maximum leverage of 70% during the investment period. The Fund targets to have a Founding Close by end of Jul 2021 with four potential investors having aggregated total commitment of USD600 million, followed by a First Close at the end of Sep 2021 with seven potential investors having aggregated total commitment of USD435 million. Together with the Sponsor co-investment of USD30 million as alignment of interest, the total First Close will add up to circa USD1,065 million of commitment.

LaSalle is an independent subsidiary of Jones Lang LaSalle ("JLL"). JLL is a global commercial real estate services company listed on the New York Stock Exchange (NYSE: JLL) with a market cap of around USD10 billion as of May 2021. LaSalle was established in 1980 and its Asia Pacific platform was set up in 2000. As of Dec 2020, LaSalle had a global AUM of USD70.9 billion which included the USD13.1 billion of AUM in the Asia Pacific platform.

LAO VI is the sixth fund of the LaSalle Asia Opportunity Fund Series ("LAO Fund Series"). With the first fund launched in 2001, the LAO Fund Series has invested USD4.1 billion of equity into 174 assets of which 149 assets have been realized generating gross IRR/EM returns of 15%/1.4x. Within the LAO Fund Series, LAO II (2005 vintage) and LAO III (2007 vintage) underperformed against their target returns, partly due to the global financial crisis ("GFC") in 2008. Since LAO IV (2013 vintage), LaSalle has restructured the Asia Pacific team and business to enhance investment strategies, improve risk management and increase alignment of interest with better governance structures. More details are provided in the "**Comparative Advantages"** section.

With the appointment of Mark Gabbay as LaSalle Asia CIO in 2010 and the lessons learned from the GFC-era, LAO IV and LAO V have performed strongly. Over the past 10 years, LaSalle has invested USD1.8 billion of equity into 78 assets which are projected to generate gross IRR/EM returns of 25%/1.6x, of which 53 assets were realized generating gross IRR/EM returns of 32%/1.7x. In terms of the fund level performance, LAO IV is liquidating the remaining two assets and is projected to generate net IRR/EM returns of 28%/1.5x and LAO V has finished its investment period in May 2021 and is projected to generate net IRR/EM returns of 17%/1.4x. LAO VI will continue the investment strategy of its' predecessor funds by creating core assets through repositioning, development and active asset management with a focus in Australia, Japan, China, South Korea, Hong Kong, Singapore, Taiwan, New Zealand and Macau ("Target Markets").

*Sponsor:*

| | | | |
|---|---|---|---|
| **No. of Offices** | 22 (Asia: 6) | **Parent** | Jones Lang LaSalle ("JLL") |
| **Ownership** | JLL listed on New York Stock Exchange (NYSE: JLL) | **Founded** | 1980 (Asia: 2000) |
| **No. of Employees** | 850 (Asia: 204) | **Investment Staff** | 64 (LAO Fund Series professionals) |
| **AUM (GAV)** | USD70.9 billion (APAC: USD13.1 billion) | **RIA** | N/A |

*Portfolio Characteristics, Terms and Timing:*

| | | | |
|---|---|---|---|
| **Fund Structure** | Closed-ended | **Risk Segment** | Opportunistic |
| **Fund Size** | Target USD1.5 billion | **Sponsor Commitment** | USD30 million |
| **Target Return** | Net IRR 18% | **Leverage** | Max 70% LTV during investment period |

<table>
<tr><td>Investment Period</td><td>3 years from Final Close</td><td>Term</td><td>8 years from Final Close with two 1-year extension options</td></tr>
<tr><td>Avg. Asset Size</td><td>USD50-200 million</td><td>Typical Business Plan</td><td>3 to 5 years</td></tr>
<tr><td>Guidelines</td><td>- Max 5% outside of Target Markets<br>- Max 15% in a single asset<br>- Max 20% to a single portfolio<br>- Max 30% to speculative development</td><td>Valuation</td><td>Externally valued every 12 months</td></tr>
<tr><td>Management Fee</td><td><table>
<tr><td>Type of Investor</td><td>Management Fee[1]</td></tr>
<tr><td>Founding[2]</td><td>- 1.05%<br>- No fee holiday</td></tr>
<tr><td>First Close</td><td>- 1.50% for <USD75m<br>- 1.40% for ≥USD75m & <150m<br>- 1.25% for ≥USD150m<br>- Fee holiday till 31 Mar 2022</td></tr>
<tr><td>Post First Close</td><td>- 1.50% for <USD75m<br>- 1.40% for ≥USD75m & <150m<br>- 1.25% for ≥USD150m<br>- No fee holiday</td></tr>
</table>
Note 1: Fee on committed equity during Investment Period and on invested equity after Investment Period<br>
Note 2: According to LaSalle the Founding Investors will each commit over USD150 million</td><td>Incentive Fee Waterfall</td><td><table>
<tr><td>Type of Investor</td><td>Incentive Fee</td></tr>
<tr><td>Founding</td><td>- 20% over a 10% hurdle rate with 50%/50% catch-up</td></tr>
<tr><td>Non-Founding</td><td>- 20% over a 9% hurdle rate with 50%/50% catch-up</td></tr>
</table></td></tr>
<tr><td>Organization Expense</td><td>Up to USD2.5 million</td><td>Co-investment Rights</td><td>- For Korea logistics, offered to anchor investor side car and then to other investors at GP discretion.<br>- Other co-investments offered at GP discretion.</td></tr>
<tr><td>Timing</td><td>- Founding Close targeted by end of Jul 2021<br>- First Close targeted by end of Sep 2021</td><td></td><td></td></tr>
</table>

## COMPARATIVE ADVANTAGES

### 1. Favorable Market Fundamentals and Demand for Core Real Estate in Asia Pacific

Asia Pacific economies and real estate markets offer strong performance potential from both structural and cyclical perspectives, which provides a favorable context for the Fund to execute its investment strategy. With 4.2 billion people, the region contains 54% of the world's population[1] and accounts for about 42% of world's nominal GDP of USD81 trillion and 42% of the world's trade in goods of USD18 trillion[2]. Asia Pacific's growth is supported by fundamentals such as i) urbanization, ii) high national savings rates, iii) the rise of the middle-class and the accompanying consumption growth, and iv) rapid growth of e-commerce. Moreover, Asia Pacific's diverse real estate market cycles and economic and demographic structure continues to provide the benefit of portfolio diversification and the region has also come through the pandemic in stronger shape than any other region. All these trends are expected to offer strong performance from both structural and cyclical considerations, which provide a favourable context for opportunistic real estate investments.

In addition, the growing demand for core real estate fuelled by the continued growth of the public REIT market in Asia Pacific, an increasing focus on real estate investments among large and growing sovereign wealth funds and pension plans, and the dominance of domestic capital in Asia Pacific provides prudent exit liquidity. Based on the 2020 ANREV Capital Raising Survey, about half of the capital raised in Asia Pacific targeted core real estate. The capital raised for core real estate in Asia Pacific has also increased significantly in recent years. In 2017-2019, the annual average capital raised targeting Pan Asian core real estate increased by over 110% from the level in 2014-16.

[1] Oxford Economics, as of Dec 2020
[2] UN ESCAP, as of Dec 2020 and Statista, as of May 2021

## 2. Strong Sponsorship and Alignment of Interest

LaSalle is a leading global real estate investment manager with USD70.9 billion in AUM by GAV servicing over 500 investors from 30 countries. LaSalle was recently named as the 'Firm of the Year' in Japan and France at the PERE Awards 2020, and as the 'Best Place to Work in Money Management' by Pensions & Investments for 5 consecutive years in 2020. LaSalle Asia was established in 2000 and currently employs over 200 employees across 6 offices (Shanghai, Hong Kong, Tokyo, Seoul, Sydney and Singapore) managing USD13.1 billion in AUM. The Fund's parent company, Jones Lang LaSalle, provides a broad range of real estate services that include acquisition and disposition brokerage, services required to be provided by locally licensed entities (including Korean asset management company), financing, research, development management, and leasing and property management. There may be instances where JLL is determined to be the best service provider at a competitive market fee for the Fund.

LaSalle is committed to co-invest USD30 million (ie. 2.0% of the target fund size) from its senior executives. The total amount is in line against market peers (circa 2-3% co-investment) with similar investment strategy. Furthermore, the interest of LAO VI fund team is aligned with up to 40% of performance fees allocated directly to team members significantly involved in the Fund's performance.

## 3. Strong Track Record After GFC and Execution Capabilities in Asia Pacific

LaSalle has extensive track record in executing Pan Asian real estate strategy with its first fund raised in 2000. While LAO II and LAO III had underperformance partly due to the GFC, LaSalle has successfully turned around the performance of LAO Fund Series over the last 10 years, by undertaking initiatives such as: i) focusing on investment strategies aligned to LaSalle's strengths, ii) increasing alignment of interest, improving investor reporting and restructuring the fund, iii) enhancing the team and increasing focus on risk management, and iv) partnering with best-in-class developers and negotiating downside protection, led by Mark Gabbay (Global CEO of LaSalle) and support from Marc Montanus (Fund Manager of the LAO Fund Series) and Yen Tjin Chan. Over the last 10 years, LaSalle has invested USD1.8 billion of equity into 78 assets which is projected to generate gross IRR/EM returns of 25%/1.6x, among which 53 assets were realized and generated gross IRR/EM returns of 32%/1.7x.

<u>LAO Fund Series Asset Level Track Record (Last 10 years)</u>

| Year | No. of Assets | Total Cost[1] | Invested Equity[2] | Gross IRR[3] | Gross EM[3] |
|---|---|---|---|---|---|
| 2011 | 10 | 1,635 | 419 | 12% | 1.5x |
| 2012 | 4 | 89 | 30 | 60% | 3.1x |
| 2013 | 1 | 14 | 4 | 118% | 2.1x |
| 2014 | 14 | 599 | 177 | 31% | 1.6x |
| 2015 | 13 | 410 | 139 | 49% | 1.7x |
| 2016 | 11 | 801 | 266 | 26% | 1.7x |
| 2017 | 2 | 39 | 17 | 39% | 2.1x |
| 2018 | 9 | 929 | 408 | 25% | 1.6x |
| 2019 | 12 | 700 | 277 | 17% | 1.5x |
| 2020 | 2 | 215 | 83 | 36% | 1.4x |
| **Total - Last 10 Years** | **78** | **5,431** | **1,820** | **25%** | **1.6x** |
| **Total – LAO Fund Series (since 2001)** | **174** | **12,229** | **4,576** | **15%** | **1.4x** |

1. Total acquisition cost of equity and financing at the point of acquisition.
2. Aggregated total of fund equity and co-investment partner equity.
3. Projected USD returns.

In terms of the fund level performance after GFC, LAO IV is liquidating the remaining two assets and projected to generate net IRR/EM returns of 28%/1.5x. LAO IV's projected net IRR 28% outperforms the target return of 18% and is a reflection of LaSalle's capabilities of executing business plan and realize at short hold period (average 2.5 years over last 10 years). LAO V has finished its investment period in May 2021 and is projected to generate net IRR/EM returns of 17%/1.4x. Overall projected returns of the two funds are 21%/1.4x, which are above the target net IRR of 18%.

LAO Fund Series Track Record

| Vehicle | Vintage Year | Status | Fund Size (USD m) | Fund Invested Equity[1] (USD m) | Number of Assets (Total / Current) | Target Net IRR | Realized/ Projected Net IRR[2]/EM | Since Inception Net IRR[3]/EM |
|---|---|---|---|---|---|---|---|---|
| **Realized** | | | | | | | | |
| LaSalle Asia Recovery Fund | 2001 | Liquidated | 242 | 267 | 12 / 0 | 18% | 26.7%/1.8x | 26.7%/1.8x |
| LaSalle Asia Opportunity II | 2005 | Liquidated | 1,000 | 1,112 | 59 / 0 | 18% | 1.6%/1.1x | 1.6%/1.1x |
| LaSalle Asia Opportunity III | 2007 | Liquidated | 1,932 | 1,673 | 34 / 0 | 18% | 0.3%/1.0x | 0.7%/1.0x |
| **Sub-total** | | | 3,174 | 3,052 | 105 / 0 | 18% | 3.1%/1.1x | 3.3%/1.1x |
| **Unrealized / Partially Realized** | | | | | | | | |
| LaSalle Asia Opportunity IV | 2013 | Liquidating | 485 | 426 | 41 / 2 | 18% | 28.0%/1.5x | 29.9%/1.5x |
| LaSalle Asia Opportunity V | 2016 | Stabilizing | 974 | 649 | 28 / 23 | 18% | 16.7%/1.4x | 12.6%/1.2x |
| **Sub-total** | | | 1,459 | 1,075 | 69 / 25 | 18% | 21.2%/1.4x | 19.5%/1.3x |
| **TOTAL** | | | **4,633** | **4,127** | **174 / 25** | **18%** | **7.8%1.2x** | **7.5%/1.2x** |

1. As of Dec 2020.
2. For LARF, LAO II and LAO III, returns are actual realized returns after local taxes, after fund level fees and expenses and after performance fee. For LAO IV and LAO V, returns are projected returns after local taxes, after fund level fees and expenses and after performance fees, as of Dec 2020.
3. Unrealized/Partially Realized funds, returns are as of Dec 2020, less fund expenses and fees and after accrued performance fees. For realized funds, returns stated refers to realized net returns less fund expenses and fee and after performance fees.

## POTENTIAL ISSUES AND CONCERNS

### 1. Deal Exclusivity for Logistics Investments

LAO VI has various vehicles that dilutes its deal exclusivity for logistics investments in China, Japan and South Korea. As Townsend has high conviction in the logistics sector, these exclusivity arrangements between the various mandates are not favourable for LAO VI investors. Additionally, Townsend is aware LaSalle is planning to raise another separate account for Japan logistics, which will have higher priority over LAO VI for Japan logistics opportunities. This creates an issue on LaSalle's deal allocation policy for Japan logistics.

Discussion:

The Fund's exclusivity arrangement for logistics investment opportunities is stated below:

For China, LaSalle has established the 2020 vintage LaSalle China Logistics Venture ("LCLV") with circa USD484 million of equity. For all China logistics deals with opportunistic risk/return profile, the required equities of these deals will be allocated to LAO VI / LCLV on a 40% / 60% basis. LCLV also takes the lead on deal sourcing and execution while LAO VI will be a passive co-investor.

For South Korea, LaSalle has agreed with an anchor investor of LAO VI to establish a side-car vehicle ("Korea Logistics Side-Car") with equity of USD100 million to invest into Korea logistics. For all Korea logistics deals with opportunistic risk/return profile, the required equity of these deals will be allocated to LAO VI / Korea Logistics Side-Car on a 60% / 40% basis.

For Japan logistics with value-add/opportunistic risk/return profile, it has been carved out and not allocated to LAO Fund Series since LAO IV. LaSalle explains that at the time when they raised LAO IV in 2013, they already had the dedicated Japan logistics vehicle - 2013 vintage LaSalle Japan Logistics Fund III - in place having exclusivity on non-core Japan logistics investments, and LAO IV therefore did not receive allocation for Japan logistics. LaSalle states that LAO V did not receive Japan logistics allocation for similar reason. LaSalle describes that when they started raising LAO V in 2015, they were already in discussion with an European investor to establish a separate managed account - LaSalle Japan Logistics Fund IV ("JLF IV") - with size of EUR660 million which closed in Oct 2017 with first look right on all non-core Japan logistic investments until the end of investment period in Oct 2023. Moreover, JLF IV can re-invest proceeds from realizations into new deals. Townsend considers the above arrangement not investor friendly to LAO IV and LAO V but justifiable.

For LAO VI, Townsend understand that it is the plan of LaSalle to continue carving out Japan logistics for the Fund due to the existence of JLF IV. Moreover, Townsend understands that LaSalle is currently in discussion with an Asian investor to establish another separate managed account ("Asian SMA") with size of JPY60 billion (circa USD550 million) to invest into non-core Japan logistics deals. Based on the PPM of LAO VI and LaSalle's explanation, until the end of the investment period of JLF IV in Oct 2023, JLF IV will still have the first look right for all non-core Japan logistics deals while the Asian SMA will have the second look right. In the event that both JLF IV and the Asian SMA choose not to exercise their rights, the deals will be offered to LAO VI. After the investment period of JLF IV ends in Oct 2023, the non-core logistics deals in Japan will be allocated to JLF IV and the Asian SMA on a rotation basis.

LaSalle believes the above mentioned arrangements for Japan logistics will not impact the overall performance of LAO VI given i) LAO VI follows the investment strategy of its predecessors LAO IV and LAO V which also do not have exposure in Japan logistics; ii) target gross returns for Japan logistics (15-17%) are lower than LAO VI's target gross returns (c. 20%); and iii) LAO VI could utilize the development bucket (max 30% allocation) for opportunities in China and/or Korea logistics which can generate higher returns. While Townsend is of the view that carving out Japan logistics may not impact the performance of LAO VI, we consider the allocation policy of LaSalle as well as setting up the new Asian SMA for Japan logistics not in line with market and not favourable to LAO VI. As the first look right of JLF IV expires in Oct 2023 while at that time LAO VI will still be in its investment period (investment period of LAO VI ends in Sep 2025), we believe LAO VI should not be excluded from Japan logistics given the Fund has a Pan Asian investment strategy and Japan logistics is considered as a sector providing compelling investment opportunities to investors in particular post COVID-19. Moreover, the plan of LaSalle to set up the Asian SMA with the priority over LAO VI to invest into non-core Japan logistics creates concern on whether LaSalle is providing best effort for the interests of LAO VI's investors.

**2. Track Record of LAO II and LAO III**

LAO II and LAO III have underperformed against the target net IRR of 18%, generating net IRR of 1.6% and 0.3%, respectively. The two funds are 2005 and 2007 vintage vehicles and the performances were impacted partly due to GFC, especially in the assets in Japan, South Korea and Macau.

<u>Discussion:</u>

LAO II and LAO III has invested circa 50% of equity into deals in Japan before the GFC and utilized high leverage of 60-75%. The underperformance of these investments was mainly due to the valuation drop of 20-40%, office developments impacted by the oversupply leading to decline in rent/value, and the lack of liquidity of the entity level investments which targeted public market exit.

LaSalle notes that Mark Gabbay joined LaSalle in 2010 as Asia CIO. Shortly after Gabbay on board he had restructured the Asian team, directly involved in the LAO III's post-GFC investments, resolved challenging investments in LAO II and LAO III and re-established the investment strategy for LAO IV and LAO V as listed below:

- Investment strategy
  - Focus on asset management strategies over development;
  - Target smaller equity ticket size of USD20-50 million;
  - Take active approach on dispositions (avg. hold period 2.5 years in last 10 years);
  - Target developed countries and the liquid markets;
  - Not pursue public companies unless used as an entry point to acquire assets.
- Fund governance
  - Increased co-investment from senior management to the funds;
  - Reduced portfolio leverage cap to 65% and development cap to 25%;
  - Restructure management and performance fee for improved alignment.
- Risk management
  - Established development, structure finance and fund management teams;
  - Additions in internal legal and tax departments to support investment process;
  - Thorough development partner selection process and negotiate downside protection structures;
  - Office expansion in Sydney for local presence in Australia.
- Client reporting
  - Investor reporting align with INREV and other guidelines;
  - Investor update/presentation two times a year.

Gabbay has led the restructuring with support from Marc Montanus and Yen Tjin Chan. Gabbay is now the Global CEO of LaSalle and Chairman of the Asia Pacific Investment Committee. The restructuring has proven relatively successful by the performance of LAO IV and LAO V, which are projected to generate net IRR/EM returns of 28%/1.5x and 17%/1.4x, respectively, ranking in the 1st and 2nd quartile, respectively, among peers.

**3. Mark Gabbay Removed from Key Person Provision**

Mark Gabbay is the Key Person for LAO IV and LAO V but is removed from the provision clause for LAO VI. As Gabbay has been instrumental in heading the LaSalle Asia team since 2010 and leading the turnaround in performance for the LAO Fund Series, there might be concern on LAO VI's investment strategy execution and performance.

Discussion:

LaSalle explains that since the Provision contains strong wordings regarding the time to be devoted by the Key Person to the Fund, for prudent purpose the firm decides to remove Gabbay as a Key Person due to his recent promotion to the Global CEO (effectively from January 1, 2021) and may need to allocate some of his time for the global business of LaSalle. LaSalle describes that though Gabbay is removed from the Provision of LAO VI, he will continue to put his focus in LaSalle's Asian business particularly in LAO VI, with the support from the four Executive Officers (Marc Montanus, Kunihiko Okumura, Claire Tang, Yen Tjin Chan).

In addition, LaSalle believes LAO VI continues to have a strong Key Person Provision when compared with LAO V. While Mark Gabbay and Marc Montanus are in the Provision for LAO V, Montanus will remain as a Key Person for LAO VI and the Fund will also have three executives comprising Kunihiko Okumura (Co-CIO Asia Pacific), Claire Tang (Co-CIO Asia Pacific) and Yen Tjin Chan (Senior Managing Director) be included in the Key Person Provision. The four senior executives have worked with Gabbay closely to create the performances of LAO IV and LAO V.

# STRATEGY

## OVERVIEW

LaSalle Asia Opportunity Fund VI ("LAO VI" or the "Fund") is a closed-ended USD denominated real estate private equity fund with value-add/opportunistic investment strategies. The Fund targets USD1.5 billion in capital commitments and aims to deliver a net IRR of 18% over an eight-year fund life with maximum 70% loan-to-value.

The Fund seeks to construct a diversified risk-adjusted portfolio across the Asia Pacific region in sectors/markets with proven resiliency and liquidity that attract and retain tenants. Based on the structural themes identified by the LaSalle Research team, the region's major economies and real estate markets are benefiting from structural and cyclical drivers including continued urbanization, growing middle-class and consumption growth, increasing intra-regional trade, accelerated growth of e-commerce and high domestic tourism volumes. Asia Pacific is also emerging through the pandemic in relatively stronger shape than other regions supported by a rebound in economic activity, low unemployment rates, unprecedented fiscal and monetary stimulus packages and vaccination rollouts. The Fund will have a focus in the Target Markets of Japan, Australia, China, South Korea, Singapore, Hong Kong, Macau, Taiwan and New Zealand. The following table provide information in relation to indicative exposures of the Fund.

| | | Office | Retail | Logistics | Residential | Hotel |
|---|---|---|---|---|---|---|
| | Potential Allocation | 35 – 40% | 0 – 10% | 30 – 35% | 10 – 15% | 0 – 10% |
| Japan | 30 – 40% | Reposition | Distressed | | Reposition | Distressed |
| China | 20 – 30% | Reposition, Distressed | Distressed | Reposition, Develop | Reposition | Distressed |
| Australia | 10 – 15% | Reposition | Distressed | | Develop | Distressed |
| South Korea | 10 – 15% | Reposition, Distressed | | Reposition, Develop | | Distressed |
| Singapore | 5 – 10% | Reposition | Distressed | | | Distressed |

Reposition Distressed Develop

Note: LAO VI investment strategy guidelines are indicative and for illustrative purposes, subject to market conditions.

To achieve its target return, the Fund's investment strategies seek to acquire assets at attractive price points, reposition/develop-to-core and increase net operating income through active leasing/asset management primarily in the liquid, developed markets across Asia Pacific. Potential deals will be structured with multiple exit strategies in order to maximize returns and realize value within short hold periods, when possible.

1) Repositioning properties through asset management strategies which include improving income through leasing, restructuring leases and optimizing tenant mix, improving income through active expense management, reposition underperforming assets to more optimal use, refurbishing to modernize assets and enhance value and identifying asymmetric risk/return opportunities;
2) Development to create core assets particularly developing modern logistics with attractive development margins and yield on cost and selectively develop modern logistics with temperature-controlled facilities to enhance yield;
3) Restructuring distressed properties including conversion, targeting distressed sellers due to the pandemic. LaSalle will attempt to mitigate the risk associated with these activities through extensive asset management, in-house logistics

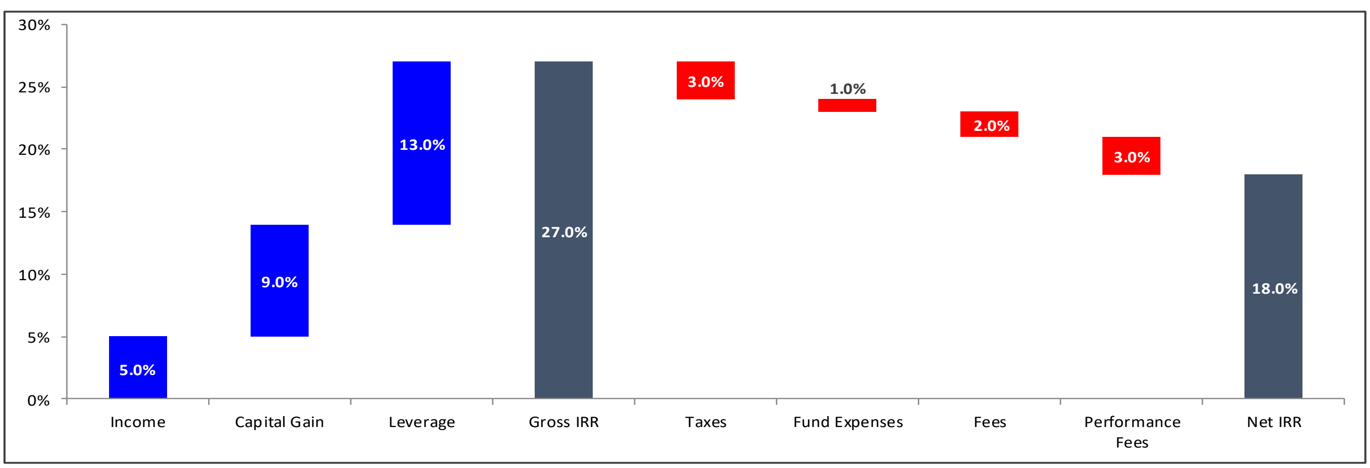
leasing and development management platforms. LaSalle may also work with local development partners to share or take over risks related to development opportunities. Below chart provides an example of the investment opportunities post pandemic, stemming from pandemic implications across various sectors. LaSalle's focus is on resilient markets through the recovery phase.

| | Pandemic Implications | Investment Opportunities |
|---|---|---|
| **Logistics** | ▪ Accelerated e-commerce penetration<br>▪ Growing tenant demand<br>▪ Growing investor demand | ▪ Develop new facilities<br>▪ Reposition/re-develop underperforming assets<br>▪ Expand into cold chain logistics |
| **Office** | ▪ Increased uncertainty for occupier demand<br>▪ Tenants seek for greater flexibility<br>▪ Work from Home as one option, but not a permanent solution<br>▪ Asia Pacific to lead recovery | ▪ Repricing/mispricing assets<br>▪ Invest into flexible concepts - speculative fit outs and set-up offices<br>▪ Location and tenancy becoming more important |
| **Residential** | ▪ Emerging institutional asset class in Asia Pacific<br>▪ Attractive theme of rent vs. own metrics<br>▪ Investor recognition of stable cash flows, low volatility and diversification benefits | ▪ Develop/re-develop residential for rent<br>▪ Reposition/convert under performing asset to residential for rent<br>▪ Enhance amenities to accommodate flexible Work from Home |
| **Retail** | ▪ Discretionary retail suffering - significant e-commerce disruption<br>▪ Non-discretionary retail more resilient | ▪ Reposition/re-pricing resilient retail malls<br>▪ Conversions |
| **Hotel** | ▪ REVPAR suppressed for over 12 months<br>▪ Operator profitability under pressure<br>▪ Recovery to be led by domestic travel | ▪ Reposition conversion of distress hotel<br>▪ Restructure/recapitalize/rescue capital |

## RETURN ATTRIBUTION

The following chart illustrates the components of LAO VI's pro forma return attribution assuming eight-year fund term. Pro forma net return based on 70% equity into value-add investments and 30% into development investments utilizing leverage of 65% and 60%, respectively.

LAO VI Pro Forma Return Attribution




Note: Gross IRR is after local JV partner fees but before taxes.

## LEVERAGE

- Maximum 70% on portfolio leverage during the Investment Period. There is no limit after the investment period, which Townsend recommends applying a leverage limit to be in line with market peers. Leverage limit applying only during the investment period is consistent with LAO IV and LAO V. For LAO IV and LAO V, LaSalle has shown discipline

and complied with the LTV limit (65% for LAO IV and LAO V). LAO IV's average LTV during the investment period is 53% and after investment period is 40%. LAO V's average LTV during the investment period is 59%.
- Target leverage is around 70% in Japan and 60-65% across other regions. Target 50-60% for development projects.
- The Fund will utilize non-recourse loans with loan covenants in line with business plan of each asset, which LaSalle will assess during the underwriting process.
- Loans will be drawn in local currency and interest rates will be fixed when possible.
- The Fund will perform quarterly loan compliance review, including LTV projection and DSCR compliance over next 4 quarters.

## HEDGING

- The Fund will typically hedge between 50-75% of equity exposure with currency forward contracts, taking into consideration cost, value and net proceeds. The Fund will seek to use local currency denominated debt for majority of the Fund's capital structure to reduce risk of aggregating currency exposure.

## INVESTMENT GUIDELINES

The Fund's investment strategy will be subject to the following limitations and restrictions:
- Max 5% of commitments outside of the Target Markets being Australia, Japan, China, South Korea, Hong Kong, Singapore, Taiwan, New Zealand and Macau; and
- Max 15% of commitments in any single investment;
- Max 20% of commitments in a single portfolio;
- Max 30% of commitments in speculative developments.

## SEED ASSETS

The Fund targets a Founding Close at the end of Jul 2021 and has not yet closed any investments.

## PIPELINE DEALS

The Fund has 15 pipeline investments with estimated equity requirement of USD964 million across its Target Markets and sectors which are diversified into Japan (43%), China (37%), South Korea (12%), Singapore (8%) as country diversification and office (44%), logistics (28%), residential (27%) and hotel (2%) as sector diversification. The first three pipeline deals showed in the below table are in more advanced stage due diligence and Townsend has reviewed/discussed the three opportunites with LaSalle, which are consistent with the Fund's investment strategy. High level information of the pipeline deals is summarized in the table below and detailed description of the advanced pipeline deals are provided in **Exhibit D**.

| Project | Location | Asset Class | Strategy | Target Closing Date | NLA (sqm) | Equity (USD mio) | Target Stab. Yield (%) | Target Returns (Local CCY) | | Investment Description |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Net IRR | Net EM | |
| Project Platinum | Tokyo | Resi. | Value-add | Q3 2021 | 5,772 | 21 | 3.6% | 19% | 1.6x | Acquire an undermanaged multifamily asset and execute capex works to improve rent. |
| Project LA | Greater Beijing | Logistics | Development | Q4 2021 | 128,037 | 46 | 6.9% | 18% | 1.7x | Acquire a land site for logistics development. Negotiating on initial terms and exclusivity. |
| Project Solitaire | Singapore | Office | Redevelopment | Q4 2021 | 17,656 | 73 | 3.6% | 17% | 1.8x | Acquire a freehold office in CBD and redevelop it into a Grade A office. |
| Project Gemstone | Shanghai | Resi. | Value-add | Q3 2021 | n/a | 64 | 5.3% | 17% | 1.5x | Acquire a distressed service apartment and add extra rooms to maximize rent. |
| Tokyo, serviced apartment | Tokyo | Resi. | Value-add | Q3 2021 | 6,169 | 25 | 3.7% | 18% | 1.6x | Acquire a service apartment and convert it into multi-family with extra amenity to maximize rent. |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Nagoya, Hotel portfolio | Nagoya | Hotel | Value-add | Q3 2021 | 4,131 | 17 | 5.7% | 17% | 1.6x | Capitalize on the post-pandemic theme to acquire a hotel portfolio and replace the operator. |
| Nagoya Office | Nagoya | Office | Value-add | Q3 2021 | 11,132 | 58 | 4.6% | 18% | 1.5x | Acquire a forward commitment office asset with strategy to lease-up before closing. |
| Project L | Beijing | Logistics | Development | Q4 2021 | 110,856 | 33 | 7.5% | 21% | 1.8x | Acquire a land site for logistics development. |
| Project O | Shanghai and two 2nd Tier cities | Logistics | Value-add | Q4 2021 | 210,500 | 70 | 6.6% | 18% | 1.6x | Acquire one turn-key asset in Shanghai and two assets in two 2nd Tier cities. Lease-up vacant space at market rent. |
| Project Trinity | Shanghai | Resi. | Value-add | Q4 2021 | n/a | 34 | 5.6% | 18% | 1.5x | Acquire a mixed-used office/retail asset and convert into multi-family. |
| Tokyo Office | Tokyo | Office | Value-add | Q4 2021 | 23,300 | 292 | 3.2% | 18% | 1.5x | Acquire a Grade A office for refurbishment and lease-up. Seek for co-investors due to deal size. |
| Project Parkview | Shanghai | Resi. | Value-add | Q1 2022 | n/a | 113 | 5.0% | 20% | 1.4x | Acquire a service apartment with preferred return structure guaranteed by the local partner. Strata sale exit strategy with upside on profit sharing. |
| Project A-III | Greater Seoul | Logistics | Development | Q2 2022 | n/a | 20 | n/a | 18% | 1.8x | Acquire a land site for logistics development. |
| Project A | Greater Seoul | Logistics | Value-add | Q2 2022 | n/a | 38 | n/a | 22% | 2.0x | Forward purchase a warehouse from an over-levered developer. Strategy to create value through leasing up the vacant space. |
| Project G | Greater Seoul | Logistics | Value-add | Q4 2022 | n/a | 60 | n/a | 19% | 1.5x | Forward purchase a warehouse asset with potential lease guarantees. |
| **TOTAL** | | | | | | **964** | | 18% | 1.6x | |

## POTENTIAL INVESTORS

The Fund is targeting a Founding Close at the end of Jul 2021. LaSalle indicates that there are four potential Founding Investors with an aggregate commitment of around USD600 million undertaking due diligence. A formal First Close is targeted in Sep 2021. The table below indicates the potential Founding and First Close Investors currently conducting due diligence on the Fund. 9 out of the 11 investors (excluding LaSalle employees) are existing LAO IV or LAO V investors.

| No. | Description | Estimated Timing | Commitment/ Potential Amount (USD m) | % of Total Commitment |
|---|---|---|---|---|
| 1 | LaSalle Employees | Founding Close | 30 | 2.8% |
| 2 | Middle East Sovereign Wealth Fund | Founding Close | 150 | 14.1% |
| 3 | Asian Sovereign Wealth Fund | Founding Close | 150 | 14.1% |
| 4 | US Public Pension Fund | Founding Close | 150 | 14.1% |
| 5 | US Public Pension Fund | Founding Close | 150 | 14.1% |
| 6 | US Public Pension Fund | First Close | 100 | 9.4% |
| 7 | Middle East Public Pension Fund | First Close | 200 | 18.8% |
| 8 | US Endowment / Foundation | First Close | 25 | 2.3% |
| 9 | European Endowment / Foundation | First Close | 20 | 1.9% |
| 10 | European Corporate Pension Fund | First Close | 50 | 4.7% |
| 11 | US Public Pension Fund | First Close | 30 | 2.8% |

| | | | | |
|---|---|---|---|---|
| 12 | European Family Office | First Close | 10 | 0.9% |
| **Subtotal - Founding Close** | | | 630 | 59.2% |
| **Subtotal - First Close** | | | 435 | 40.8% |
| **TOTAL** | | | **1,065** | **100%** |

# SPONSOR

## OVERVIEW

LaSalle Investment Management (the "Sponsor" or "LaSalle") is an independent subsidiary of Jones Lang LaSalle ("JLL"). JLL is a global commercial real estate services company and is listed on New York Stock Exchange (NYSE: JLL) with a market cap of around USD10 billion as of May 2021. LaSalle was established in 1980 as LaSalle Advisors, a subsidiary of LaSalle Partners, founded in 1960 and based in Chicago, Illinois. In 1999, LaSalle Partners merged with Jones Lang Wootton, an international real estate services firm headquartered in London, UK, to become Jones Lang LaSalle Incorporated. LaSalle Investment Management merged with Jones Lang Wootton's fund management business to become LaSalle Investment Management. Lasalle established its Asia Pacific platform in 2000. As of Dec 2020, LaSalle had a global AUM of USD70.9 billion and Asia Pacific AUM of USD13.1 billion.

LaSalle provides real estate management services to over 500 investors from 30 countries, including public and private pension funds, sovereign wealth funds, banks and financial institutions, insurance companies and high net worth individuals. LaSalle is one of the largest real estate investment managers across the globe and was recently named as the 'Firm of the Year' in Japan and France at the PERE Awards 2020, and as the 'Best Place to Work in Money Management' by Pensions & Investments for 5 consecutive years in 2020.

## ORGANIZATION

As of Dec 2020, LaSalle had over 850 employees across 22 offices around the globe. The Asia Pacific platform operates with over 200 employees across 6 offices. Below table provides the Asia Pacific staff breakdown by city and function.

Asia Pacific Staff Breakdown by City and Function

| Function | Shanghai | Hong Kong | Tokyo | Seoul | Singapore | Sydney | Total |
|---|---|---|---|---|---|---|---|
| Acquisitions | 7 | 1 | 16 | 3 | 3 | 5 | **35** |
| Asset Management and development | 7 | 4 | 25 | 1 | - | 9 | **46** |
| Client Capital Group | - | 2 | 6 | 4 | - | 1 | **13** |
| Finance & Accounting | 3 | - | 14 | 1 | 23 | 2 | **43** |
| Fund Management and Administration | - | 3 | 19 | 3 | 7 | - | **32** |
| Legal & Compliance | 1 | - | 2 | 1 | 5 | - | **9** |
| Research & Strategy | 1 | - | 1 | - | 5 | - | **7** |
| Corporate | 1 | - | 5 | - | 6 | - | **12** |
| Global Partner Solutions | - | - | - | - | 4 | - | **4** |
| Public Securities | - | 1 | 2 | - | - | - | **3** |
| **TOTAL** | **20** | **11** | **90** | **13** | **53** | **17** | **204** |

## LASALLE ASIA PACIFIC TEAM

LaSalle has USD13.1 billion of AUM in Asia Pacific with over 200 employees across 6 offices. Since 2001, LaSalle has acquired over 400 investments valued at USD31.8 billion and disposed over 290 investments valued at USD28.0 billion. Below table provides the AUM breakdown by country and sectors as of Dec 2020.

Asia Pacific AUM Breakdown

| Country | Core | | Non-Core | | TOTAL | |
|---|---|---|---|---|---|---|
| | GAV (USD m) | % | GAV (USD m) | % | (USD m) | % |
| Australia | 724 | 6% | 966 | 7% | **1,690** | **13%** |
| China | 221 | 2% | 1,442 | 11% | **1,663** | **13%** |
| Japan | 7,479 | 57% | 2,010 | 15% | **9,490** | **72%** |
| Singapore | 48 | 0% | 153 | 1% | **201** | **2%** |
| South Korea | 27 | 0% | 25 | 0% | **51** | **0%** |
| **TOTAL** | **8,499** | **65%** | **4,596** | **35%** | **13,095** | **100%** |

| Sector | Core | | Non-Core | | TOTAL | |
|---|---|---|---|---|---|---|
| | GAV (USD m) | % | GAV (USD m) | % | (USD m) | % |
| Office | 2,288 | 17% | 1,896 | 14% | **4,184** | **32%** |
| Retail | 1,478 | 11% | 185 | 1% | **1,662** | **13%** |
| Logistics | 3,926 | 30% | 2,176 | 17% | **6,101** | **47%** |
| Residential | 808 | 6% | 76 | 1% | **884** | **7%** |
| Hospitality | 0 | 0% | 264 | 2% | **264** | **2%** |
| **TOTAL** | **8,499** | **65%** | **4,596** | **35%** | **13,095** | **100%** |

The Fund will be managed by four senior executives comprising Marc Montanus, Claire Tang , Kunihiko Okumura and Yen Tjin Chan, with support from the regional senior investment professionals. The below table provides the key members and respective functions. The team organization chart is provided in **Exhibit A** and biographies of key professionals are in **Exhibit B**.

LAO VI Senior Management

| Name | Title | Responsibility | Years in Industry | Years with Firm |
|---|---|---|---|---|
| Keith Fujii | Head of Asia Pacific | Overseeing all operations in Asia Pacific | 25 | 3 |
| Marc Montanus | Senior Managing Director | Fund Management | 26 | 26 |
| Claire Tang | Co-CIO, Asia Pacific | Co-CIO and Head of Greater China | 16 | 14 |
| Kunihiko Okumura | Co-CIO, Asia Pacific | Co-CIO and Head of Acquisition & Asset Management Japan | 23 | 9 |
| Yen Tjin Chan | Senior Managing Director | Fund Management | 17 | 17 |
| Steve Kim | Senior Managing Director | Acquisitions and Asset Management, Korea | 21 | 7 |
| Michael Stratton | Head of Acquisitions, Australia | Acquisitions and Asset Management | 27 | 10 |
| George Goh | Head of Acquisitions / Asset Management, Southeast Asia | Acquisitions and Asset Management | 17 | 6 |
| Naoki Hayama | Managing Director | Asset Management, Japan | 22 | 6 |
| Miki Arai | Managing Director | Asset Management, Japan | 21 | 15 |
| Simon Howard | Senior Managing Director | Asset Management, Australia | 24 | 10 |
| Tom Miller | Head of Development and Sustainability, Asia Pacific | Development, Asia Pacific | 35 | 14 |
| Matthew Bailey | Senior Managing Director | Development, Australia | 23 | 10 |
| Hidenori Uchida | Managing Director | Development, Japan | 21 | 8 |
| Jason Zhang | Senior Vice President | Development, China | 12 | 3 |
| Se Hwan Oh | Senior Vice President | Development, South Korea | 20 | 5 |

## TURNOVER AND RETENTION

Turnover of LaSalle in Asia Pacific over the last 5 years was between 6% to 13% with the most notable departure being former Global CEO, Jeff Jacobson announcing the leadership transition to Mark Gabbay (previously the Asia CEO and CIO), effective Jan 2021. Jacobson will stay on as LaSalle Chairman and will continue to work with the leadership team to ensure a smooth transition. Other changes include Keith Fujii (previously the Japan CEO) promoting to Asia Pacific CEO, and Claire Tang (previously Head of Greater China) and Kunihiko Okumura (previously Head of Japan Acquisitions) promoting to Co-CIOs of Asia Pacific.

LaSalle Employee Turnover (Asia Pacific)

| Department | FY2016 | FY2017 | FY2018 | FY2019 | FY2020 |
|---|---|---|---|---|---|
| Sr. VP and Above (Turnover rate) | 3% | 12% | 7% | 4% | 4% |
| LaSalle Total (Turnover rate) | 13% | 6% | 7% | 11% | 8% |
| **Total Employees** | **210** | **179** | **189** | **199** | **204** |

Employees of LaSalle are remunerated in terms of base salaries, plus annual performance incentives tied to the performance of the funds, asset strategic plans and the organization as well as the individual contributions during the year. Up to 40% of the Fund's carried interest is shared with team members actively and significantly involved in the Fund's performance. Another 15% of the incentive fee is typically paid to the general bonus pool for that year and distributed to the broader Asia team for an individual's contribution to realizing above-hurdle performance for the Fund. 80% of allocation will be vested over the investment period and 20% will be vested at full realization of the Fund.

In addition, LaSalle offers 75-80% financing on co-investment within the funds. Upon departure, LaSalle buys back employees' interests at NAV, thus incentivizing retention during the Fund's investment period, as departing employees potentially face a loss on a highly levered basis before the Fund's J-curve is realized.

## ALIGNMENT

- LaSalle's senior executives and employees will commit USD30 million (2% of target Fund Size of USD1.5 billion).
- In terms of performance fees, up to 40% is allocated directly to team members involved in the Fund's performance with a vesting period to incentivize retention. Another 15% of the incentive fee is typically paid to the general bonus pool for that year and distributed to the broader Asia team for an individual's contribution to realizing above-hurdle performance for the Fund.

# OPERATIONAL RISK PROFILE

An Aon specialist team conducted operational due diligence on the Fund in June 2021 and assigned an ‘A2’ or ‘✓’ rating, indicating a well-controlled operating environment with limited exceptions. The team reviewed the Sponsor’s policies, procedures and capabilities across a wide range of operations including middle and back office and control functions including: (i) corporate governance and fund administration/operations; (ii) compliance and audit/testing; (iii) valuation; iv) counterparty risk oversight; (v) cyber security, IT systems and business continuity; and (vi) key service providers.

# ESG POLICY & PRACTICES

LaSalle's has a Global Sustainability Committee ("GSC") which is responsible for coordinating and monitoring ESG issues at the vehicle and organizational levels. GSC was established in 2009 and since then, LaSalle has been publishing its ESG policy, Equal Employment Opportunity policy and Code of Ethics on an annual basis. The GSC is led by the Global COO and Global Head of ESG with support from Regional Sustainability Officers in each region whom are responsible for implementation of ESG initiatives at the regional level and report to the Global Head of ESG. LaSalle provides ESG training to all staff twice a year and imbed ESG into all aspects of the business through the company Intranet which provides overview and implementation procedures for the ESG policies and programs.

GSC is responsible to identify and implement near and long-term strategic ESG initiatives. LaSalle seeks to develop the best ESG practices and apply to their clients' real estate portfolio across the globe by following the below goals:

- Minimize environmental impact of client properties, monitor climate change effects and improve investment performance;
- Reduce environmental impacts of LaSalle's operations in conjunction with JLL;
- Deliver the best solutions to clients through meeting and exceeding environmental regulations and requirements;
- Collaborate with clients, tenants, property managers and other service providers to ensure the best sustainable solution to the management of properties, whilst maximizing investment performance;
- Drive innovation on sustainable property investment.

LaSalle is dedicated to ESG leadership standards and principles such as Principles for Responsible Investment ("PRI"), Global Real Estate Sustainability Benchmark ("GRESB"), United Nations Environmental Program – Finance Initiative ("UNEP FI"), Task Force on Climate-related Financial Disclosures ("TCFD"), Fitwel Champion, Better Building Partnership Climate Change Commitment (Europe) and Urban Land Institute's Greenprint Center for Building Performance Net Zero x 2050 goal. At the fund and asset level, LaSalle uses a third-party platform called "Measurabi" to track the ESG related metrics and initiatives.

LaSalle received an "A+" rating for Strategy & Governance (for consecutive 5 years); an "A" rating for Listed Equity - Incorporation; an "A+" rating for Property; and an "A" rating for Listed Equity - Active Ownership in 2020 from PRI. In terms of GRESB, LaSalle submitted nine real estate assessments representing USD17 billion and scored one 5-Star, five 4-Star and three 3-Star GRESB ratings in 2020. Related to the LAO Fund Series, LAO V received total 79 points and 4-Star rating in 2020, which is an improvement from the first submission in 2018 (72 points and 3-Star rating). LAO V achieved 30 out of 30 points for Management score, which was consistent with our expectations. The Performance score was 49 out of 70 points, which was slightly above GRESB's average of 44 points, indicating there are areas for improvement such as asset level monitoring and measurement. For the separate "Development" component assessment, LAO V scored 76 points with 4-Star rating against the GRESB average of 74 points.

Based on the above referenced factors, our recommended rating is "Integrated". While the Firm's policies and procedures are considered best-in-class with global and regional leadership integrating ESG process throughout the organization, the real asset level integration requires improvement, as the Performance component of GRESB was slightly above average with improvements required in the asset level monitoring and measurement components for higher rating assessment.

# INVESTMENT PROCESS

## DEAL SOURCING & ACQUISITIONS

LaSalle will use its network of relationships with corporates, local property owners, developers, hotel operators, brokers as well as the legal and banking community to source deals. For development opportunities, LaSalle may seek to leverage on local joint venture partners to enhance sourcing capabilities such as for China logistics. LaSalle has expanded its local joint venture partnerships and arranged exclusivity agreements for first-look rights of China logistics deals and will also utilize JLL's strong reputation as a Fortune 500 company for various deal sourcing opportunities.

Investment opportunities for the Fund are approved in three stages:

1. Screening – The Fund Management team evaluates the transaction in the context of the entire portfolio. Investment opportunities are screened and reviewed by the relevant Co-Chief Investment Officer ("Co-CIO"). The Co-CIO gives final approval before presenting an opportunity to the Investment Committee for preliminary approval. The Asia Pacific Investment Committee provides preliminary and final review and approval for each transaction.
2. Due Diligence – After preliminary approval of a transaction, due diligence comprising physical, design and construction cost, project design, partner, environmental, legal economic reviews will commence. Upon the completion of due diligence, and before final approval of an acquisition, the Acquisition Officers prepare a presentation that reflects due diligence results and makes a recommendation to proceed with the transaction.
3. Final Approval – The Asia Pacific Investment Committee formally reviews the recommendation and on approval, the transaction will proceed to closing. Final approval of all acquisitions and dispositions in the region is required by the firm's Asia Pacific Investment Committee.

Sourcing of financing is performed by the Finance team together with the Acquisition team. Documentation of contractual/ transactional agreements is outsourced to external legal counsel and reviewed by the Acquisition, Finance and Fund Management teams before execution.

For development projects, upon closing of a land site, Acquisition officers oversee the development progress with the Development team and regular meetings are set up to review the development progress with the development partners. On completion, the asset is transitioned to the Asset Management team.

## ASSET MANAGEMENT & LEASING

LaSalle has an in-house Asset Management team which works closely with the Fund Management team to support on annual strategic plans, monitoring of property management and development progress, financing, performance, lease schedules, bi-weekly management meetings, cashflow and return projections, valuations, hold/sell recommendations, leading the disposition and other material items. Regular loan compliance reviews are also part of asset management process with a loan compliance checklist completed on a quarterly basis for all assets and reviewed by the Fund Management team and the Finance team.

## EXIT

The Fund will be closely monitoring the market and consider multiple exit strategies to maximize returns to investors and realize value with short hold period, when possible. All dispositions are reviewed by the Fund Management team and approved by the Investment Committee and the Asset Manager will lead the closing.

## INVESTMENT COMMITTEE

The Fund's Investment Committee ("IC") will approve all acquisitions and dispositions as well as changes in investment strategy or follow on investments. Decisions are made by a majority vote. Below table provides high level information on the IC members and their biographies are provided in **Exhibit B**.

LaSalle Investment Committee Members

| Name | Title | Responsibility | Years in Industry | Years with Firm |
|---|---|---|---|---|
| Mark Gabbay | Global CEO | Overseeing both private and public real estate across all major markets globally | 26 | 11 |
| Keith Fujii | Head of Asia Pacific | Overseeing all operations in Asia Pacific | 25 | 3 |
| Marc Montanus | Senior Managing Director, Asia Pacific | Fund Manager of LaSalle Asia Opportunistic Series | 26 | 26 |
| Elysia Tse | Head of Research & Strategy, Asia Pacific | Overseeing Asian investment strategy and manages the regional Research & Strategy team | 21 | 5 |
| Claire Tang | Co-CIO, Asia Pacific | Co-CIO and head of acquisition and asset management in Greater China | 16 | 14 |
| Kunihiko Okumura | Co-CIO, Asia Pacific | Co-CIO and head of acquisition and asset management in Japan | 23 | 9 |
| Yasuo Nakashima | Representative Director, Japan | Review and execution support for transactions in Japan and logistics deals in the region. | 27 | 19 |

## FUND GOVERNANCE

The LaSalle global business is led by the Global Management Committee consisting of 14 members listed in the below table.

LaSalle Global Management Committee

| Name | Title | Location | Years in LaSalle |
|---|---|---|---|
| Mark Gabbay | Global Chief Executive Officer | Hong Kong | 11 |
| Jeff Jacobson | Chairman of LaSalle Investment Management | Chicago | 21 |
| Keith Fujii | Head of Asia Pacific | Tokyo | 3 |
| Alok Gaur | Global Head of Investor Relations | Chicago | 5 |
| Jacques Gordon | Global Head of Research & Strategy | Chicago | 27 |
| Brad Gries | Co-Head of The Americas | Chicago | 4 |
| Kristy Heuberger | Co-Head of The Americas | Chicago | 6 |
| Lisa Kaufman | Head of Global Securities | Baltimore | 26 |
| Tim Kessler | Global Chief Operating Officer | Chicago | 3 |
| Philip La Pierre | Head of Europe | Munich | 2 |
| Gordon Repp | General Counsel | Chicago | 19 |
| Mike Ricketts | Global Chief Financial Officer | Chicago | 32 |
| Darline Scelzo | Global Head of Human Resources | Chicago | 30 |
| Jon Zehner | Head of Global Partner Solutions | London | 9 |

Regional Operational Risk Committee
Oversight of internal controls and risk management and timely and effective client reporting. Comprised of seven senior management in Asia Pacific.

Corporate Compliance Committee
Oversight of compliance with laws, regulations and the Code of Business Ethics. Comprised of five members in Asia Pacific offices.

Advisory Board
The Fund will have an Advisory Board, comprised of at least four members including one non-voting representative of LaSalle, at the discretion of the Sponsor. Subject to availability, all investors with USD100 million commitment to the Fund will have the right to appoint a representative on the Advisory Board. The Advisory Board will review and approve/consent on the key matters below by a majority vote.

- Exceeding investment guidelines of the Fund;
- Exceeding diversification guidelines of the Fund;
- Exceeding Fund's leverage limitation;
- Approve extension of Fund Term;
- Conflict of interest and other matters.

## VALUATIONS

The Fund will conduct external valuations at end of each calendar year and internal valuations at semi-annual basis. The Fund Management team and Asset Management team will review the external valuations and submit to IC for approval. External valuations comply with International Valuation Standards and internal valuations comply in all material aspects with International Valuation Standards. Valuation policy is consistent with prior LAO Fund Series.

## EXCLUSIVITY & ALLOCATIONS

The Fund has priority to all investment opportunities meeting its investment strategy with the exception of logistics investment opportunities stated below:

- Japan logistics: First offer to JLF IV, thereafter to Asian SMA (currently being finalized), then to LAO VI;
- South Korea logistics: 60% / 40% split between LAO VI / LAO VI's Korea Logistics Side-Car;
- China logistics: 40% / 60% split between LAO VI / LCLV. LCLV has full discretion on day-to-day operations as well as disposition.

Details of exclusivity & allocation is provided in the "**Potential Issues and Concerns**" section.

## USE OF JOINT VENTURE PARTNERS

LaSalle has joint venture arrangements for China logistics development, which will be led by LCLV. LaSalle will leverage on its four local joint venture partners to source and develop logistics investments. Each partner has strong local network relationships in respective markets that the Fund will utilize to source investments. Out of the four partners in China, LaSalle has exclusivity of first-look rights on logistics investment opportunities with three partners including Zenith, ABM and CNLP. Other than China logistics, LaSalle does not have exclusive agreement with any partners and work with partners on a deal-by-deal basis.

## USE OF AFFILIATES

The Fund may utilize its parent company, JLL and its subsidiaries to provide a broad range of real estate services that include acquisition and disposition brokerage, services required to be provided by a locally licensed entities (including Korean asset management company), financing, research, development management, and leasing and property management in instances where they are determined to be the best service provider at a competitive market fee. Townsend has reviewed the summary of affiliate transaction fees in 2020 for LAO IV and LAO V, which were mostly related to accounting and administrative fees and in line with comparable market fees.

The Sponsor is an independently operated subsidiary of JLL but does not have any exclusivity agreements with JLL, or any third-party service provider, and do not believe the above description of services would create a conflict of interest. As LaSalle manages its business autonomously, it is LaSalle's policy to employ the best provider and negotiate competitive fees for services on behalf of each investment. LaSalle negotiates at arms' length with JLL and commercial contracts are in place for the supply of services. LaSalle's asset management team is responsible for ensuring that all third-party fees paid to both affiliates and non-affiliates are market-rate fees.

Additionally, affiliate fees are disclosed to investors in quarterly report and presented to Advisory Board for review annually.

# FUND STRUCTURE

## OVERVIEW

Closed-end fund organized as a Singaporean limited partnership and a Luxembourg special limited partnership.

- Sponsor/Manager : LaSalle Investment Management Asia Pte Ltd.
- Parent Company : Jones Lang LaSalle
- General Partner : LaSalle Asia Opportunity VI General Partner Ltd

## REVIEW OF TERMS & CONDITIONS

| Key Terms | | Townsend Comment | |
|---|---|---|---|
| **Target Return** | Net IRR: 18% | **Neutral** | Higher target return compared to opportunistic peer funds in market. Consistent with prior fund series. |
| **Target Fund Size** | USD1.5 billion | **Negative** | Increased from LAO V's target USD750 million (raised: USD974 million). LaSalle has prior experience on raising and deploying funds over USD1 bn in LAO II and LAO III. There is no hard cap for Fund size. |
| **Sponsor Commitment** | USD30 million (2.0% of target fund size) from employees | **Neutral** | The Sponsor commitment will be direct co-investment from the senior employees. Overall amount of USD30m is equal to the Sponsor commitment from LAO V and in line with market peers of 2-3% co-investment. |
| **Investment Period** | 3 years after the Final Close | **Neutral** | Changed from 4 years after First Close in LAO V. In line with market. |
| **Term** | 8 years after Final Close with two 1-year extension options subject to Advisory Board approval | **Neutral** | Changed from 9 years after First Close in LAO V. In line with market. |
| **Leverage** | Max LTV 70% during investment period | **Negative** | Max LTV increased from LAO V's 65%. Limit is higher than market peer average of 60%. LTV limit only applied during investment period is consistent with LAO IV and LAO V. |
| **Geographical Allocations** | Pan Asia (Japan, Australia, China, South Korea, Hong Kong, Macao, Taiwan, New Zealand and Singapore) | **Neutral** | Focused in developed Asia countries. Consistent with LAO IV and LAO V. |
| **Investment Restrictions** | - Max 5% outside of Target Markets<br>- Max 15% in a single asset<br>- Max 20% to a single portfolio<br>- Max 30% to development | **Neutral** | General investment restrictions. Development limit increased from LAO V's 25% limit. |
| **Key Person Provision** | - More than two of Marc Montanus, Nick Okumura, Claire Tang or Yen Tjin Chan cease to devote substantially/reasonably their business time to the Fund.<br>- If triggered during the Investment Period, the Investment Period will be suspended until the GP presents replacement for AC approval. If not approved, Investment Period will be terminated. | **Neutral** | Key Person Provision in line with market. Mark Gabbay (Global CEO) has been removed from Key Person Provision compared to LAO IV and LAO V due to promotion to Global CEO. Replacement are the two Co-CIOs (Nick and Claire) and Yen Tjin Chan. |
| **GP Removal** | - With cause: Majority vote<br>- Without cause: Two-third majority vote | **Neutral** | GP Removal clause in line with market. |

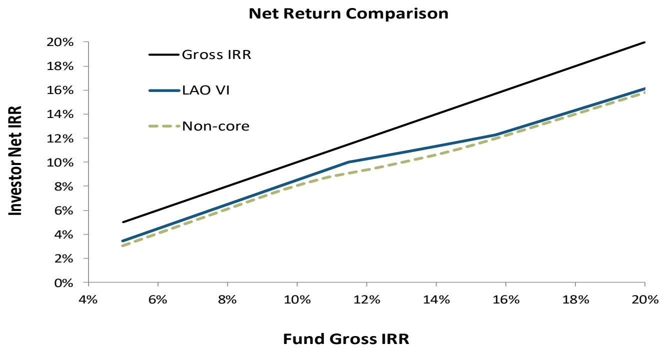
| | | | |
|---|---|---|---|
| **Management Fee** | <table><tr><td>Type of Investor</td><td>Management Fee[1]</td></tr><tr><td>Founding[2]</td><td>- 1.05%<br>- No fee holiday</td></tr><tr><td>First Close</td><td>- 1.50% for <USD75m<br>- 1.40% for ≥USD75m & <150m<br>- 1.25% for ≥USD150m<br>- Fee holiday till 31 Mar 2022</td></tr><tr><td>Post First Close</td><td>- 1.50% for <USD75m<br>- 1.40% for ≥USD75m & <150m<br>- 1.25% for ≥USD150m<br>- No fee holiday</td></tr></table>Note 1: Fee on committed equity during Investment Period and on invested equity after Investment Period<br>Note 2: According to LaSalle the Founding Investors will each commit over USD150 million | **Positive/ Neutral** | - Founding Investor's fee structure is favourable compared to peers<br>- First Close Investor's fee structure is slightly favourable compared to peers due to the fee holiday<br>- Post-First Close Investor's fee structure is in line with peers |
| **Performance Fee** | <table><tr><td>Type of Investor</td><td>Incentive Fee</td></tr><tr><td>Founding[2]</td><td>- 20% over a 10% hurdle rate with 50%/50% catch-up</td></tr><tr><td>Non-Founding</td><td>- 20% over a 9% hurdle rate with 50%/50% catch-up</td></tr></table> | **Positive/ Neutral** | - Founding Investor's fee structure is favourable compared to peers due to a higher hurdle rate<br>- Non-Founding Investor fee structure is in line with peers |
| **Organizational Expenses** | Up to USD2.5 million | **Neutral** | Increased from LAO V's USD1.5m. Reasonable considering increase of target fund size (LAO V USD750m vs. LAO VI USD1.5bn) |
| **Other Fees** | Applicable to logistics development:<br>- Development Management Fees: 5% of development costs<br>- Leasing Fees: 1.5 months' base rent for lease term less than 5 years or 2 months' base rant for lease term at least 5 years<br><br>Applicable to Luxembourg Partnership:<br>- Average USD180-200k p.a. | **Neutral** | Fees charged on logistics developments is in line with market and Luxembourg Partnership is a new structure mainly for European investors who have a specific requirement for a regulated fund structure. Management fee for this structure is charged to investors who invested through this structure. |

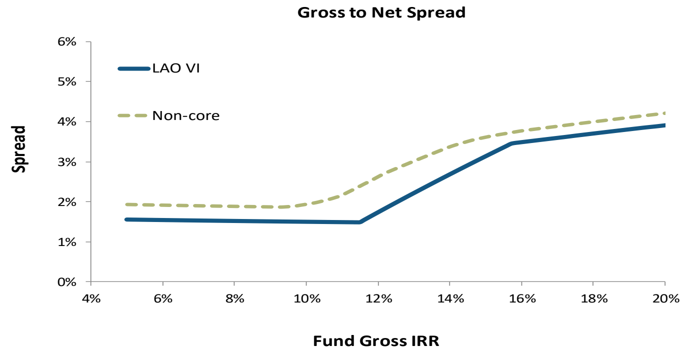
## FEES ANALYSIS

Townsend has compared the fee structure of LAO VI against 10 other funds currently in the market raising capital which are Pan Asia focused non-core funds. For LAO VI, the Founding Investors with minimum commitment of USD150 million will be offered fee discount, which is 1.05% on commitment during Investment Period and 1.05% on invested equity after Investment Period and performance fee hurdle of 10%, compared to the base fee rate for non-Founding Investors with commitment over USD150 million of 1.25% and performance fee hurdle of 9%.

The following diagram illustrates the gross-to-net return comparison. Based on Townsend's fee model, LAO VI requires gross IRR of 22.1% to achieve the target net IRR of 18.0% (after fees and promote), which is a leakage of approximately 4.1%. Overall, LAO VI's Founding Investor fee structure is favorable compared to peers. First Close Investor fee structure is marginally favorable compared to peers due to the fee holiday of two quarters until Mar 2022. Post-First Close Investor fee structure is in line with peers.

## Founding Investor Fee Analysis



# PERFORMANCE

## PERFORMANCE

LaSalle has raised five Pan Asia focused closed-end opportunistic real estate funds since 2001 and invested USD4.1 billion of equity into 174 assets. Among the five funds, three funds are liquidated. LAO II and LAO III underperformed against its target returns partly due to the impact of GFC. After the GFC, LaSalle has restructured the Asia team, aligned investment strategy to LaSalle's strengths and enhanced governance, risk management and client reporting. LAO IV and LAO V are the two funds raised after the GFC and projected to generate net IRR/EM returns of 28%/1.5x and 17%/1.4x, respectively.

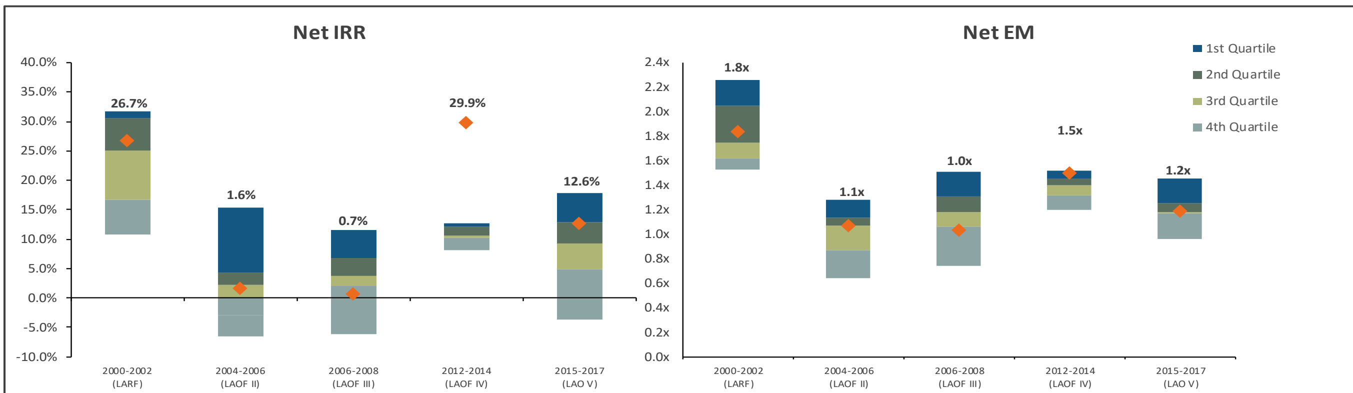
| Vehicle | Vintage Year | Status | Fund Size (USD m) | Fund Invested Equity[1] (USD m) | Number of Assets (Total / Current) | Target Net IRR | Realized/ Projected Net IRR[2]/EM | Since Inception Net IRR[3]/EM |
|---|---|---|---|---|---|---|---|---|
| **Realized** | | | | | | | | |
| LaSalle Asia Recovery Fund | 2001 | Liquidated | 242 | 267 | 12 / 0 | 18% | 26.7%/1.8x | 26.7%/1.8x |
| LaSalle Asia Opportunity II | 2005 | Liquidated | 1,000 | 1,112 | 59 / 0 | 18% | 1.6%/1.1x | 1.6%/1.1x |
| LaSalle Asia Opportunity III | 2007 | Liquidated | 1,932 | 1,673 | 34 / 0 | 18% | 0.3%/1.0x | 0.7%/1.0x |
| **Sub-total** | | | 3,174 | 3,052 | 105 / 0 | 18% | 3.1%/1.1x | 3.3%/1.1x |
| **Unrealized / Partially Realized** | | | | | | | | |
| LaSalle Asia Opportunity IV | 2013 | Liquidating | 485 | 426 | 41 / 2 | 18% | 28.0%/1.5x | 29.9%/1.5x |
| LaSalle Asia Opportunity V | 2016 | Stabilizing | 974 | 649 | 28 / 23 | 18% | 16.7%/1.4x | 12.6%/1.2x |
| **Sub-total** | | | 1,459 | 1,075 | 69 / 25 | 18% | 21.2%/1.4x | 19.5%/1.3x |
| **TOTAL** | | | **4,633** | **4,127** | **174 / 25** | **18%** | **7.8%1.2x** | **7.5%/1.2x** |

1. As of Dec 2020.
2. For LARF, LAO II and LAO III, returns are actual realized returns after local taxes, after fund level fees and expenses and after performance fee. For LAO IV and LAO V, returns are projected returns after local taxes, after fund level fees and expenses and after performance fees, as of Dec 2020.
3. Unrealized/Partially Realized funds, returns are as of Dec 2020, less fund expenses and fees and after accrued performance fees. For realized funds, returns stated refers to realized net returns less fund expenses and fee and after performance fees.

## PEER COMPARISON

Townsend has conducted peer comparison of LAO Fund Series against the similar vintage and non-core strategy Pan-Asia real estate funds within Townsend and Preqin data base. LAO II and LAO III has underperformed against their target returns while LAO IV's performance is top quartile among the peers and LAO V is performing as 2nd quartile against the peers.

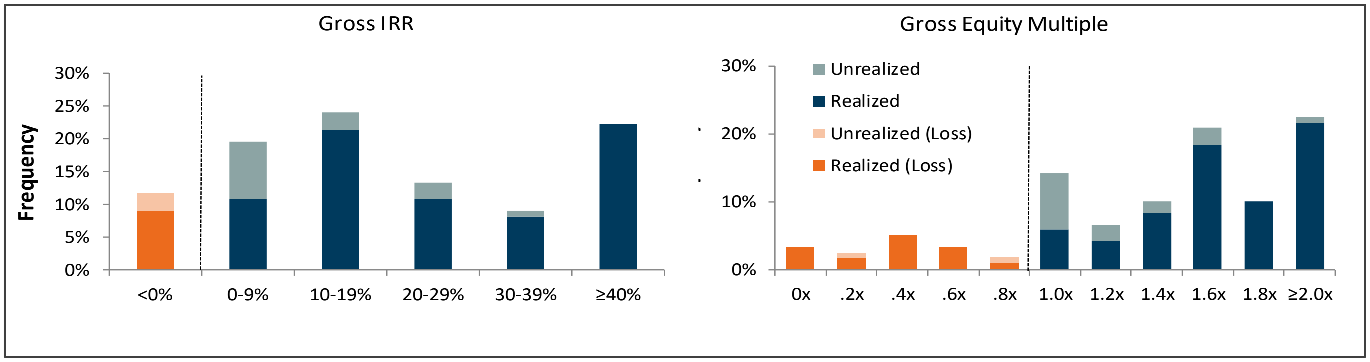
| Fund | Status | Vintage | Realized/ Since Inception Returns | | Peer Description | Ranking (Net IRR/Net EM) |
|---|---|---|---|---|---|---|
| | | | Net IRR | Net EM | | |
| LaSalle Asia Recovery Fund | Liquidated | 2001 | 26.7% | 1.8x | 7 peers, vintage between 2000-02 | 2nd quartile / 2nd quartile |
| LaSalle Asia Opportunity II | Liquidated | 2005 | 1.6% | 1.1x | 7 peers, vintage between 2004-06 | 3rd quartile / 2nd quartile |
| LaSalle Asia Opportunity III | Liquidated | 2007 | 0.3% | 1.0x | 11 peers, vintage between 2006-08 | 4th quartile / 4th quartile |
| LaSalle Asia Opportunity IV | Liquidating | 2013 | 29.9% | 1.5x | 5 peers, vintage between 2012-14 | 1st quartile / 1st quartile |
| LaSalle Asia Opportunity V | Stabilizing | 2016 | 12.6% | 1.2x | 6 peers, vintage between 2015-17 | 2nd quartile / 2nd quartile |




Source: Townsend non-core fund database and Preqin as of Dec 2020. Range shown is 95th to 5th percentile.

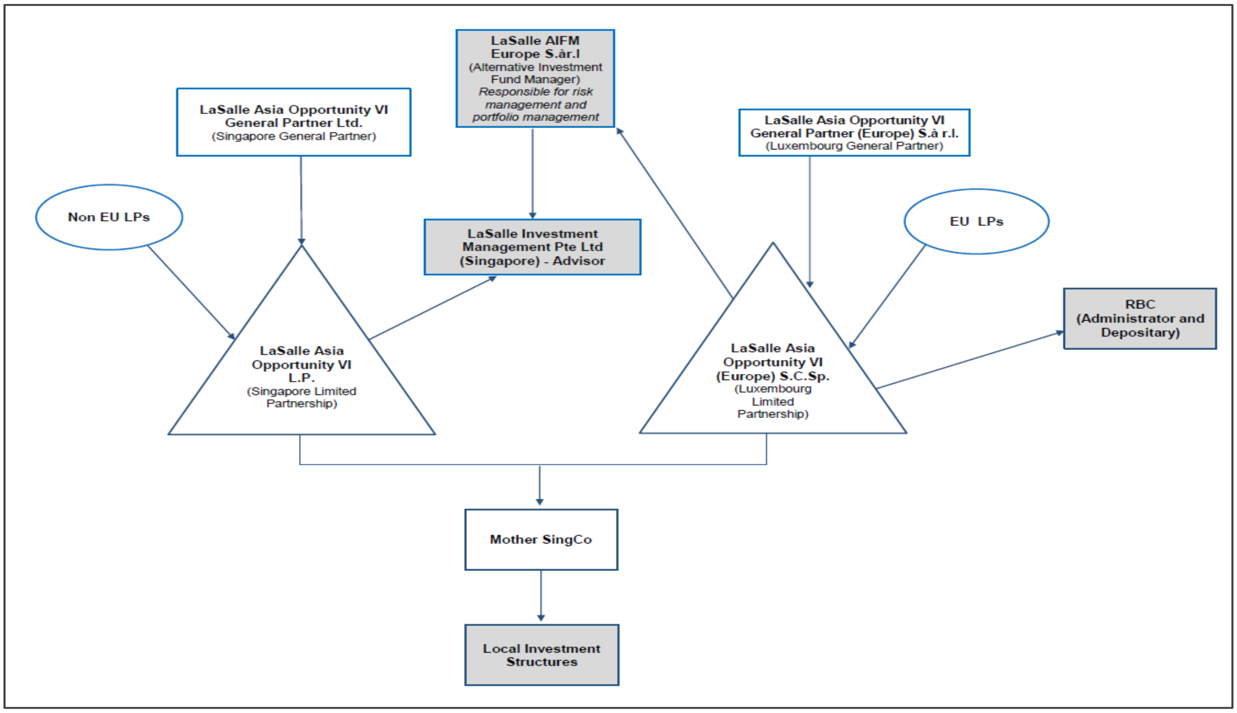
## DISPERSION OF RETURNS

Below chart provides the dispersion of LAO Fund series based on fair market value. Most of the losses are from LAO II and LAO III investments. There is one unrealized investment from LAO V which is projected to have negative return. The investment is a hotel investment in Japan which performance has been significantly impacted by the pandemic.

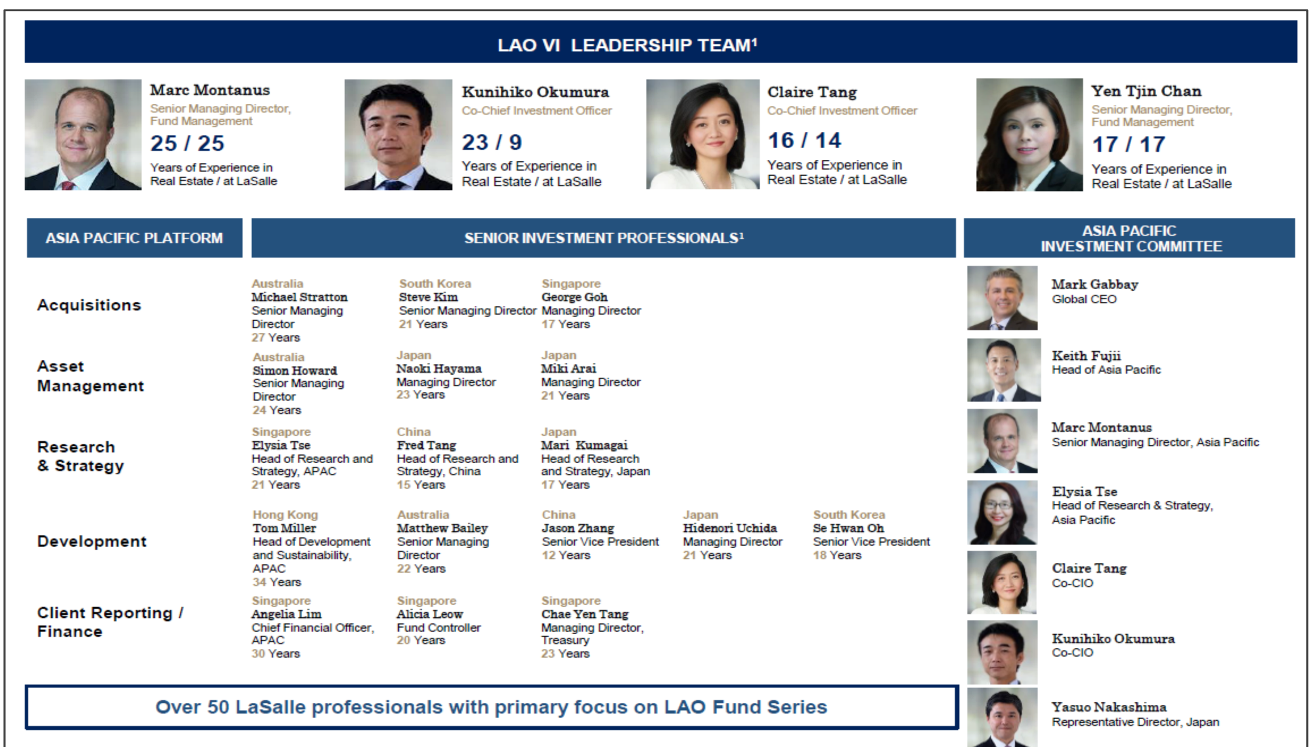


## EXHIBIT A: FUND STRUCTURE AND ORGANIZATION

Fund Structure




LAO VI Organization Chart (as of Apr 2021)




The above may be subject to changes. Information is as of April 1, 2020
[1] Years refer to professional experience in real estate. For the Research & Strategy, Development, and Client Reporting / Finance team, years refer to professional experience in relevant functions.

## EXHIBIT B: SENIOR MANAGEMENT BIOGRAPHIES

Executive Officers of LAO VI

**Marc Montanus – Senior Managing Director, Fund Management**
Montanus is a Senior Managing Director of LaSalle and the Fund Manager of the LaSalle Asia Opportunistic Fund Series. In this role, he is responsible for working w ith the Chief Investment Off icer to deliver fund performance from acquisition through disposition. Working with a dedicated team, he is also responsible for overseeing and executing all of the operational and reporting functions of the funds. He is one of the four Executive Officers of the Fund. Montanus has been in the real estate industry for over 25 years, working for the LaSalle Group in the United States and Europe before joining the Asia Pacific business in 2001. Montanus has worked extensively in different disciplines of institutional real estate investment management including acquisitions, asset management, portfolio management, real estate securities and investor relations. Prior to assuming his current role in 2008, he was responsible for managing the Asia Property Fund, the Sponsor's core plus open-ended pan-regional fund in Asia Pacific, which significantly exceeded its return targets during his tenure. Before that, he was the portfolio manager for a regional separate account mandate, acquiring ten direct and indirect investments across Asia, all of which exceeded their acquisition underwriting projections during his tenure. Montanus holds a B.S. in Business Administration from Miami University (Ohio).

**Kunihiko Okumura – Head of Acquisitions & Asset Management Japan, Co-CIO, Asia Pacific**
Okumura is a Senior Managing Director of LaSalle and serves as Head of Acquisitions and Asset Management in Japan. He has been appointed co-Chief Investment Officer of LaSalle Asia Pacific in 2020 and he is a member of the Investment Committee. Okumura joined LaSalle in 2011 and has been leading LaSalle's value-add/opportunistic side of businesses in Japan across multiple mandates. His key responsibilities include overseeing origination, underwriting, execution, and asset management of investments. He has over 23 years of real estate experience and completed over USD15 billion of debt and equity transactions in various asset types. Prior to joining LaSalle, Okumura served as Principal at Westbrook Partners, and Senior Vice President of Global Real Estate Group of Lehman Brothers. During his tenure in Lehman Brothers, he executed over USD15 billion of debt transactions, coordinated loan syndications and completed 9 CMBS issuance. Okumura earned a M.A. in International Studies from University of Washington, and a B.A. in English from Kwansei Gakuin University.

**Claire Tang – Head of Greater China, Co-CIO, Asia Pacific**
Tang is a Senior Managing Director of LaSalle Group and the Head of LaSalle's Greater China platform, responsible for overseeing acquisition, development and asset management teams in the region. Previous to the current role, Tang spearheaded the acquisition team in China. She is also responsible for managing LaSalle's key partner relationships in the Greater China region. Her key responsibilities for the LaSalle China Logistics Venture will include origination, capital structuring, as well overseeing development and deal execution. She is one of the four Executive Officers of the Fund. Since joining LaSalle in 2007, she has led and completed over USD2.5 billion of commercial and logistics acquisitions in China, via direct investment as well as programmatic joint ventures. She played an instrumental role in building LaSalle's dedicated logistics team in China, which has executed over USD1 billion of logistics transactions with a total portfolio size exceeding 1.1 million sqm. Prior to joining LaSalle, Tang held investment roles with Jones Lang LaSalle and GE. Tang earned a Master of Business Administration from the Kellogg School of Management at Northwestern University and Hong Kong University of Science and Technology, and holds a Bachelor of Business Administration from Babson College.

**Yen Tjin Chan – Senior Managing Director, Fund Management**
Chan is a Senior Managing Director of LaSalle and serves as the Fund Manager of LaSalle China Logistics Venture. She joined LaSalle in 2003 and has over 16 years of experience in real estate investment fund management and is one of the four Executive Officers of the Fund. She is responsible for delivering fund performance from acquisition through disposition. Chan is also responsible for overseeing and executing all of the operational and reporting functions of the Fund. She is also part of fund management team for the LaSalle Asia Opportunistic Fund Series since 2011 and is the portfolio manager managing the China Logistics co-investment program since 2014. Chan has worked extensively in different disciplines of institutional real estate investment management including finance, treasury, asset management, portfolio management and investor relations. Prior to her role in Fund Management, Chan was responsible for managing the treasury function in Asia Pacific and implementing the foreign exchange and interest rate hedging strategy across all LaSalle funds in Asia. She was also part of the loan origination and restructuring team responsible for originating and restructuring loans across Asia Pacific. Chan is a Chartered Accountant with the Institute of Singapore Chartered Accountants and has a Bachelor of Accountancy from Nanyang Technological University.

Investment Committee

**Mark Gabbay – Global Chief Executive Officer**
Mark Gabbay joined LaSalle in 2010 as Chief Investment Officer for Asia Pacific. In 2015, he became CEO of the region and is responsible for formulating and implementing LaSalle's investment strategy across Asia Pacific, sourcing opportunities and overseeing the investment process. On January 1, 2021, Gabbay succeeded Jeff Jacobson as Global CEO of LaSalle. Prior to joining LaSalle, Gabbay served as Managing Director and Head of the Asia Asset Finance Division at Nomura, and was Co-Head of the Asia Pacific Global Real Estate Group at Lehman Brothers, where he was in charge of the firm's expansion into new markets for both debt and equity real estate investments. Gabbay also worked at GMAC Commercial Mortgage Corporation as the Head of Real Estate Lending for Japan in the late 90s. Gabbay has a BA from the University of California, Berkeley.

**Marc Montanus – Senior Managing Director, Fund Management**
Montanus is one of the four Executive Officers and detailed biography is provided above.

**Keith Fujii – Head of Asia Pacific**
Fujii is the Head of LaSalle Asia Pacific business, a role he was appointed in January 2021. Having joined LaSalle in March 2018 as the CEO of Japan, Fuji is a Representative Director and President of LaSalle Investment Management K.K. and he sits on the board of directors at LaSalle REIT Advisors K.K, asset manager to the firm's Japan logistics REIT, LaSalle Logiport REIT.Fujii has a distinguished background in Asia. He has over 26 years of experience in real estate principal investment/investment management and held senior positions at Bank of America Merrill Lynch, Grove International Partners, Shinsei Bank and Lehman Brothers. Throughout his career, Fujii's focus has been exclusively on real estate and he has achieved this through both equity and debt investments. In addition to his 20 years in the Japanese real estate market, Fujii has invested in and/or created investment platforms in South Korea, Taiwan, Germany, Spain, Australia, the USA, and India. He has also led acquisitions in China, Philippines, Singapore, the UK, and France. Fujii received a B.S. in Civil Engineering from the University of California at Irvine and a M.B.A. from New York University.

**Kunihiko Okumura – Co-CIO, Asia Pacific**
Okumura is one of the four Executive Officers and detailed biography is provided above.

**Claire Tang – Head of Greater China, Co-CIO, Asia Pacific**
Tang is one of the four Executive Officers and detailed biography is provided above.

**Elysia Tse – Head of Research & Strategy, Asia Pacific**
Tse is the Head of Research & Strategy for LaSalle Asia Pacific, based in Singapore. She leads the regional Research & Strategy team, which assists in the formulation of fund/separate account strategies; carries out asset-level underwriting; helps determine strategic plans for existing assets; contributes to decisions about the timing of disposals; and enhances LaSalle's thought leadership in the region. Prior to rejoining LaSalle in 2016, Tse was with Citigroup and Blackrock in New York before moving to Singapore to join Aviva Investors taking on the role of Head of Investment Governance, Strategy & Research – Asia Pacific Real Estate and a voting member of the investment committee in Asia Pacific. Tse holds a B.S. from Xiamen University and a Master in Real Estate from Cornell University. She was the recipient of the inaugural 2015 Cornell University Baker Program in Real Estate Alumnus of the Year Award. She sits on the advisory board of Cornell University Baker Program in Real Estate.

**Yasuo Nakashima – Representative Director, Japan**
Nakashima is the Representative Director of LaSalle Investment Management in Japan. Since joining LaSalle in 2002, Nakashima has successfully grown LaSalle's Japanese business to over USD5 billion of assets under management. Nakashima has in excess of 28 years of experience in direct real estate in both Japan and the United States. His experience includes development, acquisitions, asset management, property management, and leasing and investment brokerage. Prior to joining LaSalle, Nakashima was a co-founder of Prospect Development Corp., a New York based developer specializing in public-private partnership developments. Before moving to the United States in 1999, he worked as a project manager for Cosmos Initia Co., one of Japan's largest multi-family residential developers. Nakashima has a M.S. in Real Estate Development from Columbia University and a B.S. in Architecture from Waseda University (Tokyo). He is a licensed Real Estate Broker (Japan) and a licensed Architect (1st Class, Japan).

Acquisitions Team

**Kunihiko Okumura – Co-CIO, Asia Pacific**
Okumura is one of the four Executive Officers and detialed biography is provided above.

**Claire Tang – Head of Greater China, Co-CIO, Asia Pacific**
Tang is one of the four Executive Officers and detialed biography is provided above.

**Steve Kim – Senior Managing Director, South Korea**
Kim is a Senior Managing Director responsible for leading deal sourcing and asset management in South Korea, and special situation investing regionally. He joined LaSalle in 2013. He has worked in the Asia-Pacific real estate industry since 2000 focused on development projects and opportunistic investments in private equity and non-performing loans. Prior to joining LaSalle, Kim was Managing Partner at Bellevue Capital Management focused on cross-border real estate investments on behalf of family offices. Prior to that he worked in Nomura's Asia Asset Finance Division and subsequently the Real Estate Investment Banking Division (Asia Ex-Japan) as an Executive Director where he helped build the advisory business as one of the original senior members. Prior to that, he was Vice President of Lehman Brothers' Global Real Estate Group focused on principal debt and equity investments in South Korea, Australia, and China. He also worked at Deutsche Bank's Real Estate Private Equity Group acquiring multi-borrower collateralized loan portfolios and distressed real estate companies in South Korea post-Asian Financial Crisis in 2000. He started his career at Merrill Lynch & Co. in US and interned at The United States Senate. Kim holds a B.S. from Georgetown University.

**Michael Stratton – Head of Acquisitions, Australia**
Stratton is serves as Head of Acquisitions, Australia and is responsible for acquisitions in Australia. Having joined LaSalle in 2011, Stratton has over 25 years of experience in the Australian real estate industry and has experience in valuation, asset management and acquisitions, and completed over USD8.5 billion of transactions across all asset classes including residential, mixed use and office development. Prior to joining the LaSalle Group, he was Head of Capital Transactions at Lendlease and Fund Manager for the Lendlease Core Plus Fund. In that role, he helped increase the assets under management of the Core Plus Fund from USD275 million to USD540 million between 2008 and 2010. Stratton holds a Bachelor of Business (Land Economy) from University of Western Sydney.

**George Goh – Head of Acquisitions & Asset Management, Southeast Asia**
Goh is the Head of Acquisitions and Asset Management, Southeast Asia and is responsible for acquisition and asset management activities in the Southeast Asia region. Goh has over 17 years of experience in the real estate industry and has worked in various functions including acquisitions, asset management and portfolio management. Goh first joined LaSalle in April 2005. During his time at LaSalle, he completed USD1.5 billion of investments for the opportunistic fund series and core fund, which includes direct investments and joint ventures in office, hotel, residential and logistics standing assets and developments in Singapore, Thailand and Australia. Prior to re-joining LaSalle in 2014, he was Head of Investments, Southeast Asia at Mapletree Investments. Goh holds a Bachelor of Business degree (Finance), First Class Honours from Nanyang Technological University in Singapore and is a CFA Charterholder since 2006.

Asset Management Team

**Naoki Hayama – Asset Management, Japan**
Hayama joined LaSalle in 2014 and is responsible for day to day management of office, retail and hotel assets in Japan. He has over 17 years of experience in the Japanese real estate industry including acquisitions, finance and asset management. Before joining LaSalle, he spent 5 years in Asia Pacific Land Japan focusing primarily on acquisitions and re-financing. Hayama received a Bachelor of Economics from Hosei University and Master of Science in Urban Planning from University of Wales, Cardiff.

**Miki Arai – Asset Management, Japan**
Arai is a Managing Director in the Asset Management team in Japan. She joined LaSalle in 2006 and has been responsible as lead retail asset manager for over USD4 billion of retail assets during her tenure, including more than 1,900 leases. Arai has over 20 years in the asset management field with a particular expertise in the operational retail asset sector. Prior to LaSalle, she worked at Asia Pacific Land. Arai holds a Bachelor degree in International Communications from the University of Kyoritsu Women's University in Tokyo, Japan and a Bachelor degree in Fashion Merchandising Management from Fashion Institute of Technology (New York State University) in the US.

**Simon Howard – Head of Asset Management, Australia**
Howard is Head of Asset Management in Australia. In this role, Simon develops and implements asset management strategies to maximize real estate returns for funds and other institutional clients. He has experience across a broad range of real estate sectors including retail, office, industrial, hotel, residential and retirement. Howard joined LaSalle in 2011 and has over 25 years of experience in the Australian real estate industry and has experience across a broad range of asset classes including office, retail, industrial, hotels, retirement villages and residential. Prior to joining LaSalle, Howard was employed by Lendlease for almost 15 years gaining experience in asset and portfolio management, fund analysis and finance. His most recent role with Lendlease was as Investment Manager for the Lendlease Core Plus Fund. Howard is a Certified Practicing Accountant in Australia and holds a Graduate Diploma in Applied Finance and Investment and Bachelor of Business (Accounting and International Business) from University of Technology, Sydney.

Development Team

**Tom Miller – Head of Development and Sustainability, Asia Pacific**
Miller is Head of Development and Sustainability across Asia Pacific and is responsible for overseeing development management projects throughout the region. He is also a member of the LaSalle Group's Global Sustainability Committee and the Regional Sustainability Officer for LaSalle Asia Pacific. Miller has over 32 years of experience in real estate development projects throughout Asia, Europe and the US. He has held senior executive positions in the real estate development/construction industry worldwide, including over 16 years of regional experience in Asia. His experience in these markets includes commercial, residential, retail, hospitality, industrial, institutional, and infrastructure projects. Internationally, Miller has been responsible for overseeing the execution of development projects in many countries, but most significantly in China, Japan, South Korea, Australia, Hong Kong, Malaysia, the Philippines, Indonesia, the UK, Spain and Portugal. Miller holds a Bachelor of Science in Civil Engineering from the University of Notre Dame, a Master's Degree in Engineering Administration from George Washington University, an Executive MBA from the IE Business School (Instituto de Empresa) in Madrid, Spain, and a Master of Science degree in Real Estate from Hong Kong University.

**Matthew Bailey – Development, Australia**
Bailey is a responsible for development management projects across Australia. Bailey has over 20 years' experience in the Australian real estate industry. He has worked in the design, construction, development and asset management of properties across multiple asset classes including office, residential, retail and hotel. Prior to joining the LaSalle Group Bailey worked for two of Australia's largest construction firms, Multiplex and Grocon, and then spent five years working in the Real Estate Capital Division of Macquarie Bank, managing its portfolio of REITS as a Senior Development Manager. Following this Bailey was Head of Development at a boutique fund manager specialising in residential and hotel development. Bailey holds a Bachelor of Engineering (Structure / Civil) and a Bachelor of Commerce (Accounting / Industrial Relations) from the University of Sydney.

**Jason Zhang – Senior Vice President, Greater China**
Zhang is a Senior Vice President of Development for Great China. He joined LaSalle in 2018 and has 12 years of overseas and local experience in development. He specializes in managing full development projects covering site selection due diligence, design, permit application, construction and operations startup. Prior to joining LaSalle, Zhang was a Project Director at ARCADIS China and delivered various types of industrial and commercial projects. He also worked at Honeywell APAC Real Estate, and at a design firm SOM in San Francisco. Zhang holds a Master of Structural and Materials Engineering from Stanford University and a Bachelor's Degree in Civil & Environmental Engineering from UC Berkeley.

**Hidenori Uchida – Development, Japan**
Uchida joined LaSalle in 2012 and is responsible for overseeing development management projects and is also responsible for overseeing the physical and environmental due diligence process for all deals in Japan. Uchida has more than 20 years' experience in managing real estate development projects in Japan. His experience includes overseeing the development management, project management and asset management of various projects across multiple sectors including commercial, retail, residential, mixed use, industrial, hospitality. Prior to joining LaSalle, he worked at Invesco Real Estate, AIG Global Real Estate and Hazama. Uchida holds a BE in Architecture & Engineering from National Muroran Institute of Technology. He is a Certified First-Class Architect and has a Real Estate Brokerage license in Japan.

**Se Hwan Oh – Development, South Korea**
Oh joined LaSalle in 2016 as the lead development manager for South Korea. He is responsible for overseeing the day-to-day management of ground-up developments across multiple asset classes, distressed and/or problematic assets that are in need of significant renovations. With 19 years of experience in the South Korea real estate industry, he has significant

experience in tackling on the ground issues working closely with staff and outside third-party advisors. Oh holds a Bachelor of Architectural Engineering from Korea University. He is a CFA Charterholder, a Certified Investment Manager, Korea Financial Investment Association and a Certified Architectural Engineer, and a member of the Human Resource Development Service of Korea.

Finance and Accounting Team

**Angelia Lim – Chief Financial Officer, Asia Pacific**
Lim is Chief Financial Officer of LaSalle Asia Pacific. She is responsible for financing strategy and initiatives and oversees the regional finance function on behalf of LaSalle's clients. She has worked with major international institutional clients in the Asia Pacific real estate fund management industry since 1998 and the Asian capital markets (mainly focusing on corporate securitization) since 1996. She previously acquired diverse financial markets skills predominantly in the key financial markets of London and Hong Kong, having serviced a range of financial markets intermediaries to real estate developers and companies since 1989. She has successfully originated up to USD12 billion of debt and structured credit products in Asia and forged strong relations with global financial intermediaries. She is proactively involved in investment formulation, due diligence, risk, treasury and liquidity management for both direct and indirect investments and dispositions. Lim is a Charted Accountant, Singapore and has a Bachelor in Accountancy and Finance (Honors) from the National University of Singapore.

**Yen Tang Chae – Managing Director, Treasury and Loan Originations**
Chae is a Managing Director of LaSalle. He leads the treasury function in LaSalle Asia Pacific including loan originations in China. He joined LaSalle in 2004 and since then has been Fund Controller for various co-mingled funds and separate accounts mandates. He has over 22 years of experience in financial reporting and has acquired diverse financial market skills over the years, having worked as an auditor and as a product controller with an oil company and a bank. He has successfully originated USD3 billion of loans for China investments and fund level facilities with a diverse group of financial institutions. Chae is a Chartered Accountant with the Institute of Singapore Chartered Accountants and has a Bachelor of Accountancy (Honors), minoring in Banking and Finance from the Nanyang Technological University.

**Alicia Leow – Fund Controller**
Leow is a Managing Director and the Fund controller for the Fund. She joined LaSalle in 2006 and is responsible for the financial reporting and liquidity management of the co-mingled and separate account mandates under her charge. She has acquired a range of financial skills over the years, having worked as an auditor with Ernst & Young and an accountant with a listed hotel and property conglomerate. Leow has a Bachelor of Accountancy from the Nanyang Technological University.

## EXHIBIT C: Track Record

LaSalle Track Record in Asia Pacific

| Vehicle | Strategy | Vintage Year[3] | Size (USD m) | Number of Investments[3] | Projected/ Realized Net IRR[3] | FMV Net IRR[3,4] | FMV Net EM[3,4] |
|---|---|---|---|---|---|---|---|
| LaSalle Asia Recovery Fund | Opportunistic | 2001 | 242 | 12 | 27% | 27% | 1.8x |
| LaSalle Asia Opportunity Fund II | Opportunistic | 2005 | 1,000 | 29 | 2% | 2% | 1.1x |
| LaSalle Asia Opportunity Fund III | Opportunistic | 2007 | 1,932 | 29 | 0% | 1% | 1.0x |
| LaSalle Asia Opportunity Fund IV | Opportunistic | 2013 | 485 | 26 | 28% | 30% | 1.5x |
| LaSalle Asia Opportunity Fund V | Opportunistic | 2016 | 974 | 25 | 17% | 13% | 1.2x |
| LaSalle China Logistics Venture | Opportunistic | 2020 | 484 | 8 | 17% | n/a | n/a |
| LaSalle Japan Logistics Fund I | Opportunistic | 2004 | 392 | 25 | 11% | 11% | 1.4x |
| LaSalle Japan Logistics Fund II | Opportunistic | 2007 | 407 | 15 | 13% | 13% | 1.5x |
| LaSalle Japan Logistics Fund III | Opportunistic | 2013 | 361 | 14 | 44% | 44% | 1.9x |
| LaSalle Logiport REIT[1] | Core | 2015 | 3,414 | 19 | n/a | n/a | n/a |
| LaSalle Japan Property Fund[1] | Open-end | 2019 | 1,053 | 6 | n/a | n/a | n/a |
| Global Separate Account A[1] | Core / Non-Core | n/a | 1,266 | n/a | n/a | n/a | n/a |
| Global Separate Account B[1] | Non-Core | n/a | 558 | n/a | n/a | n/a | n/a |
| Separate Account Series[1] | Core | n/a | 414 | n/a | n/a | n/a | n/a |
| Other Core Separate Accounts[1,2] | Core | n/a | 2,855 | 8 | n/a | n/a | n/a |
| Other Non-Core Separate Accounts[1,2] | Non-Core | n/a | 878 | 10 | n/a | n/a | n/a |
| Co-investments, Sidecars, Joint Ventures[1,2] | Non-Core | n/a | 916 | 14 | n/a | n/a | n/a |

1. Size for these vehicles is GAV. Others are total commitment.
2. Number of investments for the three vehicles are total number of accounts.
3. Not available due to confidentiality.
4. USD returns after expenses, management fees and performance fees. Japan vehicles are local currency returns.

LAO Series Last 10 Year Asset Level Track Record (Per Vintage Year)

| Year | No. of Assets | Total Cost[1] | Invested Equity[2] | Gross IRR[3] | Gross EM[3] |
|---|---|---|---|---|---|
| 2011 | 10 | 1,635 | 419 | 12% | 1.5x |
| 2012 | 4 | 89 | 30 | 60% | 3.1x |
| 2013 | 1 | 14 | 4 | 118% | 2.1x |
| 2014 | 14 | 599 | 177 | 31% | 1.6x |
| 2015 | 13 | 410 | 139 | 49% | 1.7x |
| 2016 | 11 | 801 | 266 | 26% | 1.7x |
| 2017 | 2 | 39 | 17 | 39% | 2.1x |
| 2018 | 9 | 929 | 408 | 25% | 1.6x |
| 2019 | 12 | 700 | 277 | 17% | 1.5x |
| 2020 | 2 | 215 | 83 | 36% | 1.4x |
| **Total - Last 10 Years** | **78** | **5,431** | **1,820** | **25%** | **1.6x** |
| **Total - LAO Series (since 2001)** | **174** | **12,229** | **4,576** | **15%** | **1.4x** |

1. Total acquisition cost of equity and financing at the point of acquisition.
2. Aggregated total of fund equity and co-investment partner equity.
3. Projected USD returns.

LAO Series Last 10 Year Asset Level Track Record (Per Sector and Country)

| | Logistics | Office | Residential | Retail | Hotel | Total |
|---|---|---|---|---|---|---|
| No. of Assets Acquired/Disposed | 18 / 8 | 34 / 25 | 15 / 14 | 5 / 3 | 6 / 3 | **78 / 53** |
| Invested Equity[1] (USD m) | 338 | 785 | 355 | 147 | 195 | **1,820** |
| Disposition Value (USD m) | 407 | 1,361 | 1,995 | 354 | 236 | **4,353** |
| Gross Returns[2] | 24% / 1.7x | 33% / 1.7x | 17% / 1.5x | 17% / 1.6x | 15% / 1.6x | **25% / 1.6x** |
| | **Australia** | **China** | **Japan** | **South Korea** | **Singapore** | **Total** |
| No. of Assets Acquired/Disposed | 18 / 17 | 20 / 9 | 37 / 25 | 2 / 2 | 1 / 0 | **78 / 53** |
| Invested Equity[1] (USD m) | 507 | 640 | 580 | 33 | 60 | **1,820** |
| Disposition Value (USD m) | 2,403 | 509 | 1,304 | 137 | - | **4,353** |
| Gross Returns[2] | 16% / 1.6x | 16% / 1.5x | 41% / 1.7x | 68% / 1.9x | 11% / 1.6x | **25% / 1.6x** |

1. Aggregated total of fund equity and co-investment partner equity
2. Projected USD returns

## EXHIBIT D: Advanced Pipeline Deals

1) Project Platinum – Japan Multi-family

### Project Platinum, Japan

IMPROVE NET OPERATING INCOME TO DRIVE RETURNS

- A multi-family asset located in central Tokyo
- The asset is not efficiently managed with in-place rent below market.
- The strategy is to improve net operating income through active leasing to increase the rent and lease up vacant spaces. The asset is currently at 91% occupancy and is expected to stabilised at 96% occupancy.
- Refurbishment works will be undertaken to support the increase in rent, which include improvements to tenant areas as well as common areas, addition of amenities such as business center and gym.
- Expecting to secure exclusivity and enter into SPA in July 2021.

**Property Summary**
Tokyo, Japan

| Status | Pipeline |
|---|---|
| Property Type | Residential |
| Size (NLA) | 5,772 sqm |
| Target Acquisition Date | Sep 2021 |
| Entry Yield | 2.7% |
| Stabilised Yield | 3.6% |
| Equity | $21 million |
| Underwritten Gross Returns[3] | 19% IRR, 1.6x EM |

[1] Asset returns are leveraged returns in local currency, after fees and fund-level expenses and after local taxes. The target returns are based on preliminary assumptions made and are subject to change, pending further due diligence.

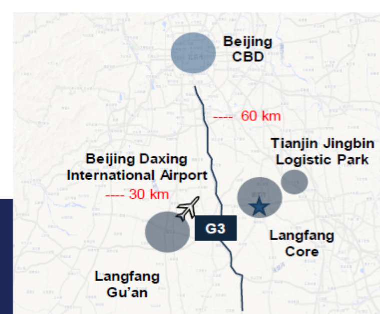
Information provided above is as of Apr 2021.

2) Project Langfang – China Logistics Development

### Project Logiport Langfang

MODERN WAREHOUSE DEVELOPMENT OPPORTUNITY

- An opportunity to enter into a 80%:20% joint-venture with ABM, to develop 5 double-storey warehouses with 128,037 sqm leasable area in Langfang.
- With good accessibility, the project is located in core area of Langfang, approximately 60km from Beijing CBD and 30km from Beijing Daxing International Airport.
- Given the very limited supply in Beijing alongside Langfang's favourable rental discount, Langfang has benefited largely from the positive spillover effects from Beijing. The proximity to Tianjin and the rest of Hebei Province also enables Langfang to serve the demand of the regional distributors serving the whole Jing-Jin-Ji area (Beijing, Tianjin and Hebei area). The vacancy rate for Langfang is 0.6% in Q1 2021.




**Property Summary**
Langfang, Greater Beijing

| Status | Pipeline |
|---|---|
| Property Type | Logistics |
| Size (NLA) | 128,037 sqm |
| Target Acquisition Date | Q4 2021 |
| Development Margin | 37% |
| Equity | 46 million |
| Underwritten Gross Returns[1] | 18% IRR, 1.7 x EM |

[1] Asset returns are leveraged returns in local currency, after fees and fund-level expenses and after local taxes. The target returns are based on preliminary assumptions made and are subject to change, pending further due diligence.

Information provided above is as of June 2021.

3) Project Solitaire – Singapore Office Redevelopment

## Project Solitaire, Singapore

FREEHOLD CBD GRADE A OFFICE DEVELOPMENT OPPORTUNITY

- Acquire a freehold ("FH") prime CBD site at attractive discounts
- Redevelop into a grade A office building with a reputable partner on 70/30% basis. Site has untapped GFA of 48%.
- High scarcity value as FH institutional grade A strata office is limited. Most FH buildings are aged stock facing obsolescence risk while most grade A office buildings sit on leasehold land.
- Strategy is to sell on strata basis pre-completion in market with limited institutional grade strata FH office. This thesis is supported by high liquidity, growth of family offices in Singapore, increasing participation from global institutions and recovery of office sector.
- Developing a new office building eliminates building obsolescence risk, which is increasingly of concern in a post COVID-world where occupiers are likely to demand ESG elements and modern specifications to cater to a hybrid remote/ office working model.
- Projected recovery of CBD office rents which has shown signs of bottoming out. Sector has enjoyed high occupancy for over two decades with historical 20Y/10Y/5Y average of 93% and 3Y average of 94%.

### Property Summary
Singapore

| **Status** | Pipeline |
|---|---|
| Property Type | Office |
| Size (NLA) | 17,656 sqm |
| Target Acquisition Date | Q4 2021 |
| Development Margin | 28% |
| Equity | $73 million |
| Underwritten Gross Returns[1] | 17% IRR, 1.8 x EM |

[1] Asset returns are leveraged returns in local currency, after fees and fund-level expenses and after local taxes. The target returns are based on preliminary assumptions made and are subject to change, pending further due diligence.

Information provided above is as of Apr 2021.

## EXHIBIT E: TERM COMPARISON LAO VI & LAO V

| | LAO VI | LAO V |
|---|---|---|
| **Fund Structure** | Singapore LP and Luxembourg SCSp | English LP |
| **Fund Size** | Target USD1.5 billion | Target USD750m / Raised USD974m |
| **Sponsor Co-investment** | USD30m from employees | USD20m from Sponsor, USD10m from employees |
| **Investment Period** | 3 years from Final Close | 4 years from First Close |
| **Executive Officers** | Marc Montanus, Nick Okumura, Claire Tang, Yen Tjin Chan | Mark Gabbay, Marc Montanus |
| **Leverage Limit** | 70% during investment period | 65% during investment period |
| **Development Limit** | 30% | 25% |
| **Management Fees** | During Investment Period: On commitment<br>Post Investment Period: On invested equity<br><br>Founding Investor Fee Rate: 1.05% p.a.<br><br>First Close Investor Fee Rate:<br>Fee holiday until Mar 31, 2022<br>- 1.50% for commitment less than USD75m<br>- 1.40% for commitment equal or greater than USD75m but less than USD150m<br>- 1.25% for commitment equal or greater than USD150m<br><br>Post-First Close Fee Rate<br>- 1.50% for commitment less than USD75m<br>- 1.40% for commitment equal or greater than USD75m but less than USD150m<br>- 1.25% for commitment equal or greater than USD150m | During Investment Period: Unfunded commitment + invested equity<br><br>First close<br>- 0.75% on unfunded commitment for investor commitment less than USD75m<br>- 0.50% on unfunded commitment for investor commitment equal or greater than USD75m<br><br>Post-First close:<br>- 1.50% on unfunded commitment for investor commitment less than USD75m<br>- 0.75% on unfunded commitment for investor commitment equal or greater than USD75m<br><br>Post Investment Period: 1.50% on invested equity |
| **Other Fees** | Logistics development and logistics leasing | n/a |
| **Luxembourg Entity Fees** | Minimum USD100-180k | n/a |
| **Organization Expenses** | Cap at USD2.5m | Cap at USD1.5m |
| **Performance Fee** | - 20% over 10% hurdle rate, 50%/50% catch-up for Founding Investor<br>- 20% over 9% hurdle rate, 50%/50% catch-up for Non-Founding Investor | 20% over 10% hurdle rate, 50%/50% catch-up |
| **Advisory Board** | Minimum commitment of USD100m | Minimum commitment of USD75m |
| **Allocation between other LaSalle vehicles** | - Japan logistics: First JLF IV and second Asian SMA<br>- China logistics: 40% LAO VI, 60% LCLV<br>- Korea logistics: 60% LAO VI, 40% co-investment | - Japan logistics: First right to JLF IV<br>- China logistics: 51% LAO V, 49% co-investment<br>- Korea logistics: n/a |

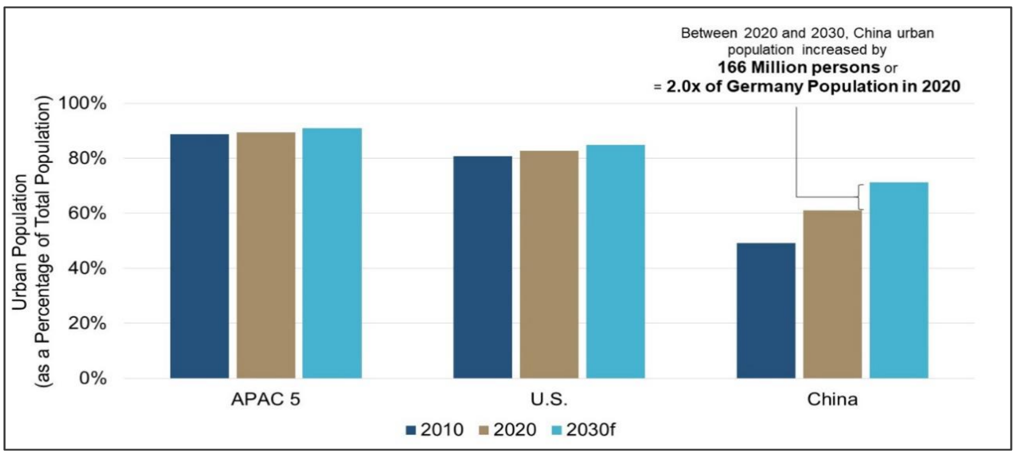
## EXHIBIT F: Market Overview

### Asia Pacific Overview

Asia Pacific is the largest economic region and most populous region in the world. With 4.2 billion people, the region contains 54% of the world's population[3] and accounts for about 42% of world's nominal GDP USD81 trillion and 42% of the world's trade in goods of USD18 trillion[4]. Asia Pacific's growth is supported by fundamentals such as i) urbanization, ii) high national savings rates, iii) the rise of the middle-class and the accompanying consumption growth, and iv) rapid growth of e-commerce. All these trends are expected to benefit real estate investment performance.

Over the past ten years, the proportion of Asia Pacific's population that lives in cities has risen from 42% (2010) to 48% (2020), which represents an additional 417 million people residing in urban areas[5]. Over the next ten years, the proportion of the urban population is expected to rise to about 54%[6], primarily driven by urbanization in China. This is equivalent to 385 million people, or 1.2 times of the US population in 2020, moving to urban areas[7]. At the same time, the urban population in China is expected to increase by 166 million people or equivalent to twice the population of Germany in 2020. In the highly urbanized five Asia Pacific countries, urbanization rates are projected to remain high and above that of the US.

Urbanization in Asia Pacific and US




Note: APAC 5 are Australia, Hong Kong, Japan, Singapore, and South Korea. Source: LaSalle

The national savings as a percentage of GDP in Asia Pacific countries is generally higher than those of the US and UK. High national savings mean that there is more capital available for investments (from companies' balance sheets or bank lending to companies), all which boost productivity in the domestic economy over the medium to long term. Therefore, countries with higher national savings tend to exhibit stronger growth prospects. Furthermore, high national savings act as a shock absorber in the macro-economic environment, making the economy less vulnerable to external shocks. During the GFC and pandemic, households, companies, and governments in Asia Pacific drew upon their savings to support domestic demand, which in turn dampened the adverse impacts (e.g. unemployment) on their economies.

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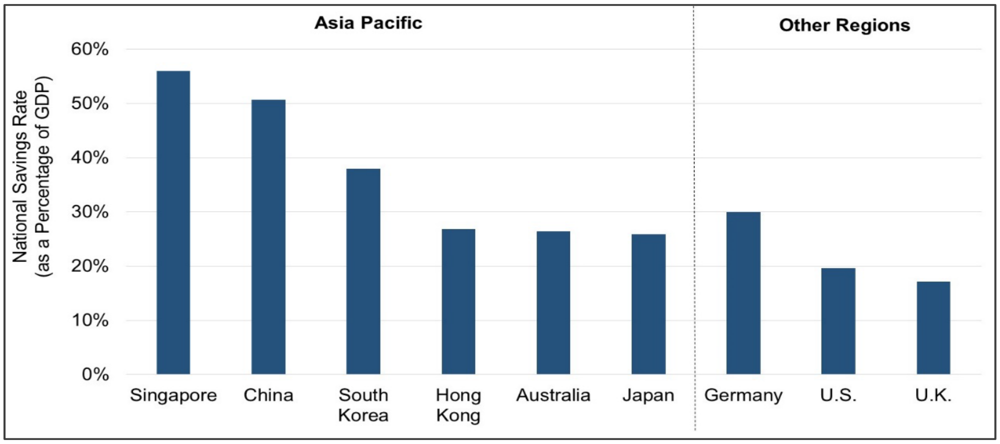
[3] Oxford Economics, as of Dec 2020
[4] UN ESCAP, as of Dec 2020 and Statista, as of May 2021
[5] Oxford Economics, as of Mar 2021
[6] Oxford Economics, as of Mar 2021
[7] Oxford Economics, as of Mar 2021

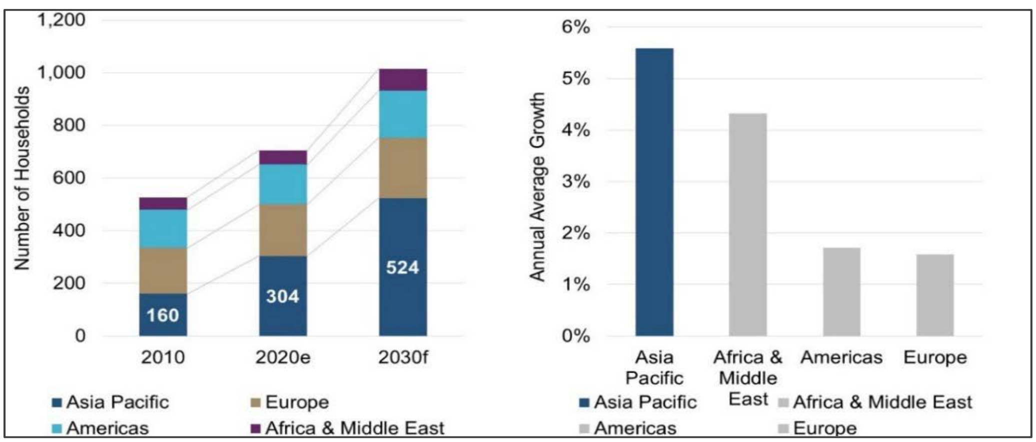
National Savings (% of GDP)




Source: Oxford Economics, as of Mar 2021

Consumption is expected to grow with the number of middle-class households in Asia Pacific projected to grow from 304 million in 2020 to 524 million in 2030, equivalent to 5.6% growth p.a. which is substantially higher than the projected growth of 1.7% p.a. in the Americas and 1.6% p.a. in Europe. As middle-class incomes increase and social safety nets improve, consumption is expected to become one of the main drivers of economic growth and real estate demand in the region. For example, China's transition towards a consumption-led economy is progressing quickly. Household consumption in China is expected to grow at a pace (7.1% p.a.) well above the expected GDP growth (4.8% p.a.) over the next decade[8].

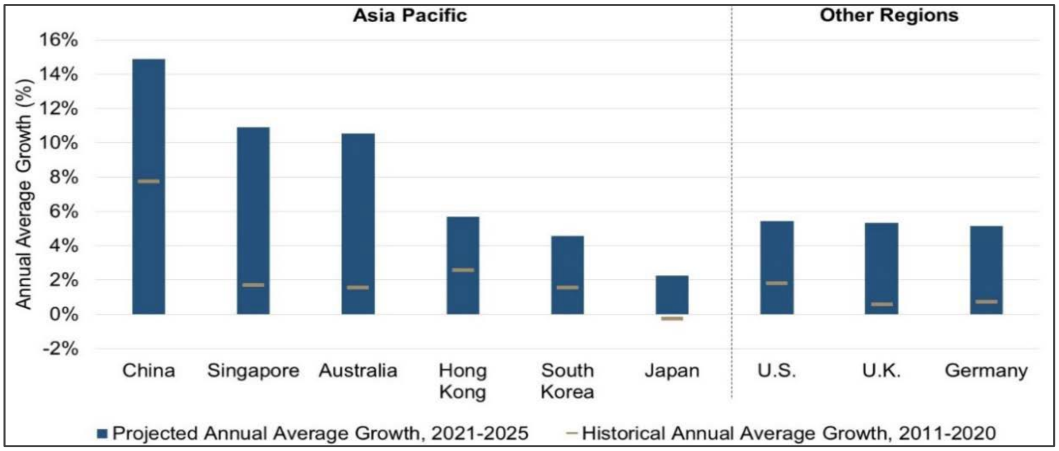
Middle Class Households Growth




Note: Middle class income range is from USD35k-USD150k based on Pew Research Center's definition. Source: Oxford Economics, as of Mar 2021.

[8] Oxford Economics, as of Dec 2020

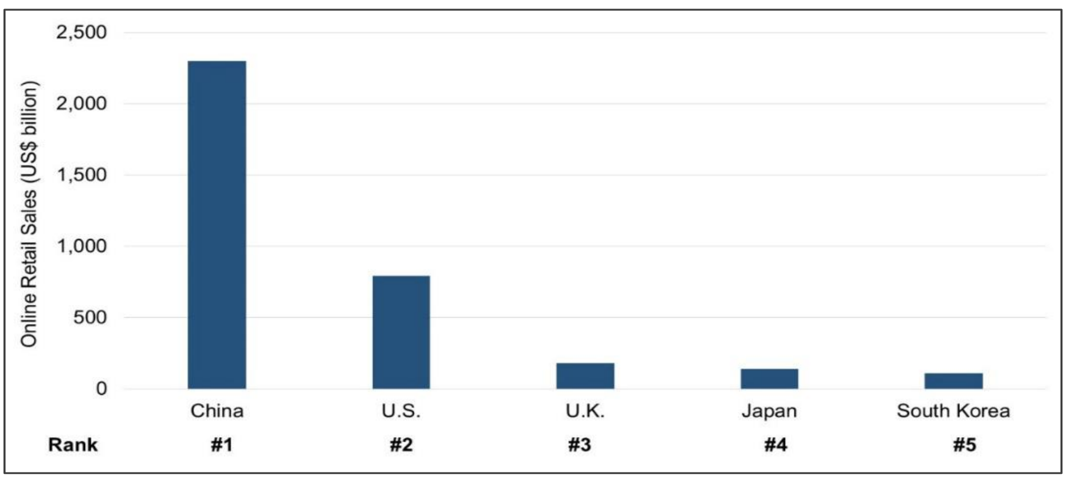
Annual Average Growth of Private Consumption




Note: Private consumption refers to the goods and services consumed by households and non-profit institutions serving households. Source: Oxford Economics, as of Mar 2021.

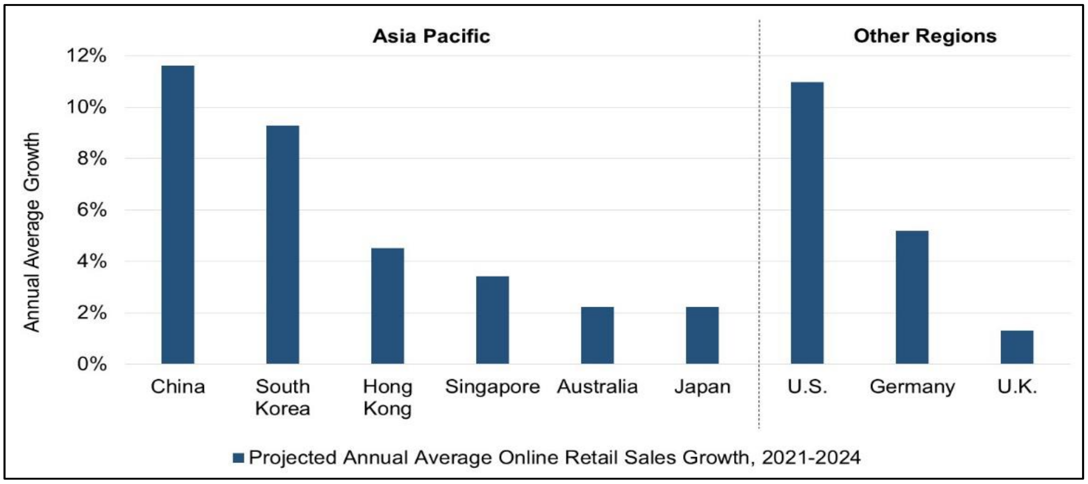
Since 2012, Asia Pacific has become the largest regional e-commerce market in the world. The region accounts for three out of the top five online retail sales markets globally or about 60% of the global online retail sales according to e-Marketer. The pandemic has accelerated the e-commerce trend across the globe. China, the largest e-commerce market globally, is expected to continue to be the main driver of e-commerce growth in the region. The online sales growth in South Korea is also projected to be robust going forward. All these trends bode well for modern logistics demand in the region, among third-party logistics and e-commerce operators. The rapid growth of e-commerce and an undersupplied logistics stock compared to developed economies is expected to favor the Fund's modern industrial development strategies, particularly in China and South Korea.

Top 5 Online Retail Sales Countries




Source: e-Marketer, as of Oct 2020

Online Retail Sales Growth Projection




Source: e-Marketer, as of Oct 2020

**Asia Pacific Capital Markets Overview**

Despite the pandemic, there is abundant capital targeting real estate in Asia Pacific. The interest rate environment is expected to remain accommodative in most Asia Pacific countries in the near term, while real estate capital market liquidity is expected to remain abundant in the near term.

Among major Asia Pacific countries, the bank delinquency rates are either near their historical lows or remain substantially lower than the peak levels seen during the GFC. In Japan, the bank delinquency rate is at a 20-year low, leading to healthy real estate capital market liquidity. Although delinquency rates have increased slightly in Australia and China, they are still substantially lower than those during the early 2000s or the GFC. In China, the PBOC is unlikely to further loosen monetary policies in the near term. The Chinese government took serious measures to cut leverage among real estate developers in 2020. The borrowing costs for some developers are relatively high in China as compared to other countries. This phenomenon could create capital stack opportunities for equity investors who have a higher risk appetite. However, broad-based distress is unlikely in China, as the Chinese property market remains resilient and continues to attract various sources of capital. In Australia, monetary policies are expected to remain accommodative for an extended period. The accommodative loan repayment moratoriums and other emergency pandemic measures that have helped forestall bankruptcies in 2020 are expected to end as businesses reopen. The withdrawal of these measures could increase financial distress, which could result in pockets of opportunities. However, widespread distress in the real estate market in Australia is not expected, as the real estate sector is well-supported by domestic superannuation capital and cross-border capital due to the country's highly transparent real estate market.

Furthermore, most companies are expected to evaluate their hiring plans over the near term, since those that are benefitting from government stimulus measures might not survive once these measures end. In a normal economic environment, it typically takes about six months for macroeconomic trends to filter through to real estate fundamentals. The pandemic has accelerated structural trends in both positive and negative ways. There is a possibility that rental revenues and occupancies (or rental income) could deteriorate in the near term, which could present pockets of opportunities from financially challenged developers or property owners.

**Asia Pacific Real Estate Market Overview**

Office Market

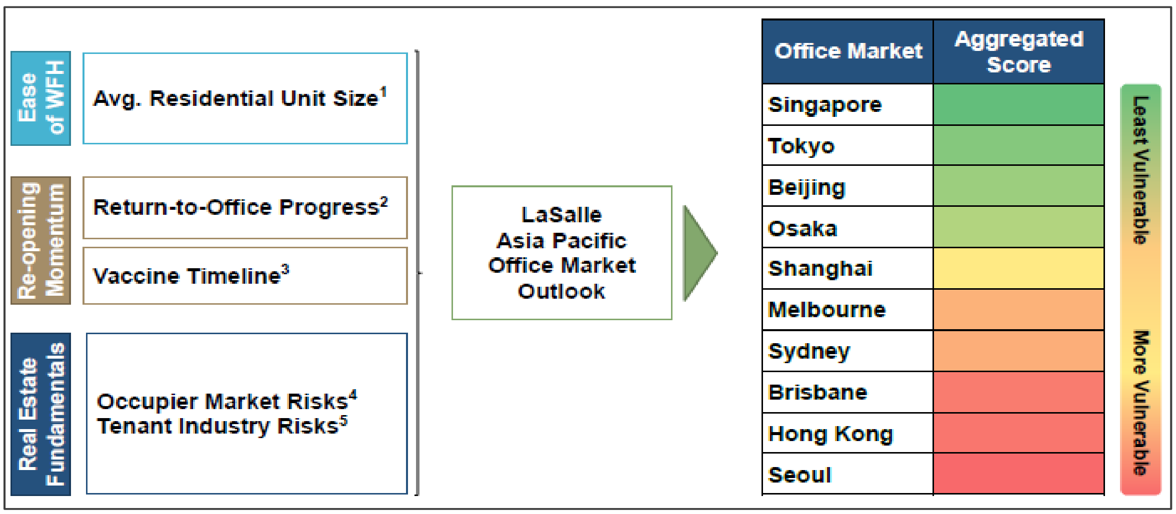
Despite the uncertainty across the office sector, LaSalle believes the sector to remain resilient post the pandemic based on the below factors.

- Residential unit size: The relatively small residential unit size in several highly urbanized Asian cities (e.g., Hong Kong, Seoul, Singapore, Tokyo) makes Working from Home ("WFH") challenging as a permanent alternative option.

- Cultural elements: Face-to-face meetings are viewed as essential business rituals in countries such as China, Japan and South Korea. There are high business values for meeting in person in a formal office setting.
- Human behavioral influences on tenant occupancy: The sooner employees can and are willing to return to work in their corporate offices (or offices with a kind of "new normal"), the lower the permanent impact of remote working on the future of offices. Many office markets in the region have achieved high return-to-office ratios of leased space, which signals that the willingness to return to offices is much higher than anticipated. In China, the return-to-office ratio is almost 100%.

Despite the success of WFH, it will be a one work option, not a permanent replacement for corporate office space in the Asia Pacific markets. Among the markets, Singapore, Tokyo, Osaka and Beijing office markets are expected to outperform the rest of the region in the near term. Singapore markets are attractive as financial firms and Chinese tech firms are pivoting to Singapore from Hong Kong to set up regional hubs. Tokyo and Osaka office markets are well positioned in the region, partly since office vacancy rates were circa 1% before the pandemic. Net effective rents in Australia and Hong Kong will remain weak as demand declines due to the worst recession in decades. One of the permanent impacts arising from the pandemic could be having more office space for collaboration, as well as higher quality building specifications for health considerations. LaSalle believes these trends could create opportunities to renovate or reposition office assets in the markets where the outlook is ranked high as shown in below chart.

<u>LaSalle's Asia Pacific Office Market Outlook</u>




Source: 1) The occupier market risk scores are based on a factor model that takes into account the respective market/sector's current vacancy rate by region (comparing to all AP markets/sectors included in this analysis), the respective market/sector's current vacancy rate by historical comparison (comparing to the respective market/sector's historical high and low), projected supply as a percentage of the respective market/sector's historical net absorption, current gross face rent in comparison to the respective market/sector's historical high and low, and disruption in the market/sector (e.g., e-commerce or geopolitical events), LaSalle Investment Management, as of 2019; 2) The projected 3-year annual average projects under construction and historical annual average net absorption data are sourced from JLL REIS (Asia Pacific excluding Japan), as of Q3 2020, Sanko Estate (Japan), as of November 2020. The historical annual average net absorption data are based on the last five years for all markets except for Japan which is based on the last three years. 3) The pandemic impact on tenant industry is based on two factors: 3a) Tenant Risk Exposure evaluates the vulnerability of the tenant's respective industry to COVID-19, based on the following criteria: i) Stock price declines by industry since their price peaks in January 2020; ii) Are they still open or closed due to social distancing measures? iii) Do they rely on foreign tourists, international students or customers? iv) Are they affected by supply chain disruptions? v) How likely/possible is it for these industries to implement WFH or other BCP measures to carry on their businesses? vi) Are they benefiting from any stimulus or additional demand due to the COVID-19 outbreak? 3b) Tenant Industry Profile for each market (except Japan cities) is based on JLL and CBRE's leasing transactions in 2019, for Japan cities, the tenant profile is based on employment data from the Japan Statistics Bureau, as of 2018; 4) The pandemic impact on office vacancy rate is sourced from JLL REIS (Asia Pacific excluding Japan), as of Q3 2020 and Sanko Estate (Japan), as of November 2020; 5) The progress of returning to office is based on the rolling monthly average of the Google Mobility - Workplace sub-index, as of December 2020, and the cumulative COVID-19 cases per 1,000 people data sourced from various government website, as of January 7, 2021; Mobility score for China is based on LaSalle's estimate. 6) The vaccine timeline is based on various government announcement except China Tier 1 cities which is based on LaSalle's estimate; 7) The average residential unit size (in sqm per capita) is a proxy for ease of WFH, from various local sources, as of May 2020.

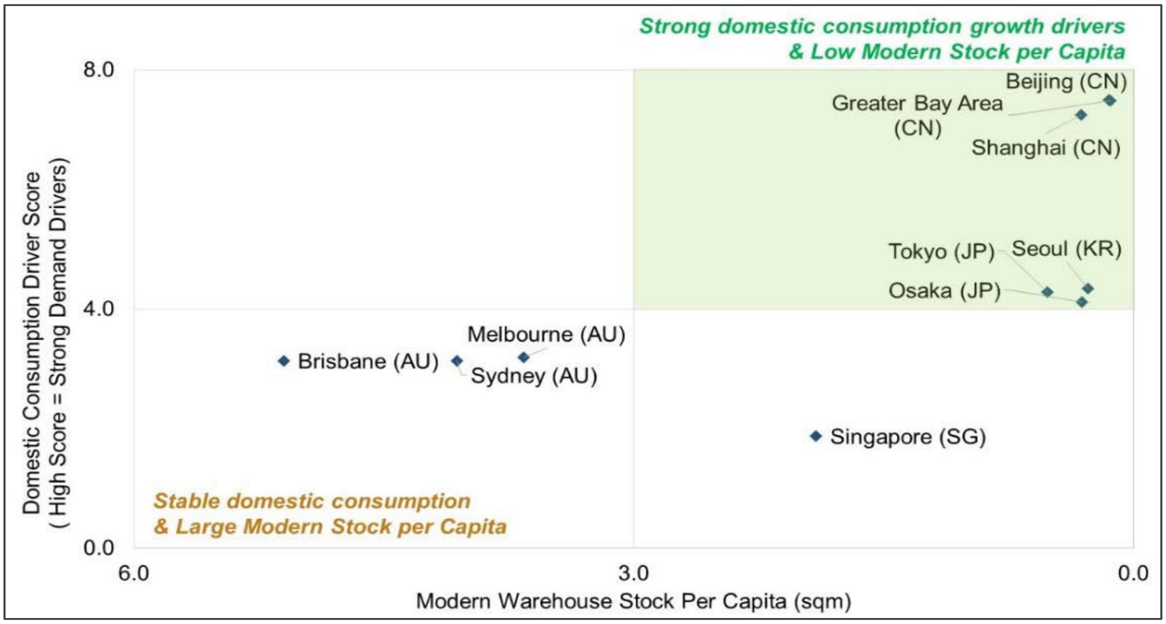
<u>Logistics/Industrial Market</u>

The resiliency of logistics demand during the pandemic suggests that it is primarily supported by domestic consumption, particularly e-commerce demand. China and South Korea where domestic consumption is driving the recovery and their structurally low logistics stock per capita are considered as favorable markets. Logistics demand is partly driven by China and South Korea's high e-commerce penetration rates, along with the attractive development yields.

The increasing adoption of online grocery shopping in the region is expected to raise demand for cold storage facilities. Online penetration rates for grocery shopping are the highest in China and South Korea within the region, but they are still below their respective country's overall e-commerce penetration rate. In 2020, online grocery sales in China and South

Korea grew by 15%[9] and 27%[10] from 2019 respectively. There is potential for further growth, as consumers have started to shift their food shopping from offline to online, seeking convenience. This trend is expected to support temperature-controlled warehouses, particularly in China and South Korea.

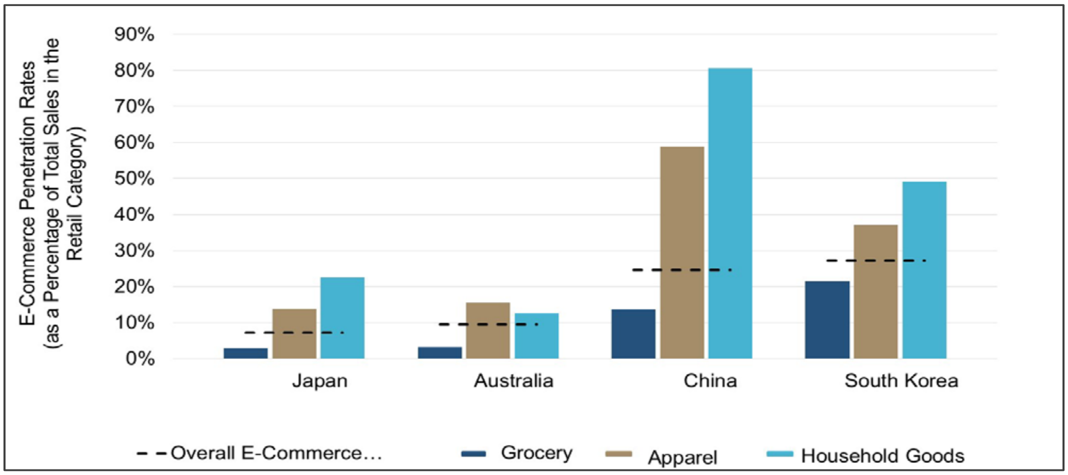
Domestic Consumption and Modern Warehouse Stock per Capita




Note: The Domestic Consumption Driver Score includes indicators such as population (2019, except select cities in China), share of domestic demand for domestic production (2016), mobile subscription (2018), domestic consumption growth (2020-2022), e-commerce penetration (2019), and non-discretionary spending as a percentage of total retail sales (2019).
Shanghai includes Shanghai Suzhou, Nantong, Jiaxing, Kunshan, Taicang, and Changshu; Beijing includes Beijing, Tianjin, and Langfang; The Greater Bay Area includes Guangzhou, Shenzhen, Dongguan, Foshan, Zhongshan, and Huizhou, as of Q1 2020.
Source: OECD (share of domestic demand for domestic production), as of 2016; JLL REIS (Modern warehouse stock data except Australia, Japan and South Korea), as of Q1 2020; CBRE (Modern warehouse stock data for South Korea), as of 2019; BIS Oxford Economics (Modern warehouse stock data for Australia), as of May 2020, Ichigo Real Estate (Modern warehouse stock data for Japan), as of January 2020; World Bank (Mobile subscription except China); The National Statistics Bureau of China (Mobile subscription, Population), as of 2018; The World Population website (population data for Greater Seoul), as of 2019; Various national statistics departments (e-commerce penetration rate data); Oxford Economics (population, excluding China and Greater Seoul, domestic consumption growth, non-discretionary spending, import and export of goods), as of May 2020; LaSalle Investment Management.

[9] The National Bureau of Statistics of China, as of Dec 2020
[10] The Statistics Korea, as of Dec 2020

E-commerce Penetration Rate




Note: The overall e-commerce penetration rate for Japan is full year 2019 and Australia, China, and South Korea is full year 2020.
The e-commerce penetration rate by category for Japan is full year 2019 and China, Australia, and South Korea is for full year 2020.
Sources: The Ministry of Economy, Trade and Industry of Japan, as of 2019; the Ministry of Commerce of China, the National Bureau of Statistics of China, LaSalle Investment Management, The Statistics Korea, NAB, and The Australia Bureau of Statistics, as of December 2020.

Retail Market

Retail sector is expected to remain weak in most Asia Pacific markets over the near term due to cyclical weaknesses and the structural disruption of e-commerce. While e-commerce sales growth is expected to taper from the peak of the pandemic, the structural disruption to the sector is expected to continue. The downward pressure on traditional retailers' profits is expected to force more retailers to move to or add online platforms. The reduction in liquidity for retail assets globally is another headwind for the sector.

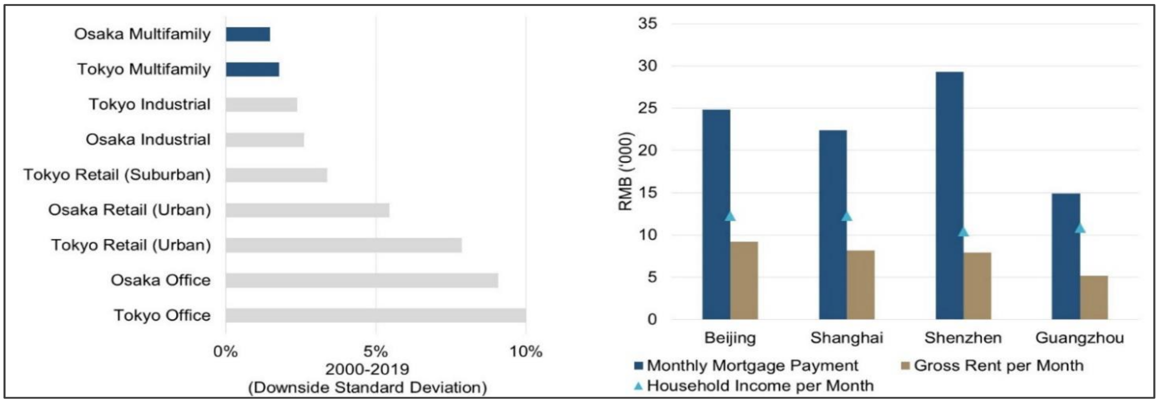
The retail sector in China has been the most advanced in adapting to the e-commerce disruption in Asia Pacific. It is expected to perform relatively better than other retail markets in Asia pacific over the short term, due to China's early containment of COVID-19 and the large domestic consumption base. Additionally, the increasing share of experience-based tenants (e.g., health and beauty, education, foods, and online retailers' offline showrooms) demonstrates the transformation of retail formats in China. Relatively low vacancies and low levels of projected supply, especially for infill shopping malls, support the retail sector's performance in China. Japan is another area of resiliency within the region. The e-commerce penetration rate in Japan is still lower than its global peers (especially in the online grocery category), which offers relative resiliency for brick and mortar retail demand. Most importantly, curating the tenant mix could reduce the negative impact of online retailing on incomes of brick and mortar retail. Grocery, food and beverage, entertainment and pharmaceutical tenants are less vulnerable to the disruption from e-commerce.

Residential Market

Japan is the only country in the region with an institutional multifamily rental sector in the region. WFH is likely to become one of the work options going forward, however, the average housing units in large cities in Japan typically do not provide enough space for a comfortable work environment. There is opportunity to offer working space to tenants in professionally managed rental apartments. The largest metropolitan areas with job opportunities in the submarkets of Tokyo, Osaka, and Nagoya, will be target markets of this strategy.

The build-to-core strategies or conversion to multifamily in Australia and China the growing pool of renters in China due to unaffordable ownership housing is expected to support demand for multifamily properties. Well-managed multifamily rental units experience accelerated demand in the post-pandemic era. Investor demand for multifamily assets in Asia Pacific is increasing, which should provide exit liquidity.

Japan and China Multifamily Market




Source: Japan from JLL REIS and CBRE as of 2Q20. China from CEIC and creprice cn, as of 2019

Hotel Market

The hotel industry remains the hardest hit sector in the region due to pandemic-related travel restrictions. Each country has a different vaccination rollout schedule, and it could take some time for herd immunity to be achieved. In the meantime, domestic travel and travel bubbles (among countries with well-managed COVID-19 conditions and advanced vaccine rollouts) are expected to recover faster than broad-based global travel. The International Air Transport Association projects that global travel is unlikely to return to the pre-pandemic level until 2023-2024, so in the interim, there could be distressed opportunities. Most businesses should be well-adapted to conduct their activities virtually before then, which could lead to less business travel going forward. This may be an impact from the pandemic that remains. Leisure travel is expected to drive the recovery of hotel demand in the near term. This trend is expected to benefit hotels targeting domestic leisure travelers as the re-opening in several Asia Pacific countries progresses. It is expected that there could be tactical but highly selective opportunities in the hotel sector.

Japan Market

The Japanese real estate market remains resilient, despite the impact of the pandemic. While the State of Emergency declared in Jan 2021 has constrained economic activities, the impact on the economy is projected to be milder than that of the 2020 State of Emergency, according to Oxford Economics. Economic activities are expected to recover once restrictions are eased and the vaccine implementation is rolled out to a large majority of the population.

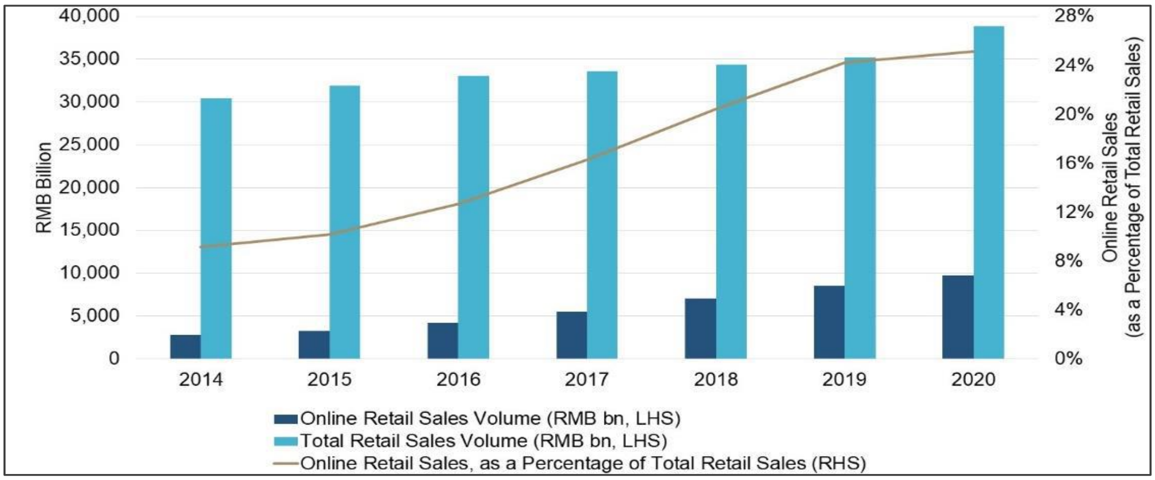
The areas of greatest near-term weaknesses are those most exposed to changing modes of consumption, as lower levels of mobility have dampened spending on travel, accommodation, dining, and recreational activities. The logistics and multifamily sectors are projected to continue to outperform retail and hotel sectors. While in-migration, a key driver of multifamily occupier demand, is expected to slow in the near term due to the pandemic, demand for multifamily properties in Tokyo, Osaka, and Nagoya are expected to remain stable as they are the largest metropolitan areas in Japan that offer job opportunities. Between 2014 and 2019, 75% of Japan's new jobs were concentrated in these three metros. Job opportunities in these metros are expected to continue to drive demand for multifamily properties.

The Japan office sector is expected to be relatively less vulnerable to the impact of remote working than many office markets in the West (e.g., the US and the UK), since the local business culture and the relatively low average living space make remote working as a permanent option challenging. With the high willingness to return to office among employees, companies are expected to prioritize health and safety at the workplace post pandemic. The trend is likely to benefit office properties with high specifications that meet the health and safety requirements, in addition to strong location attributes. Opportunities will arise in high-quality offices located in submarkets with favorable demand and supply dynamics in Tokyo and Osaka for lease-up strategies or refurbishing office properties to meet new tenant requirements in the post-pandemic era. Retail has been one of the most negatively impacted sectors by the pandemic when combined with the structural disruption from e-commerce pre-pandemic. Core investor demand for income-generating assets remains strong in Japan, which is expected to provide exit liquidity. The lingering uncertainty on economic and real estate market recovery could create one-off opportunities to purchase assets at discounted prices in the near term.

China Market

The V-shaped recovery of the Chinese economy can be largely attributed to the successful containment of COVID-19. In the post-pandemic era, the economy is likely to be driven again by the long-term fundamental drivers, among which domestic consumption and investment in high-tech industries are expected to become prominent. The rapid growth of e-commerce and an under-supplied logistics market compared to developed economies will continue to favor modern industrial development. E-commerce sales now account for a quarter of total retail sales in China and are expected to increase further as more people shop online due to the COVID-19 pandemic. The growth of online retail sales is expected to continue to outpace that of overall retail sales.

China Online Retail Sales




Source: China National Bureau of Statistics, via CEIC, as of Dec 2020

The regional logistics hubs in China with a large local demand base, such as Greater Shanghai, Greater Beijing and the Greater Bay Area, are expected to offer attractive development returns. In Tier II cities, submarkets with balanced demand and supply dynamics are also expected to provide attractive returns, as growing domestic consumption supports local demand.

The growing pool of renters in China due to unaffordable ownership housing is expected to support demand for multifamily properties in the shape of conversion or build-to-core assets. Well-managed multifamily rental units experience accelerated demand in the post-pandemic era. Investor demand for multifamily assets in Asia Pacific is increasing, which should provide exit liquidity. The risks for the sector include capital market liquidity and untested pricing evaluation. However, as an increasing number of domestic and overseas investors are attracted to the sector by its healthy fundamentals, the risks are likely to be alleviated over time.

Office market fundamentals have deteriorated during the pandemic, partly due to the high level of supply. The impact of WFH on the Chinese office market is likely to be short lived, as almost all office tenants have returned to their corporate office space. Demand is expected to recover, along with the economy in the post-pandemic era. However, a high supply pipeline is projected for the next few years.

The retail sector in China is adapting to the e-commerce disruption, with an increasing share of experience-based tenants (such as health and beauty, education, foods, and online retailers' offline showrooms) in retail centers. Relatively low vacancies and manageable projected supply also support the performance of the retail sector in Tier I markets especially in in-fill shopping malls.

Cold storage facilities and data centers are two niche sectors that have limited modern stock, but have been experiencing robust demand (e.g., increasing adoption of online grocery shopping supportive of cold storage demand, technological advancements supportive of data centers).

South Korea Market

South Korea has been relatively successful in managing the pandemic compared to other countries, despite pockets of COVID-19 resurgences. A shortage of logistics stock, including temperature-controlled facilities, should offer opportunities for development strategies in the Greater Seoul area. South Korea's high e-commerce penetration rate in the region has accelerated amidst the pandemic, with the penetration rate at 27% in Oct 2020. While the online grocery penetration rate is still below the overall e-commerce penetration rate, it is the highest in the region. In contrast, the logistics stock per capita in Greater Seoul remains low at 0.3 sqm, which is substantially lower than that of the average 2.9 sqm of the top 10 markets in the US. The growth potential of e-commerce, particularly online grocery sales, and the shortage of logistics stock are expected to support development or lease-up strategies for both logistics and temperature-controlled facilities in South Korea.

Furthermore, domestic institutional investors are expected to increase demand for logistics properties to achieve higher yields. Cap rates for logistics assets are about 100-150 bps higher than prime office assets in Seoul. As the logistics sector gradually becomes institutionalized, the liquidity of the sector is expected to improve.

Singapore Market

In Singapore, the success in containing the COVID-19 pandemic has allowed partial re-opening of the economy in 2020. The government has secured enough vaccines for its adult population, with vaccine deployment scheduled to be completed in the third quarter of 2021. These factors, coupled with the high domestic trust in government, are expected to support the recovery, which is expected to be uneven. The financial services, technology and high-tech manufacturing (e.g., biomedical and precision engineering) industries are expected to fare better, while challenges in the trade-related and tourism-related industries are likely to persist in the near term.

Most real estate sectors in Singapore have been impacted by the pandemic and it is expected to have opportunities from the pricing gap narrows between buyers and sellers, particularly in the office and high-tech industrial/business park sectors.

The office sector is expected to remain weak by historical standards, due to the impact of the pandemic and the projected supply pipeline in 2021-2023. However, Singapore continues to outperform other major office markets in the region by attracting multi-national corporations, foreign technology companies and family offices even during the pandemic. The trend is expected to support occupier demand post-pandemic and offset some negative impacts from WFH. It could be an attractive strategy to re-position, actively lease and stabilize CBD offices to exit to core buyers.

Singapore has embraced Industry 4.0 even before the pandemic. The pace of industrial transformation has accelerated due to the pandemic and the deployment of 5G technology. These trends are expected to support occupier demand for high-quality space, especially in key industrial parks. However, the sector remains a two-tier market with new and high specification space outperforming the other assets.

## APPENDIX – RATINGS

### Rating Rationale

| | |
|---|---|
| *ESG Policy & Practices* | Sponsor is dedicated to ESG with integrated processes to financially mitigate ESG risk. Improvements required in GRESB asset level measurements and data tracking. |
| *Strategy* | Leverage on Sponsor's extensive investment experience and integrated team. Follow the strategy of predecessor funds. |
| *Sponsor* | A reputable Sponsor with global AUM of USD71 billion and USD13 billion in Asia Pacific. Parent company JLL is a NYSE listed company and Fortune 500 company. |
| *Operational Due Diligence* | 'A2' or '✓' rating provided by the Aon ORSA team. Rating definition provided below. |
| *Investment Process* | General investment process with standard governance. |
| *Fund Structure* | General closed-end fund structure. |
| *Performance* | Strong track record over the past 10 years. |
| *Terms & Conditions* | Setting up a new SMA for Japan logistics with higher priority over LAO VI is not in line with market nor favorable to LAO IV investors. |
| *Overall* | Buy |

### Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product, its strengths and weaknesses in general and in the context of Townsend's View of the World and same vintage alternative choices.

**Buy** – Suitable for institutional investors that have a portfolio construction need. Appropriate overall risk profile given the strategy and targeted returns.

**Qualified** – Suitable for institutional capital. In addition to customary risks, contains one or more heightened risks that should be weighed against an investor's preferences, risk tolerances, and portfolio construction needs.

### ESG Rating Explanation

| ESG Rating | Interpretation |
|---|---|
| **Limited** | The fund management team has taken limited steps to address ESG considerations in the portfolio. |
| **Integrated** | The fund management team has taken essential steps to identify, evaluate, and mitigate potential financially material ESG risks within the portfolio. |
| **Advanced** | The fund management Team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate, and potentially mitigate these risks across the entire portfolio. |
| **Not Applicable** | ESG risks and considerations are not applicable to this strategy. |

### Operational Risk Profile Rating Explanation

Operational risk profile rating provided by Aon's dedicated multi-asset class Operational Risk Solutions and Analytics group according to its autonomous review of the Sponsor's policies & procedures, infrastructure and capabilities across a range of operations, middle and back office, and control functions.

**A1** or **✓+:** Aon completed its review process and noted no material operational concerns within the areas it reviewed and finds that these aspects of the firm's operations largely align with a well-controlled operating environment.
**A2** or **✓:** Aon completed its review process and the firm's operations within the areas Aon reviewed largely align with a well-controlled operating environment, with limited exceptions. Managers may be rated within this category due to resource limitations or asset class limitations or where isolated areas do not align with best practice.
**Fail or No Rating:** Aon was unable to complete its review process due to incomplete information, policies and procedures that are under development or in transition, or for other reasons. Aon may review the rating if these items are addressed.
**Conditional Pass** or **✓-:** Aon completed its review process and noted material operational concerns that introduce the potential for economic loss or reputational risk exposure.

## About Townsend Group – An Aon Company

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than USD130 billion of worldwide assets under management and has advised on more than USD240 billion of real estate assets.

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**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
## No. 2021-43

## Approving Investment in LaSalle Asia Opportunity Fund VI L.P with Imminent Need

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its real assets investment consultant, Aon Hewitt Investment Consulting, Inc., along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **LaSalle Asia Opportunity Fund VI L.P,** a closed-end fund which invests in opportunistic real estate assets primarily located in Asia; and

***WHEREAS,*** the ATRS Board approves an investment of up to **$50 million dollars ($50,000,000)** in **LaSalle Asia Opportunity Fund VI L.P,** and the Board, after its review of the timing in which the closing of the investment in **LaSalle Asia Opportunity Fund VI L.P** may need to occur, has determined that there is an imminent need to immediately enter into the partial equity ownership agreement prior to the next scheduled meeting of the Arkansas Legislative Council. The Board also deems it financially appropriate to enter into the partial equity ownership agreement and concludes that to forego the opportunity to promptly implement its investment directives under the prudent investor rule would be inconsistent with its fiduciary duty of care to the members and annuitants;

***NOW, THEREFORE*****,** ***BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$50 million dollars ($50,000,000)**, in **LaSalle Asia Opportunity Fund VI L.P** and agrees to immediately move to close and subscribe the approved ATRS limited partnership investment interest in **LaSalle Asia Opportunity Fund VI L.P** The total investment amount is to be determined by the real assets investment consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED***, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment using the Imminent Need process, if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

__________________________________

**Mr. Danny Knight, *Chair***
**Arkansas Teacher Retirement System**

**InDetail**

# LBA Logistics Value Fund IX, L.P.

A U.S. value-add industrial fund

August 2021

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# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Predecessor Fund Rating |
|---|---|---|
| August 2021 | **Buy** | Buy |

LBA Realty LLC ("LBA" or the "Sponsor") is raising LBA Logistics Value Fund IX, L.P. ("Fund IX" or the "Fund"), a $1.25 billion Fund, as the next vehicle in its series of closed-end commingled funds for value-add industrial investments across the U.S. Targeted Fund performance is a 11%-13% net IRR using 60% leverage over a 10-year fund life.

*Strategy*: Consistent with the prior logistics fund in the series, the Fund primarily intends to acquire a diversified pool of single or multi-tenant warehouse/distribution and light industrial/business parks across the U.S. Secondary strategies will focus on development/forward take out, cold storage, and high throughput locations. Target markets focus on major population centers and distribution hubs across all regions in the U.S, with an emphasis on the east and west coast. Business plans range from renewing/releasing to market rates to development (up to 35% max).

*Sponsor:*

| | | | |
|---|---|---|---|
| **HQ Location** | Irvine, CA | **Founded** | 1991 |
| **Ownership** | Privately-owned | **AUM** | $11.1 billion GAV ($7.3 billion equity) |
| **Employees** | 215 | **RIA** | No |
| **Organization** | Vertically integrated sponsor organized as a real estate investment and management company that provides property management, leasing, and construction services, with in-house finance and accounting. | | |

*Performance (as of 3/31/2021):*

| Vehicle | Vintage | Equity (M) | Fair Market Value: Net IRR | Fair Market Value: Net Equity Multiple | Fair Market Value: Quartile Ranking* (by IRR) | % of Projections Realized |
|---|---|---|---|---|---|---|
| LBA Realty Fund I | 2003 | $216 | 19.9% | 2.1x | 2Q | 95% |
| LBA Realty Fund II | 2005 | $421 | 4.2% | 1.6x | 1Q | 82% |
| LBA Realty Fund III | 2007 | $603 | 0.1% | 1.0x | 4Q | 59% |
| LBA Realty Fund IV | 2009 | $750 | 25.5% | 2.5x | 1Q | 92% |
| LBA Realty Fund V | 2014 | $776 | 16.4% | 1.9x | 1Q | 55% |
| LBA Realty Fund VI | 2017 | $900 | 20.4% | 1.5x | 1Q | 25% |
| LBA Logistics Value Fund VII | 2019 | $1,061 | 9.4% | 1.1x | NM | 0% |

*Compared to 211 similar vintage US value-add funds. Source is Townsend database plus Preqin.

*Portfolio Characteristics:*

| | | | |
|---|---|---|---|
| **Vehicle Structure** | Closed-end commingled fund | **Return Profile** | Value-add |
| **Targeted Size** | $1.25 billion ($1.95 billion cap) | **Sponsor Commitment** | 2%, up to $13 million max |
| **Target Return** | 11%-13% net IRR | **Leverage** | 65% LTV Max |
| **Investment Period** | 3 years from Final Closing | **Base Term** | 7 years from end of Investment Period |

*Fees:*

| | | | |
|---|---|---|---|
| **Asset Management Fee** | 1.5% on committed during the investment period then on invested. *Fee breaks available for timing and size.* | **Incentive Fee** | 8% preferred return;<br>50% LP/50% GP catch-up;<br>80% LP/20% GP thereafter |

*Fundraise Status*: Fully subscribed at the expected $1.95 billion cap. Fund will hold a ~$1.4 billion close the week of September 20, 2021; and a subsequent October close, totaling ~$600 million, to accommodate timing requests.

## COMPARATIVE ADVANTAGES

1. Experienced Team

The firm has over 25 years of experience acquiring and managing real estate and 19 years of experience as a commingled fund sponsor. Since 1995, the firm has acquired and managed 576 assets, investing over $4.2 billion in equity, on behalf of thirteen different investment funds primarily focused on core, core plus, and value-added industrial and office properties. The senior management team, comprised of 21 senior professionals, averages 28 years of industry experience and 18 years with the firm. Within that group is LBAs five member investment committee that averages 34 years of experience and 24 years with the firm; having owned and operated properties through multiple cycles with lessons learned.

2. Thematic Market Opportunity

Industrial real estate continues to remain well positioned to benefit from shifting consumption habits to e-commerce. E-commerce driven demand for logistics property is a secular trend, which has only been accelerated by the COVID-19 pandemic in 2020. This has led to further tightening of conditions for logistics space, as near-term demand is expected to continue to outpace new supply.

3. Platform Strengths
   - Well Resourced - 215 employees operating across the firm's headquarters and eleven regional offices covering acquisitions, construction management, leasing, and asset and portfolio management.
   - Business Model: Vertically integrated firm that provides property management, leasing, and construction/development management services for its fund held properties. The business model provides the following benefits; in-house control and oversight of property management and leasing for fund held assets; and efficient execution, improving the economics at the margin by eliminating any double promotes commonly associated with utilizing promoted joint venture operating partners
   - Known Brand/Industry Presence: The firm's long time history has established it as a well-known brand and industry presence. Specifically, over the past 10+ years as a fund sponsor the firm has grown AUM and regional coverage. It now better serves a larger corporate tenant base offering space nationally across multiple regions; which enhances market intel, leasing, and sourcing through that tenant network.
   - Alignment: Privately held firm that is; owned by the firm's 15 Principals; in the business of managing institutional capital; and operator for its fund held properties. The Sponsor remains focused on its core competencies and not spending time/attention on going global or other product types outside of industrial and office. This creates an entrepreneurial business that is well aligned with investors. Principals and Senior VPs are making personal contributions into the Fund.

## POTENTIAL ISSUES AND CONCERNS

1. Potential for Platform Changes

The firm is entering its third decade of operations, and as is common with an experienced firm, long-time senior professionals are hitting the latter stages of their careers. Four of LBA's experienced senior professionals are well seasoned and now in their early 60s, including Phil Belling (Founder and Managing Principal), Steve Layton (Founder and Principal – Operations), Perry Schonfeld (Principal – COO), and David Thomas (Principal – Acquisitions); creating uncertainty as the possibility exists for there to be some type of platform change like retirements or sales of interest over the term of the Fund.

**Discussion:** The Sponsor represents that there are no formal retirement plans for any of the identified individuals and there are no plans to sell any partial interests of the company to outside parties in the near term. Additionally, the Sponsor has been thoughtful about succession planning; having a formalized succession plan that identifies other internal and long-time senior management professionals as successors, which should mitigate some amount of the disruption should anyone retire. As noted within the platform advantages, the firm is well resourced, and has grown regional coverages over the last ten years, so the investment process is not overly reliant on any one individual. LPs also have some protections via; the Key Person clause which covers senior involvement in the oversight of day-to-day operations (naming Mr. Belling and Mr. Schonfeld) and a sale of a majority interest (50.1%) in the firm (identifying the aggregated interests of named Principals, including Mr. Belling, Mr. Layton, and Mr. Thomas, amongst others); and several no fault remedies from which to govern the Fund.

2. Crowded Trade

The sector is in favor and has weight of capital. The Fund is another 100% blind pool vehicle that is joining a well-developed trend where cap rates have declined further.

**Discussion:** A few of the identified platform strengths should provide a competitive advantage;

- The vertically integrated business model of LBA is more efficient relative to allocator funds accessing the sector.
- As a long time industrial specialist, the Sponsor has a network of corporate relationships and has purchased 137 properties from corporate sellers, which may provide unique sourcing opportunities at better pricing not available to newly formed peers.

Additionally, from a strategy construct perspective, the Sponsor has increased the higher end of its development allocation to 35% (up from 25% in the previous logistics fund), which at the margin, allows for the Sponsor to capitalize to the extent that stabilized yields on development start to offer a more compelling opportunity to going-in cap rates at acquisition.

## STRATEGY

### OVERVIEW

The strategy is largely consistent with the previous logistics fund in the series; intending to assemble a diversified portfolio of U.S. industrial assets with business plans including core-plus, value-add, and development risk profiles, ultimately blending to a value-add return profile with a net IRR target of 11-13%.

- Primarily acquire single or multi-tenant warehouse/distribution and light industrial/business parks. Secondary strategies focus on the following;
    - Development/Forward take-out (15%-35% of aggregate commitments) - Develop infill/last mile locations where there has historically been low vacancy/strong demand (typically the east and west coast); build-to-suit opportunities where the firm can leverage corporate relationships; forward take-outs of development projects.
    - Food logistics (10%-20% of aggregate commitments) – Target multi-tenant tri-temperature (dry, refrigeration, and freezer) distribution centers located in major distribution hubs.
    - High throughput facilities (10%-15% of aggregate commitments) – Acquire high throughput and yard properties near major ports and airports.

- Located across roughly 32 target markets that collectively capture a majority of consumption and population growth;
    - Western Markets (40%) – Inland Empire, Los Angeles, Orange County, San Diego, Seattle, Portland, Reno, Salt Lake City, Las Vegas, Phoenix, Denver.

  - Eastern Markets (35%) – New York/New Jersey, Eastern Pennsylvania, Baltimore, Atlanta, Nashville, Greensville, Charleston, Savannah, Memphis, Jacksonville, Tampa, Orlando, and Miami.
  - Central (25%) – Chicago, Columbus, Cincinnati, Indianapolis, Louisville, Dallas, Austin, Houston

- Business Plans:
  - Leverage LBA's network of corporate relationships to source acquisition and leasing opportunities; acquire vacant, partially leased, and short-term leased properties.
  - Renew/Re-let lease expirations;
  - Reposition and modernize the property by upgrading building exteriors, painting, retrofitting power systems, paving and fencing yard areas, and increasing clear heights where feasible.
  - New development (15%-35%); includes build to suit and speculative development (building to a 75-basis point to 125-basis point spread between yield on cost and market cap rates).

- Portfolio construction is an aggregation play to enable a premium upon exit.

## LEVERAGE

The intended use of leverage is consistent with the prior fund, formally capped at 65% LTV, with the targeted use of leverage ranging from 55%-60% LTV once the Fund is fully invested. The 65% cap includes property level debt and is based on fair market value of assets.

- Manager generally seeks non-recourse debt, but an amount of recourse debt will be unavoidable on development. Recourse (other than typical customary carveouts) may not exceed 25% of the aggregate investment value of the Fund's assets.
  - The threshold is high given that the base is calculated on the fair market values of assets and the Fund is expected to be 55%-60% levered. LPs should push to limit the use of recourse to a more standard 15%-20% of equity.
- Fund level completion guaranties may be required by lenders for development assets.
- Cross-collateralization will be utilized given the strategy of acquiring small buildings via 120 transactions. There are no formal limits on cross-collateralization, but the Manager intends to effectively force cross-collateralized assets into separate non-crossed pools.
- Interest rate caps and swaps are utilized when lender required to limit interest rate risk.

## PIPELINE

LBA Logistics Fund VII, the predeccesor fund, is over 80% committed; with the Sponsor's pipeline to be capitalized by that fund. As the prior fund strategy is consistent with the Fund, illustrative examples of closed transactions within that fund are included within **Exhibit A.**

## INVESTMENT GUIDELINES

Guidelines are similar to the prior fund with any changes noted in parenthesis. Based on a percentage of Commitments:

- 15% max in any one property.
- 15% max in non-targeted property types.
- 35% max in ground-up development transactions (previously 25%).
- 1.5% max in any investment in an operating company.

# SPONSOR

## OVERVIEW

LBA was founded by Phil Belling and Steve Layton in 1991 to provide bankruptcy and restructuring services to financial institutions to assist with troubled assets and loans. Prior to founding LBA, both Mr. Belling and Mr. Layton were Senior Vice Presidents for the Southern California Division of The Koll Company[1] where they oversaw the development of more than four million square feet of development properties. Since 1995, the firm has acquired and managed 576 assets, investing $4.2 billion in equity, on behalf of thirteen different investment funds primarily focused on core, core plus, and value-added industrial and office properties.

As of today:

- Ownership: Privately owned by the 15 Principals; Phil Belling, Steve Layton, Steve Briggs, Dave Thomas, Mike Memoly, Perry Schonfeld, Brad Neglia, Tom Motherway, Don Shaver, Bill Kearns, Melanie Colbert, John Garrigan, Tom Rutherford, Tim Brosnan, and Erin Kaplan.
    - Bios are included within **Exhibit B**.

- AUM: $11.1 billion GAV ($7.3 billion equity including unfunded commitments). By equity AUM:
    - By property type: 62% - industrial, 25% - office, 13% - other

- Staffing and office locations broken out as follows:

| Location | # of Employees | Primary Function |
|---|---|---|
| Irvine (HQ) | 114 | Asset Management, Property Management, Construction, HR, Accounting, Leasing, Acquisitions, Asset Management, IT, Compliance, Marketing |
| Los Angeles | 18 | Property Management, Leasing, Marketing |
| San Francisco | 16 | Property Management, Leasing, Asset Management, Acquisitions, Construction |
| Seattle | 11 | Property Management, Acquisitions, Leasing |
| New Jersey | 10 | Asset Management, Leasing, Acquisitions, Property Management |
| Chicago | 7 | Property Management, Asset Management, Leasing, Acquisitions, Construction |
| Denver | 13 | Property Management, Leasing, Acquisitions, Construction, Marketing |
| Phoenix | 8 | Property Management, Asset Management, Leasing, Marketing |
| Ontario | 6 | Property Management |
| San Diego | 7 | Property Management, Leasing, Acquisitions |
| Tampa | 2 | Property Management, Acquisitions |
| Texas | 3 | Property Management |

## TURNOVER/COMPENSATION/RETENTION

- Turnover has been stable with nothing that is overly noteworthy. Since raising the prior Fund in 2019, turnover totaled three employees at the VP level and above, all of which were at the VP level; while hiring two new employees at VP level and above over that same time period. This level of turnover is minimal for a firm with the experience and resources of LBA.
- Compensation and Retention: Compensation is an industry standard base salary and bonus. Approximately 35 professionals are expected to share in the carried interest; split 92% to Principals and Senior VPs of the firm, with the balance allocated 6% to junior professionals at the VP level, and 2% to a bonus pool. The majority of carried interest is vested over a seven year period and is based on the following schedule: by Year 2 - 20% vests, Year 3 - 30% vests, Year 5 - 60% vests, Year 7 - 90% vests, with the final 10% payable upon sale of the final asset.

[1] The Koll Company is a real estate operating company headquartered in Irvine, California that acquires, develops, and manages investments in industrial, office, and resort properties, serving institutional investors and high net worth individuals.

### CLIENT BASE

Based on commitments, the prior industrial fund was largely comprised of public and private pensions (40%) and E&Fs (21%); with the balance attributable to foreign capital (16%), fund of funds (3%), and other (20%).

### COMPLIANCE AND LITIGATION DISCLOSURE

The Sponsor represents the following:

- No investment professional has been disqualified as a company director within the last ten years.
- Neither the firm or any senior member of the firm has been reported to or investigated by any regulatory authority within the last ten years.
- Legal action against LBA is limited to claims that are typical in the real estate industry; there is no other past, threatened, or pending litigation involving the firm, affiliates, or senior professionals.

## ESG POLICIES & PRACTICES

### OVERVIEW

The Sponsor garners an ESG assessment of *Limited* (as defined in the *Appendix*) at this time. The Sponsor is aware of ESG and has taken steps to implement various goals and initiatives at the firm level; but ESG implementation at the asset level for industrial properties is limited.

*Policies:* LBA has a formal ESG Policy that is reviewed annually and published on the firm's website. LBA is a participant in the U.S. Department of Energy, Better Buildings Challenge, with a commitment to reduce energy consumption by 20% in 10 years (with a 2013 baseline); but is not a PRI signatory and does not report to GRESB. Standard policies including a code of ethics, code of conduct, and harassment policy are reviewed annually.

*Staff:* The firm has one dedicated individual, Director – ESG and Sustainability, and has formed a Sustainability Council (comprised of COO, Principal of Operations, Senior Portfolio Operations Manager, Corporate Operations Assistant, Engineering Administrator and Regional Operations Managers) that has oversight and implementation responsibilities for ESG integration. Outside the dedicated Director – ESG and Sustainability, there are no other dedicated ESG resources/team members at the firm.

*Process*: Current ESG integration within the investment process is largely covered by way of asset due diligence at acquisition (i.e. third party environmental reviews, structural and seismic reviews). The firm also performs a climate risk assessment where they utilize a report based on geolocation that flags climate risks. Where the firm has control over utilities, third-party firms like Goby and Energy Star Portfolio Manager are utilized to track and benchmark energy, water, waste, and greenhouse gas emissions.

*Stewardship and Outcomes*: As noted, LBA is a participant in the U.S. Department of Energy, Better Buildings Challenge, with a commitment to reduce energy consumption by 20% in 10 years (with a 2013 baseline). The firm also publishes an annual sustainability report at the firm level. Additionally, LBA typically seeks to achieve the following with respect to an asset; overall reduction of 5% in energy and water consumption; and an increase in portfolio level and per property Energy Star rating. As it relates to charitable causes, the LBA Foundation provides funding and coordinates employee volunteer hours to charities like Boys & Girls Club, the Pediatric Cancer Research Foundation and Habitat for Humanity. LBA also offers an employee matching program for charities that each employee is personally connected to.

# OPERATIONAL DUE DILIGENCE

## OVERVIEW

The Aon Operational Risk Solutions and Analytics team ("AON ORSA") reviewed the Sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions to determine if operations align with a well-controlled operating environment. AON ORSA reviews cover (i) corporate governance and organizational structure, (ii) transaction execution, (iii) middle/back office, valuation, and cash controls, (iv) compliance, regulatory, legal, (v) investment and counterparty risk oversight, (vi) business continuity/disaster recovery, (vii) cyber security and IT, (ix) service provider selection and monitoring, and (x) fund governance, structure, and administration.

- LBA was rated an A-2 Pass (based on a review of the prior fund). LBA generally demonstrates a well-controlled operating environment; front office, back office, and control functions are generally well segregated and supported.
- Deviations from best practice include the following:
  - LBA internally administers its funds. Although not uncommon for closed-end real estate funds, best practice would be to utilize external administration.
  - The firm's personal trading policy only requires a subset of employees to submit copies of brokerage statements on an annual basis for personal trading oversight. Best practice requires personal trading oversight on a quarterly basis for all employees.
  - Credit checks are only conducted on individuals joining the accounting team. Best practice would be to perform credit checks on all individuals prior to employment.

# INVESTMENT PROCESS

## OVERVIEW

The investment process is consistent with the prior fund in the series and typical of a well-resourced vertically integrated sponsor. Regional offices play key roles throughout the process, with acquisitions and leasing, asset management, and property management functions largely implemented by regional staff.

- LBA Principals and acquisitions personnel are primarily responsible for sourcing deals. Sourcing is driven via relationships with corporations, tenants, property owners, and local, regional, and national brokers.
- Responsibility for acquisitions remains with the acquisitions team, which is led by two acquisition Principals. On a weekly basis, the acquisition team, CIO, and PM meet to review and filter properties under consideration for investment.
- A typical due diligence team for acquisitions is led by Steve Layton, Principal, and Perry Schonfeld, Principal and COO, and comprised of internal and external team members working together. Internal members of the team include a lead Principal, acquisitions team lead, asset manager, financial analyst, and regional operations manager. External members are typically third party consultants utilized for environmental, legal, title, engineering, structural and zoning/permits. Due diligence includes property tours/inspections along with analysis on the market, environmental issues, financials, tenant credit quality, rents, structural and zoning.
- The portfolio management team, with support from both the asset management and property management teams, are responsible for managing assets. Portfolio Management is responsible for oversight of strategic planning, business plans, lease decisions, cap-ex, finance, and disposition decisions. Asset management is responsible for overseeing the execution of the business plan, which includes; day-to-day interaction with property management, construction management, and leasing; preparation of budget reviews, projections, investment returns, and the hold/sell analysis; and assistance with debt procurement.

## INVESTMENT COMMITTEE

- LBA's investment committee is led by Phil Belling, Founder and Managing Principal, and comprised of the individuals presented to the right.
- IC evaluates every potential acquisition. All members of the IC vote on whether to pursue a proposed acquisition; majority vote is required.

| Member | Firm Title | Years of Experience | Years with Firm |
|---|---|---|---|
| Phil Belling | Managing Principal | 39 | 29 |
| Steve Briggs | Principal, CIO | 34 | 28 |
| Perry Schonfeld | Principal, COO | 40 | 24 |
| Mike Memoly | Principal, CFO | 26 | 14 |
| Melanie Colbert | Principal | 32 | 24 |
| | ***Average*** | ***34*** | ***24*** |

Review and approval of other major decisions goes to the relevant functional area as follows:

- Leasing: Requires review and approval by Principal of Leasing, CFO, Portfolio Manager, Regional VP of Leasing, and Operations Lead.
- Operating/Property Budgets: Prepared at the property level by both the Property Manager and Asset Manager and approved by the Principal of Operations. Property level budgets then aggregate up to the fund level and are formally reviewed by the Portfolio Manager, with an informal review by the CFO.
- Financings: Reviewed on a weekly basis by the CFO, Principal of Finance, and Tom Motherway, Principal.
- Dispositions: Require approval by the PM and final approval by Phil Belling, Managing Principal.

## USE OF AFFILIATES

There are no material changes to the use of affiliates since the prior fund. LBA will provide property services including property management, development, construction supervision, and leasing for Fund held properties. Although LBA doesn't actively market their affiliated services to third parties, they will consider engaging work for third parties where a buyer requests that LBA stay on to manage a property post sale.

- Each property entity has its own management agreement with LBA Realty that outlines the fees for services provided.
- Property Management: Monthly minimum or a percent of cash receipts (typically 2%-4%); ranges based on the size of the property or number of tenants. The fee is in a range commonly seen by Townsend for vertically integrated industrial managers.
- Construction Management: 5% of costs on projects valued up to $100k. 3%-4% of the costs of projects that exceed $100k, which is within the range seen by Townsend for industrial peers.
- Development: Ranges between 3.75% to 6.00% (depending on market) of total project costs.
- Leasing: Determined by market.

## EXCLUSIVITY AND ALLOCATIONS

The Fund is LBA's exclusive vehicle for the strategy. The exclusivity ends when the Fund is 80% committed/invested.

## LP ADVISORY COMMITTEE

Board of Advisors to be formed at GP discretion[2]. LPAC duties are standard and include; review and approve related party transactions and waivers of investment diversification; and review and advise on potential conflicts of interest and valuations. Simple majority is needed for approval.

[2] LPAC for the prior logistics fund, Fund VII, was comprised of four members, including; World Bank, CIGNA, Kaiser, and General Electric.

### VALUATIONS

Valuation policies and practices are in-line with the prior fund and generally align with best practice.

- Asset valuations are performed internally on a semi-annual basis in accordance with industry standard FMV methodologies, including a discounted cash flow analysis, the income capitalization approach, and/or a sales comparison approach. Valuations are prepared by asset management professionals and reviewed and approved by the Valuation Committee, which is comprised of Phil Belling, Managing Principal, Mike Memoly, Principal and CFO, and Tom Motherway, Principal and Portfolio Manager.
- In addition to internal valuations, nationally recognized appraisal firms (CBRE, Cushman and Wakefield, Colliers, etc.) are expected to be engaged to perform an external valuation on each asset once every two years following the year of acquisition.
- Valuation policy and fair market values are also reviewed by EY, the Fund's independent auditor in conjunction with the year-end audit of the financial statements.

## FUND STRUCTURE

The Fund is structured as a Delaware limited partnership with parallel vehicles to accommodate various investor types. **Exhibit C** provides the expected legal diagram.

- Sponsor: LBA Realty LLC
- Investment Manager and General Partner of the Fund: LBA Logistics Management Company IX, LLC, a Delaware limited liability company

### KEY TERMS

| Key Terms | | Townsend Comment | |
|---|---|---|---|
| **Target Return:** | 11%-13% net IRR | **Neutral** | |
| **Fund Size:** | $1.25 billion target ($1.95 billion hard cap expected) | **Neutral** | The size is expected to be at the cap. |
| **Sponsor Commitment:** | 2% of Commitments, up to a $13 million maximum | **Neutral** | 25 professionals at the VP level and above are expected to make personal contributions. |
| **Commitment Period:** | 3 years from Final Closing; plus one-year extension at GP discretion. | **Neutral** | Extensions should require LPAC consent. |
| **Term:** | 7 years from expiration of the Investment Period; plus 1 one-year extension at GP discretion; plus subsequent extensions with LP majority vote. | **Neutral** | |
| **Key Person Provision:** | Triggered under two scenarios; 1) Philip Belling and any one or more of Steven Briggs, Perry Schonfeld, Bradley Neglia, Michael Memoly, and John Garrigan, ceases to be actively involved as senior supervisory personnel in day-to-day operations; or 2) Philip Belling, Steven Layton, David Thomas, Michael Memoly, and Steven Briggs, in the aggregate, fail to own at least 50.1% of the direct or indirect beneficial ownership interests or ceases to posses effective decision making control and authority over the Manager. | **Negative** | LPAC may approve a replacement for Steven Briggs, Perry Schonfeld, Bradley Neglia, Michael Memoly and John Garrigan. If there is no approval of a replacement, any further new investing is suspended for 60 days, and unless LPs elect to terminate the investment period with a $66^{2/3}$% LP vote, the suspension period is terminated and new investing resumes.<br><br>A standard mechanism would require an affirmative vote to re-instate the investment period. |

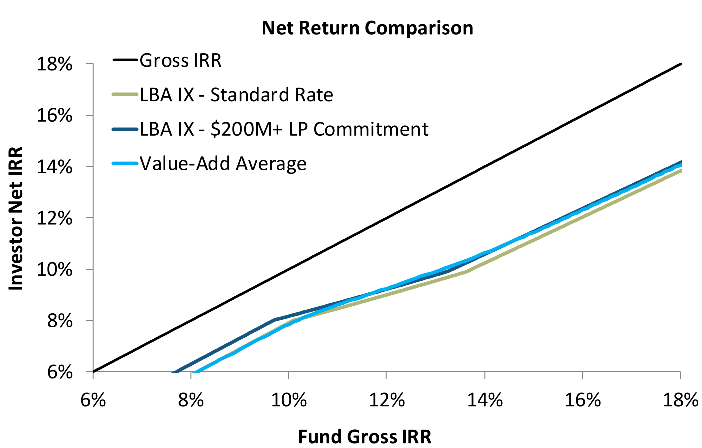
| | | |
|---|---|---|
| **No-Fault Provisions:** | • GP/manager removal with 75% of LP capital.<br>• Termination of the Investment Period with $66^{2/3}$% LP vote.<br>• Orderly fund liquidation with $66^{2/3}$% LP vote. | **Neutral** |

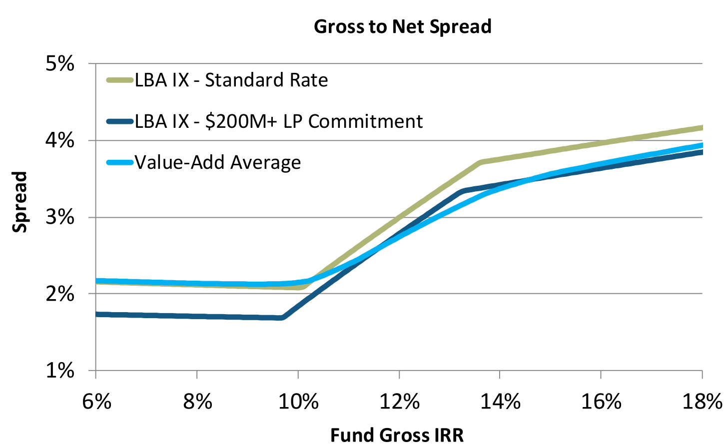
## FEES AND DISTRIBUTIONS

| Fees and Distribution Waterfall | |
|---|---|
| **Organizational Expenses:** | Fund pays up to $1,000,000 (max). |
| **Management Fee:** | 1.50% of committed capital during the investment period; then 1.50% of invested capital. First closer fee break is a four-month fee waiver.<br><br>Fee breaks for size as follows (*Aon/TTG client capital will be considered in the aggregate for purposes of computing the fee break*):<br>• 1.25% for capital commitments of $100 million to $200 million<br>• 1.15% for capital commitments of $200 million or more |
| **Incentive Fee/Waterfall Distribution:** | 20% of total profits subject to an 8% preferred return, compounded monthly, and a 50/50 catch-up. Fully pooled waterfall. |
| **Clawback:** | Post-Tax Clawback provision in the event GP carried interest distributions exceeds 20% of profit at liquidation. |

## FEE ANALYSIS

The chart below models the Sponsor's fee structures at various commitment levels, assuming a first close discount, and illustrates the expected net IRR and gross-to-net spreads across a range of IRR outcomes. Townsend compared the fee structure to a market average of 126 closed-end U.S. value-add funds (currently available or recently closed). In that context, the standard rate is within market for U.S. value-add funds, and the Sponsor is offering the potential for meaningful management fee breaks based on commitment size.



# PERFORMANCE (AS OF MARCH 31, 2021)

## SUMMARY

The Sponsor's most relevant track record is comprised of the 456 transactions across the seven funds in the series. Prior to LBA Logistics Fund VII, which is the predecessor logistics fund in the series to this Fund and solely dedicated to investing in value-add industrial real estate properties only, LBA Realty Funds I through VI were commingled funds that invested in both value-add industrial and office assets[3].

| Vehicle | Vintage | Equity (M) | Assets | Fair Market Value | | | Realizations | | Net DPI (Distributions to Paid-in-Capital) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Net IRR | Net Equity Multiple | Quartile Ranking* (by Net IRR/Multiple) | % of Projection | # of Transactions | |
| LBA Realty Fund I | 2003 | $216 | 43 | 19.9% | 2.1x | 2Q/1Q | 95% | 42 | 2.0 |
| LBA Realty Fund II | 2005 | $421 | 88 | 4.2% | 1.6x | 1Q/1Q | 82% | 84 | 1.3 |
| LBA Realty Fund III | 2007 | $603 | 39 | 0.1% | 1.0x | 4Q/4Q | 59% | 33 | 0.6 |
| LBA Realty Fund IV | 2009 | $750 | 111 | 25.5% | 2.5x | 1Q/1Q | 92% | 110 | 2.3 |
| LBA Realty Fund V | 2014 | $776 | 67 | 16.4% | 1.9x | 1Q/1Q | 55% | 52 | 1.1 |
| LBA Realty Fund VI | 2017 | $900 | 57 | 20.4% | 1.5x | 1Q/1Q | 25% | 0 | 0.5 |
| LBA Logistics Value Fund VII | 2019 | $1,061 | 51 | 9.4% | 1.1x | NM | 0% | 0 | 0.0 |

*Compared to 211 similar vintage US value-add funds. Source is Townsend plus Preqin.

- A significant portion of the Sponsor's long time operating history has been focused on markets located throughout the western U.S given the firm's proximate location on the west coast; for example, LBA Realty Funds I through Fund V invested almost exclusively in markets in the western region. The firm grew regional coverage in 2017 with Fund VI having a larger allocation to central/eastern markets (34%).
- Fund I and Fund IV are effectively realized such that fair market value returns should not materially change. Notably, LBA Realty Funds II, III, V and VI still have varying degrees of remaining unrealized exposure to the office sector[4]; which is a sector that continues to face some amount of uncertainty with regard to long term demand growth given the global pandemic. Investors should consider this exposure and the potential for further write-downs in evaluating MTM returns for unrealized funds. The Sponsor is projecting unrealized assets in Funds I through IV will be disposed of by 2Q 2022.
- With the exception of GFC challenged LBA Realty Fund III, which was impacted by a downturn in leasing activity and exposure to less attractive second-tier submarkets, overall performance has been consistently positive on an absolute basis and strong relative to similar vintage US value-add fund peers.
- LBA Logistics Value Fund VII, a 2019 vintage, raised $1.06 billion in commitments and has not produced any realizations to date; and the Sponsor is now immediately planning to add another $1.95 billion of dry powder to existing market conditions highlighted by increased competition for industrial product.

## INDUSTRIAL ONLY PERFORMANCE

The chart at the right breaks out and presents the industrial only performance for each prior LBA fund that invested in both value-add industrial and office assets (LBA Realty Fund I through VI). Generally speaking, on an absolute gross IRR basis, industrial performance has been accretive to the overall fund performance.

| Vehicle | Vintage | Industrial Equity Invested (M) | Fund Weight to Industrial* | # of Industrial Assets/Fund Assets | Industrial Only Realizations | Fair Market Value |
|---|---|---|---|---|---|---|
| | | | | | % of Transactions | Industrial Only Gross IRR |
| LBA Realty Fund I | 2003 | $108 | 51% | 25/43 | 100% | 29.0% |
| LBA Realty Fund II | 2005 | $109 | 28% | 36/88 | 97% | 7.0% |
| LBA Realty Fund III | 2007 | $262 | 45% | 20/39 | 100% | 3.0% |
| LBA Realty Fund IV | 2009 | $363 | 54% | 88/111 | 100% | 30.0% |
| LBA Realty Fund V | 2014 | $339 | 49% | 49/67 | 92% | 27.0% |
| LBA Realty Fund VI | 2017 | $525 | 75% | 48/57 | 0% | 29.0% |

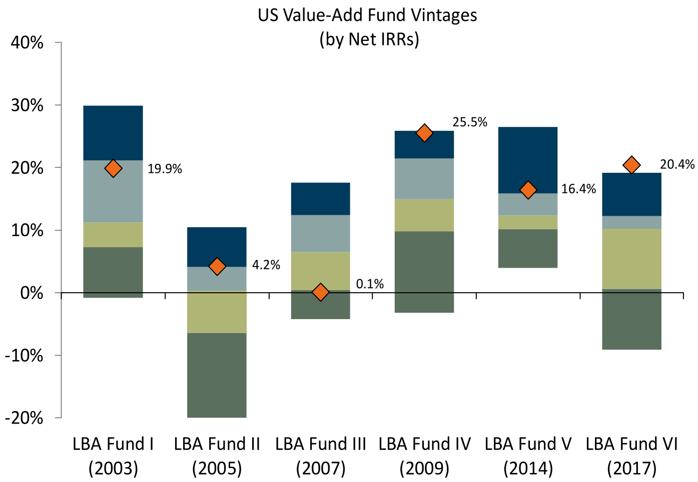
*Presented as % of Total Fund Equity Invested.

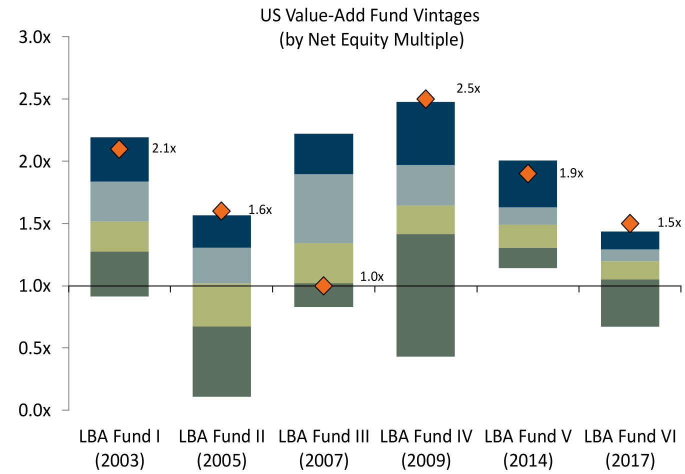
[3] Beginning with LBA Logistics Fund VII, the Sponsor split the industrial strategy and office strategy into separate and distinct funds. Value-add office investing is now the exclusive focus of LBA Office Value Fund VIII, a 2021 vintage fund that raised $403 million in commitments.

[4] For Fund II and III, the vast majority of unrealized equity is attributable to office exposure (93%). Remaining unrealized exposure to the office sector in Fund V and VI is 46% and 25%, respectively.

## RELATIVE PERFORMANCE COMPARISON

The chart below compares LBA's fund series performance to US value-add fund vintage peers.




**Source: TTG database and Preqin fund database.**

| LBA Fund* | Vintage Range | US Industrial Vintage Rank** | Industrial Vintage Sample Size |
|---|---|---|---|
| **LBA Realty Fund II** | **2004-2006** | **1Q** | **5** |
| **LBA Realty Fund III** | **2007-2008** | **4Q** | **8** |
| **LBA Realty Fund IV** | **2008-2010** | **2Q** | **6** |
| **LBA Realty Fund V** | **2013-2015** | **2Q** | **12** |
| **LBA Realty Fund VI** | **2016- 2018** | **1Q** | **13** |

*Excludes LBA Realty Fund I given limited data prior to the 2004 vintage; and Logistics Value Fund VII as it is a 2019 vintage and results are not overly meaningful at this time.

**Compared to similar vintage non-core US industrial fund peers.

The table presented to the right narrows the peer set down to only similar vintage closed-end US non-core industrial fund peers and shows each LBA fund's ranking within those groups. Given that prior funds in the LBA series invested in both office and industrial assets, with an allocation to office that is higher than industrial peers (~48% of invested equity overall allocated to office), Townsend estimated an industrial only net IRR for each fund in the series; intended to create a hypothetical LBA industrial only track record for purposes of comparison to peers. Industrial only asset performance was calculated using the gross IRR for the industrial assets within each fund (as provided by the Sponsor) and adjusted by an estimated fund fee load utilizing Townsend's fee model to create a theoretical industrial only fund net IRR.

- With that context, and with the exception of Fund III, which underperformed peers and created lessons learned (like de-emphasizing exposure to second tier submarkets), the Sponsor's theoretical industrial only performance places above the similar vintage peer median for closed-end US non-core industrial funds.

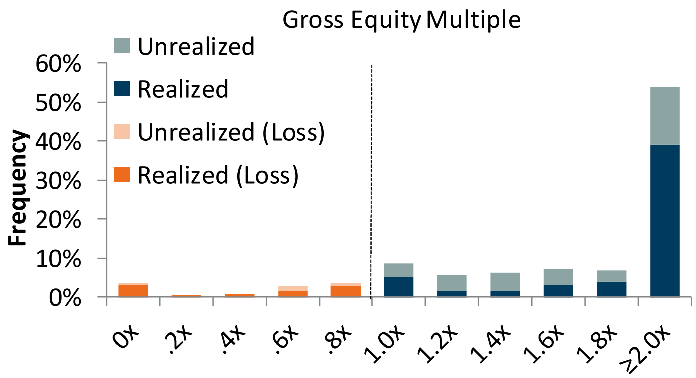
- The relative performance is distinguishing as the industrial sector subset has largely outperformed over the most recent ten year period from 2009-2018[5], producing (on average) a premium in excess of ~700 bps to the US non-core median.

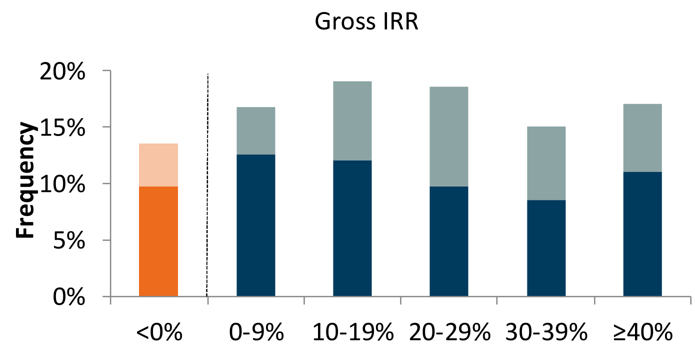
[5] Recent vintages from 2019 and later have been excluded from the analysis as results are not yet overly meaningful.

## DISPERSION OF RETURNS

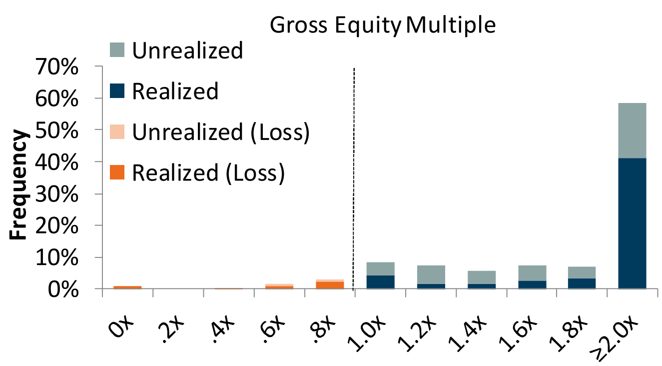
The following chart illustrates the dispersion of individual deal investment returns across the Sponsor's fund series, excluding recently acquired assets still held at cost. The returns included in the analysis are calculated on a gross property level, mark-to-market basis.

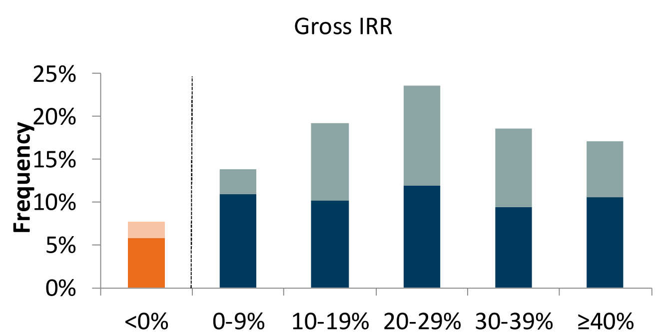
- Given the Sponsor's long history investing in properties through multiple cycles, the positive skew is distinguishing.
- The 14% of assets marked at a loss are largely attributable to LBA Realty Fund II and Fund III (40 of 55 total deals), which were GFC impacted funds.
- Sponsor provided deal-by-deal for the three most recent funds in the series (V-VII) is provided in **Exhibit D**.



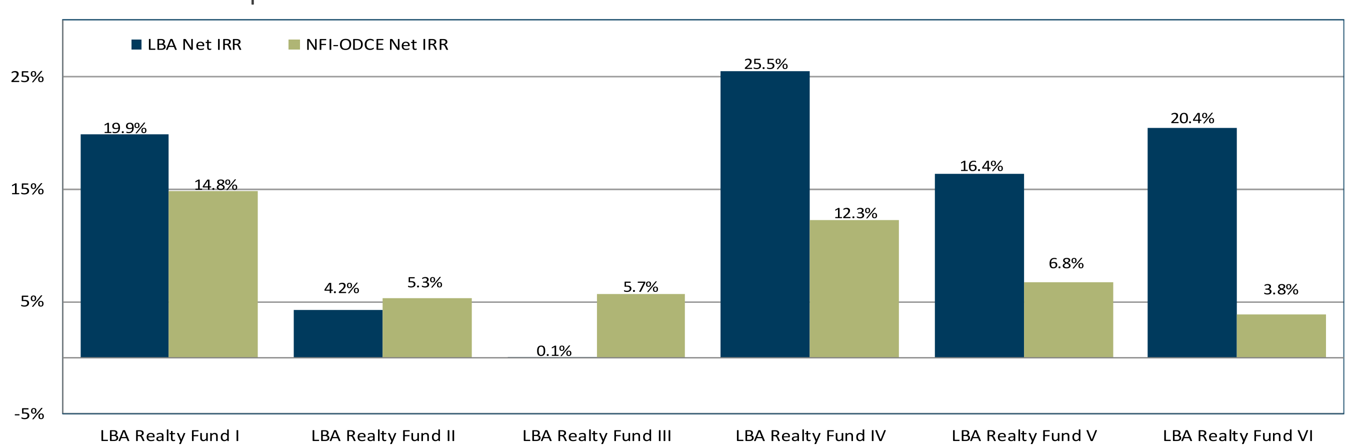

The Sponsor's industrial only deal-by-deal is included in the chart below:




## BENCHMARK COMPARISON

The chart assumes prior LBA fund series cash flows were instead invested into and out of the NFI-ODCE index to create a net IRR comparison to the index.



## EXHIBIT A: Illustrative Fund VII Deals

### LBA CORPORATE PROGRAM CASE STUDY: ELIZABETH CREEK (DHL)

| OVERVIEW | |
|---|---|
| Investment Vehicle | Fund VII |
| Property Type | Industrial |
| Location | Fort Worth, TX |
| Size | 1.1M SF |
| Acquisition Date | March 2021 |

| ACQUISITION | |
|---|---|
| Purchase Price | $65.3M |
| Purchase Price PSF | $59 |
| Invested Equity | $33.7M |
| LTV | 60% |

| PERFORMANCE | |
|---|---|
| Going in Cap Rate | N/A |
| Estimated Gross Unrealized IRR | 15% |
| Estimated Gross Unrealized Multiple | 1.8x |

**OPPORTUNITY**

- Elizabeth Creek Buildings D & E are pre-buy acquisitions of two Class A warehouse and distribution buildings located in Fort Worth, TX, which is part of the North Fort Worth / Alliance submarket within the Dallas Fort Worth market.
- Building D is 702,599 and Building E is 403,465 SF. The buildings are situated on 77.15 acres.

**STRATEGY & EXECUTION**

- LBA purchased the properties in a forward transaction.
- During construction LBA began marketing the properties for lease.
- Building E has since been fully leased to CTDI, a logistics provider to the communication industry.

### DEVELOPMENT CASE STUDY: LACEY INDUSTRIAL CENTER

| OVERVIEW | |
|---|---|
| Investment Vehicle | Fund VII |
| Property Type | Industrial |
| Location | Lacey, WA |
| Size | 204,015 SF |
| Acquisition Date | December 2019 |

| ACQUISITION | |
|---|---|
| Purchase Price | $21.4M (Total Costs) |
| Purchase Price PSF | $105 |
| Invested Equity | $10.1M |
| LTV | N/A |

| PERFORMANCE | |
|---|---|
| Going in Cap Rate | N/A |
| Estimated Gross Unrealized IRR | 23% |
| Estimated Gross Unrealized Multiple | 2.7x |

**OPPORTUNITY**

- Lacey Industrial Center located in Lacey, WA represents the ability to acquire a well located, 12.6-acre parcel of land to develop a state-of-the-art 204,015 SF warehouse/distribution building.
- The site is located less than 1 mile from I-5 by way of Exit 111. Additionally, it sits on Hogum Bay Road NE which has been identified by the City of Lacey as a truck corridor.

**STRATEGY & EXECUTION**

- LBA constructed a new 36' clear, ESFR state-of-the-art warehouse and distribution facility.
- LBA benefited from the project being fully entitled at an attractive basis, offering lower cost warehouse space options to tenants being priced out of other Puget Sound industrial markets.
- The building was completed in March 2021 and is actively being marketed for lease.

# LBA CORPORATE PROGRAM / FOOD LOGISTICS CASE STUDY: NESTLE PORTFOLIO

| OVERVIEW | |
|---|---|
| Investment Vehicle | Fund VII |
| Property Type | Industrial |
| Location | California, Arizona, Illinois, Florida |
| Size | 243,370 SF |
| Acquisition Date | April 2020 |

| ACQUISITION | |
|---|---|
| Purchase Price | $49.3M |
| Purchase Price PSF | $202 |
| Invested Equity | $22.0M |
| LTV | 64% |

| PERFORMANCE | |
|---|---|
| Going in Cap Rate | 6.68% |
| Estimated Gross Unrealized IRR | 19% |
| Estimated Gross Unrealized Multiple | 2.7x |

## OPPORTUNITY

- The Portfolio consists of four freezer industrial buildings totaling 243,370 square feet in four major metropolitan markets across the US.
- The buildings are located in the Chicago, Miami, Los Angeles, and Phoenix industrial markets.
- The buildings have historically been owned and occupied by Nestle. Three of the buildings were re-leased to Nestle affiliates or customers, while the building in City of Industry, CA was delivered vacant.
- The Portfolio provides a critical mass of freezer/cooler space in premier markets with attractive stabilized yields.

## STRATEGY & EXECUTION

- LBA will manage the Portfolio and strengthen its relationship with the current tenants.
- The City of Industry building has been fully leased to Imperfect Foods, Inc.

# REPOSITIONING CASE STUDY: CROSSROADS INDUSTRIAL EAST & WEST (EXIT 8A)

| OVERVIEW | |
|---|---|
| Investment Vehicle | Fund VII |
| Property Type | Industrial |
| Location | South Brunswick Township, NJ |
| Size | 335,678 SF |
| Acquisition Date | December 2019 |

| ACQUISITION | |
|---|---|
| Purchase Price | $48.5M |
| Purchase Price PSF | $144 |
| Invested Equity | $21.3M |
| LTV | 59% |

| PERFORMANCE | |
|---|---|
| Going in Cap Rate | 4.65% |
| Estimated Gross Unrealized IRR | 20% |
| Estimated Gross Unrealized Multiple | 2.8x |

## OPPORTUNITY

- Crossroads Industrial East & West is a 335,678 SF project consisting of seven warehouse/distribution buildings on 33.61 acres. Individual units range from 5,000-60,000 SF.
- Strategically located in the "Exit 8A" submarket, the second largest submarket in New Jersey, directly between New York City and Philadelphia.
- Acquire strong asset in the Exit 8A submarket with significantly below market in-place leases.
- Capitalize on very tight market fundamentals to capture higher market rents.

## STRATEGY & EXECUTION

- LBA invested capital into the buildings in 2020, including exterior paint, signage, landscaping and making suites market ready.
- There has been strong demand from current and prospective tenants.
- Executed seven leases and expansions in 2020.
- Increased property level NOI by approximately 18% since acquisition.

## EXHIBIT B: MANAGEMENT BIOGRAPHIES

**Phil Belling**
Mr. Belling, 61, is the Managing Principal and Co-Founder of LBA, and has over 39 years of real estate experience. Mr. Belling is responsible for overseeing the strategic direction of the firm, which includes LBA's investment, debt and equity activities throughout the country where LBA's portfolio of industrial and office properties currently total over 72 million square feet. Mr. Belling also serves on LBA's Executive Management and Investment Committees. Prior to forming LBA, Mr. Belling was Senior Vice President for the Southern California Division of The Koll Company, where he oversaw the development of more than four million square feet of development properties. Mr. Belling holds a finance degree from San Diego State University and currently serves on the Advisory Board of U.C. Berkeley Fisher Center for Real Estate & Urban Economics. Mr. Belling is a trustee of Urban Land Institute as well as associated with the Real Estate Roundtable and the Pension Real Estate Association.

**Steven Layton**
Mr. Layton, 62, is a Principal and Co-Founder of LBA and has over 37 years of real estate experience. He currently oversees transaction due diligence for all of LBA's acquisition, financing and disposition activities. Prior to forming LBA, Mr. Layton was Senior Vice President of the Southern California Division of The Koll Company, where he oversaw and coordinated the development of four million square feet of office and mixed-use projects in Orange and San Diego counties. Mr. Layton holds a B.A. degree in Economics and Sociology from the University of California, Los Angeles and is a licensed real estate broker. Mr. Layton is a Founding Board Member of the UCLA Ziman Center for Real Estate and a former board member of the National Association of Industrial and Office Properties (NAIOP). Mr. Layton also serves as the Vice Chairman of the Pacific Region and National Trustee for the Boys & Girls Clubs of America.

**Steven Briggs**
Mr. Briggs, 57, is a Principal and Chief Investment Officer of LBA Realty and has over 34 years of real estate experience, with significant experience in the acquisition, development and management of office and industrial properties throughout the Western United States. Mr. Briggs oversees the Portfolio Management of LBA's approximate 45 million square foot industrial portfolio and co-leads LBA Logistics. He is actively involved in acquisition, leasing, capital improvement and disposition strategies for the portfolio and serves on LBA's Executive Management and Investment Committees. Prior to joining LBA in 1993, Mr. Briggs was Vice President of Investment Properties Group in Irvine and a Development Manager at Calmat Properties in Phoenix. Mr. Briggs holds a degree from Arizona State University and is a former board member of the Los Angeles/Orange County Chapter of the National Association of Industrial and Office Properties and a member of the Urban Land Institute.

**David Thomas**
Mr. Thomas, 61, is a Principal of LBA and has over 39 years of experience in investment sales, tenant negotiations, development and asset management. Since joining LBA in 1995, he has been responsible for a variety of roles and currently co-heads LBA's acquisition efforts and he currently serves on LBA's Investment Committee. Prior to joining LBA, Mr. Thomas was a Senior Associate with Colliers Iliff Thorn, where he was involved in the sale of office, industrial and retail properties. He also represented a number of national tenants in connection with major facility negotiations and relocations throughout Northern California and the San Diego area. Mr. Thomas holds a B.S. degree in Resource Economics from the University of California at Berkeley and serves on several professional and charitable boards.

**Perry Schonfeld**
Mr. Schonfeld, 63, is a Principal and Chief Operating Officer for LBA and has over 40 years of experience in the financial and commercial real estate industries. Since joining LBA in 1997, he has evolved into overseeing the overall operations of the company and currently serves on LBA's Executive Management and Investment Committees. Prior to joining LBA, Mr. Schonfeld was an Associate Director for Cushman & Wakefield of California, Inc., handling both asset and property management services for the Southern California region. Mr. Schonfeld has been a member of BOMA Orange County since 1997 and is a past President of the Orange County chapter. Mr. Schonfeld has also served on the BOMA International Executive Committee from 2007 to 2011 and as Chair of the BOMA International Nominating Committee from 2014-2015 and currently is a BOMA Fellow as well as a member of the BOMA International National Advisory Council. He also is a Sustainability Policy Advisory Committee Member of the Real Estate Roundtable, an Advisory Board Member of the Boys & Girls Club of Capistrano Valley and the Los Angeles Sports and Entertainment Commission. Mr. Schonfeld holds a Master's in Business Administration degree from the University of California, Los Angeles and a B.S. degree in Business Administration and Management from the State University

of New York at Buffalo, and is a Certified Public Accountant, licensed in the state of California. Mr. Schonfeld also serves as an Adjunct Professor in the Master of Real Estate Program at Chapman University, located in Orange California.

**Bradley Neglia**

Mr. Neglia, 52, is a Principal of LBA and oversees leasing and marketing activities and is involved with LBA's corporate program. Mr. Neglia has over 30 years of experience in the real estate industry. In addition to running the leasing and marketing programs throughout LBA's regions, he also has significant involvement with LBA's asset management activities. Mr. Neglia is a member of LBA's Executive Management Committee. Since joining LBA in 1995, he has been involved in leasing, acquisitions, dispositions and asset management. He is a former board member for the Southern California Chapter of NAIOP. He currently serves on the board of directors for the Pediatric Cancer Research Foundation. Prior to joining LBA, Mr. Neglia was a licensed real estate agent with Grubb & Ellis, specializing in industrial leasing and sales in Orange and Los Angeles Counties. Mr. Neglia graduated from the University of California, Santa Barbara with a B.A. in Economics.

**Thomas Motherway**

Mr. Motherway, 54, is a Principal of LBA and has over 32 years of experience in the commercial real estate industry, specializing in asset management, acquisitions, dispositions, real estate finance, valuation and management consulting. He currently focuses on three main areas: portfolio management, managing LBA's asset disposition program and investor relations. He also oversees LBA's Research Initiatives. Prior to his current role, his responsibilities included asset management, acquisition sourcing, due diligence and underwriting for LBA's portfolio. Prior to joining LBA in 1997, Mr. Motherway was a Consulting Manager at the E&Y Kenneth Leventhal Real Estate Group in Newport Beach. He is a Trustee and past president of the Laguna Beach Education Foundation and serves on the board of the ALS Association of Orange County. Mr. Motherway graduated from the University of California, Los Angeles with a B.A. in Economics.

**Donald Shaver**

Mr. Shaver, 56, is a Principal of LBA and has over 34 years of commercial real estate experience. Mr. Shaver joined LBA in 2005. He currently oversees acquisition, disposition and leasing of LBA's Northern California and Pacific Northwest Regions, with a primary focus on office properties. Prior to joining LBA, Mr. Shaver was a top producing broker for Cushman & Wakefield and CBRE representing firms such as Fireman's Fund, Bank of America, PG&E, Pacific Bell Directories and WorldCom in developing real estate strategy as well as leasing, acquisition and disposition transaction execution. Mr. Shaver holds a B.A. in Business Economics from the University of California, Santa Barbara.

**Michael Memoly**

Mr. Memoly, 48, is a Principal of LBA, Chief Financial Officer and Chief Compliance Officer, and has over 26 years of real estate experience. Mr. Memoly joined LBA in 2006 and he is responsible for the oversight of LBA's investor and financial reporting, accounting, tax function, information technology, human resources, investor relations, compliance program, and loan portfolio administration and reporting. He currently serves on LBA's Investment Committee. Prior to LBA, Mr. Memoly was a Senior Manager with Ernst & Young, in the real estate practice for 11 years, including seven years working on the LBA account. Mr. Memoly holds a B.S. in Accounting from The State University of New York at Binghamton. Mr. Memoly is a licensed CPA in the states of New York and California (inactive).

**Thomas Rutherford**

Mr. Rutherford, 60, is a Principal of LBA, and has been involved in the real estate industry for over 34 years and oversees LBA's finance and joint venture transactions. Over the past 28 years, Mr. Rutherford has overseen the negotiating and closing hundreds of loans and several major joint venture transactions. Prior to joining LBA in 1993, Mr. Rutherford served as Project Accountant for The Koll Company and was responsible for financial accounting and analysis for a number of offices, retail and mixed-use properties. Mr. Rutherford is currently an active member of the Urban Land Institute non-profit organization and has also been associated with IDM Corporation and Obayashi America, where he was responsible for financial accounting and reporting for commercial properties. Mr. Rutherford holds a B.A. degree in Accounting from California State University, Long Beach.

**Melanie Colbert**

Ms. Colbert, 55, Principal of LBA, oversees LBA's management operations and has over 32 years' experience in commercial real estate. Ms. Colbert joined LBA in 1996 and is currently responsible for all aspects of LBA's property management operations. She also provides support for acquisitions, due diligence and dispositions, and oversees the transition of properties and operations across LBA's portfolio. Prior to joining LBA, Ms. Colbert was a Senior Property Manager for Koll Management

Services where she managed retail, industrial and multi-tenant office properties throughout the Greater Los Angeles area. Ms. Colbert attended the University of Arizona where she studied Finance and Real Estate. She is a Certified Property Manager and holds a California Real Estate Broker license. She also serves on the Advisory Board for BOMA Orange County and as Chair for BOMA International's National Advisory Council.

**John Garrigan**

Mr. Garrigan, 49, is a Principal at LBA and has 17 years of real estate experience. Mr. Garrigan co-leads the Acquisitions Group and is involved in LBA's Corporate Program acquisition efforts. Mr. Garrigan previously managed all Southern California leasing activities. Prior to joining LBA, Mr. Garrigan held the position of Portfolio Leasing Director at a San Diego-based boutique commercial real estate investment and development company. In that role, he was responsible for all leasing and marketing operations and was actively involved in acquisitions and dispositions. Mr. Garrigan entered the real estate business as an office and industrial broker with CB Richard Ellis in La Jolla, California. Prior to the start of his real estate career, Mr. Garrigan was a Marine aviator and is a decorated combat veteran of Operation Iraqi Freedom. Mr. Garrigan is an active Urban Land Institute member and a past President of the National Association of Industrial and Office Properties - San Diego Chapter. Mr. Garrigan holds a B.A. degree in Business with an emphasis in Finance from California State University, Fullerton.

**Timothy Brosnan**

Mr. Brosnan, 54, is a Principal at LBA, and has 32 years of real estate experience. Mr. Brosnan co-leads LBA Logistics, is responsible for investor relations, capital raising and has a portfolio management role. Prior to joining LBA in 2014, Mr. Brosnan was with Prologis where he oversaw investor relations and capital raising in the U.S. Mr. Brosnan also served as Director, Capital Markets and Client Relations at JER and Director, Client Relations at RREEF primarily focused in the western U.S. He is a member of Pension Real Estate Association (PREA) and is a member of the Publications Committee. Mr. Brosnan received a B.S. from the University of Southern California and a Master's in Business Administration from the University of California, Irvine.

**Erin Kaplan**

Ms. Kaplan, 42, is a Principal and Chief Accounting Officer. Since joining LBA in 2006, Ms. Kaplan has overseen the accounting department which is primarily responsible for preparing and delivering financial reporting and other requirements to investors, lenders and joint venture partners. Prior to joining LBA, Ms. Kaplan held roles at Ernst & Young providing assurance and advisory services to several real estate clients in Orange County, CA and Atlanta, GA. Ms. Kaplan is a graduate of California State University Fullerton with a B.A. in Business Administration with a concentration in Accounting.

**Eric Brown**

Mr. Brown, 43, is a Senior Vice President and has been with LBA since 2004. At the start of his career with LBA, his focus was on acquisitions in both San Diego and Northern California. In 2009, he took over the responsibility to oversee leasing, design and construction activities for LBA's two million square foot Park Place project in Irvine, CA. Most recently he has also taken on similar roles for other major LBA properties in the Southern California region. Mr. Brown is a graduate of Baylor University with B.A. in Business Administration, with a major in Finance.

**William Plautz.**

Mr. Plautz, 49, is a Senior Vice President with approximately 18 years of commercial real estate experience. Since joining LBA in 2008, he has overseen the leasing, acquisitions, dispositions and portfolio management of LBA's Pacific Northwest portfolio which includes Washington and Oregon. Since that time, his role has expanded to include additional portfolio management and leasing responsibilities in Northern California and Nevada, acquisition responsibilities in Utah, and asset management responsibilities across LBA's western industrial portfolio. Prior to joining LBA, Mr. Plautz worked at Hines, a privately owned global real estate investment, development and management firm, where he focused on acquisitions, dispositions, leasing and project management. Mr. Plautz received a B.S. degree in Finance from Appalachian State University and an MBA from Harvard Business School.

**Alice Wilson**

Ms. Wilson, 65, is Senior Vice President of Corporate Program at LBA, and has over 39 years of real estate industry related experience. Since joining LBA in 2005, Ms. Wilson has managed LBA's corporate program and works closely with LBA's acquisition and leasing teams while serving as a liaison to corporate tenants and clients. Prior to joining LBA, Ms. Wilson led the strategic planning and business development efforts for some of the industry's premiere real estate development, architectural and construction firms on a national basis. Ms. Wilson holds a B.S. degree in Real Estate Finance from California State University, Long Beach and is a licensed real estate broker in the state of California. In addition, she holds a Master of

Corporate Real Estate (MCR) and Senior Leader, Corporate Real Estate (SLCR) designation from CoreNet Global and holds a Fellow designation with IAMC (Industrial Asset Management Council). Ms. Wilson has served on numerous global leadership positions for CoreNet Global and IAMC.

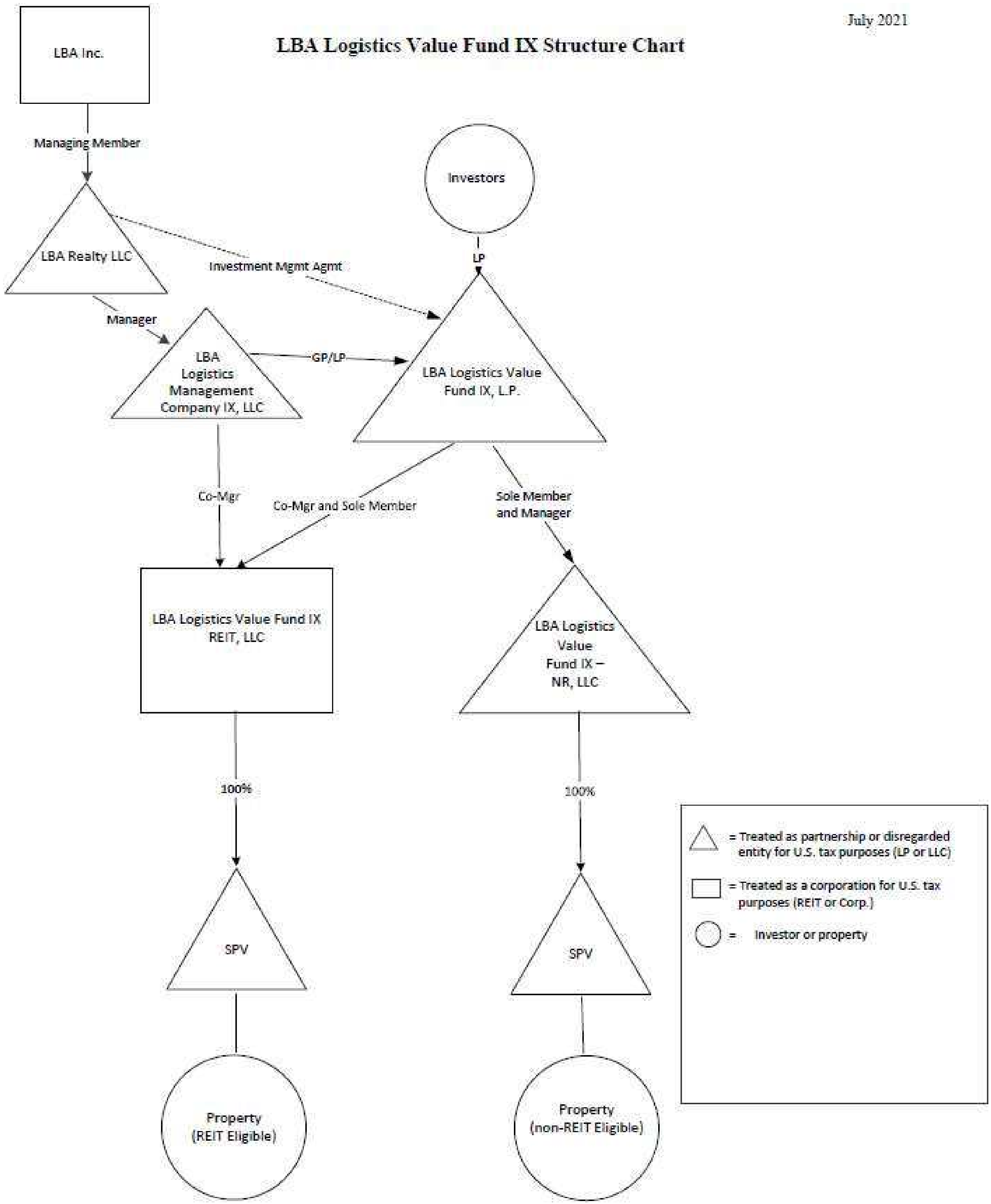
**John Goldsmith**
Mr. Goldsmith, 42, is a Senior Vice President at LBA and has 19 years of capital markets and commercial real estate experience. Mr. Goldsmith focuses exclusively on industrial investment, asset management and leasing. With offices in New Jersey and New York, Mr. Goldsmith is LBA's North East and Mid Atlantic market leader. Prior to joining LBA in 2019, Mr. Goldsmith was with The Hampshire Companies, where he was a Portfolio Manager for a series of funds, acted as the practice lead for the firm's industrial efforts, and was a member of the Senior Leadership Team. In that role, he was primarily focused on sourcing new acquisitions and overseeing strategy for the asset management and leasing teams. Prior to joining Hampshire, Mr. Goldsmith also worked at Goldman Sachs & Co and Starwood Capital Group. Mr. Goldsmith holds a B.A. degree from Middlebury College, and a Master's in Business Administration from the Tuck School of Business at Dartmouth.

**John Norton**
Mr. Norton, 39, is a Senior Vice President of Acquisitions. He joined LBA in 2010 with a focus on sourcing Southern California and Midwest office and industrial acquisitions. Mr. Norton now oversees the Chicago office of LBA and focuses on acquisitions in the Central U.S. Prior to LBA, Mr. Norton worked on the acquisitions team at Ellis Partners and as a Senior Associate for BDO in San Francisco. He holds a B.S. in Business Administration with a concentration in Real Estate Finance and a B.S. in Accounting from the University of Southern California.

**Alison Vukovich**
Ms. Vukovich, 41, is a Vice President at LBA and has over 17 years of real estate experience in leasing and managing major industrial real estate projects. Since joining LBA in 2003, she has been actively involved in asset management, finance, acquisitions, leasing and portfolio management. Her current role includes industrial leasing and portfolio management in Southern California and Utah, as well as the oversight of two joint ventures. Prior to joining LBA, Ms. Vukovich worked at KPMG, a global network of firms offering audit, tax and advisory services, in the Audit and Assurance practice. Ms. Vukovich received a B.A. from the University of California, Santa Barbara in Economics with an emphasis in Accounting, and the History of Art and Architecture.

**Dave Poquette**
Mr. Poquette, 48, is a Vice President at LBA and has worked in the real estate development and construction management industry for 25 years. Mr. Poquette leads our Industrial Development platform with a focus on developments in the Eastern US. He started his construction management career at Ernst and Young in their real estate consulting business managing corporate campus construction. Mr. Poquette then transitioned to the real estate development industry managing improvements for an 880 acre development in Fremont, California for Catellus Development Corp. Prior to working at LBA, Mr. Poquette led the development and construction activities in the Midwest and Northeastern US for GLP (IndCor) for five years. Mr. Poquette's development experience includes major building expansions, repositioning of and entitlement of existing assets and land sites for logistic firms and modern E-commerce operators, and managing and structuring of major industrial development joint ventures. He graduated with a B.S. degree in Civil Engineering from Marquette University.

## Exhibit C: Fund Structure (draft)



# Exhibit D: Sponsor Provided Deal Level Detail

| | | | | | | Mark to Market | | | PROJECTED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PROPERTY | Fund | STATUS | PROPERTY TYPE | SUB-REGION | STABILIZED ACQUISITION EQUITY | SALE/EXIT DATE | GROSS MULTIPLE | GROSS IRR (YR) | SALE/EXIT DATE | GROSS MULTIPLE | GROSS IRR (YR) |
| 1250 Elko Drive | Fund V | Active | Industrial | Northern California | $5,112,081 | 12/31/2020 | 4.1x | 41% | 1/31/2025 | 4.5x | 40% |
| 13050 East Smith Road | Fund V | Active | Industrial | Colorado | $3,849,111 | 12/31/2020 | 2.5x | 29% | 1/31/2025 | 2.6x | 27% |
| 13700 Live Oak Avenue | Fund V | Active | Industrial | Los Angeles | $1,328,160 | 12/31/2020 | 3.2x | 37% | 1/31/2025 | 3.8x | 35% |
| 14200 East Moncrieff Place | Fund V | Active | Industrial | Colorado | $7,165,670 | 12/31/2020 | 2.0x | 35% | 1/31/2025 | 2.1x | 33% |
| 14900 West Schulte Road | Fund V | Active | Industrial | Northern California | $1,871,520 | 12/31/2020 | 8.9x | 51% | 1/31/2025 | 9.4x | 40% |
| 15000 West Schulte Road | Fund V | Active | Industrial | Northern California | $4,409,102 | 12/31/2020 | 3.1x | 32% | 1/31/2025 | 3.3x | 29% |
| 15100 South Figueroa Street | Fund V | Active | Industrial | Los Angeles | $5,150,178 | 12/31/2020 | 2.6x | 32% | 1/31/2025 | 2.7x | 30% |
| 1550 Magnolia Avenue | Fund V | Active | Industrial | Inland Empire | $8,610,512 | 12/31/2020 | 2.3x | 24% | 1/31/2025 | 2.6x | 23% |
| 1590 South Gladiola Street | Fund V | Active | Industrial | Utah | $3,933,893 | 12/31/2020 | 2.2x | 33% | 1/31/2025 | 1.8x | 22% |
| 1600 Agua Mansa Road | Fund V | Active | Industrial | Inland Empire | $15,320,340 | 12/31/2020 | 4.4x | 26% | 1/31/2025 | 4.4x | 25% |
| 2037 South 5070 West | Fund V | Active | Industrial | Utah | $7,631,777 | 12/31/2020 | 1.5x | 14% | 1/31/2025 | 1.5x | 12% |
| 20432-20434 South Santa Fe Avenue | Fund V | Active | Industrial | Los Angeles | $7,987,484 | 12/31/2020 | 2.1x | 17% | 1/31/2025 | 2.2x | 17% |
| 2701 Keystone Pacific Parkway | Fund V | Active | Industrial | Northern California | $12,224,035 | 12/31/2020 | 2.3x | 31% | 1/31/2025 | 2.6x | 30% |
| 2899 Mead Avenue | Fund V | Active | Industrial | Northern California | $3,848,624 | 12/31/2020 | 5.7x | 43% | 1/31/2025 | 6.4x | 42% |
| 3015-3041 North Skyway Circle | Fund V | Active | Industrial | Texas | $3,514,544 | 12/31/2020 | 2.5x | 29% | 1/31/2025 | 2.5x | 27% |
| 3500-3520 Thomas Road | Fund V | Active | Industrial | Northern California | $8,467,045 | 12/31/2020 | 2.6x | 34% | 1/31/2025 | 2.9x | 33% |
| 3925 East Coronado Street | Fund V | Active | Industrial | Orange County | $3,663,418 | 12/31/2020 | 4.0x | 37% | 12/31/2023 | 5.2x | 30% |
| 4400 Ruffin Road | Fund V | Active | Industrial | San Diego | $18,182,819 | 12/31/2020 | 0.6x | -8% | 3/31/2023 | 1.3x | 3% |
| 5005 East Philadelphia Street | Fund V | Active | Industrial | Inland Empire | $3,442,807 | 12/31/2020 | 3.0x | 30% | 12/31/2021 | 2.7x | 23% |
| 5100 Rivergrade Road | Fund V | Active | Industrial | Los Angeles | $1,368,417 | 12/31/2020 | 3.3x | 35% | 1/31/2025 | 2.8x | 31% |
| 515 South Promenade Avenue | Fund V | Active | Industrial | Inland Empire | $9,176,890 | 12/31/2020 | 2.2x | 21% | 1/31/2025 | 2.3x | 20% |
| 5151-5161 Commerce Drive | Fund V | Active | Industrial | Los Angeles | $2,309,009 | 12/31/2020 | 3.0x | 34% | 1/31/2025 | 3.2x | 32% |
| 5350 West Harold Gatty Drive | Fund V | Active | Industrial | Utah | $7,186,463 | 12/31/2020 | 1.6x | 14% | 1/31/2025 | 1.8x | 14% |
| 551 Courier Street | Fund V | Active | Industrial | Nevada | $6,362,686 | 12/31/2020 | 1.5x | 16% | 1/31/2025 | 1.7x | 15% |
| 6125 West Campus Circle | Fund V | Active | Industrial | Texas | $1,327,478 | 12/31/2020 | 2.2x | 22% | 1/31/2025 | 2.3x | 20% |
| 7272 West Marginal Way South | Fund V | Active | Industrial | Pacific Northwest | $3,511,433 | 12/31/2020 | 5.4x | 42% | 1/31/2025 | 6.1x | 42% |
| 797-799 Palmyrita Court | Fund V | Active | Industrial | Inland Empire | $8,157,853 | 12/31/2020 | 2.2x | 28% | 1/31/2025 | 2.5x | 27% |
| 9125 Rehco Road | Fund V | Active | Industrial | San Diego | $4,354,716 | 12/31/2020 | 1.3x | 4% | 1/31/2025 | 1.5x | 6% |
| 918 South Stimson Avenue | Fund V | Active | Industrial | Inland Empire | $3,498,815 | 12/31/2020 | 1.0x | -1% | 12/31/2021 | 1.8x | 11% |
| 9301 Mason Avenue | Fund V | Active | Industrial | Los Angeles | $4,458,266 | 12/31/2020 | 2.4x | 19% | 1/31/2025 | 2.7x | 19% |
| 9750 Irvine Boulevard | Fund V | Active | Industrial | Orange County | $22,108,519 | 12/31/2020 | 1.9x | 16% | 1/31/2025 | 2.1x | 17% |
| Kent 192 | Fund V | Active | Industrial | Pacific Northwest | $5,408,046 | 12/31/2020 | 2.5x | 17% | 1/31/2025 | 2.9x | 18% |
| Kiest Distribution Center | Fund V | Active | Industrial | Texas | $4,760,291 | 12/31/2020 | 3.2x | 38% | 1/31/2025 | 3.4x | 36% |
| Logistics Center 75 | Fund V | Active | Industrial | Arizona | $19,217,687 | 12/31/2020 | 2.6x | 17% | 1/31/2025 | 2.7x | 17% |
| Main and Garner Business Park | Fund V | Active | Industrial | Inland Empire | $4,995,421 | 12/31/2020 | 2.3x | 29% | 1/31/2025 | 2.4x | 27% |
| Ontario Pacific Business Center | Fund V | Active | Industrial | Inland Empire | $6,140,651 | 12/31/2020 | 4.3x | 40% | 1/31/2025 | 4.8x | 38% |
| Portside Industrial Center | Fund V | Active | Industrial | Pacific Northwest | $17,501,879 | 12/31/2020 | 3.1x | 27% | 1/31/2025 | 3.1x | 25% |
| Redmond Commerce Center | Fund V | Active | Industrial | Pacific Northwest | $5,390,412 | 12/31/2020 | 7.2x | 37% | 1/31/2025 | 7.9x | 36% |
| Shoemaker Business Park | Fund V | Active | Industrial | Los Angeles | $3,546,930 | 12/31/2020 | 3.6x | 46% | 1/31/2025 | 3.7x | 43% |
| Sierra Commerce Park | Fund V | Active | Industrial | Nevada | $14,971,182 | 12/31/2020 | 5.3x | 50% | 1/31/2025 | 5.9x | 48% |
| SoFo Logistics | Fund V | Active | Industrial | Inland Empire | $6,749,322 | 12/31/2020 | 3.9x | 30% | 1/31/2025 | 3.6x | 26% |
| Wilsonville Business Center | Fund V | Active | Industrial | Pacific Northwest | $23,672,284 | 12/31/2020 | 2.7x | 29% | 1/31/2025 | 2.9x | 28% |
| 2722 Michelson Drive | Fund V | Active | Office | Orange County | $21,937,981 | 12/31/2020 | 1.6x | 7% | 7/31/2022 | 2.3x | 10% |
| 3939 East Coronado Street | Fund V | Active | Office | Orange County | $4,159,757 | 12/31/2020 | 1.7x | 16% | 1/31/2021 | 2.2x | 13% |
| 9740 Irvine Boulevard | Fund V | Active | Office | Orange County | $8,656,168 | 12/31/2020 | 0.0x | -36% | 12/31/2023 | 0.6x | -4% |
| Esplanade Partners, LP | Fund V | Active | Office | Arizona | $81,033,049 | 12/31/2020 | 1.4x | 8% | 7/31/2022 | 1.2x | 4% |
| Kierland II | Fund V | Active | Office | Arizona | $25,560,856 | 12/31/2020 | 1.4x | 8% | 12/31/2021 | 1.9x | 13% |
| One Culver | Fund V | Active | Office | Los Angeles | $120,264,174 | 12/31/2020 | 2.1x | 20% | 9/30/2022 | 2.9x | 23% |
| TwoPine | Fund V | Active | Office | Pacific Northwest | $13,589,871 | 12/31/2020 | 0.6x | -7% | 12/31/2022 | 1.7x | 6% |
| LBA Fontana Logistics Center | Fund V | Active | Land | Inland Empire | $3,590,544 | 12/31/2020 | 4.1x | 33% | 1/31/2025 | 4.1x | 30% |
| 14086 Santa Ana Avenue | Fund V | Active | Land | Inland Empire | $2,866,916 | 12/31/2020 | 4.0x | 51% | 1/31/2025 | 4.6x | 50% |
| Rogers Road | Fund V | Active | Land | Northern California | $6,065,760 | 12/31/2020 | 1.1x | 3% | 7/31/2022 | 1.5x | 8% |
| 5150 Rivergrade Road | Fund V | Sold | Industrial | Los Angeles | $4,443,520 | 10/5/2015 | 1.0x | -6% | | | |
| 611 Reyes Drive | Fund V | Sold | Industrial | Los Angeles | $6,669,621 | 7/9/2019 | 1.9x | 16% | | | |
| Porter Rockwell Center | Fund V | Sold | Industrial | Utah | $12,616,464 | 6/18/2018 | 2.0x | 32% | | | |
| 1 Dell Parkway | Fund V | Sold | Office | Tennessee | $28,433,739 | 10/15/2018 | 2.0x | 41% | | | |
| 222 Kearny Street | Fund V | Sold | Office | Northern California | $10,412,376 | 8/21/2019 | 1.8x | 31% | | | |
| 5 Polaris Way | Fund V | Sold | Office | Orange County | $8,784,124 | 6/7/2016 | 2.0x | 32% | | | |
| 8925 & 8945 Rehco Road | Fund V | Sold | Office | San Diego | $4,325,589 | 10/31/2017 | 3.1x | 65% | | | |
| Ross Drive Technology Park | Fund V | Sold | Office | Northern California | $26,824,735 | 8/24/2018 | 1.7x | 23% | | | |
| 1265 North Van Buren Street | Fund V | Sold | Land | Orange County | $7,876,986 | 7/7/2017 | 1.6x | 19% | | | |
| 1 Advantage Court | Fund VI | Active | Industrial | New Jersey | $15,106,495 | 12/31/2020 | 1.3x | 30% | 1/31/2026 | 1.6x | 23% |
| 1 Imeson Park Boulevard | Fund VI | Active | Industrial | Florida | $18,941,090 | 12/31/2020 | 1.5x | 22% | 1/31/2026 | 2.1x | 23% |
| 1055 Hanover Street | Fund VI | Active | Industrial | Pennsylvania | $26,238,932 | 12/31/2020 | 1.5x | 18% | 1/31/2026 | 2.7x | 20% |
| 11710 Pacific Avenue | Fund VI | Active | Industrial | Inland Empire | $3,910,511 | 12/31/2020 | 1.6x | 22% | 1/31/2026 | 2.0x | 15% |
| 11711 Pacific Avenue | Fund VI | Active | Industrial | Inland Empire | $4,637,860 | 12/31/2020 | 2.5x | 46% | 1/31/2026 | 2.8x | 33% |
| 11806 & 11880 Pacific Avenue | Fund VI | Active | Industrial | Inland Empire | $7,334,172 | 12/31/2020 | 1.7x | 23% | 1/31/2026 | 2.0x | 16% |
| 13800 East 39th Avenue | Fund VI | Active | Industrial | Colorado | $5,329,478 | 12/31/2020 | 1.4x | 20% | 1/31/2026 | 2.0x | 16% |
| 160 Beacon Street | Fund VI | Active | Industrial | Northern California | $5,619,319 | 12/31/2020 | 3.2x | 59% | 1/31/2026 | 3.9x | 38% |
| 1600 Roe Street | Fund VI | Active | Industrial | Texas | $24,857,721 | 12/31/2020 | 2.2x | 29% | 1/31/2026 | 2.2x | 13% |
| 1670 Overland Court | Fund VI | Active | Industrial | Northern California | $5,797,232 | 12/31/2020 | 1.5x | 18% | 1/31/2026 | 1.9x | 14% |
| 190 Wood Avenue South | Fund VI | Active | Industrial | New Jersey | $8,529,546 | 12/31/2020 | 1.6x | 31% | 1/31/2026 | 2.2x | 25% |
| 1900 Pratt Boulevard | Fund VI | Active | Industrial | Illinois | $3,205,917 | 12/31/2020 | 1.7x | 19% | 1/31/2026 | 2.4x | 19% |
| 1901 East Cooley Drive | Fund VI | Active | Industrial | Inland Empire | $3,314,572 | 12/31/2020 | 1.8x | 31% | 1/31/2026 | 2.3x | 22% |
| 19130 84th Avenue South | Fund VI | Active | Industrial | Pacific Northwest | $2,218,640 | 12/31/2020 | 1.7x | 27% | 1/31/2026 | 2.3x | 22% |
| 1950, 2000 - 2020 Pratt Boulevard | Fund VI | Active | Industrial | Illinois | $17,832,616 | 12/31/2020 | 1.8x | 26% | 1/31/2026 | 2.7x | 27% |
| 2 Advantage Court | Fund VI | Active | Industrial | New Jersey | $5,414,585 | 12/31/2020 | 1.8x | 26% | 1/31/2026 | 3.0x | 26% |

| | | | | | | Mark to Market | | | PROJECTED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PROPERTY | Fund | STATUS | PROPERTY TYPE | SUB-REGION | STABILIZED ACQUISITION EQUITY | SALE/EXIT DATE | GROSS MULTIPLE | GROSS IRR (YR) | SALE/EXIT DATE | GROSS MULTIPLE | GROSS IRR (YR) |
| 200 Southwest 34th Street | Fund VI | Active | Industrial | Pacific Northwest | $9,072,827 | 12/31/2020 | 1.3x | 8% | 1/31/2026 | 2.1x | 13% |
| 2065 George Street | Fund VI | Active | Industrial | Illinois | $8,913,260 | 12/31/2020 | 3.0x | 79% | 1/31/2026 | 5.1x | 35% |
| 217 Wrangler Drive | Fund VI | Active | Industrial | Texas | $2,853,333 | 12/31/2020 | 1.3x | 12% | 1/31/2026 | 2.2x | 15% |
| 2345 Fleetwood Drive | Fund VI | Active | Industrial | Inland Empire | $5,477,128 | 12/31/2020 | 1.8x | 28% | 1/31/2026 | 2.1x | 20% |
| 3002 Lind Avenue Southwest | Fund VI | Active | Industrial | Pacific Northwest | $5,647,444 | 12/31/2020 | 1.7x | 23% | 1/31/2026 | 2.2x | 17% |
| 37600 Filbert Street | Fund VI | Active | Industrial | Northern California | $5,912,033 | 12/31/2020 | 1.5x | 35% | 1/31/2026 | 2.1x | 21% |
| 3771 Channel Drive | Fund VI | Active | Industrial | Northern California | $16,894,128 | 12/31/2020 | 2.6x | 58% | 1/31/2026 | 3.3x | 38% |
| 3825 Forsyth Road | Fund VI | Active | Industrial | Florida | $7,005,646 | 12/31/2020 | 3.7x | 96% | 1/31/2026 | 4.9x | 28% |
| 400 Delran Parkway | Fund VI | Active | Industrial | New Jersey | $7,674,701 | 12/31/2020 | 1.6x | 36% | 1/31/2026 | 2.1x | 18% |
| 441 Airtech Parkway | Fund VI | Active | Industrial | Indiana | $6,419,054 | 12/31/2020 | 1.5x | 33% | 1/31/2026 | 1.9x | 18% |
| 403 North Levee Road | Fund VI | Active | Industrial | Pacific Northwest | $2,856,278 | 12/31/2020 | 1.0x | -2% | 1/31/2026 | 3.0x | 13% |
| 430 Industrial Avenue | Fund VI | Active | Industrial | New Jersey | $26,766,158 | 12/31/2020 | 1.2x | 10% | 1/31/2026 | 2.0x | 20% |
| 4440 East 26th Street | Fund VI | Active | Industrial | Los Angeles | $17,173,269 | 12/31/2020 | 1.5x | 14% | 1/31/2026 | 2.1x | 15% |
| 4444 East 26th Street | Fund VI | Active | Industrial | Los Angeles | $4,708,897 | 12/31/2020 | 1.9x | 20% | 1/31/2026 | 2.3x | 16% |
| 450 South Cactus Avenue | Fund VI | Active | Industrial | Inland Empire | $24,602,925 | 12/31/2020 | 1.8x | 34% | 1/31/2026 | 2.1x | 19% |
| 500 - 510 Airline Drive | Fund VI | Active | Industrial | Texas | $16,862,310 | 12/31/2020 | 1.7x | 26% | 1/31/2026 | 2.1x | 20% |
| 500 West Warner Avenue | Fund VI | Active | Industrial | Orange County | $22,793,855 | 12/31/2020 | 2.2x | 32% | 1/31/2026 | 2.7x | 24% |
| 550 West North Frontage Road | Fund VI | Active | Industrial | Illinois | $16,384,197 | 12/31/2020 | 1.8x | 27% | 1/31/2026 | 2.6x | 23% |
| 6211 Las Positas Road | Fund VI | Active | Industrial | Northern California | $7,090,202 | 12/31/2020 | 2.5x | 76% | 1/31/2026 | 3.2x | 49% |
| 720 - 790 Andover Park East | Fund VI | Active | Industrial | Pacific Northwest | $4,397,118 | 12/31/2020 | 2.1x | 34% | 1/31/2026 | 2.7x | 25% |
| 7701 Staples Drive | Fund VI | Active | Industrial | Georgia | $5,333,141 | 12/31/2020 | 2.0x | 27% | 1/31/2026 | 2.5x | 17% |
| 7901 South 190th Street | Fund VI | Active | Industrial | Pacific Northwest | $8,542,331 | 12/31/2020 | 0.9x | -2% | 1/31/2026 | 1.9x | 10% |
| 8401 Slauson Avenue | Fund VI | Active | Industrial | Los Angeles | $7,392,979 | 12/31/2020 | 2.1x | 68% | 1/31/2026 | 2.5x | 40% |
| 8511 Blaine Street | Fund VI | Active | Industrial | Northern California | $9,346,671 | 12/31/2020 | 1.8x | 19% | 1/31/2026 | 1.9x | 12% |
| 9480 North Virginia Street | Fund VI | Active | Industrial | Nevada | $12,010,828 | 12/31/2020 | 1.9x | 23% | 1/31/2026 | 2.4x | 19% |
| 960 Sherman Street | Fund VI | Active | Industrial | San Diego | $9,342,383 | 12/31/2020 | 3.1x | 45% | 1/31/2026 | 3.7x | 36% |
| Cornerstone Business Park | Fund VI | Active | Industrial | Illinois | $6,654,666 | 12/31/2020 | 1.7x | 27% | 1/31/2026 | 2.5x | 24% |
| Rockefeller Crossing | Fund VI | Active | Industrial | Los Angeles | $21,441,756 | 12/31/2020 | 2.1x | 26% | 1/31/2026 | 2.5x | 19% |
| 3750 State Road | Fund VI | Active | Industrial | Pennsylvania | $20,829,876 | 12/31/2020 | 1.7x | 56% | 1/31/2026 | 1.8x | 23% |
| I-215 Commerce Center | Fund VI | Active | Industrial | Utah | $22,395,259 | 12/31/2020 | 1.1x | 22% | 1/31/2026 | 1.5x | 15% |
| 1 & 3 Glen Bell Way | Fund VI | Active | Office | Orange County | $58,310,462 | 12/31/2020 | 1.4x | 18% | 7/31/2021 | 1.8x | 23% |
| 4th & Pike | Fund VI | Active | Office | Pacific Northwest | $34,230,093 | 12/31/2020 | 0.9x | -7% | 7/31/2024 | 1.1x | 2% |
| North Town | Fund VI | Active | Office | Northern California | $101,941,217 | 12/31/2020 | 1.5x | 25% | 12/31/2023 | 2.5x | 33% |
| 14800 West Schulte Road | Fund VI | Active | Land | Northern California | $34,982,929 | 12/31/2020 | 1.0x | -1% | 1/31/2026 | 2.0x | 15% |
| 1605 Industrial Avenue | Fund VI | Active | Land | Northern California | $17,976,322 | 12/31/2020 | 1.8x | 28% | 1/31/2026 | 2.0x | 12% |
| 1905 Marc Avenue | Fund VI | Active | Land | Pacific Northwest | $8,993,974 | 12/31/2020 | 2.0x | 52% | 1/31/2026 | 2.3x | 25% |
| 3771 Channel Drive Land | Fund VI | Active | Land | Northern California | $3,194,701 | 12/31/2020 | 1.4x | 52% | 1/31/2026 | 4.8x | 38% |
| Fleetwood Land | Fund VI | Active | Land | Inland Empire | $417,338 | 12/31/2020 | 7.9x | 139% | 1/31/2026 | 10.3x | 105% |
| Grand Logistics Center | Fund VI | Active | Land | New York | $22,489,751 | 12/31/2020 | 3.6x | 49% | 12/31/2025 | 6.2x | 54% |
| 125 Capital Road | Fund VII | Active | Industrial | Pennsylvania | $2,722,135 | 12/31/2020 | 1.1x | 14% | 6/30/2026 | 2.9x | 24% |
| 13100 Arctic Circle | Fund VII | Active | Industrial | Los Angeles | $8,153,044 | 12/31/2020 | 1.6x | 23% | 6/30/2026 | 3.0x | 20% |
| 1421 Sunbury Road | Fund VII | Active | Industrial | Georgia | $5,842,825 | 12/31/2020 | 1.3x | 28% | 6/30/2026 | 3.3x | 26% |
| 2400 Dralle Road | Fund VII | Active | Industrial | Illinois | $15,289,989 | 12/31/2020 | 1.5x | 51% | 6/30/2026 | 2.5x | 20% |
| 2701 Charter Street | Fund VII | Active | Industrial | Ohio | $2,897,259 | 12/31/2020 | 1.4x | 37% | 6/30/2026 | 2.3x | 19% |
| 3, 5, 7, & 9 Chris Court | Fund VII | Active | Industrial | New Jersey | $11,532,796 | 12/31/2020 | 1.3x | 31% | 6/30/2026 | 3.0x | 23% |
| 174, 178, & 182 Ridge Road | Fund VII | Active | Industrial | New Jersey | $9,795,731 | 12/31/2020 | 1.1x | 14% | 6/30/2026 | 2.5x | 17% |
| 3099 Rohr Road | Fund VII | Active | Industrial | Ohio | $9,320,474 | 12/31/2020 | 1.2x | 16% | 6/30/2026 | 2.5x | 20% |
| 325 Marmon Drive | Fund VII | Active | Industrial | Illinois | $3,488,869 | 12/31/2020 | 1.2x | 6% | 6/30/2026 | 2.8x | 15% |
| 400 Trade Zone Boulevard | Fund VII | Active | Industrial | South Carolina | $13,576,788 | 12/31/2020 | 1.1x | 15% | 6/30/2026 | 3.0x | 24% |
| 4011 Highway 417 | Fund VII | Active | Industrial | South Carolina | $6,660,877 | 12/31/2020 | 1.3x | 32% | 6/30/2026 | 2.4x | 20% |
| 4608 Appliance Drive | Fund VII | Active | Industrial | Maryland | $14,683,284 | 12/31/2020 | 1.1x | 8% | 6/30/2026 | 2.5x | 19% |
| 4622 Mercedes Drive | Fund VII | Active | Industrial | Maryland | $6,495,974 | 12/31/2020 | 1.2x | 23% | 6/30/2026 | 2.1x | 14% |
| 500 South Millers Ferry Road | Fund VII | Active | Industrial | Texas | $12,650,571 | 12/31/2020 | 1.3x | 30% | 6/30/2026 | 2.5x | 20% |
| 550 Oak Ridge Road | Fund VII | Active | Industrial | Pennsylvania | $12,667,734 | 12/31/2020 | 1.1x | 13% | 6/30/2026 | 2.1x | 16% |
| 6000 Freeport Avenue | Fund VII | Active | Industrial | Tennessee | $5,590,735 | 12/31/2020 | 1.1x | 10% | 6/30/2026 | 3.0x | 23% |
| 6100 East Holmes Road | Fund VII | Active | Industrial | Tennessee | $8,433,062 | 12/31/2020 | 1.1x | 13% | 6/30/2026 | 2.6x | 21% |
| 8051 Allentown Boulevard | Fund VII | Active | Industrial | Pennsylvania | $2,198,590 | 12/31/2020 | 1.3x | 7% | 6/30/2026 | 3.8x | 20% |
| 5775 Brisa Street | Fund VII | Active | Industrial | Northern California | $6,356,206 | 12/31/2020 | 1.2x | 13% | 6/30/2026 | 2.9x | 16% |
| 351 Cheryl Lane | Fund VII | Active | Industrial | Los Angeles | $11,649,594 | 12/31/2020 | 1.2x | 12% | 6/30/2026 | 2.3x | 16% |
| 601 Wall Street | Fund VII | Active | Industrial | Illinois | $4,558,134 | 12/31/2020 | 1.4x | 25% | 6/30/2026 | 3.0x | 22% |
| 3255 Meridian Parkway | Fund VII | Active | Industrial | Florida | $3,769,026 | 12/31/2020 | 1.1x | 9% | 6/30/2026 | 3.2x | 21% |
| 3337 Wilshire Drive | Fund VII | Active | Industrial | Arizona | $2,003,918 | 12/31/2020 | 1.6x | 40% | 6/30/2026 | 3.5x | 24% |
| 2201 Arthur Avenue | Fund VII | Active | Industrial | Illinois | $4,140,970 | 12/31/2020 | 1.2x | 14% | 6/30/2026 | 2.5x | 19% |
| Sand Lake Commerce Center | Fund VII | Active | Industrial | Florida | $12,301,257 | 12/31/2020 | 1.0x | 1% | 6/30/2026 | 2.3x | 15% |
| Cypress Distribution Center | Fund VII | Active | Industrial | Orange County | $21,381,323 | 12/31/2020 | 1.0x | 1% | 6/30/2026 | 2.1x | 17% |
| 10501 Cold Storage Road | Fund VII | Active | Industrial | Florida | $17,913,323 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.9x | 16% |
| 2103 Ernestine Street | Fund VII | Active | Industrial | Texas | $15,555,737 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.3x | 25% |
| 4130 West Gandy Boulevard | Fund VII | Active | Industrial | Florida | $17,027,101 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.5x | 22% |
| 6198 Green Pointe Drive South | Fund VII | Active | Industrial | Ohio | $22,891,271 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.7x | 13% |
| 167 International Boulevard | Fund VII | Active | Industrial | Kentucky | $8,109,989 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.7x | 12% |
| 9750 Innovation Campus Way | Fund VII | Active | Industrial | Ohio | $9,986,986 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.3x | 21% |
| 12475 Mustang Road | Fund VII | Active | Industrial | Nevada - South | $18,237,089 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.6x | 27% |
| 2201 Poplar Street | Fund VII | Active | Industrial | NorCal - North | $16,585,527 | 12/31/2020 | 1.0x | 5% | 6/30/2026 | 2.4x | 19% |
| 7001 Quad Avenue | Fund VII | Active | Industrial | Maryland | $23,738,846 | 12/31/2020 | 1.0x | 5% | 6/30/2026 | 2.3x | 13% |
| 5101 Renegade Way | Fund VII | Active | Industrial | Kentucky | $9,323,878 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.8x | 14% |
| 2505 Ted Bushelman Boulevard | Fund VII | Active | Industrial | Kentucky | $14,934,571 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.9x | 15% |
| 2775 Ted Bushelman Boulevard | Fund VII | Active | Industrial | Kentucky | $4,610,976 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.0x | 17% |
| Lacey Industrial Center | Fund VII | Active | Land | Pacific Northwest | $10,089,369 | 12/31/2020 | 1.1x | 15% | 6/30/2026 | 2.7x | 23% |
| 4606 Appliance Drive | Fund VII | Active | Land | Maryland | $5,383,941 | 12/31/2020 | 1.2x | 22% | 6/30/2026 | 2.3x | 19% |
| NW 107th Avenue and NW 142nd Street | Fund VII | Active | Land | Florida | $13,456,321 | 12/31/2020 | 1.0x | -1% | 6/30/2026 | 3.4x | 24% |
| 135 Logistics Drive | Fund VII | Active | Land | Tennessee | $17,708,217 | 12/31/2020 | 1.0x | 1% | 6/30/2026 | 2.1x | 17% |

## Appendix

### Rating Rationale

| | |
|---|---|
| *Strategy* | Consistent with the prior logistics fund in the series; and the targeted sector is in-line with *Townsend's View of the World* regarding U.S. non-core investing during this vintage year. |
| *Sponsor* | Well-resourced and vertically integrated platform with a well-known name, industry presence, and long-time history as an US industrial specialist. Privately held and well-aligned as a sponsor. |
| *ESG Policy & Practices* | ESG assessment of *Limited* as explained within the *ESG Policies and Practices* section. |
| *Operational Due Diligence* | Historically, rated an A2-Pass by Aon ORSA. |
| *Investment Process* | Typical institutional process. Driven by the Principals of the firm with asset plans implemented by regional teams; oversight provided by a five person IC comprised of senior-most professionals across the firm's primary functions. |
| *Fund Structure, Terms & Conditions* | Closed-end structure is consistent with non-core nature of the strategy. Legal and tax structuring accounts for the intended LP base. Terms and conditions are fair and within market relative to peers. |
| *Performance* | Track record has been consistently strong relative to peers, with 5 of 6 funds in the series placing in the top half of their vintage. |
| *Overall* | Buy Rated. |

### Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product, its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

- **Buy -** Suitable for institutional investors that have a portfolio construction need. Appropriate overall risk profile given the strategy and targeted returns.
- **Qualified -** Suitable for institutional capital. In addition to customary risks, contains one or more heightened risks that should be weighed against an investor's preferences, risk tolerances, and portfolio construction needs.

Operational due diligence rating provided by Aon's dedicated multi-asset class Operational Due Diligence team according to its autonomous review of the Sponsor's policies & procedures, infrastructure and capabilities across a range of operations, middle and back office, and control functions.

- **A1-Pass** - No material operational concerns; firm's operations largely align with a well-controlled operating environment.
- **A2-Pass** - Firm's operations largely align with a well-controlled operating environment, with limited exceptions due to resource limitations or where isolated areas do not align with best practice.
- **Conditional Pass** - Aon noted specific operational concerns that the firm has agreed to address in a reasonable timeframe.

ESG scoring and an associated rating is according to guidance from AON's internal ESG Committee and sub-committees for various asset classes.

- **Limited** - The fund management team takes limited steps to address ESG considerations in existing and anticipated portfolios.
- **Integrated** - The fund management team takes essential steps to identify, evaluate, and mitigate potential financially material ESG risks within existing and anticipated portfolios.
- **Advanced** - The fund management team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate, and potentially mitigate these risks across its activities.

*About Townsend Group – An Aon Company*
*Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.*

TOWNSEND® GROUP
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## Memorandum

**To:** Arkansas Teacher Retirement System ("ATRS")

**From:** Chae Hong

**CC:** PJ Kelly; Jack Dowd; Richard Ferguson

**Date:** September 27, 2021

**Re:** LBA Logistics Value Fund IX – $55 million Commitment Recommendation

---

### Background and Recommendation

LBA Realty LLC ("LBA" or the "Sponsor") is raising LBA Logistics Value Fund IX, L.P. ("Fund IX" or the "Fund"), a $1.25 billion Fund, as the next vehicle in its series of closed-end commingled funds for value-add industrial investments across the U.S. Targeted Fund performance is a 11%-13% net IRR using 60% leverage over a 10-year fund life. The Fund's strategy is consistent with the prior logistics fund in the series, the Fund primarily intends to acquire a diversified pool of single or multi-tenant warehouse/distribution and light industrial/business parks across the U.S. Secondary strategies will focus on development/forward take out, cold storage, and high throughput locations. Target markets focus on major population centers and distribution hubs across all regions in the U.S, with an emphasis on the east and west coast. Business plans range from renewing/releasing to market rates to development (up to 35% max).

Aon Investments, USA is satisfied with the strategy of the Fund and its appropriateness for ATRS. Additionally, we believe that the merits of this offering outweigh its risks. A Fund IX InDetail is attached for reference. We recommend that ATRS invest $55 million in the Fund to fulfill ATRS' 2021 non-core real estate allocation, in accordance with the previously approved 2021 ATRS Real Asset Pacing Schedule. Additionally, Fund IX may provide investors with various investment vehicles. Townsend recommends ATRS consult with its tax and legal counsel to determine the most appropriate vehicle for the Plan.

**INDETAIL**

# LBA LOGISTICS VALUE FUND IX, L.P.

A U.S. value-add industrial fund

August 2021

## Table of Contents

# EXECUTIVE SUMMARY

OVERVIEW

| Review Date | Rating | Predecessor Fund Rating |
|---|---|---|
| August 2021 | **Buy** | Buy |

LBA Realty LLC ("LBA" or the "Sponsor") is raising LBA Logistics Value Fund IX, L.P. ("Fund IX" or the "Fund"), a $1.25 billion Fund, as the next vehicle in its series of closed-end commingled funds for value-add industrial investments across the U.S. Targeted Fund performance is a 11%-13% net IRR using 60% leverage over a 10-year fund life.

*Strategy*: Consistent with the prior logistics fund in the series, the Fund primarily intends to acquire a diversified pool of single or multi-tenant warehouse/distribution and light industrial/business parks across the U.S. Secondary strategies will focus on development/forward take out, cold storage, and high throughput locations. Target markets focus on major population centers and distribution hubs across all regions in the U.S, with an emphasis on the east and west coast. Business plans range from renewing/releasing to market rates to development (up to 35% max).

*Sponsor:*

| | | | |
|---|---|---|---|
| **HQ Location** | Irvine, CA | **Founded** | 1991 |
| **Ownership** | Privately-owned | **AUM** | $11.1 billion GAV ($7.3 billion equity) |
| **Employees** | 215 | **RIA** | No |
| **Organization** | Vertically integrated sponsor organized as a real estate investment and management company that provides property management, leasing, and construction services, with in-house finance and accounting. | | |

*Performance (as of 3/31/2021):*

| Vehicle | Vintage | Equity (M) | Fair Market Value | | | % of Projections Realized |
|---|---|---|---|---|---|---|
| | | | Net IRR | Net Equity Multiple | Quartile Ranking* (by IRR) | |
| LBA Realty Fund I | 2003 | $216 | 19.9% | 2.1x | 2Q | 95% |
| LBA Realty Fund II | 2005 | $421 | 4.2% | 1.6x | 1Q | 82% |
| LBA Realty Fund III | 2007 | $603 | 0.1% | 1.0x | 4Q | 59% |
| LBA Realty Fund IV | 2009 | $750 | 25.5% | 2.5x | 1Q | 92% |
| LBA Realty Fund V | 2014 | $776 | 16.4% | 1.9x | 1Q | 55% |
| LBA Realty Fund VI | 2017 | $900 | 20.4% | 1.5x | 1Q | 25% |
| LBA Logistics Value Fund VII | 2019 | $1,061 | 9.4% | 1.1x | NM | 0% |

*Compared to 211 similar vintage US value-add funds. Source is Townsend database plus Preqin.

*Portfolio Characteristics:*

| | | | |
|---|---|---|---|
| **Vehicle Structure** | Closed-end commingled fund | **Return Profile** | Value-add |
| **Targeted Size** | $1.25 billion ($1.95 billion cap) | **Sponsor Commitment** | 2%, up to $13 million max |
| **Target Return** | 11%-13% net IRR | **Leverage** | 65% LTV Max |
| **Investment Period** | 3 years from Final Closing | **Base Term** | 7 years from end of Investment Period |

*Fees:*

| | | | |
|---|---|---|---|
| **Asset Management Fee** | 1.5% on committed during the investment period then on invested. *Fee breaks available for timing and size.* | **Incentive Fee** | 8% preferred return;<br>50% LP/50% GP catch-up;<br>80% LP/20% GP thereafter |

<u>*Fundraise Status*</u>: Fully subscribed at the expected $1.95 billion cap. Fund will hold a ~$1.4 billion close the week of September 20, 2021; and a subsequent October close, totaling ~$600 million, to accommodate timing requests.

## COMPARATIVE ADVANTAGES

1. Experienced Team

The firm has over 25 years of experience acquiring and managing real estate and 19 years of experience as a commingled fund sponsor. Since 1995, the firm has acquired and managed 576 assets, investing over $4.2 billion in equity, on behalf of thirteen different investment funds primarily focused on core, core plus, and value-added industrial and office properties. The senior management team, comprised of 21 senior professionals, averages 28 years of industry experience and 18 years with the firm. Within that group is LBAs five member investment committee that averages 34 years of experience and 24 years with the firm; having owned and operated properties through multiple cycles with lessons learned.

2. Thematic Market Opportunity

Industrial real estate continues to remain well positioned to benefit from shifting consumption habits to e-commerce. E-commerce driven demand for logistics property is a secular trend, which has only been accelerated by the COVID-19 pandemic in 2020. This has led to further tightening of conditions for logistics space, as near-term demand is expected to continue to outpace new supply.

3. Platform Strengths
    - Well Resourced - 215 employees operating across the firm's headquarters and eleven regional offices covering acquisitions, construction management, leasing, and asset and portfolio management.
    - Business Model: Vertically integrated firm that provides property management, leasing, and construction/development management services for its fund held properties. The business model provides the following benefits; in-house control and oversight of property management and leasing for fund held assets; and efficient execution, improving the economics at the margin by eliminating any double promotes commonly associated with utilizing promoted joint venture operating partners
    - Known Brand/Industry Presence: The firm's long time history has established it as a well-known brand and industry presence. Specifically, over the past 10+ years as a fund sponsor the firm has grown AUM and regional coverage. It now better serves a larger corporate tenant base offering space nationally across multiple regions; which enhances market intel, leasing, and sourcing through that tenant network.
    - Alignment: Privately held firm that is; owned by the firm's 15 Principals; in the business of managing institutional capital; and operator for its fund held properties. The Sponsor remains focused on its core competencies and not spending time/attention on going global or other product types outside of industrial and office. This creates an entrepreneurial business that is well aligned with investors. Principals and Senior VPs are making personal contributions into the Fund.

## POTENTIAL ISSUES AND CONCERNS

1. Potential for Platform Changes

The firm is entering its third decade of operations, and as is common with an experienced firm, long-time senior professionals are hitting the latter stages of their careers. Four of LBA's experienced senior professionals are well seasoned and now in their early 60s, including Phil Belling (Founder and Managing Principal), Steve Layton (Founder and Principal – Operations), Perry Schonfeld (Principal – COO), and David Thomas (Principal – Acquisitions); creating uncertainty as the possibility exists for there to be some type of platform change like retirements or sales of interest over the term of the Fund.

**Discussion:** The Sponsor represents that there are no formal retirement plans for any of the identified individuals and there are no plans to sell any partial interests of the company to outside parties in the near term. Additionally, the Sponsor has been thoughtful about succession planning; having a formalized succession plan that identifies other internal and long-time senior management professionals as successors, which should mitigate some amount of the disruption should anyone retire. As noted within the platform advantages, the firm is well resourced, and has grown regional coverages over the last ten years, so the investment process is not overly reliant on any one individual. LPs also have some protections via; the Key Person clause which covers senior involvement in the oversight of day-to-day operations (naming Mr. Belling and Mr. Schonfeld) and a sale of a majority interest (50.1%) in the firm (identifying the aggregated interests of named Principals, including Mr. Belling, Mr. Layton, and Mr. Thomas, amongst others); and several no fault remedies from which to govern the Fund.

2. Crowded Trade

The sector is in favor and has weight of capital. The Fund is another 100% blind pool vehicle that is joining a well-developed trend where cap rates have declined further.

**Discussion:** A few of the identified platform strengths should provide a competitive advantage;

- The vertically integrated business model of LBA is more efficient relative to allocator funds accessing the sector.
- As a long time industrial specialist, the Sponsor has a network of corporate relationships and has purchased 137 properties from corporate sellers, which may provide unique sourcing opportunities at better pricing not available to newly formed peers.

Additionally, from a strategy construct perspective, the Sponsor has increased the higher end of its development allocation to 35% (up from 25% in the previous logistics fund), which at the margin, allows for the Sponsor to capitalize to the extent that stabilized yields on development start to offer a more compelling opportunity to going-in cap rates at acquisition.

## STRATEGY

### OVERVIEW

The strategy is largely consistent with the previous logistics fund in the series; intending to assemble a diversified portfolio of U.S. industrial assets with business plans including core-plus, value-add, and development risk profiles, ultimately blending to a value-add return profile with a net IRR target of 11-13%.

- Primarily acquire single or multi-tenant warehouse/distribution and light industrial/business parks. Secondary strategies focus on the following;
  - Development/Forward take-out (15%-35% of aggregate commitments) - Develop infill/last mile locations where there has historically been low vacancy/strong demand (typically the east and west coast); build-to-suit opportunities where the firm can leverage corporate relationships; forward take-outs of development projects.
  - Food logistics (10%-20% of aggregate commitments) – Target multi-tenant tri-temperature (dry, refrigeration, and freezer) distribution centers located in major distribution hubs.
  - High throughput facilities (10%-15% of aggregate commitments) – Acquire high throughput and yard properties near major ports and airports.

- Located across roughly 32 target markets that collectively capture a majority of consumption and population growth;
  - Western Markets (40%) – Inland Empire, Los Angeles, Orange County, San Diego, Seattle, Portland, Reno, Salt Lake City, Las Vegas, Phoenix, Denver.

  - Eastern Markets (35%) – New York/New Jersey, Eastern Pennsylvania, Baltimore, Atlanta, Nashville, Greensville, Charleston, Savannah, Memphis, Jacksonville, Tampa, Orlando, and Miami.
  - Central (25%) – Chicago, Columbus, Cincinnati, Indianapolis, Louisville, Dallas, Austin, Houston

- Business Plans:
  - Leverage LBA's network of corporate relationships to source acquisition and leasing opportunities; acquire vacant, partially leased, and short-term leased properties.
  - Renew/Re-let lease expirations;
  - Reposition and modernize the property by upgrading building exteriors, painting, retrofitting power systems, paving and fencing yard areas, and increasing clear heights where feasible.
  - New development (15%-35%); includes build to suit and speculative development (building to a 75-basis point to 125-basis point spread between yield on cost and market cap rates).

- Portfolio construction is an aggregation play to enable a premium upon exit.

## LEVERAGE

The intended use of leverage is consistent with the prior fund, formally capped at 65% LTV, with the targeted use of leverage ranging from 55%-60% LTV once the Fund is fully invested. The 65% cap includes property level debt and is based on fair market value of assets.

- Manager generally seeks non-recourse debt, but an amount of recourse debt will be unavoidable on development. Recourse (other than typical customary carveouts) may not exceed 25% of the aggregate investment value of the Fund's assets.
  - The threshold is high given that the base is calculated on the fair market values of assets and the Fund is expected to be 55%-60% levered. LPs should push to limit the use of recourse to a more standard 15%-20% of equity.
- Fund level completion guaranties may be required by lenders for development assets.
- Cross-collateralization will be utilized given the strategy of acquiring small buildings via 120 transactions. There are no formal limits on cross-collateralization, but the Manager intends to effectively force cross-collateralized assets into separate non-crossed pools.
- Interest rate caps and swaps are utilized when lender required to limit interest rate risk.

## PIPELINE

LBA Logistics Fund VII, the predeccesor fund, is over 80% committed; with the Sponsor's pipeline to be capitalized by that fund. As the prior fund strategy is consistent with the Fund, illustrative examples of closed transactions within that fund are included within **Exhibit A.**

## INVESTMENT GUIDELINES

Guidelines are similar to the prior fund with any changes noted in parenthesis. Based on a percentage of Commitments:

- 15% max in any one property.
- 15% max in non-targeted property types.
- 35% max in ground-up development transactions (previously 25%).
- 1.5% max in any investment in an operating company.

# SPONSOR

## OVERVIEW

LBA was founded by Phil Belling and Steve Layton in 1991 to provide bankruptcy and restructuring services to financial institutions to assist with troubled assets and loans. Prior to founding LBA, both Mr. Belling and Mr. Layton were Senior Vice Presidents for the Southern California Division of The Koll Company[1] where they oversaw the development of more than four million square feet of development properties. Since 1995, the firm has acquired and managed 576 assets, investing $4.2 billion in equity, on behalf of thirteen different investment funds primarily focused on core, core plus, and value-added industrial and office properties.

As of today:

- Ownership: Privately owned by the 15 Principals; Phil Belling, Steve Layton, Steve Briggs, Dave Thomas, Mike Memoly, Perry Schonfeld, Brad Neglia, Tom Motherway, Don Shaver, Bill Kearns, Melanie Colbert, John Garrigan, Tom Rutherford, Tim Brosnan, and Erin Kaplan.
    - Bios are included within **Exhibit B**.

- AUM: $11.1 billion GAV ($7.3 billion equity including unfunded commitments). By equity AUM:
    - By property type: 62% - industrial, 25% - office, 13% - other

- Staffing and office locations broken out as follows:

| Location | # of Employees | Primary Function |
|---|---|---|
| Irvine (HQ) | 114 | Asset Management, Property Management, Construction, HR, Accounting, Leasing, Acquisitions, Asset Management, IT, Compliance, Marketing |
| Los Angeles | 18 | Property Management, Leasing, Marketing |
| San Francisco | 16 | Property Management, Leasing, Asset Management, Acquisitions, Construction |
| Seattle | 11 | Property Management, Acquisitions, Leasing |
| New Jersey | 10 | Asset Management, Leasing, Acquisitions, Property Management |
| Chicago | 7 | Property Management, Asset Management, Leasing, Acquisitions, Construction |
| Denver | 13 | Property Management, Leasing, Acquisitions, Construction, Marketing |
| Phoenix | 8 | Property Management, Asset Management, Leasing, Marketing |
| Ontario | 6 | Property Management |
| San Diego | 7 | Property Management, Leasing, Acquisitions |
| Tampa | 2 | Property Management, Acquisitions |
| Texas | 3 | Property Management |

## TURNOVER/COMPENSATION/RETENTION

- Turnover has been stable with nothing that is overly noteworthy. Since raising the prior Fund in 2019, turnover totaled three employees at the VP level and above, all of which were at the VP level; while hiring two new employees at VP level and above over that same time period. This level of turnover is minimal for a firm with the experience and resources of LBA.
- Compensation and Retention: Compensation is an industry standard base salary and bonus. Approximately 35 professionals are expected to share in the carried interest; split 92% to Principals and Senior VPs of the firm, with the balance allocated 6% to junior professionals at the VP level, and 2% to a bonus pool. The majority of carried interest is vested over a seven year period and is based on the following schedule: by Year 2 - 20% vests, Year 3 - 30% vests, Year 5 - 60% vests, Year 7 - 90% vests, with the final 10% payable upon sale of the final asset.

[1] The Koll Company is a real estate operating company headquartered in Irvine, California that acquires, develops, and manages investments in industrial, office, and resort properties, serving institutional investors and high net worth individuals.

### CLIENT BASE

Based on commitments, the prior industrial fund was largely comprised of public and private pensions (40%) and E&Fs (21%); with the balance attributable to foreign capital (16%), fund of funds (3%), and other (20%).

### COMPLIANCE AND LITIGATION DISCLOSURE

The Sponsor represents the following:

- No investment professional has been disqualified as a company director within the last ten years.
- Neither the firm or any senior member of the firm has been reported to or investigated by any regulatory authority within the last ten years.
- Legal action against LBA is limited to claims that are typical in the real estate industry; there is no other past, threatened, or pending litigation involving the firm, affiliates, or senior professionals.

## ESG POLICIES & PRACTICES

### OVERVIEW

The Sponsor garners an ESG assessment of *Limited* (as defined in the *Appendix*) at this time. The Sponsor is aware of ESG and has taken steps to implement various goals and initiatives at the firm level; but ESG implementation at the asset level for industrial properties is limited.

*Policies:* LBA has a formal ESG Policy that is reviewed annually and published on the firm's website. LBA is a participant in the U.S. Department of Energy, Better Buildings Challenge, with a commitment to reduce energy consumption by 20% in 10 years (with a 2013 baseline); but is not a PRI signatory and does not report to GRESB. Standard policies including a code of ethics, code of conduct, and harassment policy are reviewed annually.

*Staff:* The firm has one dedicated individual, Director – ESG and Sustainability, and has formed a Sustainability Council (comprised of COO, Principal of Operations, Senior Portfolio Operations Manager, Corporate Operations Assistant, Engineering Administrator and Regional Operations Managers) that has oversight and implementation responsibilities for ESG integration. Outside the dedicated Director – ESG and Sustainability, there are no other dedicated ESG resources/team members at the firm.

*Process*: Current ESG integration within the investment process is largely covered by way of asset due diligence at acquisition (i.e. third party environmental reviews, structural and seismic reviews). The firm also performs a climate risk assessment where they utilize a report based on geolocation that flags climate risks. Where the firm has control over utilities, third-party firms like Goby and Energy Star Portfolio Manager are utilized to track and benchmark energy, water, waste, and greenhouse gas emissions.

*Stewardship and Outcomes*: As noted, LBA is a participant in the U.S. Department of Energy, Better Buildings Challenge, with a commitment to reduce energy consumption by 20% in 10 years (with a 2013 baseline). The firm also publishes an annual sustainability report at the firm level. Additionally, LBA typically seeks to achieve the following with respect to an asset; overall reduction of 5% in energy and water consumption; and an increase in portfolio level and per property Energy Star rating. As it relates to charitable causes, the LBA Foundation provides funding and coordinates employee volunteer hours to charities like Boys & Girls Club, the Pediatric Cancer Research Foundation and Habitat for Humanity. LBA also offers an employee matching program for charities that each employee is personally connected to.

# OPERATIONAL DUE DILIGENCE

## OVERVIEW

The Aon Operational Risk Solutions and Analytics team ("AON ORSA") reviewed the Sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions to determine if operations align with a well-controlled operating environment. AON ORSA reviews cover (i) corporate governance and organizational structure, (ii) transaction execution, (iii) middle/back office, valuation, and cash controls, (iv) compliance, regulatory, legal, (v) investment and counterparty risk oversight, (vi) business continuity/disaster recovery, (vii) cyber security and IT, (ix) service provider selection and monitoring, and (x) fund governance, structure, and administration.

- LBA was rated an A-2 Pass (based on a review of the prior fund). LBA generally demonstrates a well-controlled operating environment; front office, back office, and control functions are generally well segregated and supported.
- Deviations from best practice include the following:
  - LBA internally administers its funds. Although not uncommon for closed-end real estate funds, best practice would be to utilize external administration.
  - The firm's personal trading policy only requires a subset of employees to submit copies of brokerage statements on an annual basis for personal trading oversight. Best practice requires personal trading oversight on a quarterly basis for all employees.
  - Credit checks are only conducted on individuals joining the accounting team. Best practice would be to perform credit checks on all individuals prior to employment.

# INVESTMENT PROCESS

## OVERVIEW

The investment process is consistent with the prior fund in the series and typical of a well-resourced vertically integrated sponsor. Regional offices play key roles throughout the process, with acquisitions and leasing, asset management, and property management functions largely implemented by regional staff.

- LBA Principals and acquisitions personnel are primarily responsible for sourcing deals. Sourcing is driven via relationships with corporations, tenants, property owners, and local, regional, and national brokers.
- Responsibility for acquisitions remains with the acquisitions team, which is led by two acquisition Principals. On a weekly basis, the acquisition team, CIO, and PM meet to review and filter properties under consideration for investment.
- A typical due diligence team for acquisitions is led by Steve Layton, Principal, and Perry Schonfeld, Principal and COO, and comprised of internal and external team members working together. Internal members of the team include a lead Principal, acquisitions team lead, asset manager, financial analyst, and regional operations manager. External members are typically third party consultants utilized for environmental, legal, title, engineering, structural and zoning/permits. Due diligence includes property tours/inspections along with analysis on the market, environmental issues, financials, tenant credit quality, rents, structural and zoning.
- The portfolio management team, with support from both the asset management and property management teams, are responsible for managing assets. Portfolio Management is responsible for oversight of strategic planning, business plans, lease decisions, cap-ex, finance, and disposition decisions. Asset management is responsible for overseeing the execution of the business plan, which includes; day-to-day interaction with property management, construction management, and leasing; preparation of budget reviews, projections, investment returns, and the hold/sell analysis; and assistance with debt procurement.

## INVESTMENT COMMITTEE

- LBA's investment committee is led by Phil Belling, Founder and Managing Principal, and comprised of the individuals presented to the right.
- IC evaluates every potential acquisition. All members of the IC vote on whether to pursue a proposed acquisition; majority vote is required.

| Member | Firm Title | Years of Experience | Years with Firm |
|---|---|---|---|
| Phil Belling | Managing Principal | 39 | 29 |
| Steve Briggs | Principal, CIO | 34 | 28 |
| Perry Schonfeld | Principal, COO | 40 | 24 |
| Mike Memoly | Principal, CFO | 26 | 14 |
| Melanie Colbert | Principal | 32 | 24 |
| | ***Average*** | ***34*** | ***24*** |

Review and approval of other major decisions goes to the relevant functional area as follows:

- Leasing: Requires review and approval by Principal of Leasing, CFO, Portfolio Manager, Regional VP of Leasing, and Operations Lead.
- Operating/Property Budgets: Prepared at the property level by both the Property Manager and Asset Manager and approved by the Principal of Operations. Property level budgets then aggregate up to the fund level and are formally reviewed by the Portfolio Manager, with an informal review by the CFO.
- Financings: Reviewed on a weekly basis by the CFO, Principal of Finance, and Tom Motherway, Principal.
- Dispositions: Require approval by the PM and final approval by Phil Belling, Managing Principal.

## USE OF AFFILIATES

There are no material changes to the use of affiliates since the prior fund. LBA will provide property services including property management, development, construction supervision, and leasing for Fund held properties. Although LBA doesn't actively market their affiliated services to third parties, they will consider engaging work for third parties where a buyer requests that LBA stay on to manage a property post sale.

- Each property entity has its own management agreement with LBA Realty that outlines the fees for services provided.
- Property Management: Monthly minimum or a percent of cash receipts (typically 2%-4%); ranges based on the size of the property or number of tenants. The fee is in a range commonly seen by Townsend for vertically integrated industrial managers.
- Construction Management: 5% of costs on projects valued up to $100k. 3%-4% of the costs of projects that exceed $100k, which is within the range seen by Townsend for industrial peers.
- Development: Ranges between 3.75% to 6.00% (depending on market) of total project costs.
- Leasing: Determined by market.

## EXCLUSIVITY AND ALLOCATIONS

The Fund is LBA's exclusive vehicle for the strategy. The exclusivity ends when the Fund is 80% committed/invested.

## LP ADVISORY COMMITTEE

Board of Advisors to be formed at GP discretion[2]. LPAC duties are standard and include; review and approve related party transactions and waivers of investment diversification; and review and advise on potential conflicts of interest and valuations. Simple majority is needed for approval.

[2] LPAC for the prior logistics fund, Fund VII, was comprised of four members, including; World Bank, CIGNA, Kaiser, and General Electric.

### VALUATIONS

Valuation policies and practices are in-line with the prior fund and generally align with best practice.

- Asset valuations are performed internally on a semi-annual basis in accordance with industry standard FMV methodologies, including a discounted cash flow analysis, the income capitalization approach, and/or a sales comparison approach. Valuations are prepared by asset management professionals and reviewed and approved by the Valuation Committee, which is comprised of Phil Belling, Managing Principal, Mike Memoly, Principal and CFO, and Tom Motherway, Principal and Portfolio Manager.
- In addition to internal valuations, nationally recognized appraisal firms (CBRE, Cushman and Wakefield, Colliers, etc.) are expected to be engaged to perform an external valuation on each asset once every two years following the year of acquisition.
- Valuation policy and fair market values are also reviewed by EY, the Fund's independent auditor in conjunction with the year-end audit of the financial statements.

## FUND STRUCTURE

The Fund is structured as a Delaware limited partnership with parallel vehicles to accommodate various investor types. **Exhibit C** provides the expected legal diagram.

- Sponsor: LBA Realty LLC
- Investment Manager and General Partner of the Fund: LBA Logistics Management Company IX, LLC, a Delaware limited liability company

### KEY TERMS

| Key Terms | | Townsend Comment | |
|---|---|---|---|
| **Target Return:** | 11%-13% net IRR | **Neutral** | |
| **Fund Size:** | \$1.25 billion target (\$1.95 billion hard cap expected) | **Neutral** | The size is expected to be at the cap. |
| **Sponsor Commitment:** | 2% of Commitments, up to a \$13 million maximum | **Neutral** | 25 professionals at the VP level and above are expected to make personal contributions. |
| **Commitment Period:** | 3 years from Final Closing; plus one-year extension at GP discretion. | **Neutral** | Extensions should require LPAC consent. |
| **Term:** | 7 years from expiration of the Investment Period; plus 1 one-year extension at GP discretion; plus subsequent extensions with LP majority vote. | **Neutral** | |
| **Key Person Provision:** | Triggered under two scenarios; 1) Philip Belling and any one or more of Steven Briggs, Perry Schonfeld, Bradley Neglia, Michael Memoly, and John Garrigan, ceases to be actively involved as senior supervisory personnel in day-to-day operations; or 2) Philip Belling, Steven Layton, David Thomas, Michael Memoly, and Steven Briggs, in the aggregate, fail to own at least 50.1% of the direct or indirect beneficial ownership interests or ceases to posses effective decision making control and authority over the Manager. | **Negative** | LPAC may approve a replacement for Steven Briggs, Perry Schonfeld, Bradley Neglia, Michael Memoly and John Garrigan. If there is no approval of a replacement, any further new investing is suspended for 60 days, and unless LPs elect to terminate the investment period with a $66^{2/3}$% LP vote, the suspension period is terminated and new investing resumes.<br><br>A standard mechanism would require an affirmative vote to re-instate the investment period. |

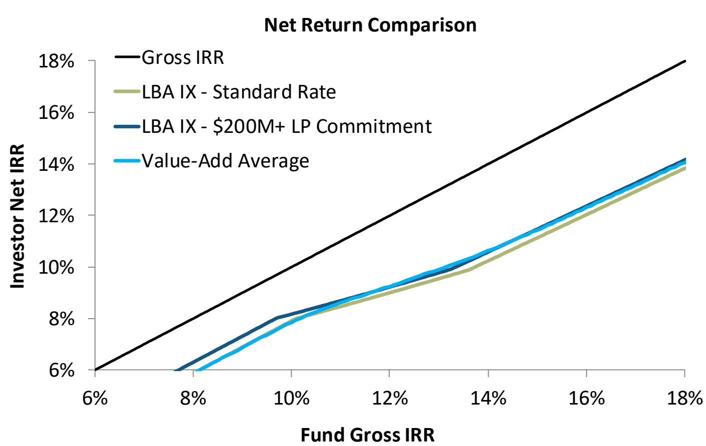
| | | |
|---|---|---|
| **No-Fault Provisions:** | • GP/manager removal with 75% of LP capital.<br>• Termination of the Investment Period with $66^{2/3}$% LP vote.<br>• Orderly fund liquidation with $66^{2/3}$% LP vote. | **Neutral** |

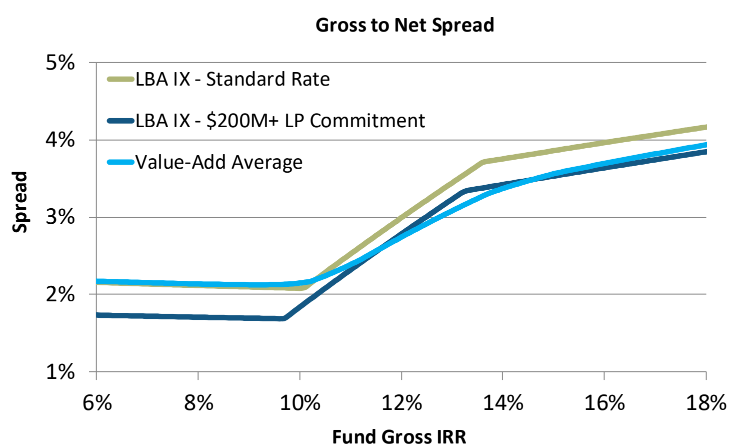
## FEES AND DISTRIBUTIONS

| Fees and Distribution Waterfall | |
|---|---|
| **Organizational Expenses:** | Fund pays up to $1,000,000 (max). |
| **Management Fee:** | 1.50% of committed capital during the investment period; then 1.50% of invested capital. First closer fee break is a four-month fee waiver.<br><br>Fee breaks for size as follows (*Aon/TTG client capital will be considered in the aggregate for purposes of computing the fee break*):<br>• 1.25% for capital commitments of $100 million to $200 million<br>• 1.15% for capital commitments of $200 million or more |
| **Incentive Fee/Waterfall Distribution:** | 20% of total profits subject to an 8% preferred return, compounded monthly, and a 50/50 catch-up. Fully pooled waterfall. |
| **Clawback:** | Post-Tax Clawback provision in the event GP carried interest distributions exceeds 20% of profit at liquidation. |

## FEE ANALYSIS

The chart below models the Sponsor's fee structures at various commitment levels, assuming a first close discount, and illustrates the expected net IRR and gross-to-net spreads across a range of IRR outcomes. Townsend compared the fee structure to a market average of 126 closed-end U.S. value-add funds (currently available or recently closed). In that context, the standard rate is within market for U.S. value-add funds, and the Sponsor is offering the potential for meaningful management fee breaks based on commitment size.



# PERFORMANCE (AS OF MARCH 31, 2021)

## SUMMARY

The Sponsor's most relevant track record is comprised of the 456 transactions across the seven funds in the series. Prior to LBA Logistics Fund VII, which is the predecessor logistics fund in the series to this Fund and solely dedicated to investing in value-add industrial real estate properties only, LBA Realty Funds I through VI were commingled funds that invested in both value-add industrial and office assets[3].

| Vehicle | Vintage | Equity (M) | Assets | Fair Market Value | | | Realizations | | Net DPI (Distributions to Paid-in-Capital) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Net IRR | Net Equity Multiple | Quartile Ranking* (by Net IRR/Multiple) | % of Projection | # of Transactions | |
| LBA Realty Fund I | 2003 | $216 | 43 | 19.9% | 2.1x | 2Q/1Q | 95% | 42 | 2.0 |
| LBA Realty Fund II | 2005 | $421 | 88 | 4.2% | 1.6x | 1Q/1Q | 82% | 84 | 1.3 |
| LBA Realty Fund III | 2007 | $603 | 39 | 0.1% | 1.0x | 4Q/4Q | 59% | 33 | 0.6 |
| LBA Realty Fund IV | 2009 | $750 | 111 | 25.5% | 2.5x | 1Q/1Q | 92% | 110 | 2.3 |
| LBA Realty Fund V | 2014 | $776 | 67 | 16.4% | 1.9x | 1Q/1Q | 55% | 52 | 1.1 |
| LBA Realty Fund VI | 2017 | $900 | 57 | 20.4% | 1.5x | 1Q/1Q | 25% | 0 | 0.5 |
| LBA Logistics Value Fund VII | 2019 | $1,061 | 51 | 9.4% | 1.1x | NM | 0% | 0 | 0.0 |

*Compared to 211 similar vintage US value-add funds. Source is Townsend plus Preqin.

- A significant portion of the Sponsor's long time operating history has been focused on markets located throughout the western U.S given the firm's proximate location on the west coast; for example, LBA Realty Funds I through Fund V invested almost exclusively in markets in the western region. The firm grew regional coverage in 2017 with Fund VI having a larger allocation to central/eastern markets (34%).
- Fund I and Fund IV are effectively realized such that fair market value returns should not materially change. Notably, LBA Realty Funds II, III, V and VI still have varying degrees of remaining unrealized exposure to the office sector[4]; which is a sector that continues to face some amount of uncertainty with regard to long term demand growth given the global pandemic. Investors should consider this exposure and the potential for further write-downs in evaluating MTM returns for unrealized funds. The Sponsor is projecting unrealized assets in Funds I through IV will be disposed of by 2Q 2022.
- With the exception of GFC challenged LBA Realty Fund III, which was impacted by a downturn in leasing activity and exposure to less attractive second-tier submarkets, overall performance has been consistently positive on an absolute basis and strong relative to similar vintage US value-add fund peers.
- LBA Logistics Value Fund VII, a 2019 vintage, raised $1.06 billion in commitments and has not produced any realizations to date; and the Sponsor is now immediately planning to add another $1.95 billion of dry powder to existing market conditions highlighted by increased competition for industrial product.

## INDUSTRIAL ONLY PERFORMANCE

The chart at the right breaks out and presents the industrial only performance for each prior LBA fund that invested in both value-add industrial and office assets (LBA Realty Fund I through VI). Generally speaking, on an absolute gross IRR basis, industrial performance has been accretive to the overall fund performance.

| Vehicle | Vintage | Industrial Equity Invested (M) | Fund Weight to Industrial* | # of Industrial Assets/Fund Assets | Industrial Only Realizations | Fair Market Value |
|---|---|---|---|---|---|---|
| | | | | | % of Transactions | Industrial Only Gross IRR |
| LBA Realty Fund I | 2003 | $108 | 51% | 25/43 | 100% | 29.0% |
| LBA Realty Fund II | 2005 | $109 | 28% | 36/88 | 97% | 7.0% |
| LBA Realty Fund III | 2007 | $262 | 45% | 20/39 | 100% | 3.0% |
| LBA Realty Fund IV | 2009 | $363 | 54% | 88/111 | 100% | 30.0% |
| LBA Realty Fund V | 2014 | $339 | 49% | 49/67 | 92% | 27.0% |
| LBA Realty Fund VI | 2017 | $525 | 75% | 48/57 | 0% | 29.0% |

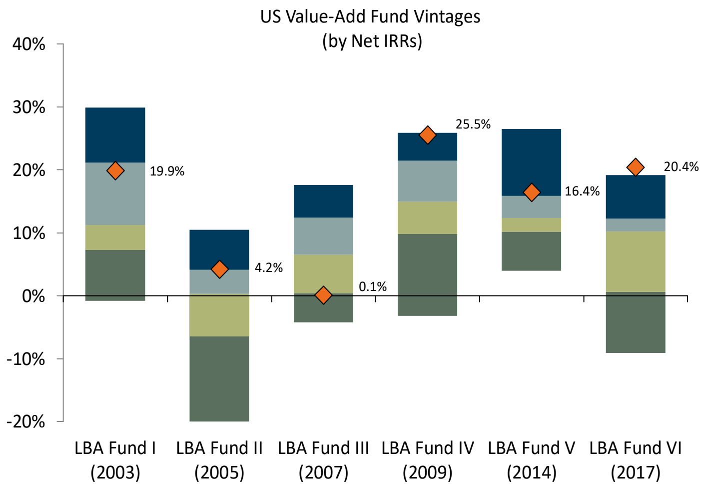
*Presented as % of Total Fund Equity Invested.

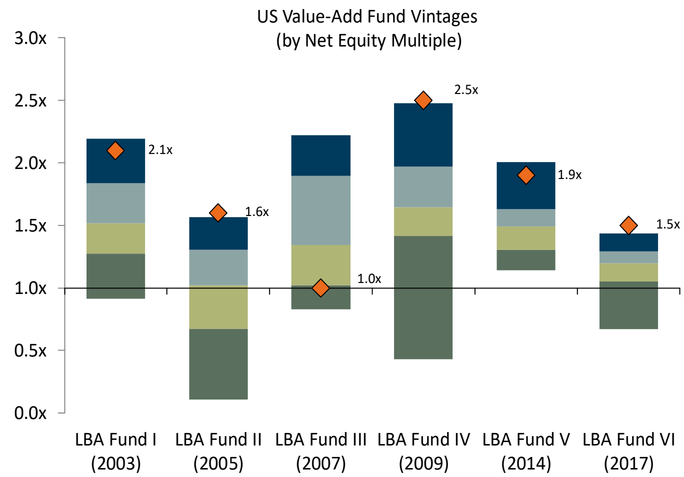
[3] Beginning with LBA Logistics Fund VII, the Sponsor split the industrial strategy and office strategy into separate and distinct funds. Value-add office investing is now the exclusive focus of LBA Office Value Fund VIII, a 2021 vintage fund that raised $403 million in commitments.

[4] For Fund II and III, the vast majority of unrealized equity is attributable to office exposure (93%). Remaining unrealized exposure to the office sector in Fund V and VI is 46% and 25%, respectively.

## RELATIVE PERFORMANCE COMPARISON

The chart below compares LBA's fund series performance to US value-add fund vintage peers.




Source: TTG database and Preqin fund database.

| LBA Fund* | Vintage Range | US Industrial Vintage Rank** | Industrial Vintage Sample Size |
|---|---|---|---|
| LBA Realty Fund II | 2004-2006 | 1Q | 5 |
| LBA Realty Fund III | 2007-2008 | 4Q | 8 |
| LBA Realty Fund IV | 2008-2010 | 2Q | 6 |
| LBA Realty Fund V | 2013-2015 | 2Q | 12 |
| LBA Realty Fund VI | 2016- 2018 | 1Q | 13 |

*Excludes LBA Realty Fund I given limited data prior to the 2004 vintage; and Logistics Value Fund VII as it is a 2019 vintage and results are not overly meaningful at this time.

**Compared to similar vintage non-core US industrial fund peers.

The table presented to the right narrows the peer set down to only similar vintage closed-end US non-core industrial fund peers and shows each LBA fund's ranking within those groups. Given that prior funds in the LBA series invested in both office and industrial assets, with an allocation to office that is higher than industrial peers (~48% of invested equity overall allocated to office), Townsend estimated an industrial only net IRR for each fund in the series; intended to create a hypothetical LBA industrial only track record for purposes of comparison to peers. Industrial only asset performance was calculated using the gross IRR for the industrial assets within each fund (as provided by the Sponsor) and adjusted by an estimated fund fee load utilizing Townsend's fee model to create a theoretical industrial only fund net IRR.

- With that context, and with the exception of Fund III, which underperformed peers and created lessons learned (like de-emphasizing exposure to second tier submarkets), the Sponsor's theoretical industrial only performance places above the similar vintage peer median for closed-end US non-core industrial funds.

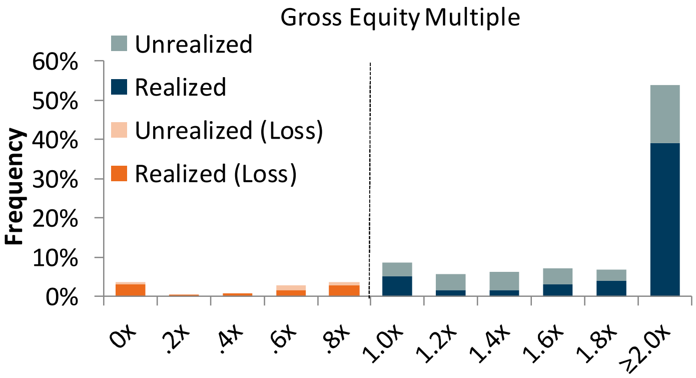
- The relative performance is distinguishing as the industrial sector subset has largely outperformed over the most recent ten year period from 2009-2018[5], producing (on average) a premium in excess of ~700 bps to the US non-core median.

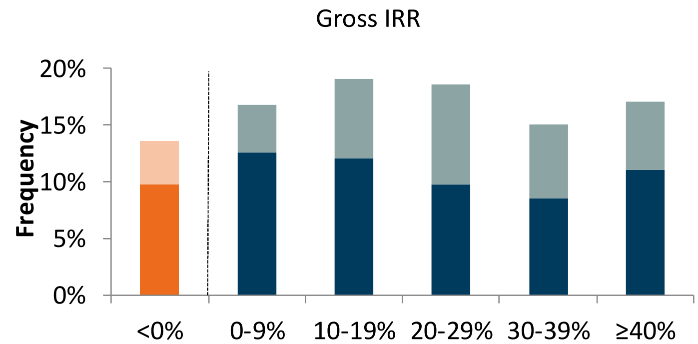
[5] Recent vintages from 2019 and later have been excluded from the analysis as results are not yet overly meaningful.

## DISPERSION OF RETURNS

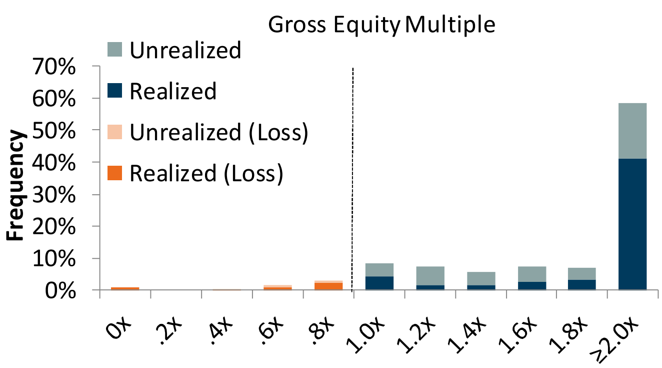
The following chart illustrates the dispersion of individual deal investment returns across the Sponsor's fund series, excluding recently acquired assets still held at cost. The returns included in the analysis are calculated on a gross property level, mark-to-market basis.

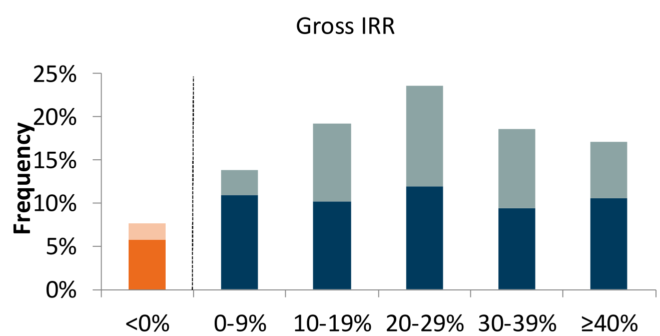
- Given the Sponsor's long history investing in properties through multiple cycles, the positive skew is distinguishing.
- The 14% of assets marked at a loss are largely attributable to LBA Realty Fund II and Fund III (40 of 55 total deals), which were GFC impacted funds.
- Sponsor provided deal-by-deal for the three most recent funds in the series (V-VII) is provided in **Exhibit D**.



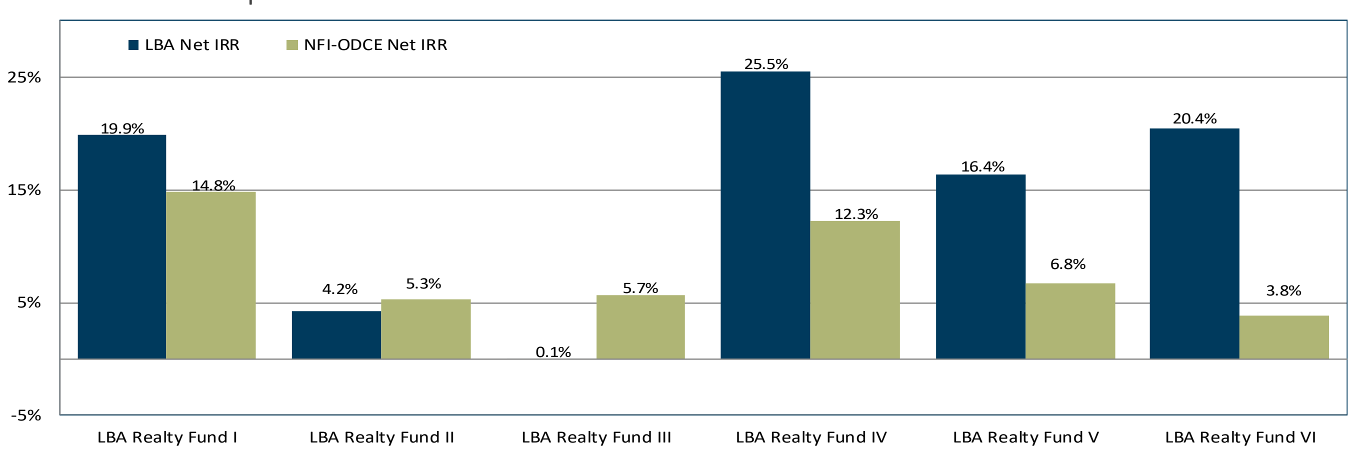

The Sponsor's industrial only deal-by-deal is included in the chart below:




## BENCHMARK COMPARISON

The chart assumes prior LBA fund series cash flows were instead invested into and out of the NFI-ODCE index to create a net IRR comparison to the index.



## EXHIBIT A: Illustrative Fund VII Deals

### LBA CORPORATE PROGRAM CASE STUDY: ELIZABETH CREEK (DHL)

| OVERVIEW | |
|---|---|
| Investment Vehicle | Fund VII |
| Property Type | Industrial |
| Location | Fort Worth, TX |
| Size | 1.1M SF |
| Acquisition Date | March 2021 |

| ACQUISITION | |
|---|---|
| Purchase Price | $65.3M |
| Purchase Price PSF | $59 |
| Invested Equity | $33.7M |
| LTV | 60% |

| PERFORMANCE | |
|---|---|
| Going in Cap Rate | N/A |
| Estimated Gross Unrealized IRR | 15% |
| Estimated Gross Unrealized Multiple | 1.8x |

**OPPORTUNITY**

- Elizabeth Creek Buildings D & E are pre-buy acquisitions of two Class A warehouse and distribution buildings located in Fort Worth, TX, which is part of the North Fort Worth / Alliance submarket within the Dallas Fort Worth market.
- Building D is 702,599 and Building E is 403,465 SF. The buildings are situated on 77.15 acres.

**STRATEGY & EXECUTION**

- LBA purchased the properties in a forward transaction.
- During construction LBA began marketing the properties for lease.
- Building E has since been fully leased to CTDI, a logistics provider to the communication industry.

### DEVELOPMENT CASE STUDY: LACEY INDUSTRIAL CENTER

| OVERVIEW | |
|---|---|
| Investment Vehicle | Fund VII |
| Property Type | Industrial |
| Location | Lacey, WA |
| Size | 204,015 SF |
| Acquisition Date | December 2019 |

| ACQUISITION | |
|---|---|
| Purchase Price | $21.4M (Total Costs) |
| Purchase Price PSF | $105 |
| Invested Equity | $10.1M |
| LTV | N/A |

| PERFORMANCE | |
|---|---|
| Going in Cap Rate | N/A |
| Estimated Gross Unrealized IRR | 23% |
| Estimated Gross Unrealized Multiple | 2.7x |

**OPPORTUNITY**

- Lacey Industrial Center located in Lacey, WA represents the ability to acquire a well located, 12.6-acre parcel of land to develop a state-of-the-art 204,015 SF warehouse/distribution building.
- The site is located less than 1 mile from I-5 by way of Exit 111. Additionally, it sits on Hogum Bay Road NE which has been identified by the City of Lacey as a truck corridor.

**STRATEGY & EXECUTION**

- LBA constructed a new 36' clear, ESFR state-of-the-art warehouse and distribution facility.
- LBA benefited from the project being fully entitled at an attractive basis, offering lower cost warehouse space options to tenants being priced out of other Puget Sound industrial markets.
- The building was completed in March 2021 and is actively being marketed for lease.

## LBA CORPORATE PROGRAM / FOOD LOGISTICS CASE STUDY: NESTLE PORTFOLIO

| OVERVIEW | |
|---|---|
| Investment Vehicle | Fund VII |
| Property Type | Industrial |
| Location | California, Arizona, Illinois, Florida |
| Size | 243,370 SF |
| Acquisition Date | April 2020 |

| ACQUISITION | |
|---|---|
| Purchase Price | $49.3M |
| Purchase Price PSF | $202 |
| Invested Equity | $22.0M |
| LTV | 64% |

| PERFORMANCE | |
|---|---|
| Going in Cap Rate | 6.68% |
| Estimated Gross Unrealized IRR | 19% |
| Estimated Gross Unrealized Multiple | 2.7x |

### OPPORTUNITY

- The Portfolio consists of four freezer industrial buildings totaling 243,370 square feet in four major metropolitan markets across the US.
- The buildings are located in the Chicago, Miami, Los Angeles, and Phoenix industrial markets.
- The buildings have historically been owned and occupied by Nestle. Three of the buildings were re-leased to Nestle affiliates or customers, while the building in City of Industry, CA was delivered vacant.
- The Portfolio provides a critical mass of freezer/cooler space in premier markets with attractive stabilized yields.

### STRATEGY & EXECUTION

- LBA will manage the Portfolio and strengthen its relationship with the current tenants.
- The City of Industry building has been fully leased to Imperfect Foods, Inc.

## REPOSITIONING CASE STUDY: CROSSROADS INDUSTRIAL EAST & WEST (EXIT 8A)

| OVERVIEW | |
|---|---|
| Investment Vehicle | Fund VII |
| Property Type | Industrial |
| Location | South Brunswick Township, NJ |
| Size | 335,678 SF |
| Acquisition Date | December 2019 |

| ACQUISITION | |
|---|---|
| Purchase Price | $48.5M |
| Purchase Price PSF | $144 |
| Invested Equity | $21.3M |
| LTV | 59% |

| PERFORMANCE | |
|---|---|
| Going in Cap Rate | 4.65% |
| Estimated Gross Unrealized IRR | 20% |
| Estimated Gross Unrealized Multiple | 2.8x |

### OPPORTUNITY

- Crossroads Industrial East & West is a 335,678 SF project consisting of seven warehouse/distribution buildings on 33.61 acres. Individual units range from 5,000-60,000 SF.
- Strategically located in the "Exit 8A" submarket, the second largest submarket in New Jersey, directly between New York City and Philadelphia.
- Acquire strong asset in the Exit 8A submarket with significantly below market in-place leases.
- Capitalize on very tight market fundamentals to capture higher market rents.

### STRATEGY & EXECUTION

- LBA invested capital into the buildings in 2020, including exterior paint, signage, landscaping and making suites market ready.
- There has been strong demand from current and prospective tenants.
- Executed seven leases and expansions in 2020.
- Increased property level NOI by approximately 18% since acquisition.

## EXHIBIT B: MANAGEMENT BIOGRAPHIES

**Phil Belling**

Mr. Belling, 61, is the Managing Principal and Co-Founder of LBA, and has over 39 years of real estate experience. Mr. Belling is responsible for overseeing the strategic direction of the firm, which includes LBA's investment, debt and equity activities throughout the country where LBA's portfolio of industrial and office properties currently total over 72 million square feet. Mr. Belling also serves on LBA's Executive Management and Investment Committees. Prior to forming LBA, Mr. Belling was Senior Vice President for the Southern California Division of The Koll Company, where he oversaw the development of more than four million square feet of development properties. Mr. Belling holds a finance degree from San Diego State University and currently serves on the Advisory Board of U.C. Berkeley Fisher Center for Real Estate & Urban Economics. Mr. Belling is a trustee of Urban Land Institute as well as associated with the Real Estate Roundtable and the Pension Real Estate Association.

**Steven Layton**

Mr. Layton, 62, is a Principal and Co-Founder of LBA and has over 37 years of real estate experience. He currently oversees transaction due diligence for all of LBA's acquisition, financing and disposition activities. Prior to forming LBA, Mr. Layton was Senior Vice President of the Southern California Division of The Koll Company, where he oversaw and coordinated the development of four million square feet of office and mixed-use projects in Orange and San Diego counties. Mr. Layton holds a B.A. degree in Economics and Sociology from the University of California, Los Angeles and is a licensed real estate broker. Mr. Layton is a Founding Board Member of the UCLA Ziman Center for Real Estate and a former board member of the National Association of Industrial and Office Properties (NAIOP). Mr. Layton also serves as the Vice Chairman of the Pacific Region and National Trustee for the Boys & Girls Clubs of America.

**Steven Briggs**

Mr. Briggs, 57, is a Principal and Chief Investment Officer of LBA Realty and has over 34 years of real estate experience, with significant experience in the acquisition, development and management of office and industrial properties throughout the Western United States. Mr. Briggs oversees the Portfolio Management of LBA's approximate 45 million square foot industrial portfolio and co-leads LBA Logistics. He is actively involved in acquisition, leasing, capital improvement and disposition strategies for the portfolio and serves on LBA's Executive Management and Investment Committees. Prior to joining LBA in 1993, Mr. Briggs was Vice President of Investment Properties Group in Irvine and a Development Manager at Calmat Properties in Phoenix. Mr. Briggs holds a degree from Arizona State University and is a former board member of the Los Angeles/Orange County Chapter of the National Association of Industrial and Office Properties and a member of the Urban Land Institute.

**David Thomas**

Mr. Thomas, 61, is a Principal of LBA and has over 39 years of experience in investment sales, tenant negotiations, development and asset management. Since joining LBA in 1995, he has been responsible for a variety of roles and currently co-heads LBA's acquisition efforts and he currently serves on LBA's Investment Committee. Prior to joining LBA, Mr. Thomas was a Senior Associate with Colliers Iliff Thorn, where he was involved in the sale of office, industrial and retail properties. He also represented a number of national tenants in connection with major facility negotiations and relocations throughout Northern California and the San Diego area. Mr. Thomas holds a B.S. degree in Resource Economics from the University of California at Berkeley and serves on several professional and charitable boards.

**Perry Schonfeld**

Mr. Schonfeld, 63, is a Principal and Chief Operating Officer for LBA and has over 40 years of experience in the financial and commercial real estate industries. Since joining LBA in 1997, he has evolved into overseeing the overall operations of the company and currently serves on LBA's Executive Management and Investment Committees. Prior to joining LBA, Mr. Schonfeld was an Associate Director for Cushman & Wakefield of California, Inc., handling both asset and property management services for the Southern California region. Mr. Schonfeld has been a member of BOMA Orange County since 1997 and is a past President of the Orange County chapter. Mr. Schonfeld has also served on the BOMA International Executive Committee from 2007 to 2011 and as Chair of the BOMA International Nominating Committee from 2014-2015 and currently is a BOMA Fellow as well as a member of the BOMA International National Advisory Council. He also is a Sustainability Policy Advisory Committee Member of the Real Estate Roundtable, an Advisory Board Member of the Boys & Girls Club of Capistrano Valley and the Los Angeles Sports and Entertainment Commission. Mr. Schonfeld holds a Master's in Business Administration degree from the University of California, Los Angeles and a B.S. degree in Business Administration and Management from the State University of New York at Buffalo, and is a Certified Public Accountant, licensed in the state of California. Mr. Schonfeld also serves as an Adjunct Professor in the Master of Real Estate Program at Chapman University, located in Orange California.

**Bradley Neglia**
Mr. Neglia, 52, is a Principal of LBA and oversees leasing and marketing activities and is involved with LBA's corporate program. Mr. Neglia has over 30 years of experience in the real estate industry. In addition to running the leasing and marketing programs throughout LBA's regions, he also has significant involvement with LBA's asset management activities. Mr. Neglia is a member of LBA's Executive Management Committee. Since joining LBA in 1995, he has been involved in leasing, acquisitions, dispositions and asset management. He is a former board member for the Southern California Chapter of NAIOP. He currently serves on the board of directors for the Pediatric Cancer Research Foundation. Prior to joining LBA, Mr. Neglia was a licensed real estate agent with Grubb & Ellis, specializing in industrial leasing and sales in Orange and Los Angeles Counties. Mr. Neglia graduated from the University of California, Santa Barbara with a B.A. in Economics.

**Thomas Motherway**
Mr. Motherway, 54, is a Principal of LBA and has over 32 years of experience in the commercial real estate industry, specializing in asset management, acquisitions, dispositions, real estate finance, valuation and management consulting. He currently focuses on three main areas: portfolio management, managing LBA's asset disposition program and investor relations. He also oversees LBA's Research Initiatives. Prior to his current role, his responsibilities included asset management, acquisition sourcing, due diligence and underwriting for LBA's portfolio. Prior to joining LBA in 1997, Mr. Motherway was a Consulting Manager at the E&Y Kenneth Leventhal Real Estate Group in Newport Beach. He is a Trustee and past president of the Laguna Beach Education Foundation and serves on the board of the ALS Association of Orange County. Mr. Motherway graduated from the University of California, Los Angeles with a B.A. in Economics.

**Donald Shaver**
Mr. Shaver, 56, is a Principal of LBA and has over 34 years of commercial real estate experience. Mr. Shaver joined LBA in 2005. He currently oversees acquisition, disposition and leasing of LBA's Northern California and Pacific Northwest Regions, with a primary focus on office properties. Prior to joining LBA, Mr. Shaver was a top producing broker for Cushman & Wakefield and CBRE representing firms such as Fireman's Fund, Bank of America, PG&E, Pacific Bell Directories and WorldCom in developing real estate strategy as well as leasing, acquisition and disposition transaction execution. Mr. Shaver holds a B.A. in Business Economics from the University of California, Santa Barbara.

**Michael Memoly**
Mr. Memoly, 48, is a Principal of LBA, Chief Financial Officer and Chief Compliance Officer, and has over 26 years of real estate experience. Mr. Memoly joined LBA in 2006 and he is responsible for the oversight of LBA's investor and financial reporting, accounting, tax function, information technology, human resources, investor relations, compliance program, and loan portfolio administration and reporting. He currently serves on LBA's Investment Committee. Prior to LBA, Mr. Memoly was a Senior Manager with Ernst & Young, in the real estate practice for 11 years, including seven years working on the LBA account. Mr. Memoly holds a B.S. in Accounting from The State University of New York at Binghamton. Mr. Memoly is a licensed CPA in the states of New York and California (inactive).

**Thomas Rutherford**
Mr. Rutherford, 60, is a Principal of LBA, and has been involved in the real estate industry for over 34 years and oversees LBA's finance and joint venture transactions. Over the past 28 years, Mr. Rutherford has overseen the negotiating and closing hundreds of loans and several major joint venture transactions. Prior to joining LBA in 1993, Mr. Rutherford served as Project Accountant for The Koll Company and was responsible for financial accounting and analysis for a number of offices, retail and mixed-use properties. Mr. Rutherford is currently an active member of the Urban Land Institute non-profit organization and has also been associated with IDM Corporation and Obayashi America, where he was responsible for financial accounting and reporting for commercial properties. Mr. Rutherford holds a B.A. degree in Accounting from California State University, Long Beach.

**Melanie Colbert**
Ms. Colbert, 55, Principal of LBA, oversees LBA's management operations and has over 32 years' experience in commercial real estate. Ms. Colbert joined LBA in 1996 and is currently responsible for all aspects of LBA's property management operations. She also provides support for acquisitions, due diligence and dispositions, and oversees the transition of properties and operations across LBA's portfolio. Prior to joining LBA, Ms. Colbert was a Senior Property Manager for Koll Management

Services where she managed retail, industrial and multi-tenant office properties throughout the Greater Los Angeles area. Ms. Colbert attended the University of Arizona where she studied Finance and Real Estate. She is a Certified Property Manager and holds a California Real Estate Broker license. She also serves on the Advisory Board for BOMA Orange County and as Chair for BOMA International's National Advisory Council.

**John Garrigan**

Mr. Garrigan, 49, is a Principal at LBA and has 17 years of real estate experience. Mr. Garrigan co-leads the Acquisitions Group and is involved in LBA's Corporate Program acquisition efforts. Mr. Garrigan previously managed all Southern California leasing activities. Prior to joining LBA, Mr. Garrigan held the position of Portfolio Leasing Director at a San Diego-based boutique commercial real estate investment and development company. In that role, he was responsible for all leasing and marketing operations and was actively involved in acquisitions and dispositions. Mr. Garrigan entered the real estate business as an office and industrial broker with CB Richard Ellis in La Jolla, California. Prior to the start of his real estate career, Mr. Garrigan was a Marine aviator and is a decorated combat veteran of Operation Iraqi Freedom. Mr. Garrigan is an active Urban Land Institute member and a past President of the National Association of Industrial and Office Properties - San Diego Chapter. Mr. Garrigan holds a B.A. degree in Business with an emphasis in Finance from California State University, Fullerton.

**Timothy Brosnan**

Mr. Brosnan, 54, is a Principal at LBA, and has 32 years of real estate experience. Mr. Brosnan co-leads LBA Logistics, is responsible for investor relations, capital raising and has a portfolio management role. Prior to joining LBA in 2014, Mr. Brosnan was with Prologis where he oversaw investor relations and capital raising in the U.S. Mr. Brosnan also served as Director, Capital Markets and Client Relations at JER and Director, Client Relations at RREEF primarily focused in the western U.S. He is a member of Pension Real Estate Association (PREA) and is a member of the Publications Committee. Mr. Brosnan received a B.S. from the University of Southern California and a Master's in Business Administration from the University of California, Irvine.

**Erin Kaplan**

Ms. Kaplan, 42, is a Principal and Chief Accounting Officer. Since joining LBA in 2006, Ms. Kaplan has overseen the accounting department which is primarily responsible for preparing and delivering financial reporting and other requirements to investors, lenders and joint venture partners. Prior to joining LBA, Ms. Kaplan held roles at Ernst & Young providing assurance and advisory services to several real estate clients in Orange County, CA and Atlanta, GA. Ms. Kaplan is a graduate of California State University Fullerton with a B.A. in Business Administration with a concentration in Accounting.

**Eric Brown**

Mr. Brown, 43, is a Senior Vice President and has been with LBA since 2004. At the start of his career with LBA, his focus was on acquisitions in both San Diego and Northern California. In 2009, he took over the responsibility to oversee leasing, design and construction activities for LBA's two million square foot Park Place project in Irvine, CA. Most recently he has also taken on similar roles for other major LBA properties in the Southern California region. Mr. Brown is a graduate of Baylor University with B.A. in Business Administration, with a major in Finance.

**William Plautz.**

Mr. Plautz, 49, is a Senior Vice President with approximately 18 years of commercial real estate experience. Since joining LBA in 2008, he has overseen the leasing, acquisitions, dispositions and portfolio management of LBA's Pacific Northwest portfolio which includes Washington and Oregon. Since that time, his role has expanded to include additional portfolio management and leasing responsibilities in Northern California and Nevada, acquisition responsibilities in Utah, and asset management responsibilities across LBA's western industrial portfolio. Prior to joining LBA, Mr. Plautz worked at Hines, a privately owned global real estate investment, development and management firm, where he focused on acquisitions, dispositions, leasing and project management. Mr. Plautz received a B.S. degree in Finance from Appalachian State University and an MBA from Harvard Business School.

**Alice Wilson**

Ms. Wilson, 65, is Senior Vice President of Corporate Program at LBA, and has over 39 years of real estate industry related experience. Since joining LBA in 2005, Ms. Wilson has managed LBA's corporate program and works closely with LBA's acquisition and leasing teams while serving as a liaison to corporate tenants and clients. Prior to joining LBA, Ms. Wilson led the strategic planning and business development efforts for some of the industry's premiere real estate development, architectural and construction firms on a national basis. Ms. Wilson holds a B.S. degree in Real Estate Finance from California State University, Long Beach and is a licensed real estate broker in the state of California. In addition, she holds a Master of

Corporate Real Estate (MCR) and Senior Leader, Corporate Real Estate (SLCR) designation from CoreNet Global and holds a Fellow designation with IAMC (Industrial Asset Management Council). Ms. Wilson has served on numerous global leadership positions for CoreNet Global and IAMC.

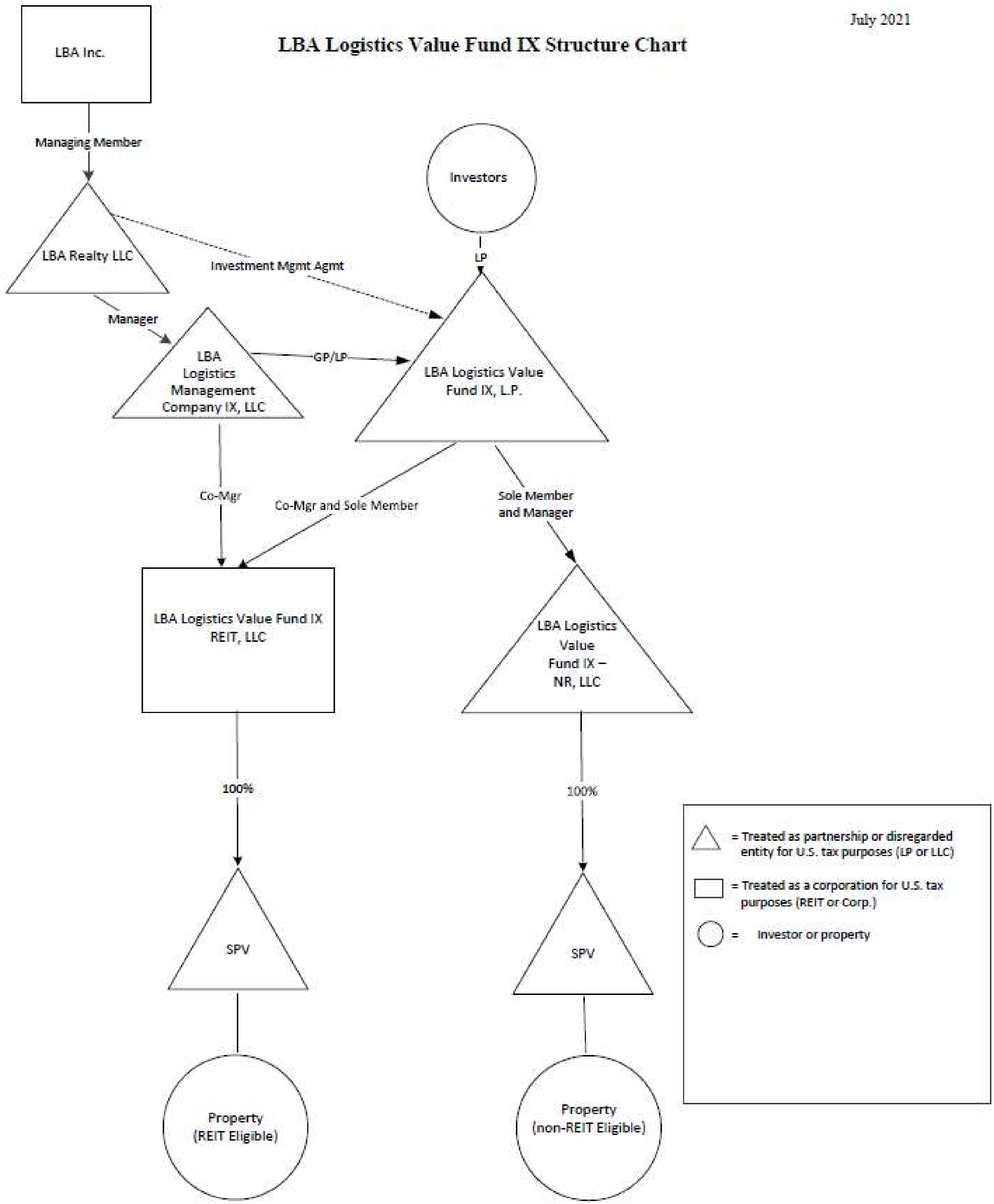
**John Goldsmith**
Mr. Goldsmith, 42, is a Senior Vice President at LBA and has 19 years of capital markets and commercial real estate experience. Mr. Goldsmith focuses exclusively on industrial investment, asset management and leasing. With offices in New Jersey and New York, Mr. Goldsmith is LBA's North East and Mid Atlantic market leader. Prior to joining LBA in 2019, Mr. Goldsmith was with The Hampshire Companies, where he was a Portfolio Manager for a series of funds, acted as the practice lead for the firm's industrial efforts, and was a member of the Senior Leadership Team. In that role, he was primarily focused on sourcing new acquisitions and overseeing strategy for the asset management and leasing teams. Prior to joining Hampshire, Mr. Goldsmith also worked at Goldman Sachs & Co and Starwood Capital Group. Mr. Goldsmith holds a B.A. degree from Middlebury College, and a Master's in Business Administration from the Tuck School of Business at Dartmouth.

**John Norton**
Mr. Norton, 39, is a Senior Vice President of Acquisitions. He joined LBA in 2010 with a focus on sourcing Southern California and Midwest office and industrial acquisitions. Mr. Norton now oversees the Chicago office of LBA and focuses on acquisitions in the Central U.S. Prior to LBA, Mr. Norton worked on the acquisitions team at Ellis Partners and as a Senior Associate for BDO in San Francisco. He holds a B.S. in Business Administration with a concentration in Real Estate Finance and a B.S. in Accounting from the University of Southern California.

**Alison Vukovich**
Ms. Vukovich, 41, is a Vice President at LBA and has over 17 years of real estate experience in leasing and managing major industrial real estate projects. Since joining LBA in 2003, she has been actively involved in asset management, finance, acquisitions, leasing and portfolio management. Her current role includes industrial leasing and portfolio management in Southern California and Utah, as well as the oversight of two joint ventures. Prior to joining LBA, Ms. Vukovich worked at KPMG, a global network of firms offering audit, tax and advisory services, in the Audit and Assurance practice. Ms. Vukovich received a B.A. from the University of California, Santa Barbara in Economics with an emphasis in Accounting, and the History of Art and Architecture.

**Dave Poquette**
Mr. Poquette, 48, is a Vice President at LBA and has worked in the real estate development and construction management industry for 25 years. Mr. Poquette leads our Industrial Development platform with a focus on developments in the Eastern US. He started his construction management career at Ernst and Young in their real estate consulting business managing corporate campus construction. Mr. Poquette then transitioned to the real estate development industry managing improvements for an 880 acre development in Fremont, California for Catellus Development Corp. Prior to working at LBA, Mr. Poquette led the development and construction activities in the Midwest and Northeastern US for GLP (IndCor) for five years. Mr. Poquette's development experience includes major building expansions, repositioning of and entitlement of existing assets and land sites for logistic firms and modern E-commerce operators, and managing and structuring of major industrial development joint ventures. He graduated with a B.S. degree in Civil Engineering from Marquette University.

## Exhibit C: Fund Structure (draft)



## Exhibit D: Sponsor Provided Deal Level Detail

| | | | | | | Mark to Market | | | PROJECTED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PROPERTY | Fund | STATUS | PROPERTY TYPE | SUB-REGION | STABILIZED ACQUISITION EQUITY | SALE/EXIT DATE | GROSS MULTIPLE | GROSS IRR (YR) | SALE/EXIT DATE | GROSS MULTIPLE | GROSS IRR (YR) |
| 1250 Elko Drive | Fund V | Active | Industrial | Northern California | $5,112,081 | 12/31/2020 | 4.1x | 41% | 1/31/2025 | 4.5x | 40% |
| 13050 East Smith Road | Fund V | Active | Industrial | Colorado | $3,849,111 | 12/31/2020 | 2.5x | 29% | 1/31/2025 | 2.6x | 27% |
| 13700 Live Oak Avenue | Fund V | Active | Industrial | Los Angeles | $1,328,160 | 12/31/2020 | 3.2x | 37% | 1/31/2025 | 3.8x | 35% |
| 14200 East Moncrieff Place | Fund V | Active | Industrial | Colorado | $7,165,670 | 12/31/2020 | 2.0x | 35% | 1/31/2025 | 2.1x | 33% |
| 14900 West Schulte Road | Fund V | Active | Industrial | Northern California | $1,871,520 | 12/31/2020 | 8.9x | 51% | 1/31/2025 | 9.4x | 40% |
| 15000 West Schulte Road | Fund V | Active | Industrial | Northern California | $4,409,102 | 12/31/2020 | 3.1x | 32% | 1/31/2025 | 3.3x | 29% |
| 15100 South Figueroa Street | Fund V | Active | Industrial | Los Angeles | $5,150,178 | 12/31/2020 | 2.6x | 32% | 1/31/2025 | 2.7x | 30% |
| 1550 Magnolia Avenue | Fund V | Active | Industrial | Inland Empire | $8,610,512 | 12/31/2020 | 2.3x | 24% | 1/31/2025 | 2.6x | 23% |
| 1590 South Gladiola Street | Fund V | Active | Industrial | Utah | $3,933,893 | 12/31/2020 | 2.2x | 33% | 1/31/2025 | 1.8x | 22% |
| 1600 Agua Mansa Road | Fund V | Active | Industrial | Inland Empire | $15,320,340 | 12/31/2020 | 4.4x | 26% | 1/31/2025 | 4.4x | 25% |
| 2037 South 5070 West | Fund V | Active | Industrial | Utah | $7,631,777 | 12/31/2020 | 1.5x | 14% | 1/31/2025 | 1.5x | 12% |
| 20432-20434 South Santa Fe Avenue | Fund V | Active | Industrial | Los Angeles | $7,987,484 | 12/31/2020 | 2.1x | 17% | 1/31/2025 | 2.2x | 17% |
| 2701 Keystone Pacific Parkway | Fund V | Active | Industrial | Northern California | $12,224,035 | 12/31/2020 | 2.3x | 31% | 1/31/2025 | 2.6x | 30% |
| 2899 Mead Avenue | Fund V | Active | Industrial | Northern California | $3,848,624 | 12/31/2020 | 5.7x | 43% | 1/31/2025 | 6.4x | 42% |
| 3015-3041 North Skyway Circle | Fund V | Active | Industrial | Texas | $3,514,544 | 12/31/2020 | 2.5x | 29% | 1/31/2025 | 2.5x | 27% |
| 3500-3520 Thomas Road | Fund V | Active | Industrial | Northern California | $8,467,045 | 12/31/2020 | 2.6x | 34% | 1/31/2025 | 2.9x | 33% |
| 3925 East Coronado Street | Fund V | Active | Industrial | Orange County | $3,663,418 | 12/31/2020 | 4.0x | 37% | 12/31/2023 | 5.2x | 30% |
| 4400 Ruffin Road | Fund V | Active | Industrial | San Diego | $18,182,819 | 12/31/2020 | 0.6x | -8% | 3/31/2023 | 1.3x | 3% |
| 5005 East Philadelphia Street | Fund V | Active | Industrial | Inland Empire | $3,442,807 | 12/31/2020 | 3.0x | 30% | 12/31/2021 | 2.7x | 23% |
| 5100 Rivergrade Road | Fund V | Active | Industrial | Los Angeles | $1,368,417 | 12/31/2020 | 3.3x | 35% | 1/31/2025 | 2.8x | 31% |
| 515 South Promenade Avenue | Fund V | Active | Industrial | Inland Empire | $9,176,890 | 12/31/2020 | 2.2x | 21% | 1/31/2025 | 2.3x | 20% |
| 5151-5161 Commerce Drive | Fund V | Active | Industrial | Los Angeles | $2,309,009 | 12/31/2020 | 3.0x | 34% | 1/31/2025 | 3.2x | 32% |
| 5350 West Harold Gatty Drive | Fund V | Active | Industrial | Utah | $7,186,463 | 12/31/2020 | 1.6x | 14% | 1/31/2025 | 1.8x | 14% |
| 551 Courier Street | Fund V | Active | Industrial | Nevada | $6,362,686 | 12/31/2020 | 1.5x | 16% | 1/31/2025 | 1.7x | 15% |
| 6125 West Campus Circle | Fund V | Active | Industrial | Texas | $1,327,478 | 12/31/2020 | 2.2x | 22% | 1/31/2025 | 2.3x | 20% |
| 7272 West Marginal Way South | Fund V | Active | Industrial | Pacific Northwest | $3,511,433 | 12/31/2020 | 5.4x | 42% | 1/31/2025 | 6.1x | 42% |
| 797-799 Palmyrita Court | Fund V | Active | Industrial | Inland Empire | $8,157,853 | 12/31/2020 | 2.2x | 28% | 1/31/2025 | 2.5x | 27% |
| 9125 Rehco Road | Fund V | Active | Industrial | San Diego | $4,354,716 | 12/31/2020 | 1.3x | 4% | 1/31/2025 | 1.5x | 6% |
| 918 South Stimson Avenue | Fund V | Active | Industrial | Inland Empire | $3,498,815 | 12/31/2020 | 1.0x | -1% | 12/31/2021 | 1.8x | 11% |
| 9301 Mason Avenue | Fund V | Active | Industrial | Los Angeles | $4,458,266 | 12/31/2020 | 2.4x | 19% | 1/31/2025 | 2.7x | 19% |
| 9750 Irvine Boulevard | Fund V | Active | Industrial | Orange County | $22,108,519 | 12/31/2020 | 1.9x | 16% | 1/31/2025 | 2.1x | 17% |
| Kent 192 | Fund V | Active | Industrial | Pacific Northwest | $5,408,046 | 12/31/2020 | 2.5x | 17% | 1/31/2025 | 2.9x | 18% |
| Kiest Distribution Center | Fund V | Active | Industrial | Texas | $4,760,291 | 12/31/2020 | 3.2x | 38% | 1/31/2025 | 3.4x | 36% |
| Logistics Center 75 | Fund V | Active | Industrial | Arizona | $19,217,687 | 12/31/2020 | 2.6x | 17% | 1/31/2025 | 2.7x | 17% |
| Main and Garner Business Park | Fund V | Active | Industrial | Inland Empire | $4,995,421 | 12/31/2020 | 2.3x | 29% | 1/31/2025 | 2.4x | 27% |
| Ontario Pacific Business Center | Fund V | Active | Industrial | Inland Empire | $6,140,651 | 12/31/2020 | 4.3x | 40% | 1/31/2025 | 4.8x | 38% |
| Portside Industrial Center | Fund V | Active | Industrial | Pacific Northwest | $17,501,879 | 12/31/2020 | 3.1x | 27% | 1/31/2025 | 3.1x | 25% |
| Redmond Commerce Center | Fund V | Active | Industrial | Pacific Northwest | $5,390,412 | 12/31/2020 | 7.2x | 37% | 1/31/2025 | 7.9x | 36% |
| Shoemaker Business Park | Fund V | Active | Industrial | Los Angeles | $3,546,930 | 12/31/2020 | 3.6x | 46% | 1/31/2025 | 3.7x | 43% |
| Sierra Commerce Park | Fund V | Active | Industrial | Nevada | $14,971,182 | 12/31/2020 | 5.3x | 50% | 1/31/2025 | 5.9x | 48% |
| SoFo Logistics | Fund V | Active | Industrial | Inland Empire | $6,749,322 | 12/31/2020 | 3.9x | 30% | 1/31/2025 | 3.6x | 26% |
| Wilsonville Business Center | Fund V | Active | Industrial | Pacific Northwest | $23,672,284 | 12/31/2020 | 2.7x | 29% | 1/31/2025 | 2.9x | 28% |
| 2722 Michelson Drive | Fund V | Active | Office | Orange County | $21,937,981 | 12/31/2020 | 1.6x | 7% | 7/31/2022 | 2.3x | 10% |
| 3939 East Coronado Street | Fund V | Active | Office | Orange County | $4,159,757 | 12/31/2020 | 1.7x | 16% | 1/31/2021 | 2.2x | 13% |
| 9740 Irvine Boulevard | Fund V | Active | Office | Orange County | $8,656,168 | 12/31/2020 | 0.0x | -36% | 12/31/2023 | 0.6x | -4% |
| Esplanade Partners, LP | Fund V | Active | Office | Arizona | $81,033,049 | 12/31/2020 | 1.4x | 8% | 7/31/2022 | 1.2x | 4% |
| Kierland II | Fund V | Active | Office | Arizona | $25,560,856 | 12/31/2020 | 1.4x | 8% | 12/31/2021 | 1.9x | 13% |
| One Culver | Fund V | Active | Office | Los Angeles | $120,264,174 | 12/31/2020 | 2.1x | 20% | 9/30/2022 | 2.9x | 23% |
| TwoPine | Fund V | Active | Office | Pacific Northwest | $13,589,871 | 12/31/2020 | 0.6x | -7% | 12/31/2022 | 1.7x | 6% |
| LBA Fontana Logistics Center | Fund V | Active | Land | Inland Empire | $3,590,544 | 12/31/2020 | 4.1x | 33% | 1/31/2025 | 4.1x | 30% |
| 14086 Santa Ana Avenue | Fund V | Active | Land | Inland Empire | $2,866,916 | 12/31/2020 | 4.0x | 51% | 1/31/2025 | 4.6x | 50% |
| Rogers Road | Fund V | Active | Land | Northern California | $6,065,760 | 12/31/2020 | 1.1x | 3% | 7/31/2022 | 1.5x | 8% |
| 5150 Rivergrade Road | Fund V | Sold | Industrial | Los Angeles | $4,443,520 | 10/5/2015 | 1.0x | -6% | | | |
| 611 Reyes Drive | Fund V | Sold | Industrial | Los Angeles | $6,669,621 | 7/9/2019 | 1.9x | 16% | | | |
| Porter Rockwell Center | Fund V | Sold | Industrial | Utah | $12,616,464 | 6/18/2018 | 2.0x | 32% | | | |
| 1 Dell Parkway | Fund V | Sold | Office | Tennessee | $28,433,739 | 10/15/2018 | 2.0x | 41% | | | |
| 222 Kearny Street | Fund V | Sold | Office | Northern California | $10,412,376 | 8/21/2019 | 1.8x | 31% | | | |
| 5 Polaris Way | Fund V | Sold | Office | Orange County | $8,784,124 | 6/7/2016 | 2.0x | 32% | | | |
| 8925 & 8945 Rehco Road | Fund V | Sold | Office | San Diego | $4,325,589 | 10/31/2017 | 3.1x | 65% | | | |
| Ross Drive Technology Park | Fund V | Sold | Office | Northern California | $26,824,735 | 8/24/2018 | 1.7x | 23% | | | |
| 1265 North Van Buren Street | Fund V | Sold | Land | Orange County | $7,876,986 | 7/7/2017 | 1.6x | 19% | | | |
| 1 Advantage Court | Fund VI | Active | Industrial | New Jersey | $15,106,495 | 12/31/2020 | 1.3x | 30% | 1/31/2026 | 1.6x | 23% |
| 1 Imeson Park Boulevard | Fund VI | Active | Industrial | Florida | $18,941,090 | 12/31/2020 | 1.5x | 22% | 1/31/2026 | 2.1x | 23% |
| 1055 Hanover Street | Fund VI | Active | Industrial | Pennsylvania | $26,238,932 | 12/31/2020 | 1.5x | 18% | 1/31/2026 | 2.7x | 20% |
| 11710 Pacific Avenue | Fund VI | Active | Industrial | Inland Empire | $3,910,511 | 12/31/2020 | 1.6x | 22% | 1/31/2026 | 2.0x | 15% |
| 11711 Pacific Avenue | Fund VI | Active | Industrial | Inland Empire | $4,637,860 | 12/31/2020 | 2.5x | 46% | 1/31/2026 | 2.8x | 33% |
| 11806 & 11880 Pacific Avenue | Fund VI | Active | Industrial | Inland Empire | $7,334,172 | 12/31/2020 | 1.7x | 23% | 1/31/2026 | 2.0x | 16% |
| 13800 East 39th Avenue | Fund VI | Active | Industrial | Colorado | $5,329,478 | 12/31/2020 | 1.4x | 20% | 1/31/2026 | 2.0x | 16% |
| 160 Beacon Street | Fund VI | Active | Industrial | Northern California | $5,619,319 | 12/31/2020 | 3.2x | 59% | 1/31/2026 | 3.9x | 38% |
| 1600 Roe Street | Fund VI | Active | Industrial | Texas | $24,857,721 | 12/31/2020 | 2.2x | 29% | 1/31/2026 | 2.2x | 13% |
| 1670 Overland Court | Fund VI | Active | Industrial | Northern California | $5,797,232 | 12/31/2020 | 1.5x | 18% | 1/31/2026 | 1.9x | 14% |
| 190 Wood Avenue South | Fund VI | Active | Industrial | New Jersey | $8,529,546 | 12/31/2020 | 1.6x | 31% | 1/31/2026 | 2.2x | 25% |
| 1900 Pratt Boulevard | Fund VI | Active | Industrial | Illinois | $3,205,917 | 12/31/2020 | 1.7x | 19% | 1/31/2026 | 2.4x | 19% |
| 1901 East Cooley Drive | Fund VI | Active | Industrial | Inland Empire | $3,314,572 | 12/31/2020 | 1.8x | 31% | 1/31/2026 | 2.3x | 22% |
| 19130 84th Avenue South | Fund VI | Active | Industrial | Pacific Northwest | $2,218,640 | 12/31/2020 | 1.7x | 27% | 1/31/2026 | 2.3x | 22% |
| 1950, 2000 - 2020 Pratt Boulevard | Fund VI | Active | Industrial | Illinois | $17,832,616 | 12/31/2020 | 1.8x | 26% | 1/31/2026 | 2.7x | 27% |
| 2 Advantage Court | Fund VI | Active | Industrial | New Jersey | $5,414,585 | 12/31/2020 | 1.8x | 26% | 1/31/2026 | 3.0x | 26% |

| PROPERTY | Fund | STATUS | PROPERTY TYPE | SUB-REGION | STABILIZED ACQUISITION EQUITY | Mark to Market SALE/EXIT DATE | Mark to Market GROSS MULTIPLE | Mark to Market GROSS IRR (YR) | PROJECTED SALE/EXIT DATE | PROJECTED GROSS MULTIPLE | PROJECTED GROSS IRR (YR) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 200 Southwest 34th Street | Fund VI | Active | Industrial | Pacific Northwest | $9,072,827 | 12/31/2020 | 1.3x | 8% | 1/31/2026 | 2.1x | 13% |
| 2065 George Street | Fund VI | Active | Industrial | Illinois | $8,913,260 | 12/31/2020 | 3.0x | 79% | 1/31/2026 | 5.1x | 35% |
| 217 Wrangler Drive | Fund VI | Active | Industrial | Texas | $2,853,333 | 12/31/2020 | 1.3x | 12% | 1/31/2026 | 2.2x | 15% |
| 2345 Fleetwood Drive | Fund VI | Active | Industrial | Inland Empire | $5,477,128 | 12/31/2020 | 1.8x | 28% | 1/31/2026 | 2.1x | 20% |
| 3002 Lind Avenue Southwest | Fund VI | Active | Industrial | Pacific Northwest | $5,647,444 | 12/31/2020 | 1.7x | 23% | 1/31/2026 | 2.2x | 17% |
| 37600 Filbert Street | Fund VI | Active | Industrial | Northern California | $5,912,033 | 12/31/2020 | 1.5x | 35% | 1/31/2026 | 2.1x | 21% |
| 3771 Channel Drive | Fund VI | Active | Industrial | Northern California | $16,894,128 | 12/31/2020 | 2.6x | 58% | 1/31/2026 | 3.3x | 38% |
| 3825 Forsyth Road | Fund VI | Active | Industrial | Florida | $7,005,646 | 12/31/2020 | 3.7x | 96% | 1/31/2026 | 4.9x | 28% |
| 400 Delran Parkway | Fund VI | Active | Industrial | New Jersey | $7,674,701 | 12/31/2020 | 1.6x | 36% | 1/31/2026 | 2.1x | 18% |
| 441 Airtech Parkway | Fund VI | Active | Industrial | Indiana | $6,419,054 | 12/31/2020 | 1.5x | 33% | 1/31/2026 | 1.9x | 18% |
| 403 North Levee Road | Fund VI | Active | Industrial | Pacific Northwest | $2,856,278 | 12/31/2020 | 1.0x | -2% | 1/31/2026 | 3.0x | 13% |
| 430 Industrial Avenue | Fund VI | Active | Industrial | New Jersey | $26,766,158 | 12/31/2020 | 1.2x | 10% | 1/31/2026 | 2.0x | 20% |
| 4440 East 26th Street | Fund VI | Active | Industrial | Los Angeles | $17,173,269 | 12/31/2020 | 1.5x | 14% | 1/31/2026 | 2.1x | 15% |
| 4444 East 26th Street | Fund VI | Active | Industrial | Los Angeles | $4,708,897 | 12/31/2020 | 1.9x | 20% | 1/31/2026 | 2.3x | 16% |
| 450 South Cactus Avenue | Fund VI | Active | Industrial | Inland Empire | $24,602,925 | 12/31/2020 | 1.8x | 34% | 1/31/2026 | 2.1x | 19% |
| 500 - 510 Airline Drive | Fund VI | Active | Industrial | Texas | $16,862,310 | 12/31/2020 | 1.7x | 26% | 1/31/2026 | 2.1x | 20% |
| 500 West Warner Avenue | Fund VI | Active | Industrial | Orange County | $22,793,855 | 12/31/2020 | 2.2x | 32% | 1/31/2026 | 2.7x | 24% |
| 550 West North Frontage Road | Fund VI | Active | Industrial | Illinois | $16,384,197 | 12/31/2020 | 1.8x | 27% | 1/31/2026 | 2.6x | 23% |
| 6211 Las Positas Road | Fund VI | Active | Industrial | Northern California | $7,090,202 | 12/31/2020 | 2.5x | 76% | 1/31/2026 | 3.2x | 49% |
| 720 - 790 Andover Park East | Fund VI | Active | Industrial | Pacific Northwest | $4,397,118 | 12/31/2020 | 2.1x | 34% | 1/31/2026 | 2.7x | 25% |
| 7701 Staples Drive | Fund VI | Active | Industrial | Georgia | $5,333,141 | 12/31/2020 | 2.0x | 27% | 1/31/2026 | 2.5x | 17% |
| 7901 South 190th Street | Fund VI | Active | Industrial | Pacific Northwest | $8,542,331 | 12/31/2020 | 0.9x | -2% | 1/31/2026 | 1.9x | 10% |
| 8401 Slauson Avenue | Fund VI | Active | Industrial | Los Angeles | $7,392,979 | 12/31/2020 | 2.1x | 68% | 1/31/2026 | 2.5x | 40% |
| 8511 Blaine Street | Fund VI | Active | Industrial | Northern California | $9,346,671 | 12/31/2020 | 1.8x | 19% | 1/31/2026 | 1.9x | 12% |
| 9480 North Virginia Street | Fund VI | Active | Industrial | Nevada | $12,010,828 | 12/31/2020 | 1.9x | 23% | 1/31/2026 | 2.4x | 19% |
| 960 Sherman Street | Fund VI | Active | Industrial | San Diego | $9,342,383 | 12/31/2020 | 3.1x | 45% | 1/31/2026 | 3.7x | 36% |
| Cornerstone Business Park | Fund VI | Active | Industrial | Illinois | $6,654,666 | 12/31/2020 | 1.7x | 27% | 1/31/2026 | 2.5x | 24% |
| Rockefeller Crossing | Fund VI | Active | Industrial | Los Angeles | $21,441,756 | 12/31/2020 | 2.1x | 26% | 1/31/2026 | 2.5x | 19% |
| 3750 State Road | Fund VI | Active | Industrial | Pennsylvania | $20,829,876 | 12/31/2020 | 1.7x | 56% | 1/31/2026 | 1.8x | 23% |
| I-215 Commerce Center | Fund VI | Active | Industrial | Utah | $22,395,259 | 12/31/2020 | 1.1x | 22% | 1/31/2026 | 1.5x | 15% |
| 1 & 3 Glen Bell Way | Fund VI | Active | Office | Orange County | $58,310,462 | 12/31/2020 | 1.4x | 18% | 7/31/2021 | 1.8x | 23% |
| 4th & Pike | Fund VI | Active | Office | Pacific Northwest | $34,230,093 | 12/31/2020 | 0.9x | -7% | 7/31/2024 | 1.1x | 2% |
| North Town | Fund VI | Active | Office | Northern California | $101,941,217 | 12/31/2020 | 1.5x | 25% | 12/31/2023 | 2.5x | 33% |
| 14800 West Schulte Road | Fund VI | Active | Land | Northern California | $34,982,929 | 12/31/2020 | 1.0x | -1% | 1/31/2026 | 2.0x | 15% |
| 1605 Industrial Avenue | Fund VI | Active | Land | Northern California | $17,976,322 | 12/31/2020 | 1.8x | 28% | 1/31/2026 | 2.0x | 12% |
| 1905 Marc Avenue | Fund VI | Active | Land | Pacific Northwest | $8,993,974 | 12/31/2020 | 2.0x | 52% | 1/31/2026 | 2.3x | 25% |
| 3771 Channel Drive Land | Fund VI | Active | Land | Northern California | $3,194,701 | 12/31/2020 | 1.4x | 52% | 1/31/2026 | 4.8x | 38% |
| Fleetwood Land | Fund VI | Active | Land | Inland Empire | $417,338 | 12/31/2020 | 7.9x | 139% | 1/31/2026 | 10.3x | 105% |
| Grand Logistics Center | Fund VI | Active | Land | New York | $22,489,751 | 12/31/2020 | 3.6x | 49% | 12/31/2025 | 6.2x | 54% |
| 125 Capital Road | Fund VII | Active | Industrial | Pennsylvania | $2,722,135 | 12/31/2020 | 1.1x | 14% | 6/30/2026 | 2.9x | 24% |
| 13100 Arctic Circle | Fund VII | Active | Industrial | Los Angeles | $8,153,044 | 12/31/2020 | 1.6x | 23% | 6/30/2026 | 3.0x | 20% |
| 1421 Sunbury Road | Fund VII | Active | Industrial | Georgia | $5,842,825 | 12/31/2020 | 1.3x | 28% | 6/30/2026 | 3.3x | 26% |
| 2400 Dralle Road | Fund VII | Active | Industrial | Illinois | $15,289,989 | 12/31/2020 | 1.5x | 51% | 6/30/2026 | 2.5x | 20% |
| 2701 Charter Street | Fund VII | Active | Industrial | Ohio | $2,897,259 | 12/31/2020 | 1.4x | 37% | 6/30/2026 | 2.3x | 19% |
| 3, 5, 7, & 9 Chris Court | Fund VII | Active | Industrial | New Jersey | $11,532,796 | 12/31/2020 | 1.3x | 31% | 6/30/2026 | 3.0x | 23% |
| 174, 178, & 182 Ridge Road | Fund VII | Active | Industrial | New Jersey | $9,795,731 | 12/31/2020 | 1.1x | 14% | 6/30/2026 | 2.5x | 17% |
| 3099 Rohr Road | Fund VII | Active | Industrial | Ohio | $9,320,474 | 12/31/2020 | 1.2x | 16% | 6/30/2026 | 2.5x | 20% |
| 325 Marmon Drive | Fund VII | Active | Industrial | Illinois | $3,488,869 | 12/31/2020 | 1.2x | 6% | 6/30/2026 | 2.8x | 15% |
| 400 Trade Zone Boulevard | Fund VII | Active | Industrial | South Carolina | $13,576,788 | 12/31/2020 | 1.1x | 15% | 6/30/2026 | 3.0x | 24% |
| 4011 Highway 417 | Fund VII | Active | Industrial | South Carolina | $6,660,877 | 12/31/2020 | 1.3x | 32% | 6/30/2026 | 2.4x | 20% |
| 4608 Appliance Drive | Fund VII | Active | Industrial | Maryland | $14,683,284 | 12/31/2020 | 1.1x | 8% | 6/30/2026 | 2.5x | 19% |
| 4622 Mercedes Drive | Fund VII | Active | Industrial | Maryland | $6,495,974 | 12/31/2020 | 1.2x | 23% | 6/30/2026 | 2.1x | 14% |
| 500 South Millers Ferry Road | Fund VII | Active | Industrial | Texas | $12,650,571 | 12/31/2020 | 1.3x | 30% | 6/30/2026 | 2.5x | 20% |
| 550 Oak Ridge Road | Fund VII | Active | Industrial | Pennsylvania | $12,667,734 | 12/31/2020 | 1.1x | 13% | 6/30/2026 | 2.1x | 16% |
| 6000 Freeport Avenue | Fund VII | Active | Industrial | Tennessee | $5,590,735 | 12/31/2020 | 1.1x | 10% | 6/30/2026 | 3.0x | 23% |
| 6100 East Holmes Road | Fund VII | Active | Industrial | Tennessee | $8,433,062 | 12/31/2020 | 1.1x | 13% | 6/30/2026 | 2.6x | 21% |
| 8051 Allentown Boulevard | Fund VII | Active | Industrial | Pennsylvania | $2,198,590 | 12/31/2020 | 1.3x | 7% | 6/30/2026 | 3.8x | 20% |
| 5775 Brisa Street | Fund VII | Active | Industrial | Northern California | $6,356,206 | 12/31/2020 | 1.2x | 13% | 6/30/2026 | 2.9x | 16% |
| 351 Cheryl Lane | Fund VII | Active | Industrial | Los Angeles | $11,649,594 | 12/31/2020 | 1.2x | 12% | 6/30/2026 | 2.3x | 16% |
| 601 Wall Street | Fund VII | Active | Industrial | Illinois | $4,558,134 | 12/31/2020 | 1.4x | 25% | 6/30/2026 | 3.0x | 22% |
| 3255 Meridian Parkway | Fund VII | Active | Industrial | Florida | $3,769,026 | 12/31/2020 | 1.1x | 9% | 6/30/2026 | 3.2x | 21% |
| 3337 Wilshire Drive | Fund VII | Active | Industrial | Arizona | $2,003,918 | 12/31/2020 | 1.6x | 40% | 6/30/2026 | 3.5x | 24% |
| 2201 Arthur Avenue | Fund VII | Active | Industrial | Illinois | $4,140,970 | 12/31/2020 | 1.2x | 14% | 6/30/2026 | 2.5x | 19% |
| Sand Lake Commerce Center | Fund VII | Active | Industrial | Florida | $12,301,257 | 12/31/2020 | 1.0x | 1% | 6/30/2026 | 2.3x | 15% |
| Cypress Distribution Center | Fund VII | Active | Industrial | Orange County | $21,381,323 | 12/31/2020 | 1.0x | 1% | 6/30/2026 | 2.1x | 17% |
| 10501 Cold Storage Road | Fund VII | Active | Industrial | Florida | $17,913,323 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.9x | 16% |
| 2103 Ernestine Street | Fund VII | Active | Industrial | Texas | $15,555,737 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.3x | 25% |
| 4130 West Gandy Boulevard | Fund VII | Active | Industrial | Florida | $17,027,101 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.5x | 22% |
| 6198 Green Pointe Drive South | Fund VII | Active | Industrial | Ohio | $22,891,271 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.7x | 13% |
| 167 International Boulevard | Fund VII | Active | Industrial | Kentucky | $8,109,989 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.7x | 12% |
| 9750 Innovation Campus Way | Fund VII | Active | Industrial | Ohio | $9,986,986 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.3x | 21% |
| 12475 Mustang Road | Fund VII | Active | Industrial | Nevada - South | $18,237,089 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.6x | 27% |
| 2201 Poplar Street | Fund VII | Active | Industrial | NorCal - North | $16,585,527 | 12/31/2020 | 1.0x | 5% | 6/30/2026 | 2.4x | 19% |
| 7001 Quad Avenue | Fund VII | Active | Industrial | Maryland | $23,738,846 | 12/31/2020 | 1.0x | 5% | 6/30/2026 | 2.3x | 13% |
| 5101 Renegade Way | Fund VII | Active | Industrial | Kentucky | $9,323,878 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.8x | 14% |
| 2505 Ted Bushelman Boulevard | Fund VII | Active | Industrial | Kentucky | $14,934,571 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 1.9x | 15% |
| 2775 Ted Bushelman Boulevard | Fund VII | Active | Industrial | Kentucky | $4,610,976 | 12/31/2020 | 1.0x | 0% | 6/30/2026 | 2.0x | 17% |
| Lacey Industrial Center | Fund VII | Active | Land | Pacific Northwest | $10,089,369 | 12/31/2020 | 1.1x | 15% | 6/30/2026 | 2.7x | 23% |
| 4606 Appliance Drive | Fund VII | Active | Land | Maryland | $5,383,941 | 12/31/2020 | 1.2x | 22% | 6/30/2026 | 2.3x | 19% |
| NW 107th Avenue and NW 142nd Street | Fund VII | Active | Land | Florida | $13,456,321 | 12/31/2020 | 1.0x | -1% | 6/30/2026 | 3.4x | 24% |
| 135 Logistics Drive | Fund VII | Active | Land | Tennessee | $17,708,217 | 12/31/2020 | 1.0x | 1% | 6/30/2026 | 2.1x | 17% |

## Appendix

### Rating Rationale

| | |
|---|---|
| *Strategy* | Consistent with the prior logistics fund in the series; and the targeted sector is in-line with *Townsend's View of the World* regarding U.S. non-core investing during this vintage year. |
| *Sponsor* | Well-resourced and vertically integrated platform with a well-known name, industry presence, and long-time history as an US industrial specialist. Privately held and well-aligned as a sponsor. |
| *ESG Policy & Practices* | ESG assessment of *Limited* as explained within the *ESG Policies and Practices* section. |
| *Operational Due Diligence* | Historically, rated an A2-Pass by Aon ORSA. |
| *Investment Process* | Typical institutional process. Driven by the Principals of the firm with asset plans implemented by regional teams; oversight provided by a five person IC comprised of senior-most professionals across the firm's primary functions. |
| *Fund Structure, Terms & Conditions* | Closed-end structure is consistent with non-core nature of the strategy. Legal and tax structuring accounts for the intended LP base. Terms and conditions are fair and within market relative to peers. |
| *Performance* | Track record has been consistently strong relative to peers, with 5 of 6 funds in the series placing in the top half of their vintage. |
| *Overall* | Buy Rated. |

### Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product, its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

- **Buy -** Suitable for institutional investors that have a portfolio construction need. Appropriate overall risk profile given the strategy and targeted returns.
- **Qualified -** Suitable for institutional capital. In addition to customary risks, contains one or more heightened risks that should be weighed against an investor's preferences, risk tolerances, and portfolio construction needs.

Operational due diligence rating provided by Aon's dedicated multi-asset class Operational Due Diligence team according to its autonomous review of the Sponsor's policies & procedures, infrastructure and capabilities across a range of operations, middle and back office, and control functions.

- **A1-Pass** - No material operational concerns; firm's operations largely align with a well-controlled operating environment.
- **A2-Pass** - Firm's operations largely align with a well-controlled operating environment, with limited exceptions due to resource limitations or where isolated areas do not align with best practice.
- **Conditional Pass** - Aon noted specific operational concerns that the firm has agreed to address in a reasonable timeframe.

ESG scoring and an associated rating is according to guidance from AON's internal ESG Committee and sub-committees for various asset classes.

- **Limited** - The fund management team takes limited steps to address ESG considerations in existing and anticipated portfolios.
- **Integrated** - The fund management team takes essential steps to identify, evaluate, and mitigate potential financially material ESG risks within existing and anticipated portfolios.
- **Advanced** - The fund management team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate, and potentially mitigate these risks across its activities.

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-44**

## Approving Investment in LBA Logistics Value Fund IX, L.P. with Imminent Need

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its real assets investment consultant, Aon Hewitt Investment Consulting, Inc., along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **LBA Logistics Value Fund IX, L.P.,** a value add real estate fund with the primary purpose of acquiring industrial properties; and

***WHEREAS,*** the ATRS Board approves an investment of up to **$55 million dollars ($55,000,000)** in **LBA Logistics Value Fund IX, L.P.,** and the Board, after its review of the timing in which the closing of the investment in **LBA Logistics Value Fund IX, L.P.** may need to occur, has determined that there is an imminent need to immediately enter into the partial equity ownership agreement prior to the next scheduled meeting of the Arkansas Legislative Council. The Board also deems it financially appropriate to enter into the partial equity ownership agreement and concludes that to forego the opportunity to promptly implement its investment directives under the prudent investor rule would be inconsistent with its fiduciary duty of care to the members and annuitants;

***THEREFORE***, ***BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$55 million dollars ($55,000,000)**, in **LBA Logistics Value Fund IX, L.P.** and agrees to immediately move to close and subscribe the approved ATRS limited partnership investment interest in **LBA Logistics Value Fund IX, L.P.** The total investment amount is to be determined by the real assets consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED***, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment using the Imminent Need process, if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

___________________________________

**Mr. Danny Knight, *Chair***
**Arkansas Teacher Retirement System**

TOWNSEND® GROUP
an Aon company

950 Main Avenue
Suite 1600
Cleveland, OH 44113

## Memorandum

**To:** Arkansas Teacher Retirement System ("ATRS")

**From:** Chae Hong

**CC:** PJ Kelly; Jack Dowd; Richard Ferguson

**Date:** September 27, 2021

**Re:** JP Morgan Strategic Property Fund – $140 million Redemption Recommendation

RREEF Core Plus Industrial Fund - $70 million Commitment Recommendation

MS Prime Property Fund - $70 million Commitment Recommendation

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### Background and Recommendation

As of Q1 2021 ATRS has invested roughly $283 million with JP Morgan's Strategic Property Fund ("SPF"), an open-ended commingled core real estate fund. This amounts to 31% of the core real estate portfolio and 21% of the total real estate portfolio. On a since inception basis SPF has returned a 6.4% net IRR. During July 2021 SPF announced it fully extinguished the Fund's redemption queue, providing ATRS with an opportunity to reinvest capital to better positioned core real estate opportunities. As such, we recommend ATRS request a $140 million redemption from SPF to be reallocated equally between Morgan Stanley Prime Property Fund ("Prime") and RREEF Core Plus Industrial Fund ("CPIF").

Aon Investments, USA is satisfied with the strategy of Prime and CPIF and its appropriateness for ATRS. Additionally, we believe that the merits of these offering outweigh its risks. Prime and CPIF InTotals are attached in the following Appendix for reference. We recommend that ATRS invest $70 million in Prime and $70 million in CPIF. Additionally, both Prime and CPIF provide investors with various investment vehicles. Townsend recommends ATRS consult with its tax and legal counsel to determine the most appropriate vehicles for the Plan.

### Fund Descriptions

SPF is the largest open-end, diversified core real estate fund in the US. The Fund has a long-term track record of investing in high-quality real estate in major gateway markets throughout the US. The Fund's largest assets include trophy office assets in major central business districts and a portfolio of Class-A super regional malls and lifestyle centers. SPF has historically been underweight to the industrial sector but has made a significant effort over the past twelve to twenty-four months to increase exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019.

Prime is a diversified, open-end Core real estate fund that targets high quality, well-leased, income-producing properties located in select primary markets in the U.S. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10% (gross). Relative to its benchmark, the Fund has been able to consistently generate alpha.

RREEF America L.L.C. (“RREEF”), part of DWS Group GmbH & Co KGa, launched CPIF, a core-plus open-end industrial fund in June 2017. The Fund invests in core (up to 100%) and non-core industrial (up to 50%) with leverage capped at 50% at the portfolio level.

# Appendix

TOWNSEND® GROUP
an Aon company

Real Estate **InTotal**

# J.P. Morgan Asset Management

Strategic Property Fund, LLC

July 2021

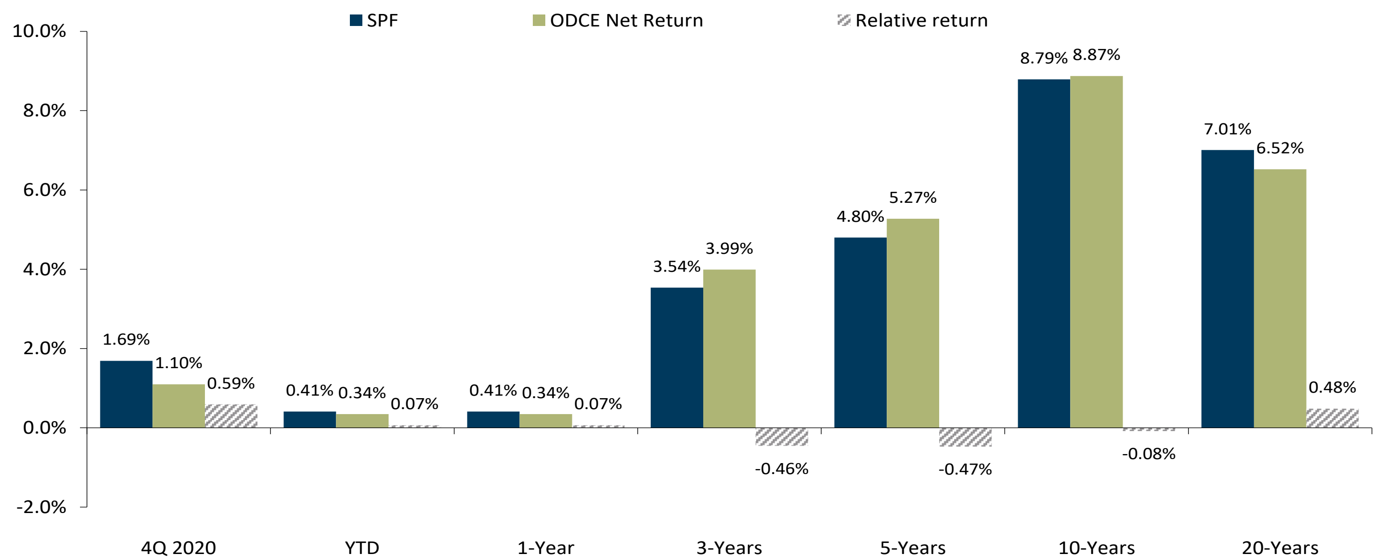
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Previous Rating |
|---|---|---|
| July 2021 | Buy | Buy |

JP Morgan Strategic Property Fund ("JPM SPF" or "SPF" or the "Fund") is the largest open-end, diversified core real estate fund in the US. The Fund has a long-term track record of investing in high-quality real estate in major gateway markets throughout the US. The Fund's largest assets include trophy office assets in major central business districts and a portfolio of Class-A super regional malls and lifestyle centers. SPF has historically been underweight to the industrial sector but has made a significant effort over the past twelve to twenty-four months to increase exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-End Fund | **Risk Segment** | US Diversified Core |
| **Size NAV** | $31.0 Billion | **Average Asset Size (NAV)** | $196.1 Million |
| **Valuations** | Quarterly FMV Debt & Equity | **Minimum Commitment** | $10 million |
| **Leverage** | 23.6% | **Current/Max Non-Core %** | 6.0%/15% |
| **Investment Guidelines** | In line with peers | **Number of Holdings** | 155 |
| **Performance Objectives** | Outperform the NCREIF Fund Index – Open End Diversified Core Equity ("NFI-ODCE") over a full market cycle. | | |
| **Benchmark** | NFI-ODCE | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Sponsor** | J.P. Morgan Chase Bank, N.A. | **Parent** | J.P. Morgan Investment Management Inc. |
| **Headquarters** | New York, NY, United States | **Strategy Inception** | 1998 |
| **Employees** | 7,203 | **Real Estate Team** | 185 |
| **Firm AUM** | $2.3 Trillion | **Real Estate AUM** | $73.2 Billion |

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## COMPARATIVE ADVANTAGES

1. Beta

The Fund's beta over the three-, five-, seven-, and ten- year periods are all less than or slightly above 1, indicating low volatility when compared to NFI-ODCE. As of December 31, 2020, the Fund had a 10-year beta of 1.071. Additionally, the Fund is also the largest in the index and as such, the large portfolio provides investors with a broadly diversified investment across a variety of property types and markets.

2. Unlevered Performance

The Fund's has generated total property-level unlevered performance of +1.9%, +4.7%, and +5.6% respectively over 1-, 3-, and 5-year periods, outperforming ODCE-NPI by +60bps, +33bps, and +9bps. The fund's strong unlevered performance is attributed largely by the Fund's office portfolio. The Fund's office assets generated unlevered performance of +5.0%, +6.5%, and +6.4% over 1-, 3-, and 5- year periods respectively, outperforming ODCE-NPI Office by +356bps, +155bps, and +78bps.

## POTENTIAL ISSUES AND CONCERNS

1. Underweight Industrial

The Fund's underweight to industrial has been a drag on performance versus the index in the near-term as industrial continues to outperform all other sectors. Per NCREIF, industrial has generated unlevered performance of 11.8%, 13.1%, and 12.9% over 1-, 3-, and 5-year periods respectively. The Fund has historically been underweighted to the industrial sector but has made a significant effort over the past three to five years to double exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019. Industrial remains well positioned to benefit from shifting consumption habits and near-term demand is forecasted to continuing outpacing new supply.

2. Large Regional Mall Exposure

The Fund's overweight to retail has been a near-term drag as retail unlevered performance continues to be hindered by e-commerce headwinds. In the second quarter of 2020, the Fund's retail portfolio experienced asset depreciation of -2.6%, driven by retail closings due to the pandemic. The Fund has actively looked to sell down their exposure to the retail sector. The Fund made a significant disposition of four regional malls through a $2.6 billion sale to General Growth Properties/Brookfield in the fourth quarter of 2019. As of 4Q20, the Fund is well overweight to retail by over +700bps compared to the broader NFI-ODCE Index. Going forward, the retail sector will face a challenging period of price discovery as rents rebase and occupancy rates broadly decline.

3. Long-term Underperformance Relative to Index

The Fund has generally underperformed the index, specifically over the 3-, 5-, 10-, and 15-year periods. The Fund's 10-year net return was 8.5%, underperforming NFI-ODCE by -39bps. As a result, the Fund has looked to actively reposition the portfolio in recent years to better achieve their investment goals. Consistent underperformance has led to increased redemption activity from LP's. The Fund had a large redemption queue in 2020 but managed to extinguish the redemption queue in July 2021 with proceeds from the sale of a large disposition in Boston and increased capital flows in 2021.

# INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | JP Morgan Strategic Property Fund is an open-end core fund that seeks to make investments in core real estate properties in the major gateway cities in the U.S. The Fund targets stabilized assets across the four traditional asset types. Key identifiers within SPF's portfolio include trophy CBD office assets and high-rise luxury apartments in major markets, as well as a portfolio of Class-A super regional malls and lifestyle centers. The target return of the Fund is to outperform the NFI-ODCE over a full market cycle and is focused on generating returns primarily through income and moderate appreciation gains. |
| **Sponsor** | The Fund is sponsored by JP Morgan Chase Bank, N.A. ("JPMCB") the investment advisor to the Fund, with support from JP Morgan Asset Management ("JPMAM"), and more specifically JPMAM – Real Estate Americas ("REA" or the "Firm"), a sub-unit of JPMAM. REA reports to its ultimate corporate parent JP Morgan Chase & Co. ("JPMC") through JP Morgan Investment Management Inc. ("JPMIM"), the legal entity responsible for the management of SPF. JPMIM was founded in 1861 and has been providing services to tax exempt clients for over 80 years, with $2.3 trillion in AUM as of December 31, 2020. JPMAM – Global Real Estate ("JPMAM – GRE" or "GRE") is the global platform of real estate investments totalling $73.2 billion across equity and debt investments, primarily in core and value add strategies. |
| **Operational Due Diligence** | The Fund received an A1 Pass. Aon noted no material operational concerns and considers the firm's operations largely align with a well-controlled operating environment. |
| **Investment Process** | The investment process starts with the research team who provides a top-down view of the real estate and capital markets. The acquisitions team then presents deal flow to all JP Morgan real estate portfolio managers with mandates across the risk spectrum. Potential investments that are a fit for SPF go before the Investment Committee. JP Morgan prides itself on being able to utilize its vast network across the organization for deal sourcing where most transactions closed by the acquisitions team are sourced directly from the seller and not through market auctions. We view the investment approval process favorably as it incorporates asset management and research, with these functions counting for two of the four votes on the investment committee. |
| **Fund Structure** | JPM SPF is an open-ended Fund structured with five Fund Investor Vehicles ("FIV") with separate entities as general partners. In 2018, the Firm announced a restructuring of SPF to allow the Fund to accept capital from a more diversified investor base, specifically, non-ERISA and non-US investors. Potential investors in the Fund now include U.S. Qualified Retirement Plans, U.S. taxable and tax-exempt investors, Non-US investors (Section 892), non-US Qualified Foreign Pension Fund ("QFPF"), and other non-U.S. investors. The fund completed its restructure and opened to new capital sources on July 1, 2019. |
| **Performance** | SPF has underperformed NFI-ODCE net over 1-, 3-, 5-, 7-, and 10-year periods. The fund's underweight to industrial has been a drag on performance versus the index in the near-term as industrial continues to outperform all other sectors. The fund's overweight to retail has also been a near-term drag as retail unlevered performance continues to be hindered by e-commerce headwinds. Since 2018, SPF has focused on rebalancing the portfolio by acquiring and investing in two industrial platforms and through the dispositions of the fund's regional |

| | |
|---|---|
| | and super regional mall assets. Over time, SPF will continue to reduce exposure to retail and office. |
| **ESG Policy & Practices** | The Fund is currently Not Rated through Townsend's formal ESG process but is expected to receive a formal rating in 2021-2022. JPMAM Real Estate Americas has ESG Objectives and they are reviewed annually to continuously improve assets with respect to environment, social and governance policies while ultimately improving the environment in which those assets exist and, more importantly, enhance their competitiveness and asset value. |

| | | |
|---|---|---|
| **Overall Rating** | **Buy** | SPF's core real estate investment focus is buying large, stabilized, high-quality assets and investing in only the four traditional property types in the largest primary markets in the US. SPF has maintained a low beta by maintaining low leverage and minimal development within the fund. The Fund's recently completed restructure will allow SPF to raise capital from a much larger investor base, which should encourage additional capital flows and transaction activity. Despite recent fund underperformance, SPF remains a prudent option for investors looking to form a foundation for their allocation to the real estate asset class. |

# STRATEGY

JPM SPF is an active core equity real estate fund that invests in stabilized properties and focuses on acquiring assets with high quality physical improvements; powerful location advantages with high barriers to entry; and competitive market positioning in gateway cities across the United States where attractive demographics and demand drivers exists. SPF's size allows it to be a player in large and complex acquisitions that some of its peers cannot. The Fund can provide investors with diversification, liquidity and stable returns by focusing on asset selection and risk mitigation.

The Fund primarily invests in the four traditional real estate asset classes of office, retail, industrial/warehouse and residential/multifamily rental properties. The Fund continues to acquire new assets for long-term growth and re-balances the portfolio by strategically adding/removing assets in geographic regions or sectors where accretive. Currently the Fund is looking to overweight the industrial sector and has been targeting large portfolio transactions as well as fund investments to help move this initiative forward. The Fund has also focused on underweighting exposure to retail through the sale of regional and super regional mall assets.

# SPONSOR

## PARENT COMPANY

The Fund is sponsored by JP Morgan Chase Bank, N.A. ("JPMCB") the investment advisor to the Fund, with support from JPMAM, and more specifically JPMAM – Real Estate Americas ("REA" or the "Firm"), a sub-unit of JPMAM.

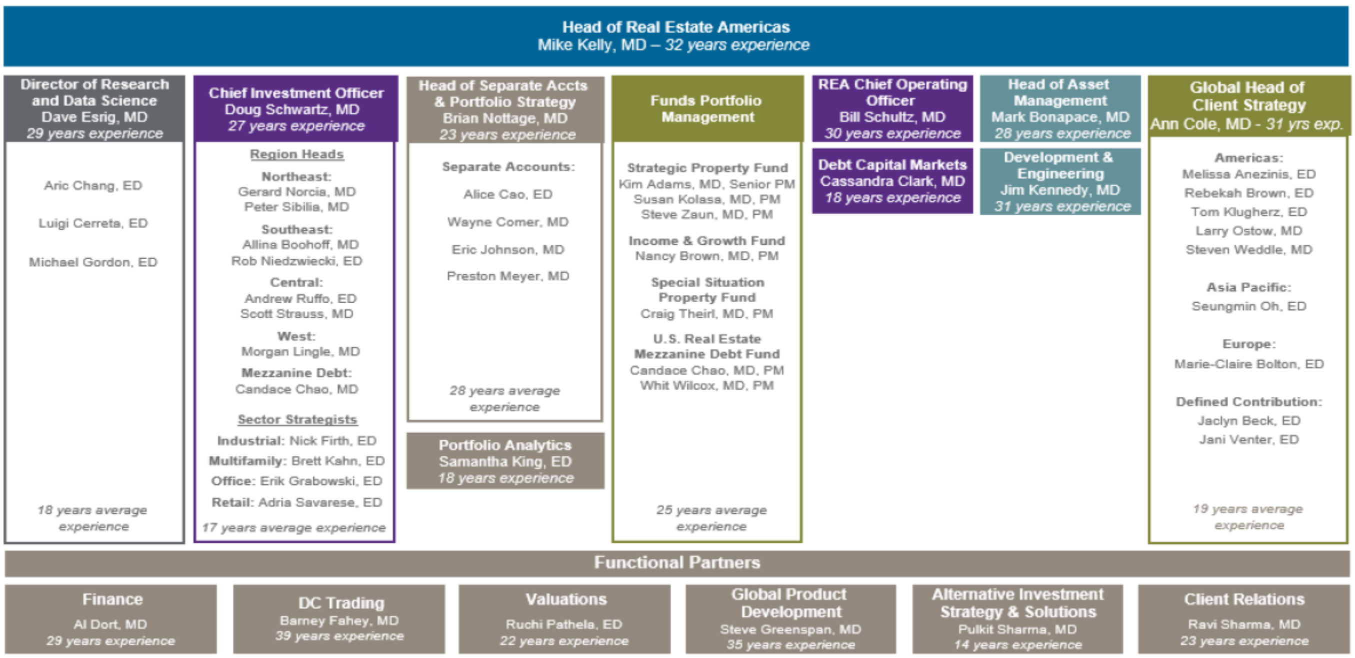
## SPONSOR

The JPMAM- Global Real Estate ("JPMAM-GRE") group reports to JPMC through JP Morgan Investment Management Inc. ("JPMIM"). JPMIM was founded in 1861 and has been providing services to tax exempt clients for over 80 years.

JPMAM-GRE operates as an independent unit within JPMIM with access to the resources, including research and client service, of the broader organization.

## ORGANISATIONAL UPDATES

Recently JPM went through several changes where the PM team was shuffled due to promotions and planned succession planning. Kim Adams was promoted to the senior portfolio manager of SPF. Ms. Adams bring continuity to the Fund as a long-standing PM of SPF. Sue Kolasa and Steve Zaun have been added as PMs to help support Ms. Adams on day to day operations of the Fund. Both have been with JPM for roughly 19 years with Ms. Kolas working as the PM of the Daily Valued Funds while Mr. Zaun was the head of JPMAM's LA office. Mike Kelly was promoted to Head of Real Assets, replacing Kevin Faxon who was moved to the Chair of the platform.




## PLATFORM RESOURCES

Headquartered in New York City since 1970, JPMAM-GRE has continued to expand, opening offices in several U.S. cities and abroad, in an effort to best manage real assets and provide client service.

| Name | Position | Years of Experience |
|---|---|---|
| **Kim Adams** | Senior Portfolio Manager | 26 |
| **Sue Kolasa** | Portfolio Manager | 20 |
| **Steve Zaun** | Portfolio Manager | 20 |
| **Mike Kelly** | Head of Real Assets | 30 |

# OPERATIONAL RISK PROFILE

J.P. Morgan Asset Management ("JPMAM") is a large global asset manager with an institutional level of system infrastructure, controls, and oversight across its operating environment. As a wholly owned subsidiary of a publicly traded company, JPMorgan Chase & Co, the firm must comply with Sarbanes-Oxley requirements and is subject to oversight by numerous regulators including the SEC. To satisfy its regulatory requirements, JPMAM has implemented a comprehensive risk management program, and has established a well-developed governing committee structure to ensure cross-functional participation and in-depth discussion in operating decisions. The firm also utilizes internal Audit, Corporate Compliance, and Business Resilience Programs of the

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parent company. JPMAM's reporting lines are well-segregated in the area of compliance, investment risk management, and information technology ("IT") to ensure these processes remain independent from investment activities.

The Fund received an A1 Pass. Aon noted no material operational concerns and considers the firm's operations largely align with a well-controlled operating environment.

## INVESTMENT PROCESS

Headed by Doug Schwartz, the acquisitions team is divided into four Regional Investment Teams, each led by two Regional Co-Heads, one representing Acquisitions and one representing Asset Management, plus a national Mezzanine Debt Acquisition Team. The Acquisition Officers source investments through the numerous relationships established over the years: the JPMC network, direct discussions with owner-sellers, broker submissions, partners and property managers. The team takes regional "ownership" that translates to in-depth market focus with an emphasis on developing new and maintaining existing relationships with institutional owners, developers, brokers, partners and senior lenders nationally. REA prides itself on being able to utilize its vast network across the organization for deal sourcing. Specifically, REA's deal flow derives from a combination of broadly marketed and privately negotiated deals, and positions REA as an experienced, effective and versatile real estate asset management platform. Since 2013 REA has underwritten approximately $10 to $11 billion worth of deals each year, of which it has closed approximately $3 to $3.5 billion per year.

The Asset Managers are responsible for both debt and equity investments across the platform. Asset Managers are charged with an obligation to maximize the investment performance of each asset, and are responsible over the performance of property management, development, and business plan implementation and valuation activities.

The Firm follows a multidisciplinary approach to portfolio management leveraging knowledge across the various platform verticals. A key theme throughout the investment process is the quality and timeliness of research. From a risk management perspective, research acts as an early warning system where the research team is constantly monitoring economic and market data, as well as investment trends. REA has developed proprietary information technology tools that allow team members to access and analyze portfolio data real-time. These tools, coupled with the macro research developed by the in-house research team and the micro knowledge gleaned by investment teams working in various markets inform the investment process and offer a competitive advantage when underwriting new transactions, managing existing assets or disposing of properties owned by the Fund.

All private real estate acquisitions and dispositions go through investment committee. The Fund's IC is comprised of 4 voting members:

- Doug Schwartz, Chief Investment Officer
- Kim Adams, Senior Portfolio Manager
- Mark Bonapace, Head of Asset Management
- Senior representative from the Real Estate Research

The IC is also comprised of 8 Additional participating members:

- Mike Kelly, Head of Real Estate Americas
- James Kennedy, Development and Engineering Group Head
- Al Dort, Financial Group Head
- Brian Nottage, Head of Portfolio Strategy
- Ann Cole, Global Head of Client Strategy
- A Sector Strategist
- Ruchi Pathela, Director of Valuations

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- Cassandra Clark, Debt Capital Markets

### VALUATIONS

Prior to August 15, 2018, the Altus Group managed the Firm's valuation process. SPF has now transitioned to have Situs RERC as their third-party valuation firm. Chatham Financial provides debt valuation and debt management services to JPMAM U.S. open end funds. JPMAM's policies and procedures are comprehensive, well-documented and subject to assurance reviews by both internal audit and annual reviews by an external audit firm.

## FUND STRUCTURE

### SUMMARY

JPM SPF's new structure is structured as a Delaware limited liability company that has elected to be treated as a real estate investment trust for U.S. federal income tax purposes. Previously, the Fund was structured as a group trust, which precluded non-ERISA and non-US investors from investment. JPM changed the structure to allow non-ERISA and non-US investors to invest the fund, starting on July 1, 2019.

### REVIEW OF TERMS & CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | Outperformance of NFI-ODCE over a full market cycle. |
| **Cash Distributions** | None, all income of the Fund will be added to the principal of the Fund and invested and reinvested or used to pay Fund Expenses and satisfy Repurchase Requests. |
| **Investment Management Fees** | Investor with Fund NAV below $100 million:<br>100 bps<br><br>Investor with Fund NAV of $100 million or more (waterfall):<br><br>First $100m: 92bps<br>$100-$250m: 80bps<br>$250-$500m: 70bps<br>$500m+: 50bp |
| **Other Fees** | Fee reduced to 15bps for cash balances in excess of 5% of NAV. |
| **Performance Fees** | None. |
| **Debt Mark-to-Market** | None. |
| **Redemption Policy** | Repurchases of the units are redeemed at the NAV at the time the request is satisifed. Up to 10% of the repurchase procceeds may be retained by the Fund to satisfy any tax withholdings or unpaid Advisory and Management fees. |

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### ENTRY AND EXIT PROCESS

SPF has a monthly contribution queue where investors must submit an executed subscription request by the last business day of the month (fax or email is acceptable) to enter the queue for that specific month. Investors may specify in the subscription request a month before which its subscription cannot be called for funding, as long as that specified month is less than 12 months out from the month the subscription request was received.

All Shareholders have the right to request redemption of Shares on a quarterly basis. Requests received 30 days before the end of a quarter will be processed so as to be scheduled for payment generally at (or shortly after) the end of the next calendar quarter in accordance with the Fund's quarterly redemption process. The Fund will redeem Shares at the then Current Share Price on the day of redemption to the extent that the request was received prior to the end of the preceding quarter and the Fund has sufficient cash available to honour requests, consistent with applicable REIT rules and principles of prudent management.

## PERFORMANCE

SPF focuses on providing investors with low beta and real estate outperformance over full real estate cycles. As of December 31, 2020, SPF had a 10-year beta of 0.994. The Fund's 10-year net return was 9.2%, underperforming NFI-ODCE by -57bps. The fund's primary drivers of underperformance include being underweight to industrial, overweight to regional malls, and income performance below NFI-ODCE as a result of lower capitalization rates due to the fund's large gateway market exposure.

The fund's underweight to industrial has been a drag on performance versus the index in the near-term as industrial continues to outperform all other sectors. SPF has historically been underweight to the industrial sector but has made a significant effort over the past three to five years to double exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019.

The fund's overweight to retail has also been a near-term drag as retail unlevered performance continues to be hindered by e-commerce headwinds. In the second quarter, SPF's retail portfolio experienced asset depreciation of -2.6%, driven by retail closings due to the pandemic. SPF has actively looked to sell down their exposure to the retail sector. The Fund made a significant disposition of four regional malls through a $2.6 billion sale to General Growth Properties/Brookfield in the fourth quarter of 2019.

Since SPF focuses on buying high-quality assets within the four traditional property types and major US gateway markets, the Fund's valuation metrics have moved below NFI-ODCE over time as new funds joined the index. SPF generated an income return of 3.9% over the trailing twelve months, -17bps below NFI-ODCE.

## ESG POLICY & PRACTICES

JPMAM Real Estate Americas has ESG Objectives and they are reviewed annually to continuously improve assets with respect to environment, social and governance (ESG) policies while ultimately improving the environment in which those assets exist and, more importantly, enhance their competitiveness and asset value.

JPMAM consistently measures, monitors, and improves asset level data to meet reduction targets for energy, greenhouse gas (GHG) emissions, water, and waste. All landlord paid utilities are benchmarked for each asset using ENERGY STAR Portfolio Manager. Some properties use a third-party data management provider

including Yardi, WegoWise, Code Green and Conservice among others to input data into ENERGY STAR Portfolio Manager. The use of a third-party data management provider is at the discretion of each property team. Most multifamily assets utilize Yardi.

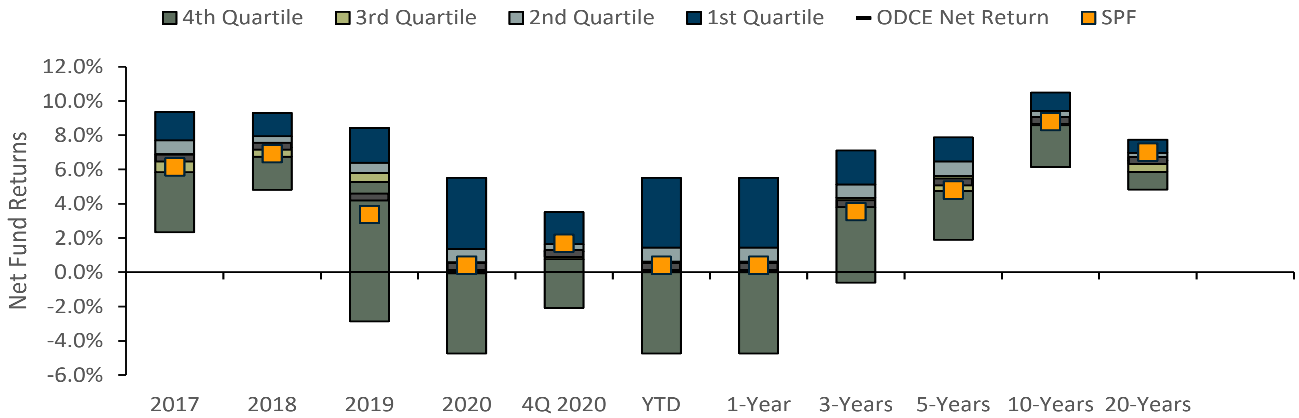
Additionally, property teams complete an annual ESG Survey to collect asset level data on energy, water, and waste conservation measures, resilient efforts and opportunities, as well as social metrics such as tenant and community engagement and health and wellness features.

JPMAM engage a third-party sustainability consultant, LORD Green, to work directly with our property managers and provide support such as trainings on our ESG Program. LORD Green works with each property team to establish a baseline and review that the data is current and accurate. This includes checking for errors, omissions, operational changes, and identifying significant usage changes. For an additional layer of quality assurance, LORD Green completes quarterly sustainability performance indicator reports to compare usage over time and provide context for increases and decreases. These reports are provided to asset managers and portfolio managers and display asset level performance, which is organized by fund, property type, and building configuration.

LORD Green also works with property teams to comply with local and state benchmarking ordinances, pursue annual ENERGY STAR Certification, and earn green building certifications. Each of these submissions requires another quality check and sometimes an additional third-party review. LORD Green also works directly with property teams to find ways to improve efficiency, reduce costs associated with building operations, and implement a comprehensive sustainability program for tenants and residents.

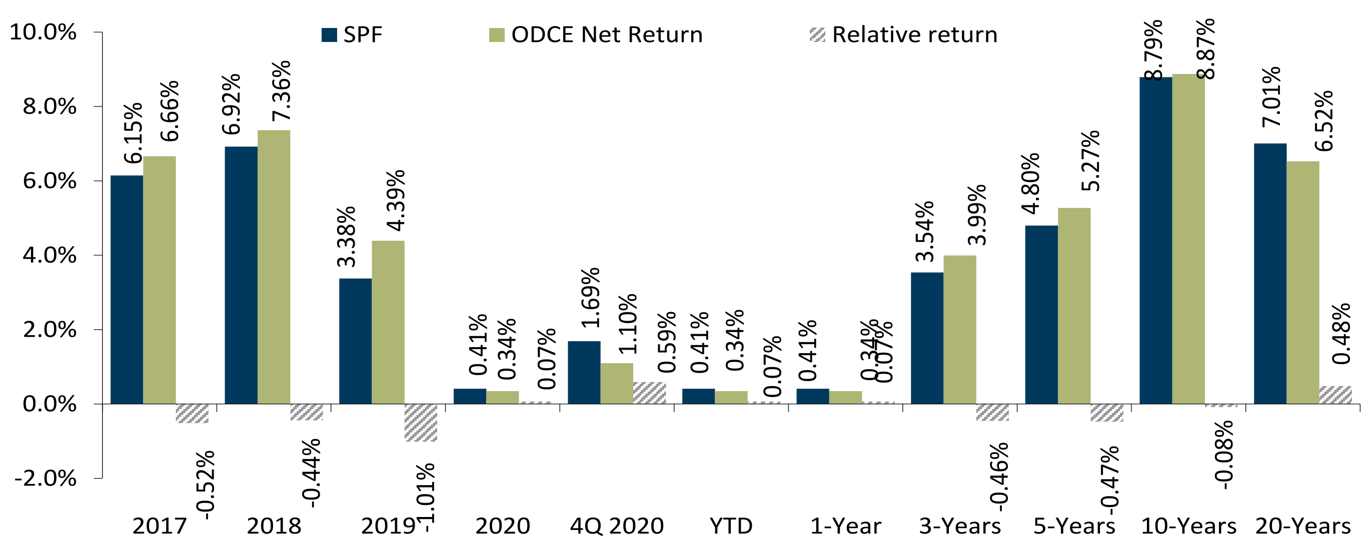
# APPENDIX

***Historical Performance Quartiles** – As of December 31, 2020*

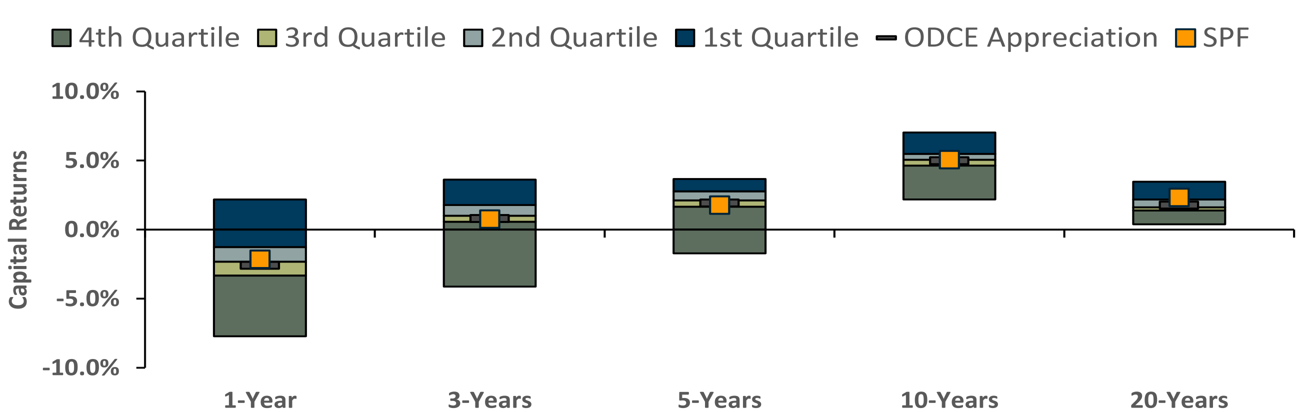



**Source: Townsend U.S. Open-Ended Core Fund database as of December 31, 2020. Range shown is 95th to 5th percentile.**

***Historical Relative Fund Performance** – As of December 31, 2020*




***Capital Return (Appreciation) Historical Performance Quartiles** – As of December 31, 2020*

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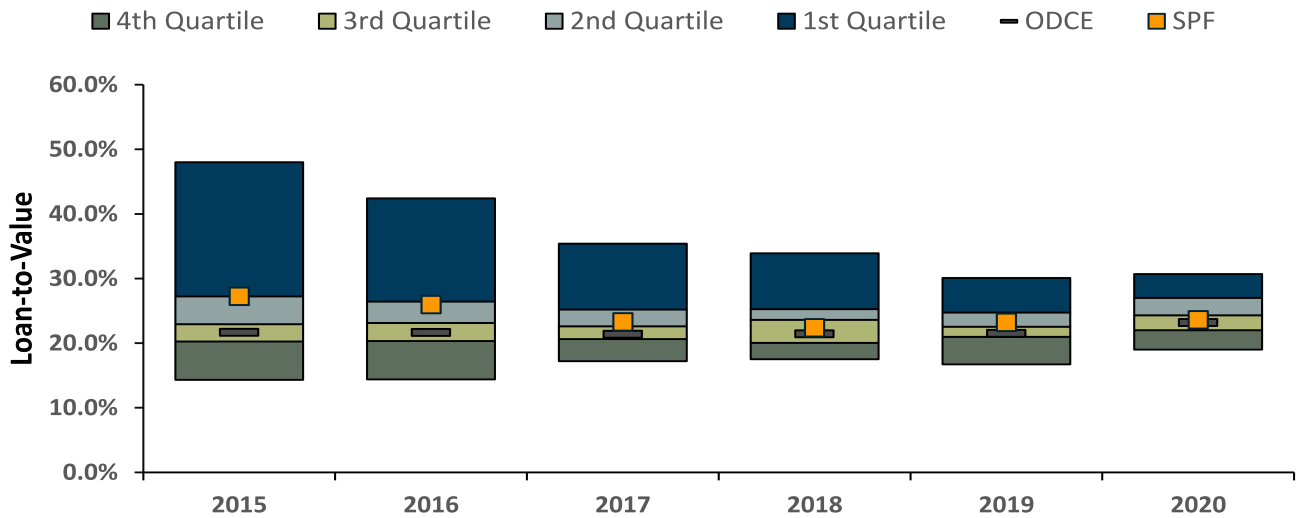
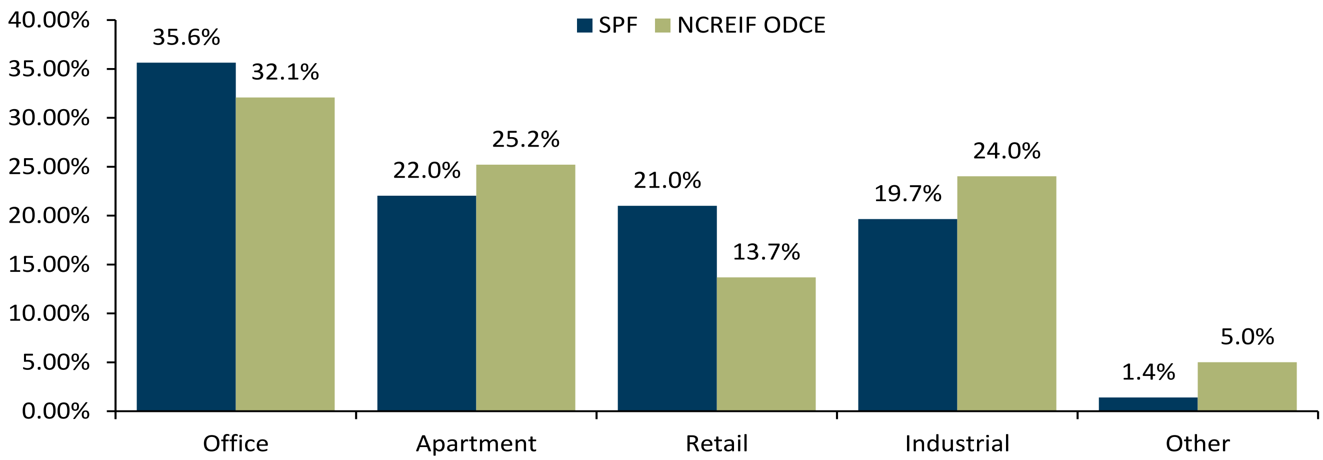
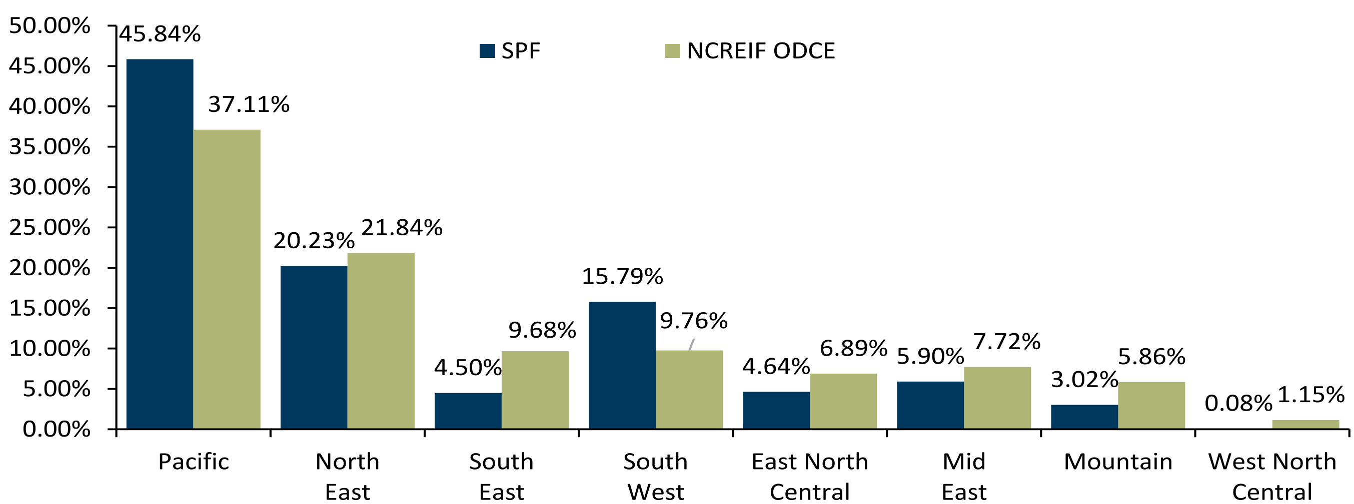
***Progression of Leverage** – As of December 31, 2020*




***Fund Diversification** – As of December 31, 2020*

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***Top 10 U.S. Market Exposures*** *–As of December 31, 2020*

| MSA | % Total Fund GAV |
|---|---|
| Los Angeles-Long Beach | 13.2% |
| New York-Northern New Jersey | 12.3% |
| Boston-Cambridge | 11.9% |
| Dallas-Fort Worth | 11.0% |
| San Jose-Sunnyvale | 7.5% |
| San Francisco-Oakland | 6.2% |
| Riverside-San Bernardino | 5.3% |
| Washington-Arlington | 4.8% |
| Chicago-Joliet-Naperville | 4.7% |
| San Diego-Carlsbad | 4.4% |

## Top Ten Assets (by MV)

| Property | City | State | Sector | $MV | Comment |
|---|---|---|---|---|---|
| **Edens - SPF** | Various | Various | Retail | $1,871,695,307 | Edens Investment Trust (Edens) is a national retail real estate investment company that invests in urban retail centers. |
| **DSRG - SPF** | Various | Various | Retail | $1,824,904,137 | Donahue Schriber Realty Group (DSRG) is a REIT specializing in grocery-anchored shopping centers. |
| **Century Plaza Towers** | Los Angeles | CA | Office | $1,390,269,191 | |
| **Valley Fair Mall** | San Jose | CA | Retail | $1,319,722,376 | |
| **1345 Avenue of the Americas** | New York | NY | Office | $1,084,146,445 | |
| **200 Fifth Avenue** | New York | NY | Office | $1,024,324,063 | |
| **Alliance Texas - Industrial** | Fort Worth | TX | Industrial | $963,126,528 | |
| **NorthPark Center JV** | Dallas | TX | Retail | $958,952,562 | |
| **China Basin** | San Francisco | CA | Office | $906,506,004 | |
| **Royal Hawaiian Center** | Honolulu | HI | Retail | $901,120,435 | |

## Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product and its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

**Buy** – Townsend recommends the investment for those client portfolios where it is a fit.

**Qualified** – Townsend believes the sponsor to be qualified to manage client assets.

## ESG Rating Explanation

**Positive –** The Fund Management Team demonstrates high awareness of all known and potentially financially material ESG risks in the investment strategy and, at present, has incorporated appropriate processes to identify, evaluate and potentially mitigate these risks across the entire portfolio. No material operational concerns; firm's operations largely align with a well-controlled environment.

**Neutral –** The Fund Management Team demonstrates an awareness of potential ESG risks in the investment strategy and has taken some steps to identify, evaluate and potentially mitigate these risks.

**Negative** – The Fund Management Team appears unaware or unconcerned with ESG risks in the investment strategy and has not taken any material steps to address ESG considerations in the portfolio.

**N/A (Not Applicable) –** An evaluation of ESG risks is not directly applicable to this strategy and therefore an ESG rating has not been assessed.

**NR (Not Rated) –** An evaluation of ESG risks is not yet available for this strategy.

## Operational Due Diligence Rating Explanation

**A1 Pass –** No material operational concerns; firm's operations largely align with a well-controlled environment.

**A2 Pass –** The firm's operations largely align with a well-controlled environment, with limited exceptions.

**Conditional Pass** – AON identified specific operation concerns that the firm agreed to address in a reasonable time frame.

**Fail –** AON noted material operational concerns that introduce potential economic or reputational exposure.

## About Townsend Group – An Aon Company

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

**Disclaimer**

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TOWNSEND GROUP
an Aon company

# Real Estate InTotal

# Morgan Stanley Real Estate Investing

Prime Property Fund

March 2021

*Trade Secret and Confidential*

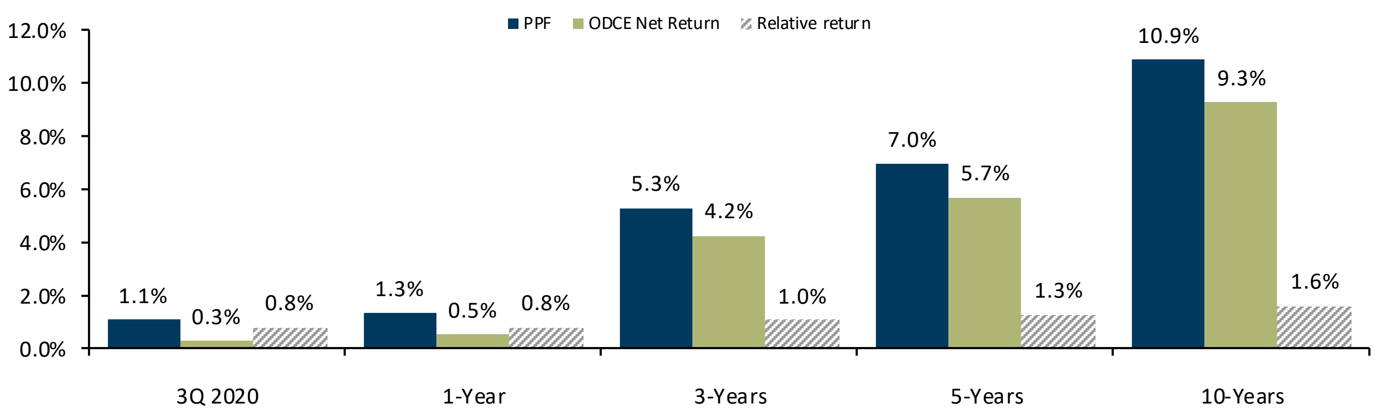
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Current Rating | Previous Rating |
|---|---|---|
| February 2021 | **BUY** | BUY |

The Prime Property Fund ("Prime", "PPF" or the "Fund") is a diversified, open-end Core real estate fund that targets high quality, well-leased, income-producing properties located in select primary markets in the U.S. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10% (gross). Relative to its benchmark, the Fund has been able to consistently generate alpha.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-Ended | **Risk Segment** | Core |
| **Size NAV** | $26.7 Billion | **Strategy Inception** | 1973 |
| **Current/Maximum Fund Leverage** | 19.1%/50.0% | **Current/Max Non-Core Exposure** | 9.7%/20.0% |
| **Valuations** | Quarterly/Altus | **Minimum Commitment** | $5 million |
| **Investment Guidelines** | NFI-ODCE | **Number of Holdings** | 376 |
| **Performance Objective** | Outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10%, gross of fees. | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Headquarters** | New York, NY | **Parent Company** | Morgan Stanley (NYSE:MS) |
| **Fund Sponsor** | MSREI | **Year Founded** | 1931 |
| **RE Employees** | 200 | **Investment Staff** | 76 (US) |
| **Real Estate AUM** | $44 Billion | **RIA** | Yes |

## COMPARITIVE ADVANTAGES

1. Platform Strength:

Morgan Stanley Investment Management ("MSIM") has a total AUM of $51.7 billion with $43.8 billion in real estate. Morgan Stanley Real Estate Investing manages global real estate through three products: Prime Property Fund (US Core), Prime Property Fund Asia (Asia Core), and North Haven Real Estate Funds (Global Opportunistic). MSREI has over 200 professionals located in 17 offices across 13 countries. Prime is MSREI's single largest fund and comprises approximately 75% of gross real estate assets in the U.S.

Prime is led by Scott Brown, who is a Managing Director at Morgan Stanley, Head of Prime Property Fund in the U.S. and Global Head of Prime. Mr. Brown has been working with Prime since 1993 and has been fully dedicated to Prime since 2002. Mr. Brown has over 29 years of real estate experience and serves as a member on various investment committees across the platform.

2. Wholly Owned Development Companies:

Prime's operating companies have provided significant value creation relative to the peer set during recent time periods. AMLI is a wholly-owned multifamily development platform focused on the development, acquisition and management of apartments across the U.S. Safeguard Self Storage is a wholly-owned self-storage development company. Both are owned by Prime Property Fund and give investors access to unique proprietary platforms dedicated to their individual sectors.

3. Strong Performance Track Record and Portfolio Positioning:

Prime has provided strong risk-adjusted returns through market cycles. It has meaningfully outperformed the NFI-ODCE Index over all recent major time periods. Prime has created value through its operating companies and through its overweight's to favored sectors such as the industrial and healthcare, relative to the NFI-ODCE.

## POTENTIAL ISSUES AND CONCERNS

1. Higher Fee Load:

Relative to its peers, Prime has a higher total fee load relative to its ODCE peers. The management fee is fixed at 84 basis points for all investors. Prime also has an incentive fee component (5% of the beginning monthly NAV multiplied by the comparable property NOI growth). Prime's historical fee spread relative to the NFI-ODCE is listed below:

| Fee Spread | 1-Year | 3-Year | 5-Year | 7-Year | 10-Year |
|---|---|---|---|---|---|
| Prime | 0.85% | 1.05% | 1.09% | 1.16% | 1.24% |
| NFI-ODCE | 0.88% | 0.93% | 0.95% | 0.98% | 1.01% |

**Discussion:**

Although Prime has a higher fee load relative to ODCE, it has shown consistent outperformance net of all fees and expenses. The incentive fee is also capped at 35 bps per annum. Prior to 2013, the Management Fee was 90 bps with a capped incentive fee of 45 bps.

2. Mall Exposure:

Relative to peers, Prime does have a significant exposure to malls. Prime's total mall exposure is approximately 6% of the Fund's NAV across five total assets, which are listed below.

- Fashion Valley Mall (San Diego, CA)
- Dadeland Mall (Miami, FL)
- Christiana Mall (Newark, DE)
- Rosedale Shopping Center (Roseville, MN)
- Fox Run Mall (Newington, NH)

Regional and Super Regional Malls have been the lowest performing sub-property type both within the NPI and the Retail sector. As of December 31, 2020, the five-year returns for Regional Malls are 165 basis points and 545 basis points below the returns for the Retail Sector and NPI respectively, while Super Regional Malls are 88 basis points and 468 basis points below the Retail Sector and NPI five year returns, respectively.

**Discussion:**

While malls have been the lowest performing retail sub-sectors, Prime has a history of investing in high-quality assets, including high quality retail. Of the five total mall assets, three are A++ rated (Christiana Mall, Dadeland Mall, and Fashion Valley Mall). A++ malls typically exhibit high productivity (estimated sales per square foot at or above $1,000) and have experienced less valuation pressure versus lower-quality malls. It's also important to note that Prime's total retail exposure is underweight to NFI-ODCE, which has led to positive return attribution relative to the index.

3. Current Global Turmoil

Covid-19 fueled market volatility approximately one year ago in both the stock and bond markets, creating a situation of uncertainty for private real estate pricing. Despite the subsequent rally in public markets, commercial real estate transactions remain muted, with an approximate 50% decrease year-over-year in the third quarter of 2020, restricting the full scope and ability to determine pricing in each sector. The majority of transactions have primarily occurred in the apartment and industrial sectors, so the full impact on the office and retail sectors is still relatively unknown. However, most open-end managers (including Morgan Stanley) have been actively writing down assets at the direction of third-party valuation firms like Altus.

While there is still some lingering uncertainty in private market valuations for certain property types, Townsend would be supportive of clients moving forward with new commitments to (i) portfolios positioned well with underweights to office and retail property types and (ii) funds that offer control and flexibility as to when its capital will be called. That way if investors are not comfortable with current portfolio valuations, investors can rescind or delay commitments.

**Discussion:**

Prime has an active underweight to the office and retail sectors relative to the NFI-ODCE. As of December 2020, Prime's office and retail exposure was 28.9% and 11.5%, respectively, while the ODCE's exposure to those sectors was 32.9% and 14.2%, respectively. While transactions have decreased significantly overall, transaction volume has increased in the industrial and multifamily sectors over the last couple of quarters. We would expect transaction activity to increase in the other primary sectors in the upcoming year, providing a more accurate picture of the impact of valuations on office and retail assets. Prime's deposit queue is approximately $732 million as of December 2020. Based on the manager's projections, investors can expect its capital won't be fully drawn until two to four quarters. Additionally, Prime offers investors a revocable queue meaning investors would the ability to reduce/rescind its commitment prior to funding.

# INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | The Prime Property Fund ("Prime" or the "Fund") is a U.S. open-end diversified Core fund that targets high quality, income-producing Class A properties located in primary markets. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10%, gross of fees. Focus is placed on current income, aiming to generate 6-8% annually. The Fund pursues a slightly higher risk strategy within the Core classification due to its relatively higher use of leverage and utilization of wholly-owned operating companies within the Fund. |
| **Sponsor** | Morgan Stanley Real Estate Investing ("MSREI") has a global platform of real estate investment products and strategies with almost $44 billion in assets under management ("AUM"). PRIME is MSREI's single largest fund at almost 75% of total real estate AUM, which positions it favorably to access the full resources of the MSREI platform. PRIME has experienced net positive inflows over the past few years. In 2016, Morgan Stanley Investment Management announced a new leadership structure, with MSREI becoming part of the Real Assets Group. There is no impact on Prime's business or investment staff. |
| **Operational Due Diligence** | Morgan Stanley has sufficient operational guidelines in place and its valuations policies are in line with industry best practices. A Valuation Committee has been instituted to review appraised values. Any adjustments to an external independent appraisal must be documented and explained to Prime's predominantly independent Board of Directors. The Board of Directors is also responsible for approving any changes to Prime's valuation policy. |
| **Investment Process** | MSREI uses an eight-step investment process: 1) Investment guidelines are developed and approved by the Board. 2) MSREI reviews a robust pipeline of transactions to source deals. 3) Potential investments are tracked through MSREI's investment pipeline. MSREI underwriting teams analyze investments that are appropriate for Prime's strategy. 4) Investments are reviewed by an Allocation Committee if an investment is appropriate for multiple clients. 5) Investments are reviewed and approved by an investment committee of MSREI professionals and representatives from Morgan Stanley. 6) Following investment approval, due diligence is under taken and closing occurs upon approval of portfolio management. 7) Asset management will aim to maximize value of each individual property. Asset managers oversee third-party valuations completed on a quarterly basis. 8) A hold/sell analysis is performed on all investments within the portfolio. |
| **Fund Structure** | The Fund is a limited liability company under Delaware law and has elected to be treated as a REIT for US federal income tax purposes.<br><br>The Fund has two types of shares: voting Shares and non-voting Shares. The Fund will not have more than 190 non-voting Shares issued and outstanding at any time except as necessary to comply with rules relating to REITs or to elect or maintain the Fund. |
| **Performance** | Prime owns one of the longest track records in the core space, with a fund inception in 1973. Prime has outperformed NFI-ODCE over 1-, 3-, 5-, 7-, and 10--year periods, and since inception. Prime's outperformance has been driven by several factors, including the utilization of a wholly-owned AMLI multifamily development platform and a wholly-owned Safeguard self-storage platform, geographic exposure to major markets throughout the US that have generated strong unlevered performance, and tactical property-type over- and underweights. |
| **ESG Policy & Practices** | Prime has a deep ESG platform as well as actively and regularly participates in industry benchmarking and standard practices related to ESG. In 2020, Prime received a GRESB rating of 81 and is four-star rated, scoring within the top third of its peer group. Townsend recommends an Advanced ESG Rating for Prime. |

| | | |
|---|---|---|
| **Overall Rating** | **Buy** | Prime has consistently outperformed NFI-ODCE through accretive acquisitions and dispositions within the US and the utilization of wholly-owned platforms that have generated superior returns on non-core development. Prime is supported by MSREI, an experienced platform with approximately billion AUM. Scott Brown, Portfolio Manager, provides substantial experience to the Fund with 30 years in real estate and over 25 years with Morgan Stanley. Prime is positioned to continue to outperform NFI-ODCE, driven by a tactical overweight to Industrial, a growing allocation to Healthcare, a large pipeline of Multifamily, Industrial, and Self-Storage development, and geographic concentration in outperforming major markets. Townsend recommends Prime as a BUY. |

# STRATEGY

As of December 31, 2020, Prime's gross asset value was $33.4 billion across 376 investments, making Prime the second largest fund within the NFI-ODCE index. The portfolio is well diversified across all major property types and is invested in major markets throughout the US.

Prime's ten largest assets comprise approximately 16% of the total Fund portfolio. These assets include Class-A super regional malls and large-scale CBD office assets in major gateway markets. Approximately 63% of the portfolio is invested in Prime's seven preferred target markets: Southern California (15.6%), Northern California (7.6%), Chicago (8.6%), South Florida (9.2%), New York (7.8%), Boston (6.7%), and Washington, DC (6.4%). Prime's near-term region diversification targets are the following: East (30-40%), South (15-25%), Midwest (5-15%), and West (30-40%).

Prime's near-term property-type diversification targets are the following: Office (25-35%), Apartment (20-30%), Industrial (20-30%), Retail (5-15%), Storage (0-5%), and Healthcare (5-10%). Relative to NFI-ODCE, Morgan Stanley has recently positioned the Fund overweight to industrial to take advantage of the strong fundamentals exhibited within the sector. Same-store industrial NOI Growth was 11.2% in 2020 within Prime's portfolio. Prime also has a unique exposure to the Healthcare sector, which includes thirty medical office buildings and five life-science assets.

As of December 31, 2020, leverage was 19.1%. Non-core exposure represents 9.7% GAV as of 4Q20. Prime's non-core pipeline mostly consists of multifamily, self-storage, and industrial development. Prime's wholly owned AMLI multifamily development platform has been a significant driver of appreciation. Since 2012, AMLI has delivered over 8,000 units. Prime also utilizes a wholly owned Safeguard self-storage platform for self-storage development.

# SPONSOR

Morgan Stanley Real Estate Advisor Inc. is a wholly-owned subsidiary of Morgan Stanley and is functionally located within Morgan Stanley Real Estate Investing (MSREI), itself a part of Morgan Stanley's Merchant Banking division. In 2008, Morgan Stanley changed its status to a bank holding company and participated in the U.S. Treasury's capital injection program (repaid in 2009). The organization also sold off its retail asset management business, to focus on its institutional client base.

In February 2016, Morgan Stanley Investment Management ("MSIM") announced a new leadership and organizational structure which includes the realignment of investment teams across six groups: Real Assets, Solutions & Multi-Asset, Active Fundamental Equity, Private Equity & Credit, Global Fixed Income and Global Equity. MSREI is now part of the Real Asset group, which also encompasses the Firm's global listed real assets and private infrastructure investment teams.

John Klopp was named Head of Real Assets transitioning out of his role as Co-CEO and Co-CIO of MSREI and Head of the Americas. Mr. Klopp continues to sit on the MSREI real estate funds' investment committee and also serves as Affiliate Director of the Prime Property Fund. Olivier de Poulpiquet, who with Mr. Klopp had been Co-CEO and Co-CIO since 2010, now serves as sole Head of MSREI. Lauren Hochfelder Silverman is Head of the Americas.

Prime is the flagship core real estate fund at MS. It is organized as a private REIT and has oversight by an independent Board of Directors. The Board meets quarterly to review the strategy and investment performance of Prime and monitors the management responsibilities of the portfolio management team. The Board also reviews any asset related issues.

| Key Staff | Position | Date Joined | Years of Experience |
|---|---|---|---|
| **Scott Brown** | Portfolio Manager | 2003 | 30 |
| **Candice Todd** | CFO | 2001 | 30 |
| **Bennett Weaver** | Head of Operations | 2013 | 21 |

Scott Brown serves as the Global Head of PRIME, overseeing the PRIME series of real estate core funds globally. He is responsible for the portfolio implementation and management of the Prime Property strategy. His prior experience includes acquisition activities at Lend Lease Real Estate, which is the predecessor to Prime Propriety.

Candice Todd is a Managing Director of Morgan Stanley and the CFO of Prime Property Fund, responsible for the Fund's capital structure and REIT compliance. Prior to joining Morgan Stanley in November 2003, Candice worked for Lend Lease since 1994 and has over 30 years of real estate experience.

Bennett Weaver is the third key component of the Portfolio Management Team and is Head of Operations of Prime Property Fund. Prior to joining Morgan Stanley in July 2004, Bennett worked for Lend Lease and has over 20 years of real estate experience.

The Fund can leverage the global MSREI platform and the broad expertise, deep relationships and powerful franchise of Morgan Stanley, including investment banking, merchant banking, private wealth management, etc., which is a significant benefit to Fund's deal flow.

Investments for Prime are reviewed and voted on by a 12-member senior management investment committee including individuals from MSREI and risk management. John Klopp, co-Chief Executive Officer of the Firm, serves as Chairman.

The Firm's research team is shared across MSREI's products and geographies. In the U.S., the team is mostly responsible for aggregating third party research data by property type and geography. While newly designed top down models have been developed, the Fund mostly draws from bottom up resources of the broader platform to determine what assets are most attractive in each market, and research is used as a check. The acquisition and asset management teams, which are organized by geographic regions, are also shared resources across all MSREI products, and consist of 25 and 14 members, respectively. Acquisition and asset management work closely throughout the due diligence process and during the life of an asset; sharing market information and creating business plans/exit plans for each asset.

Prime owns AMLI Residential ("AMLI"), a multifamily private REIT. AMLI is focused on the development, acquisition and management of luxury apartment communities across the U.S. Thus, almost all of Prime's apartment activity is run through this group. Prime tends to focus on the 8-10 markets that were legacy AMLI strong holds, recently adding a few coastal metro-regions. AMLI is dedicated solely to Prime; with management co-investing alongside the Fund in all the apartment assets.

To reinforce the alignment of interest of key personnel with the performance of the Fund, Morgan Stanley awards shares that vest over time in the Fund based on personal annual performance and contribution to the Fund. Prime's performance fee is used to finance this employee incentive, which aligns the team's compensation to the increase and decrease in the share price of the Fund

## OPERATIONAL DUE DILIGENCE

The Aon Operational Due Diligence ("Aon ODD") team reviewed the fund sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions including: (I) corporate governance, (II) trade/transaction execution, (III) cash controls, (IV) valuation, (V) compliance, regulatory, legal, and controls testing, (VI) counterparty risk oversight, (VII) business continuity/disaster recovery, and (VIII) cyber security.

Morgan Stanley is a large and global investment manager with institutional levels of infrastructure, controls, and oversight across its operating environment. The firm is subject to independent oversight by a Board of Directors and has a robust supporting committee structure. MSIM's policies and procedures are comprehensive, well-documented and subject to reviews by both internal audit and annual SOC1 controls reviews by Ernst & Young.

The Aon ODD rating of the Manager is A1 Pass.

## INVESTMENT PROCESS

MSREI uses an eight-step investment process:

1) Investment guidelines are developed and approved by the Board.

2) MSREI reviews a robust pipeline of transactions to source deals.

3) Potential investments are tracked through MSREI's investment pipeline. MSREI underwriting teams analyze

investments that are appropriate for Prime's strategy.

4) Investments are reviewed by an Allocation Committee if an investment is appropriate for multiple clients.

5) Investments are reviewed and approved by an investment committee of MSREI professionals and representatives from Morgan Stanley.

6) Following investment approval, due diligence is undertaken and closing occurs upon approval of portfolio management.

7) Asset management will aim to maximize value of each individual property. Asset managers oversee third-party valuations completed on a quarterly basis. 8) A hold/sell analysis is performed on all investments within the portfolio.

The portfolio management team includes a dedicated Chief Financial Officer, Candice Todd, that manages the creditworthiness and liquidity of the Fund. Candice has over 30 years of experience and has been with Morgan Stanley for over 25 years.

Risk management oversight is provided at divisional and Firm levels by MSIM Risk and Morgan Stanley's Firm Market Risk Groups. These groups are independent from MSREI.

# FUND STRUCTURE

## SUMMARY

The Fund is a limited liability company under Delaware law and has elected to be treated as a REIT for US federal income tax purposes.

The Fund has two types of shares: voting Shares and non-voting Shares. The Fund will not have more than 190 non-voting Shares issued and outstanding at any time except as necessary to comply with rules relating to REITs or to elect or maintain the Fund.

## REVIEW OF KEY TERMS AND CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | 8% - 10% (gross) |
| **Cash Distributions:** | Fund expects to pay quarterly dividends equal to at least 90% of its REIT taxable income. |
| **Investment Management Fees:** | Calculated based on Net Asset Value<br>All levels of investment: 84 bps |
| **Other Fees:** | None |
| **Performance Fees:** | Accrues on a monthly basis over a calendar year.<br><br>Equal to 5% beginning of the month NAV multiplied by the comparable property NOI growth<br><br>Subject to an annual cap of 35bps per annum of the average monthly NAV for the calendar year. |
| **Debt Mark-to-Market:*** | (0.2)% compared to NFI-ODCE at (0.1)% at 3Q2020 |
| **Redemption Policy:** | All Shareholders have the right to request a redemption of Shares on a quarterly basis. A redemption request received prior to quarter end will be processed so as to bescheduled for payment generally at or shortly after the end of the next quarter. |

*Data as of 3Q2020. Due to a standard reporting lag, the most recent data available is as of 3Q.

### ENTRY AND EXIT PROCESS

All Shareholders have the right to request redemption of Shares on a quarterly basis. Requests received before the end of a quarter will be processed so as to be scheduled for payment generally at (or shortly after) the end of the next calendar quarter in accordance with the Fund's quarterly redemption process. The Fund will redeem Shares at the then Current Share Price on the day of redemption to the extent that the request was received prior to the end of the preceding quarter and the Fund has sufficient cash available to honor requests, consistent with applicable REIT rules and principles of prudent management.

### INVESTMENT MANAGEMENT FEES

Prime's blended fee structure consists of a flat asset management fee of 84 bps per annum and an incentive fee equaling 5% of comparable portfolio same store year-over-year NOI growth that accrues on a monthly basis and is capped at 0.35% of NAV.

## PERFORMANCE *– As of December 31, 2020*

Prime owns one of the longest track records in the core space, with a fund inception in 1973. Prime has outperformed NFI-ODCE over 1-, 3-, 5-, 7-, and 10-year periods, and since inception. Prime's outperformance has been driven by several factors, including the utilization of a wholly-owned AMLI multifamily development platform and a wholly-owned Safeguard self-storage platform, geographic exposure to major markets throughout the US that have generated strong unlevered performance, and tactical property-type over- and underweights. Historical income performance has been diluted by the fund's multifamily and self-storage development portfolios. Prime's leverage (19.1%) is below NFI-ODCE. Prime lowered their target leverage to 15-25% in the near-term.

### NEAR-TERM PERFORMANCE DRIVERS

**Industrial Overweight**

Prime's industrial exposure is 24.8% of GAV, approximately +300bps above NFI-ODCE. Prime has over 56 million square feet of industrial space today and primarily consists of distribution warehouses. Over 92% of Prime's industrial portfolio is in major distribution markets, including southern California, New Jersey, New England, and New York.

**Non-Core Development with Wholly Owned Development Platforms**

Prime's non-core exposure is currently 9.7% GAV. The AMLI multifamily and Safeguard self-storage platforms have been a large driver of appreciation within Prime historically. The Fund's existing pipeline today includes a combination of AMLI and Safeguard projects across the US in development and lease-up, four industrial developments in Atlanta, New York, and New Jersey, and an office asset in Pasadena.

**Healthcare**

Prime currently owns 30 medical office assets and five life-science properties. Calendar year same-store NOI growth was +6.8% for the healthcare sector in 2020.

**Fourth Quarter 2020**

Prime generated a gross return of 1.7% in the fourth quarter, outperforming NFI-ODCE by approximately +40 bps. Performance in the fourth quarter was driven primarily by industrial and healthcare, which generated an unlevered return of +4.1% and +11.6%, respectively, driven by leasing momentum across the both sector portfolios. The total percentage leased across the industrial portfolio reached 96.0%, with 3.8 million square feet leased in the fourth quarter. The healthcare sector's strong performance was comprised of 1.2% income and 10.3% appreciation.

Capital flows continue to remain strong, with Prime raising over $565 million of new subscriptions in the fourth quarter, with a total investment queue of $732 million. The redemption queue by quarter-end was $370 million, with a total of $400 million redemptions paid in the quarter.

# ESG POLICY & PRACTICES

Morgan Stanley has well-developed, transparent ESG policies and specific staff members dedicated to ESG. MSIM has a Sustainability Team and a Global Sustainable Finance Group, which is responsible for the firm's overall sustainability strategy and develops approaches that achieve social, environmental, and financial returns. In June 2020, Mona Benisi was hired as Head of Sustainability for Global Real Assets and is responsible for developing MSIM's ESG investment integration standards, which also includes annually reviewing the firm's ESG policy. In addition to the firm's ESG policy, MSIM also has an annually reviewed DEI policy, code of ethics, sexual harassment policy, as well as yearly training on these policies.

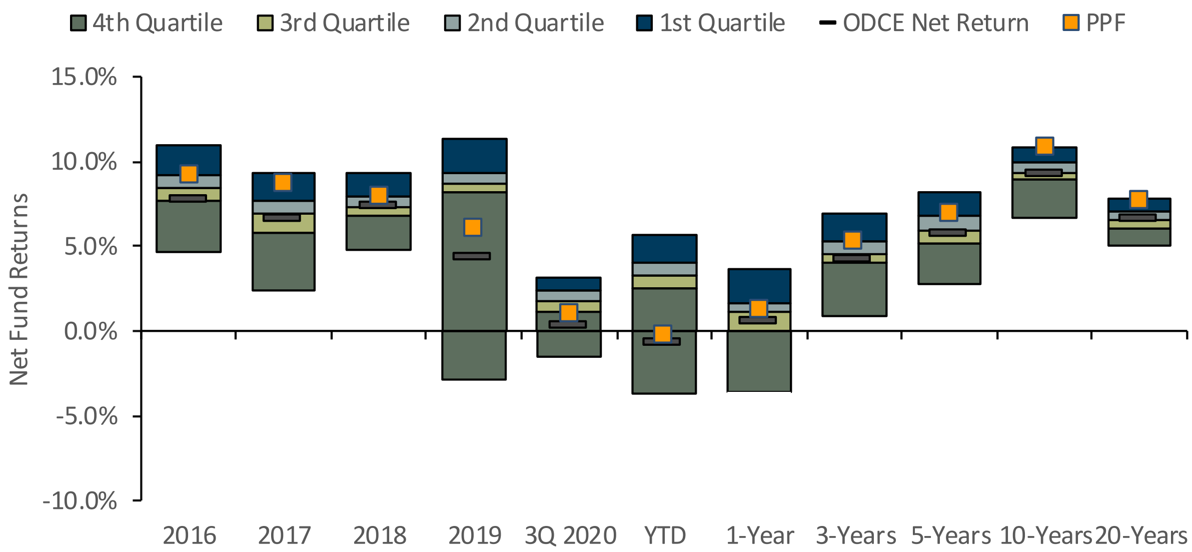
Each investment platform within MSIM has an ESG lead. Rob Poole is Executive Director and responsible for Sustainability for MSREI in the US. Josh Myerber, Deputy Portfolio Manager of Prime Property Fund, is focused on sustainability across the fund.

MSIM, MREI, and Prime have ESG processes in place which encourage consistent positive outcomes in benchmarking and encourage ESG stewardship at all levels. Prime has been a GRESB participant since 2014, with scores in the top third of its peer group and has received a 4-star rating over the past few years. The fund also actively tracks GHG emissions, tracks water and waste consumption at the asset level and works toward LEED Certifications and Energy Star Ratings in assets when applicable. In addition to GRESB, MSIM has also been a PRI Signatory since 2013 (receiving an A rating in the 2019 review), and is also a signatory to the TCFD, U.K. Stewardship Code, and the Japan Stewardship Code, as well as being a participant in SASB.

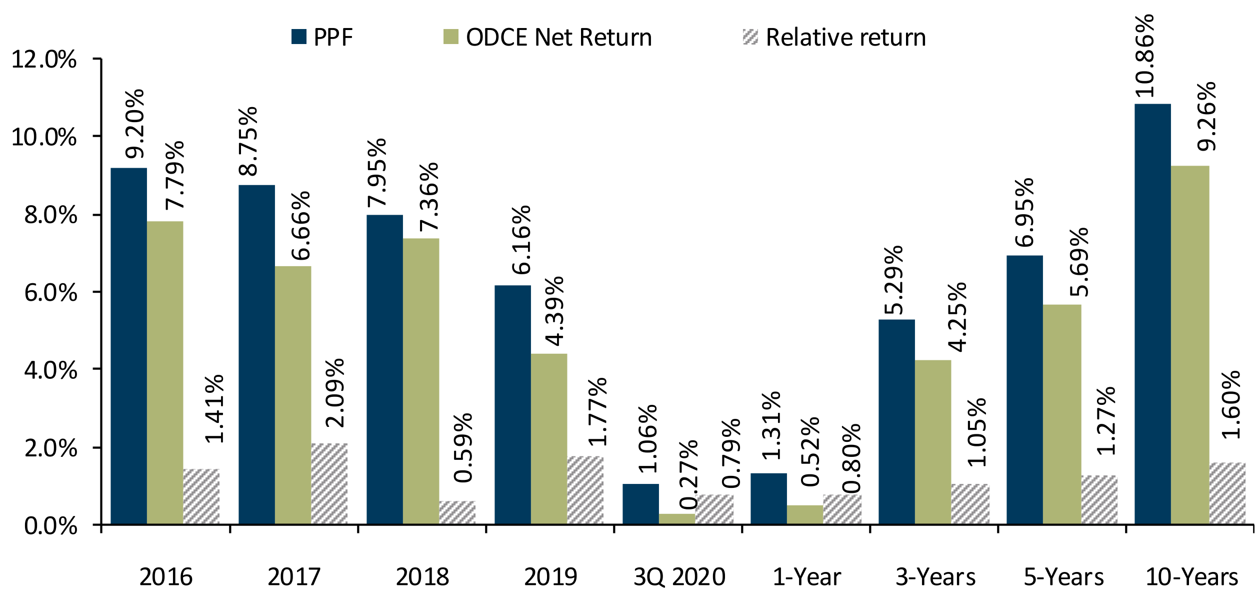
Based on the above referenced factors, Prime's ESG rating is Advanced.

# APPENDIX

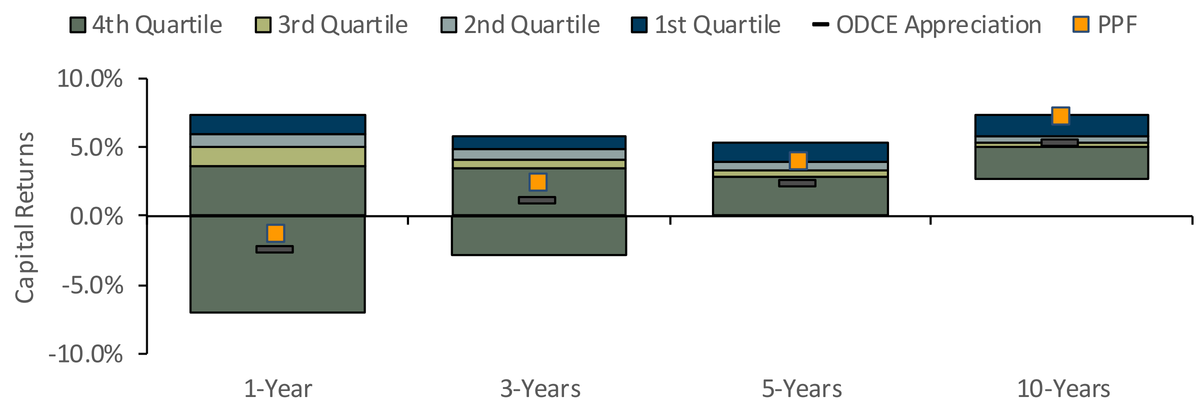
***Historical Performance Quartiles** – As of September 30, 2020*



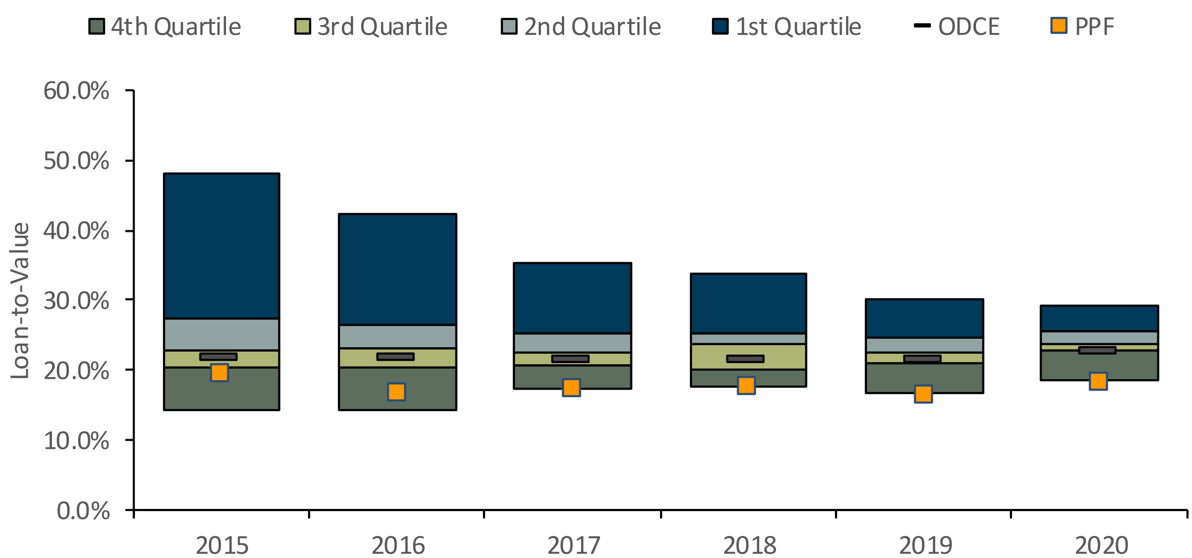

***Historical Relative Fund Performance** – As of September 30, 2020*



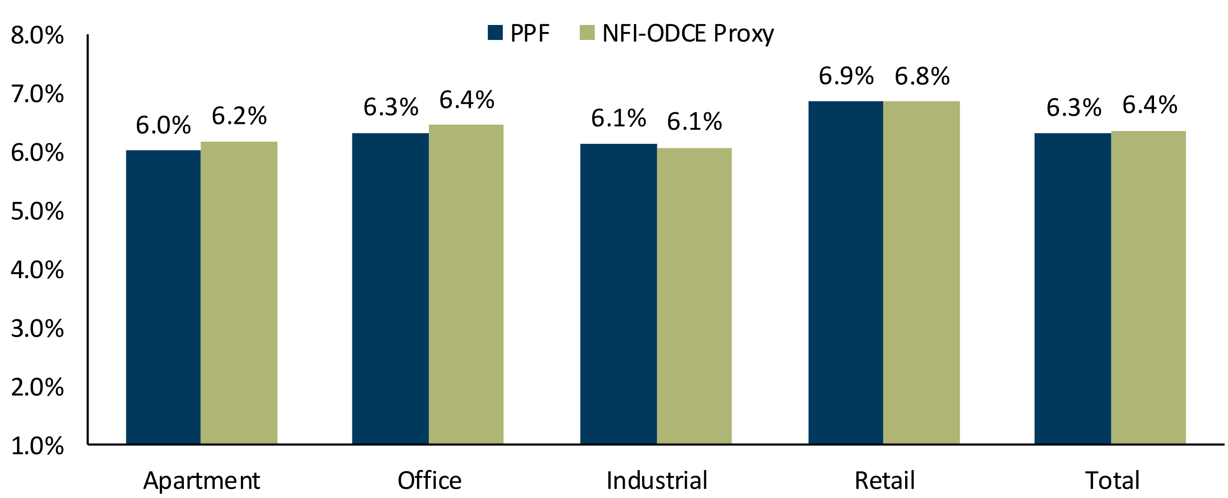
***Capital Return (Appreciation) Historical Performance Quartiles** – As of September 30, 2020*



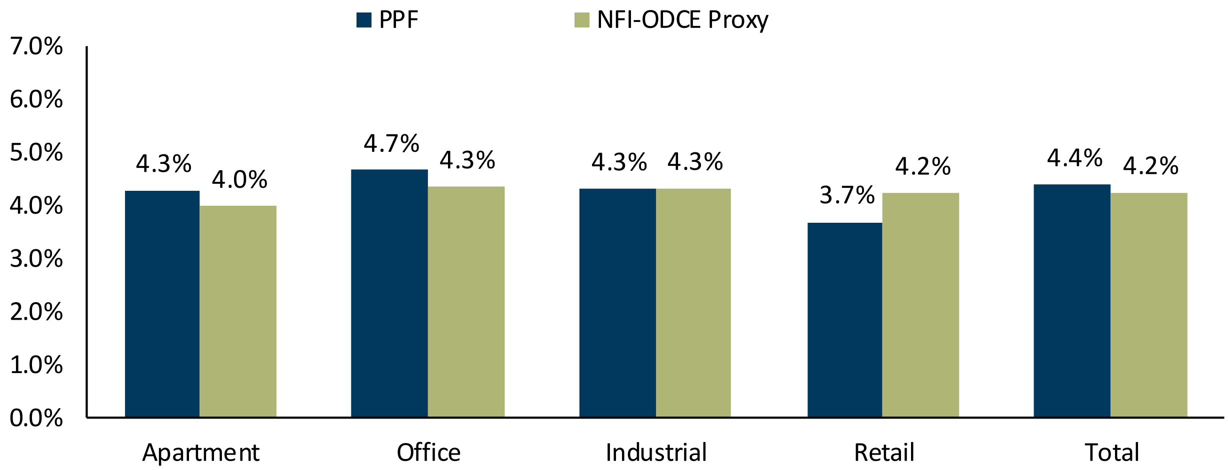

***Progression of Leverage** – As of September 30, 2020*



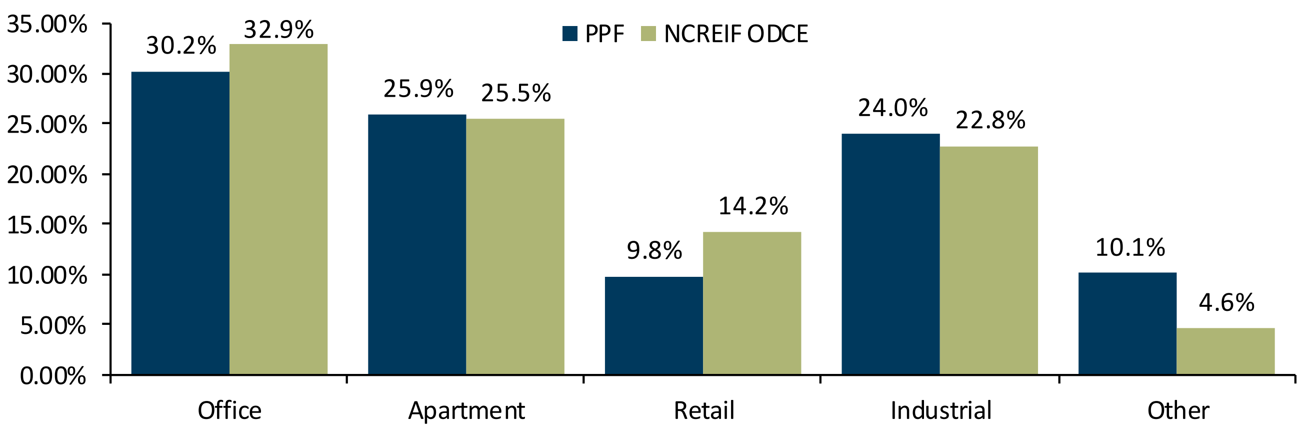

***Discount Rate** – As of September 30, 2020*



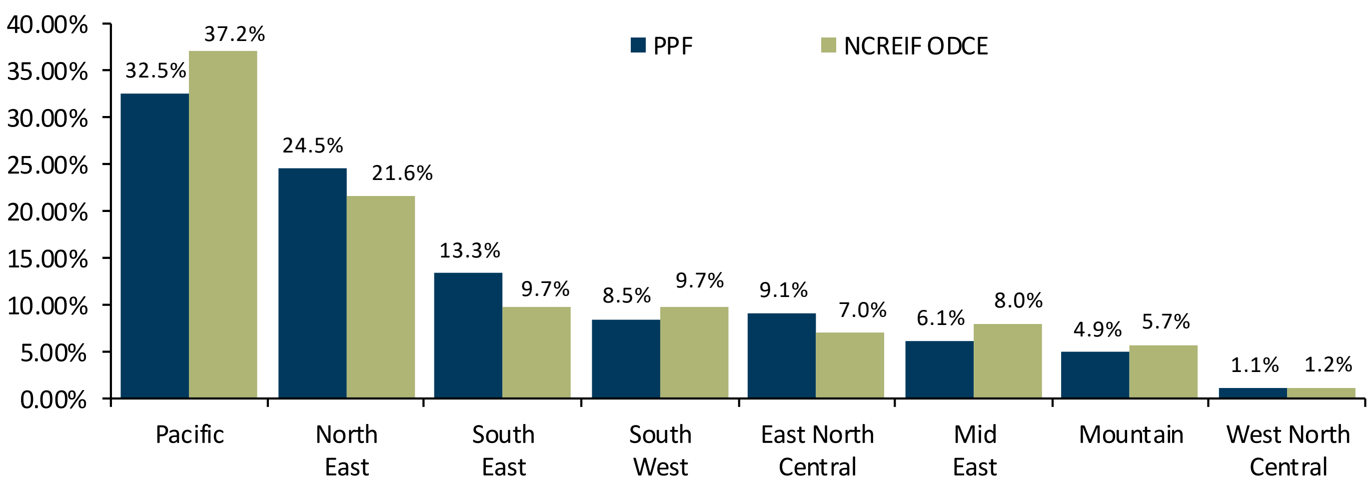
***Forward Cap Rates** – As of September 30, 2020*



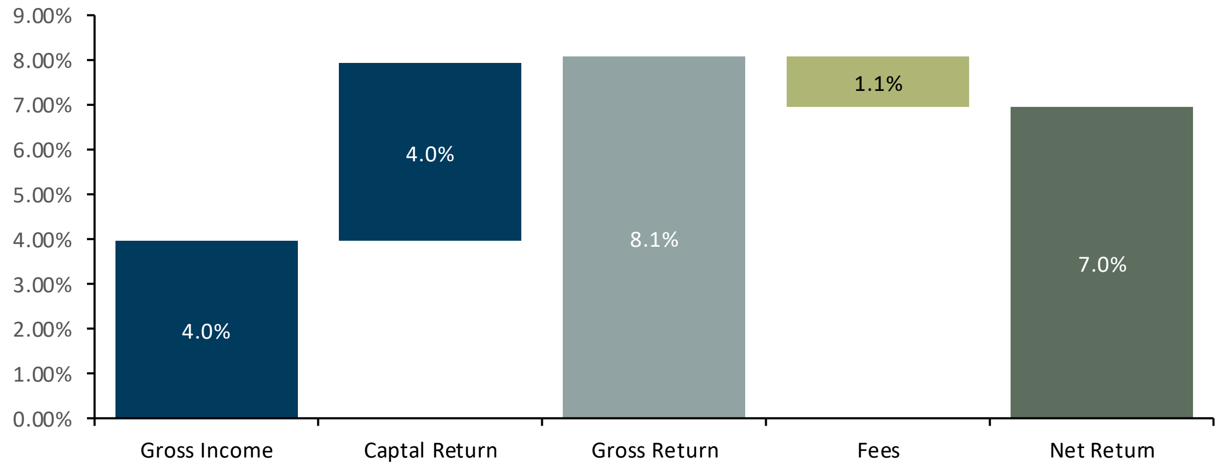

***Property Type Diversification** – As of September 30, 2020*




***Geographic Diversification** – As of September 30, 2020*



***Five Year Attribution** – As of September 30, 2020*




***Top 10 U.S. Market Exposures** – As of September 30, 2020*

| MSA | % Total Fund NAV |
|---|---|
| Los Angeles | 7.9% |
| Chicago | 3.3% |
| New York | 8.3% |
| Miami | 3.8% |
| Boston | 3.8% |
| San Francisco | 5.8% |
| Washington DC | 2.8% |
| Seattle | 2.6% |
| Denver | 4.6% |
| Atlanta | 7.0% |

# RATINGS EXPLANATION

The overall rating can be interpreted as follows:

| Overall Rating | What does this mean? |
|---|---|
| Buy | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products |
| Qualified | A number of criteria have been met and we consider the investment manager to be qualified to manage client assets |

The ESG rating can be interpreted as follows:

| ESG Rating | Interpretation |
|---|---|
| **Limited** | The fund management team has taken limited steps to address ESG considerations in the portfolio. |
| **Integrated** | The fund management team has taken essential steps to identify, evaluate, and mitigate potential financially material ESG risks within the portfolio. |
| **Advanced** | The fund management Team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate, and potentially mitigate these risks across the entire portfolio. |
| **Not Applicable** | ESG risks and considerations are not applicable to this strategy. |

# ABOUT THE TOWNSEND GROUP – AN AON COMPANY

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

**Disclaimer**

Real Estate **InTotal**

# DWS Group GmbH & Co. KGaA

Core Plus Industrial Fund L.P.

August 2021

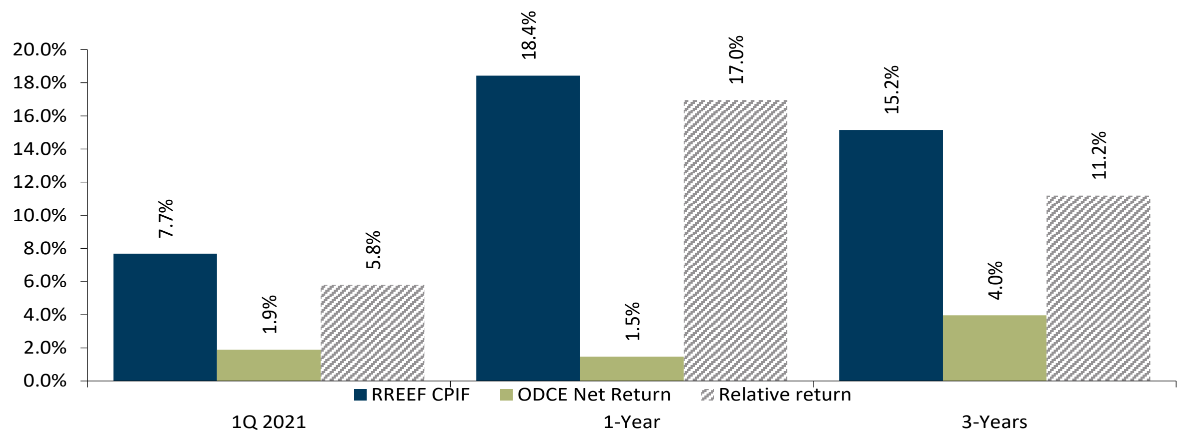
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Previous Rating |
|---|---|---|
| August 2021 | Buy | Buy |

RREEF America L.L.C. (“RREEF”), part of DWS Group GmbH & Co KGa (“DWS” or the “Sponsor”), launched RREEF Core Plus Industrial Fund L.P. (“CPIF” or the “Fund”), a core-plus open-end industrial fund in June 2017. The Fund invests in core (up to 100%) and non-core industrial (up to 50%) with leverage capped at 50% at the portfolio level.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-End Fund | **Risk Segment** | Core-Plus |
| **Size NAV** | $1.3 Billion | **Average Asset Size (NAV)** | $51.3 Million |
| **Valuations** | Quarterly FMV Debt & Equity | **Minimum Commitment** | $5 Million |
| **Leverage** | <50% LTV at portfolio level | **Current/Max Non-Core %** | 10.0%/25% |
| **Investment Guidelines** | - Max 25% speculative development (<50% pre-leased)<br>- Max 50% non-core<br>- Max of 10% to single property<br>- Max of 30% to single MSA | **Number of Holdings** | 25 |
| **Performance Objectives** | NPI Industrial + 50-100 bps, gross | | |
| **Benchmark** | NPI Industrial | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Sponsor** | DWS Group GmbH & Co. KGaA (XTRA:DWS) | **Parent** | DWS Group GmbH & Co. KGaA (XTRA:DWS) |
| **Headquarters** | New York City, NY (REEEF), Germany (DWS) | **Strategy Inception** | 2017 |
| **Employees** | 400+ | **Real Estate Team** | 5 |
| **Firm AUM** | €759 billion | **Real Estate AUM** | $67.8 billion |

642

## COMPARATIVE ADVANTAGES

1. Strong Industrial Track Record
   - RREEF's U.S. industrial track record is strong on both an absolute return and relative return basis over all measurement periods (compared to NPI Industrial sub-index).
   - Over the trailing twelve-month period, CPIF's generated a 18.79% gross return, outperforming NPI Industrial by +468bps.

2. Experienced Team
   - DWS/RREEF is a multi-decade manager of institutional real estate held in comingled funds and separate accounts. The Fund is staffed with one seasoned portfolio manager and one new portfolio manager, each of whom have worked within the industry for over 22 years. Darrel Campos is the lead portfolio manager for the Fund with 100% of his time dedicated to the Fund and has been with RREEF for 23 years. Catherine Minor is a recent addition to the team, filing the role of senior portfolio manager, but also has prior experience at RREEF during a previous 5-year stint at the firm in a development manager role.
   - The Fund's management team leverages RREEF/DWS's experienced research & strategy team and transaction teams to identify target markets. DWS has a dedicated Value Add & Development team, which formulates strategy & executes for both their separate accounts and comingled funds. Over the past 45 months, DWS has completed, constructed, or committed to 20 industrial ground-up development projects totalling $1.7 billion and approximately 8 million rentable square feet.

3. Favorable View on Industrial
   - Townsend continues to view the industrial property type favorably as do many institutional investors and research groups. E-commerce driven changes and resultant increases in demand for warehousing and logistics facilities is an ongoing multi-year tailwind behind thematic investment in the property type. YOY, e-commerce grew 32.1% despite a global recession, while retail consumption grew only 6.9% total. The targeted property types' inherent exposure to the evolution of e-commerce, a long-term demand driver, gives it potential for relative outperformance.

4. Development Accretive to Risk Adjusted Returns
   - The Fund targets up to 50% non-core and up to 25% speculative (<50% pre-leased) development. Given where pricing is for core industrial assets, this development component provides an attractive entry point for a long-term hold strategy as compared to buying at market pricing.
   - The Fund manages near the 25% speculative development limitation as it builds scale in order to take advantage of the market dynamics and the impact that development will have on its relatively small NAV (compared to other U.S. open-end industrial funds).
   - Development yield spreads are 50-150 basis points wide of stabilized yields, depending on market. With national vacancy levels at historic lows and supply/demand remaining in balance, this yield premium is still attractive to long-term core investors.
   - DWS has in-house development capabilities with a dedicated Value-add and Development team. CPIF leverages these in-house capabilities to underwrite and/or execute value-add activities. Consistent with most institutional fund strategies, particularly in the open-end space, the Fund will generally partner with local development partners to execute its development strategies. Those development partners are generally incentivized with fee and promote structures.

## POTENTIAL ISSUES AND CONCERNS

1. Limited Liquidity
   - As a relatively new open-end fund, CPIF does not have the requisite size to provide the liquidity it is supposed to offer as an open-end fund. Additionally, investors will also have to accept a 2-year initial lock-up period.

**Discussion**: RREEF has shown fundraising momentum for CPIF with $525 million of capital commitments received in just 1Q21 alone and a capital entry queue of $462 million as of April 2021. The two-year lockout is standard for new open-end funds, though typically come with a benefit such as fee savings.

2. Speculative Development Risk
   - Up to 25% of the Fund can be invested in speculative development. This is higher than the comparable funds such as Clarion Lion Industrial Trust (15% speculative development cap) and Prologis U.S. Logistics Fund (no speculative development).

**Discussion**: Depending on market conditions and prudent management of the development pipeline, CPIF's higher speculative development cap may continue to enable the Fund to generate superior risk adjusted returns due to the return premium provided by speculative development. Investors will rely on the Fund management which is overseen independent Board of Directors to set the development strategy for the Fund and will outline the limit on speculative development exposure. Depending on market conditions, DWS's House View, and/or input from the Fund's independent Board of Directors, CPIF may implement a development cap lower than 25%. The Board of Directors has full fiduciary responsibility to the Fund's shareholders and is expected to act in the best interests of investors without conflict.

## INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | The Fund invests in high quality industrial assets via core, transitional, and development investments primarily located in and around U.S. major metropolitan areas with an emphasis on infill locations. Primary return drivers include: market selection, long-term industrial structural factors (e.g. e-commerce), development at a discount to market value, and active asset management of the operating portfolio. The Fund seeks to distribute a quarterly dividend competitive with comparable open-end industrial funds (~4%) with a total return objective to outperform NPI Industrial by 50-100 basis points. |
| **Sponsor** | DWS is a leading asset manager with over €759 billion in AUM as of September 30, 2020. DWS has over 60 years' experience in Germany and across Europe in a full spectrum of investment disciplines. DWS' US real estate investment business was originally founded by RREEF in 1975 and has grown to become one of the largest real estate investment managers globally. DWS has over $67.8 billion in real estate AUM today. |
| **Operational Due Diligence** | The Altus Group manages the Firm's valuation process. The Board maintains responsibility for the valuation policy and may change the frequency of external valuations based upon prevailing market conditions and other relevant factors. The valuation policy is reviewed each quarter and can be modified at the Board's discretion. |
| **Investment Process** | Americas Real Estate Transactions team is led by Tim Ellsworth, a senior leader with 23 years tenure with the firm. Tim's team of Acquisitions Officers are organized along regional lines with specific markets and regional coverage. Acquisition officers are property generalists and as such are responsible for all sectors, including industrial. Acquisitions Officers source both core and non-core investments, originating these opportunities through a variety of sources including but not limited to property owners, real estate brokers, mortgage bankers and investment bankers. |

| | | |
|---|---|---|
| **Fund Structure** | RREEF Core Plus Industrial Lower Fund II L.P., a Delaware limited partnership, was formed on April 10, 2017 and acquired (indirectly through its direct and indirect subsidiaries) its initial investments on June 7, 2017. RREEF Core Plus Industrial Fund L.P., a Delaware limited partnership, will generally participate (directly or indirectly) in investments, alongside any parallel fund, on a pro rata pari passu basis, subject to legal, tax, accounting, regulatory, and other considerations. Currently, the Delaware Fund holds all investments through the Lower Fund. | |
| **Performance** | CPIF has outperformed NFI-ODCE net over 1- and 3-year periods. The fund's industrial focus has driven performance versus the index in the near-term as industrial continues to outperform all other sectors. The Fund's overweight to the Pacific sub-region relative to the benchmark has contributed to the strong outperformance, as the sub-region continues to be one of the benchmark's top performers. | |
| **ESG Policy & Practices** | The Fund is currently rated as Advanced through Townsend's formal ESG process. | |
| **Overall Rating** | **Buy** | CPIF's strategy is to invest in high quality industrial assets via core, transitional, and development investments primarily located in and around U.S. major metropolitan areas with an emphasis on infill locations. The Fund is achieving strong returns when compared to the benchmark while only 2% invested in speculative development, in large part to their allocations to some of the strongest performing MSAs for industrial within the U.S. |

## STRATEGY

- Portfolio Characteristics: CPIF targets high quality industrial assets, primarily distribution and warehouse properties, and seeks to continue constructing a geographically diversified portfolio in major metros with an emphasis on infill locations. The Fund's current portfolio composition is as follows[1]:
  - $1.4 billion in Fund GAV, $1.3 million Fund NAV
  - 18 core, 7 non-core properties
  - Square Feet: 6.9 million total
  - Discount rate: 6.2%
  - Cap Rate: 4.6%
  - WALT: 6.0 years for Core properties
  - Rents: 11.2% below market for Core properties
  - Tenancy: 112 tenants with mix of logistics, consumer retail, manufacturing, and other for Core Properties

- Pipeline: $47 million of recently developments

- Target Markets: Major metros with emphasis on infill locations. Target markets include: Southern California, Bay Area, Seattle, Denver, Chicago, NY/NJ, Atlanta, Dallas, and Miami.

- Current Portfolio Diversification:
  - 67% in coastal markets including Seattle, Southern California, Chicago, and Miami.
  - 33% located in Central PA and New Jersey, both primary distribution hubs[2]

[1] As of 3/31/21 unless otherwise noted
[2] Includes the six pending transactions which were under contract or letter of intent

- Business Plans:
  - Core (Target 75%, Minimum 50%)
    - Invest in high quality industrial assets primarily located in and around major metro areas with good income producing qualities including: high occupancies, manageable lease roll, quality tenants, and good sub-markets. CPIF expects to do single asset and portfolio acquisitions.
  - Non-Core (Target 25%, Maximum 50%)
    - Repositioning*:* Well-located assets that will benefit from capital programs.
    - Lease-up: Under-leased assets that will benefit from active asset management
    - Core with Optionality: Core assets that offer increased return potential as a result of developable land or other property improvements
    - Forward purchases: Commitments to purchase assets prior to development completion once certain de-risking hurdles have been met in order to acquire core at a discount to market value.
    - Lend to Core: Provide construction financing for assets under development with commitment to commit debt to equity at a pre-negotiated price upon certain de-risking hurdles being met (e.g. lease-up, completion). Strategy seeks to provide income during development and acquisition at discount to market value upon stabilization.
    - Development[3]: May include build-to-suit, partially pre-leased, and speculative development. Strategy seeks to provide access to core product at a discount to market value upon stabilization. The Fund may sell development assets or hold as core depending on Fund portfolio strategy.
    - Transitory Markets: Assets in temporarily distressed markets identified by research, asset management and transactions teams.

# SPONSOR

## OVERVIEW

RREEF was established in 1975 to invest in core real estate and has since sponsored several series of such funds and has also managed separate accounts for various U.S. tax-exempt investors. Deutsche Bank acquired RREEF in 2002 to complement its existing real estate asset management business, which at that time was largely focused in Europe and Asia Pacific.

Following the RREEF acquisition, all real estate activities within Deutsche Bank's Asset Management Division were united under the RREEF Real Estate brand. On March 23, 2018 Deutsche Asset Management rebranded to DWS. On the same date, Deustche Bank listed a minority share (21%) in the asset management business through an IPO on the Frankfurt Stock Exchange with Deustche Bank retaining a majority (79%) interest. Part of the rationale for the DWS IPO was to separate DWS and insulate it from volatility associated with the parent company.

DWS's Private Real Estate business sits within the Alternatives platform which also includes Private Infrastructure, Liquid Real Assets, Private Equity, Sustainable Investments, and Hedge Funds. DWS's Alternatives business is headquartered in New York, with U.S. corporate branch offices in San Francisco and Chicago. The RREEF Core Plus Industrial Fund investment team is primarily based in the San Francisco and New York offices. In addition to the three corporate offices, the U.S. real estate asset management organization operates out of nine regional offices in key cities around the country.

[3] Speculative development is capped at 25% of Fund GAV

# RREEF CORE PLUS INDUSTRIAL FUND

## Governance and management team

Fund Governance and Oversight

**Independent Board of Managers**

Americas Real Estate Investment Committee

Todd Henderson
Head of Real Estate, Americas
Board of Managers & Investment Committee
18 30

Portfolio Management Team

Darrell Campos
Lead Portfolio Manager
23 29

Joe Cappelletti
Chief Financial Officer
36 36

Jessica Hamill
Fund Controller
6 12

Portfolio and Asset Management
Property Specialists

Fund Operations
3 investment professionals

Broader Real Estate Resources

| Asset Management | Capital Markets | ESG & Sustainability | Global Client Group | Operations | Research & Strategy | Transactions |
|---|---|---|---|---|---|---|

Source: DWS. Years with firm/industry as of December 31, 2020.

# Years with firm   # Years with industry

# PRIVATE REAL ESTATE LEADERSHIP TEAM—AMERICAS

## Senior leaders average 18 years with the firm and 30 years with the industry

**TODD HENDERSON (CEO)**
Head of Real Estate, Americas
18 30

| Marc Feliciano (CIO) | Tim Ellsworth | Mike Nigro | Laura Gaylord | Vikram Mehra |
|---|---|---|---|---|
| Portfolio Management and Asset Management | Transactions | Value Add & Development | Client Coverage | COO |
| 16 28 | 23 38 | 16 24 | 18 36 | 16 22 |

**INVESTMENT FUNCTIONS**[1]

| Portfolio Management[2] | Transactions | Asset Management | Research & Strategy | ESG[3] | Central Functions |
|---|---|---|---|---|---|
| 48 employees | 16 employees | 39 employees | 7 employees | 4 employees | 19 employees |

(1) As of September 30, 2020.
(2) Includes personnel of real estate debt team.
(3) Includes three external employees.
Source: DWS. As of December 31, 2020. Years with firm/industry as of December 31, 2020.

Years with firm # Years with industry #

# OPERATIONAL RISK PROFILE

An Aon specialist team is reviewing the Sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions including: (i) corporate governance, (ii) trade/transaction execution, (iii) cash controls, (iv) valuation, (v) compliance, regulatory, legal, and controls testing, (vi) counterparty risk oversight, (vii) business continuity/disaster recovery, and (viii) cyber security.

RREEF America L.L.C. is a majority-owned subsidiary of DWS, the investment management arm of Deutsche Bank AB, a publicly-traded global investment bank. The Manager generally demonstrates a well-controlled operating environment, including appropriate governance and oversight structures, regulatory compliance capabilities, and technology and security protocols. The firm implements highly automated processes, and all functions are well-monitored and controlled. The Manager utilizes commercially viable technology and applications including trading, accounting, order management, and compliance systems that allow for a high degree of straight through processing. These controls and processes drive the A1 Pass rating.

# INVESTMENT PROCESS

The Fund Team has the primary responsibility for investment decision-making for the Fund, along with the Investment Committee. The CPIF Board of Directors approves the Annual Strategic Investment Plan. All Investment Committee decisions for the Fund must be approved unanimously.

Summary of Acquisition Process:

- Sourcing: Based on acquisition criteria from the CPIF Annual Strategic Investment Plan as updated by the portfolio management team, members of the transactions team go out and source suitable investments. Acquisitions Officers operate regionally and are property generalists. They continually visit their designated markets to meet with developers, owners, brokers, and bankers to communicate acquisitions criteria to keep current on market conditions.
- Screening: Once a property is identified that meets client objectives, the property is logged into the Transactions group's weekly report that summarizes the status of all potential acquisitions. Weekly calls are held between members of Transactions, Portfolio Management, Asset Management, and Investment Committee to update participants on the status of potential acquisitions.
- Underwriting: Potential transactions are put through an initial underwriting by the Acquisitions Officer with input from Research and Asset Management. An LOI is submitted after the initial underwriting. In concert with the LOI, a preliminary memo is prepared to further socialize the opportunity among Investment Committee and Portfolio Management. Based on feedback from Investment Committee and Portfolio Management, cash flow assumptions are revised and a best and final LOI is submitted.
- Allocation: If the LOI is accepted, the Acquisitions officer prepares an extension of the preliminary investment memo which fully considers investment returns, risk, and timing. This memo is presented to portfolio managers for allocation.
- Due Diligence: Once allocated, the Transactions group coordinates formal due diligence which includes: legal, physical, financial, market, portfolio, and compliance.
- Approval: At completion of due diligence, the Acquisitions Officer makes a formal presentation to the Investment Committee who are already educated on the deal since they have been updated throughout due diligence via the weekly transaction review meeting and Investment Committee meetings.

Asset Management:

- Geographically focused asset managers that specialize in property type enables deep market knowledge which is used to properly position properties and negotiate leases to drive value
- Asset management group includes engineering teams to assist Asset Managers with capital expenditures, environmental, and structural issues.
- Property Management is outsourced to third parties and overseen by Asset Management.

Dispositions:

- The decision to sell a property originates from the Fund Team who has primary responsibility to ensure the Fund's objectives are met.
- Through the Annual Strategic Investment Plan and valuation process, each property is reviewed against the investment objectives. Using market profiles and property specific characteristics, the Fund Team determines whether to present a property for sale to Investment Committee.
- Once identified for sale, a property is presented to IC which reviews the recommendation and decides whether to assign the property to the Transactions team for sale.

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# FUND STRUCTURE

## OVERVIEW

CPIF is a U.S. open-end industrial fund structured with various entry points depending on the tax status of the investor. The Fund's investments will be held indirectly through various holding structures in one or more entities.

## REVIEW OF TERMS & CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | NPI Industrial + 50-100 bps, gross at Fund level |
| **Cash Distributions** | None |
| **Investment Management Fees** | Less than $25mm: 1.15%<br>Next $50mm: 0.95%<br>Next $75mm: 0.85%<br>Next $75mm: 0.75%<br>Thereafter: 0.65% |
| **Other Fees** | Fund may be charged up to $2.0M and amortized over 5 years |
| **Performance Fees** | 15% of total profits after a return of capital and an 8% preferred return at the end of each three year incentive period, calculated at LP level.<br><br>Payment subject to a 25% holdback which will be paid out at the end of the next three year measurement period if the hurdle is met. |
| **Debt Mark-to-Market** | None |
| **Redemption Policy** | 2-year initial lock up period |

## ENTRY AND EXIT PROCESS

*Entry:* The Fund is restricted to accredited investors, open for investment to endowments, foundations and taxable investors. Investors are required to complete a subscription agreement, which will be reviewed by RREEF. Initial subscriptions must be in the minimum amount of $5 million.

*Exit:* Investors must submit notification via email or hard copy letter to the Fund and give two months' notice prior to quarter-end. Absent a redemption queue, the trade date occurs at quarter end. The Fund allocates funds being used to satisfy redemption requests proportionately among all redeeming investors (pro-rata).

## PERFORMANCE

RREEF began to pursue industrial warehouse development (in addition to its core industrial strategies) in 1997. In order to demonstrate the firm's track record in both core and development, the track record in Figure 11 has been presented from 1997 onward. RREEF's U.S. industrial track record is strong on both an absolute return and relative return basis over all measurement periods (compared to NPI Industrial sub-index).

The Fund has a shorter track record since its inception was only July 2017. Over the trailing twelve-month period, CPIF's generated a 18.8% total gross return, outperforming the NPI Industrial by 468 basis points and exceeding the Fund's goal of 50-100 basis points. One likely contributor to the Fund's success over the benchmark is the 64% allocation to the Pacific sub-region, which has consistently been one of the benchmark's top performers over the past year, delivering a total return of 14.8%. The Fund is currently overweight this sub-region relative to the benchmark by 22% and has significant exposure to several of the sub-region's top gateway markets including San Diego (15%), Seattle (14%), and Los Angeles (12%), which saw total trailing 12-month returns of 14.9%, 13.4%, and 11.3%, respectively, during 2020.

The trailing 12-month same store net operating income for fourth quarter 2020 was up 3 percent from fourth quarter 2019, which is reflective of positive leasing activity, including earlier than anticipated lease-up of vacant spaces, achieving higher rents, and providing fewer concessions than anticipated. Additionally, the Fund's weighted average IRR and Exit cap rate have compressed 22 basis points and 19 basis points, respectively, due to continued strong investor demand for industrial product within the Fund's existing market exposures. Compared to year-end 2019, the Fund's core portfolio weighted average going in cap rate decreased 19 basis points. This has led to a growth in the Fund's Gross Real Estate market values of 23%.

## ESG POLICY & PRACTICES

DWS has well defined ESG policies, which are interwoven into the Firm's Sustainability House Views consisting of (1) Data Collection, (2) Implementation, (3) Goal Setting, and (4) Measurement. The Firm published their ESG Policy in 2020; however, it's worth noting that this policy was derived from DWS' Standards of Sustainability first published in 2011 and DWS' Sustainability House Views published in 2015. The firm maintains an annually reviewed code of ethics, DEI policy, non-discrimination policies, and code of conduct, all of which require annual training by DWS employees.

In 2017 the Responsible Investment Leadership Team ("RILT") took charge of overseeing the development and implementation of the global ESG and responsible investment strategy across DWS. The RILT is chaired by the Head of Responsible Investments and consists of the CIO for Responsible Investments and senior representatives from coverage, marketing, product, communications, corporate strategy and transformation, and human resources. The RILT meets regularly to discuss issues and initiatives across the Firm relating to ESG and sustainability. The Head of Responsible Investments reports to the DWS Executive Board member who also serves as the Global Head of Client Coverage. In regard to DWS staff, approximately 27% of executive positions at the firm management level were held by women, up from 22% in 2019.

ESG considerations are evaluated by DWS at all stages of the real estate investment cycle from acquisition, throughout the hold period, and at disposition. DWS employs a strategy of continuous evaluation of ESG considerations after acquisition with the goal of improving the value of the asset through reduction of energy and water consumption, effective waste diversion practices, health and wellness programs, third-party green labels and certifications, and asset hardening through climate risk and resiliency assessments. Specifically, DWS invests in technical building assessments during the hold period. Assessments are conducted both internally by DWS staff as well as by qualified third-party vendors and consultants, such as Measurabl. These technical building assessments are deployed to assess risks related to climate change, GHG emissions, energy efficiency, tenant engagement strategies such as transportation, waste management, and water savings. Since the

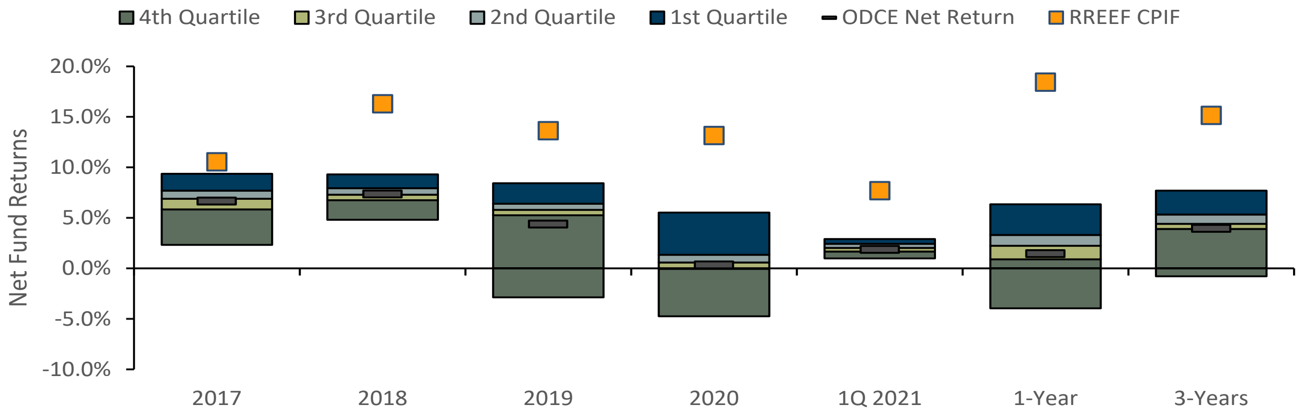
beginning of 2016, all DWS properties are required to choose a feasible efficiency measure assessment and add the recommended project to the budget.

The Fund is in its infancy stage with regard to submitting to GRESB, first reporting in 2020. It should be noted that a fund's first report with GRESB typically receive a relatively poor score; however, CPIF scored well relative to its industrial peers. For new funds, progressive improvement in subsequent years' reports should be a strong indication of the Fund's advancement. Additionally, the Firm was an early adopter of the Principals for Responsible Investment ("PRI"), becoming a signatory in 2008. Since 2008, DWS has scored inline or better than the median PRI signatory, with this past year's assessment scored an A+. Furthermore, DWS is a member or signatory of the Task Force for Climate Related Financial Disclosures, the Urban Land Institute, Climate Disclosure Project, UK Sustainable Investment and Finance Association, NAREIT Sustainability Council, Ceres, and many more.

Based on the above referenced factors, we have concluded CPIF's ESG rating to be "Advanced". DWS' commitment to ESG dates back to 2008 when the firm became a signatory of PRI. Additionally, the Firm stands out amongst its peers in that DWS has dedicated team to oversee the Firm's ESG initiatives. CPIF's partnership with GRESB is relatively new, and even so, in 2020 CPIF scored relatively well amongst the industrial fund peer set, further supporting the "Advanced" rating.

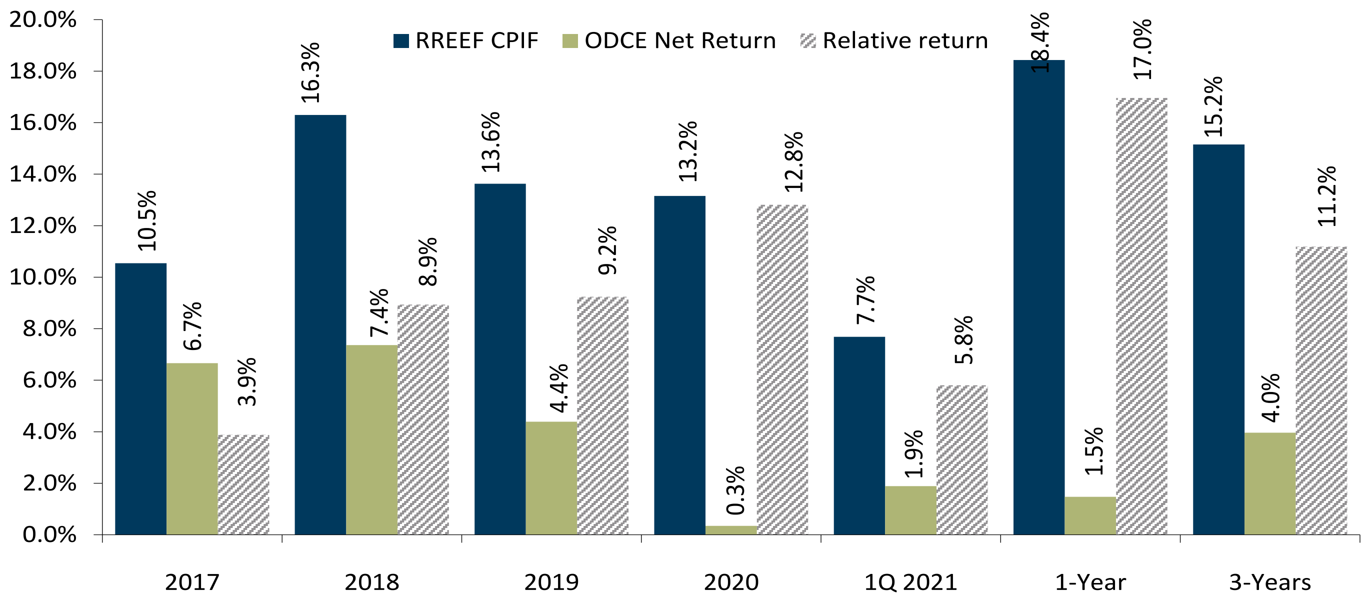
# APPENDIX

***Historical Performance Quartiles** – As of March 31, 2021*

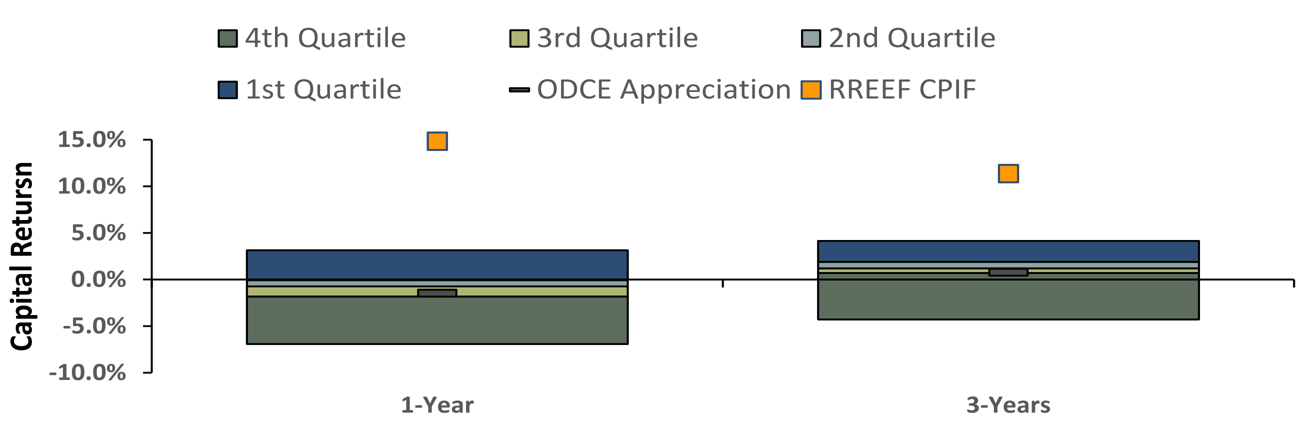



**Source: Townsend U.S. Open-Ended Core Fund database as of March 31, 2021. Range shown is 95th to 5th percentile.**

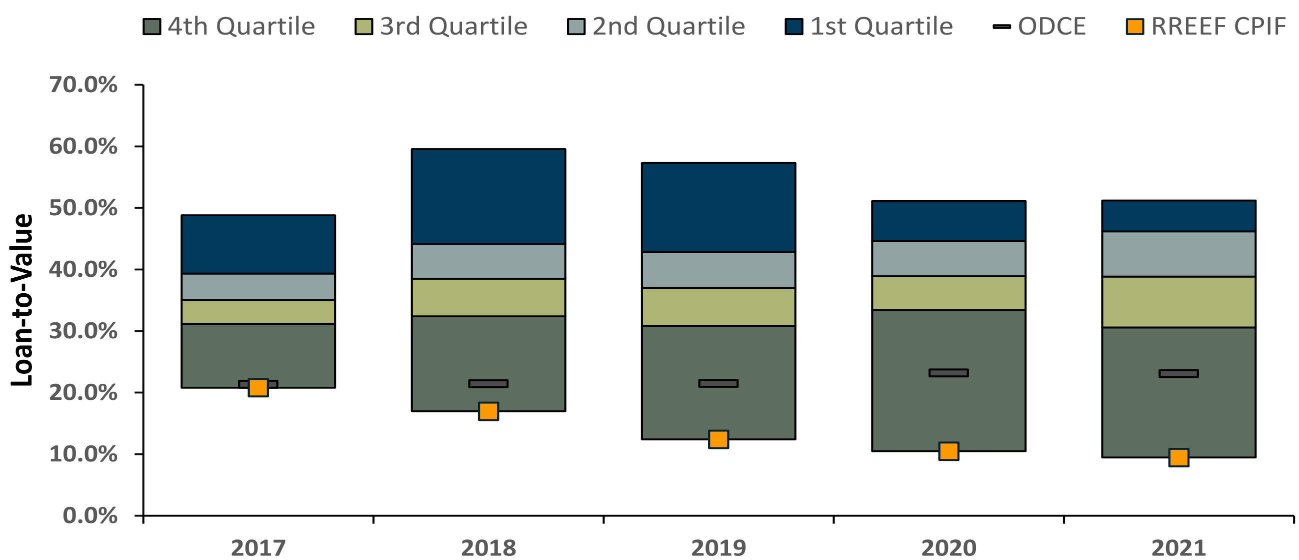
***Historical Relative Fund Performance –*** *As of March 31, 2021*



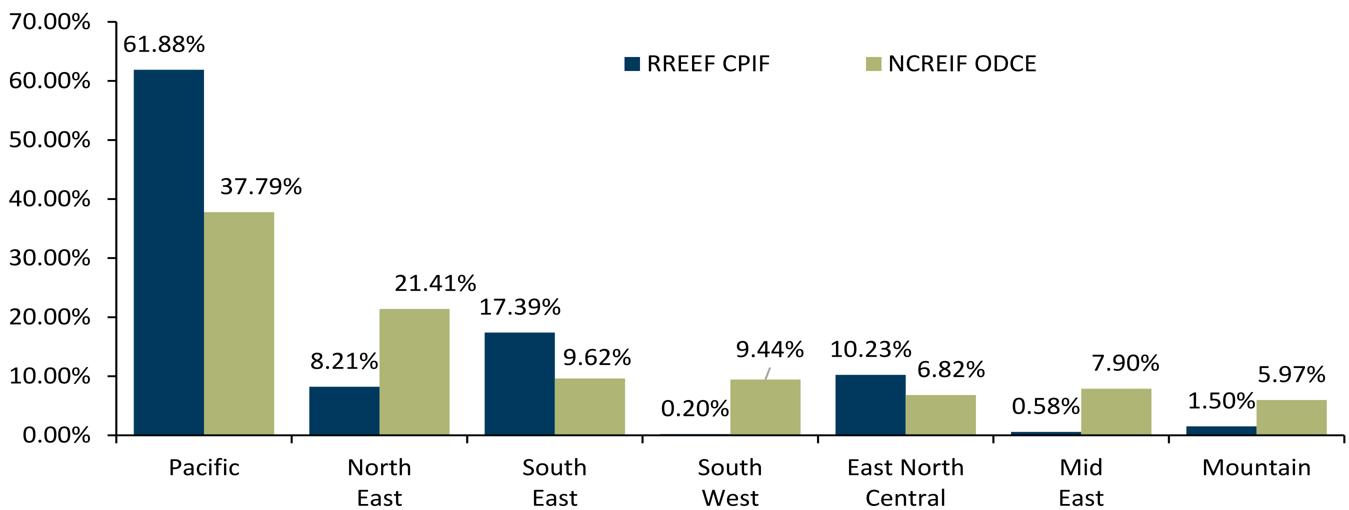

***Capital Return (Appreciation) Historical Performance Quartiles –*** *As of March 31, 2021*



***Progression of Leverage** – As of March 31, 2021*




***Fund Diversification** – As of March 31, 2021*



***Top 10 U.S. Market Exposures*** *–As of March 31, 2021*

| MSA | % Total Fund NAV |
|---|---|
| Miami-Fort Lauderdale-Pompano Beach, | 17.6% |
| Los Angeles-Long Beach-Santa Ana, CA | 15.1% |
| San Diego-Carlsbad-San Marcos, CA | 14.9% |
| Seattle-Tacoma-Bellevue, WA | 11.2% |
| Chicago-Naperville-Joliet, IL-IN-WI | 10.4% |
| Portland-Vancouver-Beaverton, OR-WA | 9.6% |
| Riverside-San Bernardino-Ontario, CA | 7.1% |
| Trenton-Ewing, NJ | 5.9% |
| San Jose-Sunnyvale-Santa Clara, CA | 3.7% |
| York-Hanover, PA | 2.3% |

## Top Ten Assets (by MV)

| Property | City | State | $MV |
|---|---|---|---|
| **Vantage Point** | Poway | CA | 186,100,000 |
| **Portland Distribution Center** | Portland | OR | 123,200,000 |
| **Olympia** | Kent | WA | 107,318,000 |
| **Centergate at Gratigny - Phase I** | Hialeah | FL | 100,900,000 |
| **Centergate at Gratigny - Phase II** | Hialeah | FL | 96,400,000 |
| **9050 Hermosa** | Rancho Cucamonga | CA | 90,700,000 |
| **159 Milford** | East Windsor | NJ | 75,300,000 |
| **Jefferson Industrial** | Elk Grove Village | IL | 55,700,000 |
| **Nelson Business Park** | City of Industry | CA | 52,100,000 |
| **111 Uranium** | Sunnyvale | CA | 47,700,000 |

## Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product and its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

**Buy** – Townsend recommends the investment for those client portfolios where it is a fit.

**Qualified** – Townsend believes the sponsor to be qualified to manage client assets.

## Operational Risk Profile Rating Explanation

| Rating | Definition |
|---|---|
| ✓+ | Aon completed its review process and noted no material operational concerns within the areas it reviewed and finds that these aspects of the firm's operations largely align with a well-controlled operating environment. |
| ✓ | Aon completed its review process and the firm's operations within the areas Aon reviewed largely align with a well-controlled operating environment, with limited exceptions. Managers may be rated within this category due to resource limitations or asset class limitations or where isolated areas do not align with best practice. |
| No Rating | Aon was unable to complete its review process due to incomplete information, policies and procedures that are under development or in transition, or for other reasons. Aon may review the rating if these items are addressed. |
| ✓- | Aon completed its review process and noted material operational concerns that introduce the potential for economic loss or reputational risk exposure. |

## About Townsend Group – An Aon Company

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

### Disclaimer

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Past Performance is no guarantee of future results. Investing involves risk, including possible loss of principal.

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Townsend is a registered investment adviser with the Securities and Exchange Commission and is a wholly owned, indirect subsidiary of Aon plc

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-45**

## To Redeem and Redeploy $140 Million Dollars of Arkansas Teacher Retirement System Assets Managed by J P Morgan And rebalance the Arkansas Teacher Retirement System Position in JP Morgan Strategic Property Fund.

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its real assets investment consultant, Aon Hewitt Investment Consulting, Inc., along with the recommendation of the Investment Committee and ATRS staff regarding the redemption and redeployment of approximately $140 million dollars of ATRS assets managed by JP Morgan Strategic Property Fund in order to rebalance the ATRS real assets portfolio and add more diversification**.**

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves the redemption and redeployment of approximately $140 million dollars of the ATRS position in JP Morgan Strategic Property Fund**;** and

***FURTHER, BE IT RESOLVED,*** that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this redemption and redeployment if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

_______________________________
**Mr. Danny Knight,** ***Chair***
***Arkansas Teacher Retirement System***

TOWNSEND GROUP
an Aon company

# Real Estate InTotal

# Morgan Stanley Real Estate Investing

Prime Property Fund

March 2021

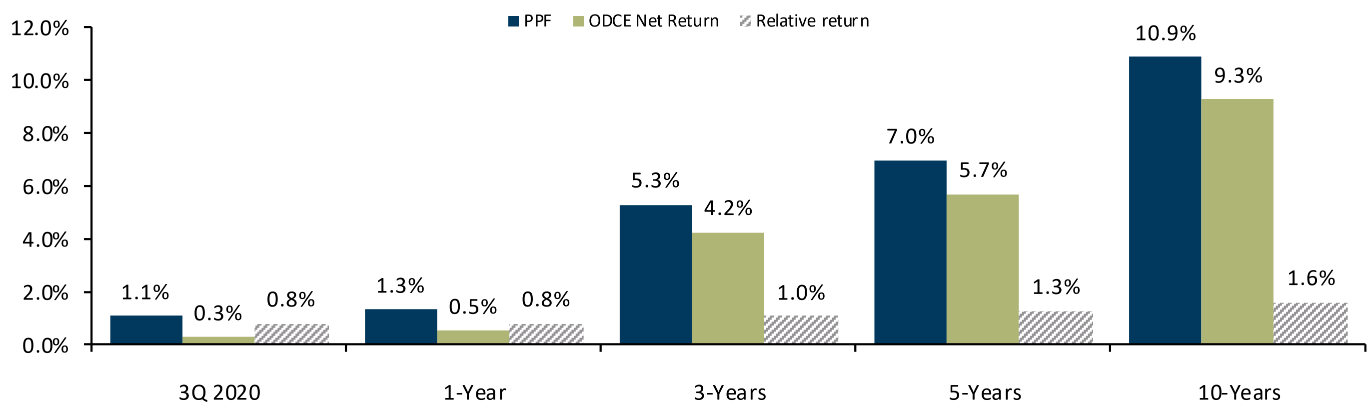
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Current Rating | Previous Rating |
|---|---|---|
| February 2021 | BUY | BUY |

The Prime Property Fund ("Prime", "PPF" or the "Fund") is a diversified, open-end Core real estate fund that targets high quality, well-leased, income-producing properties located in select primary markets in the U.S. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10% (gross). Relative to its benchmark, the Fund has been able to consistently generate alpha.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-Ended | **Risk Segment** | Core |
| **Size NAV** | $26.7 Billion | **Strategy Inception** | 1973 |
| **Current/Maximum Fund Leverage** | 19.1%/50.0% | **Current/Max Non-Core Exposure** | 9.7%/20.0% |
| **Valuations** | Quarterly/Altus | **Minimum Commitment** | $5 million |
| **Investment Guidelines** | NFI-ODCE | **Number of Holdings** | 376 |
| **Performance Objective** | Outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10%, gross of fees. | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Headquarters** | New York, NY | **Parent Company** | Morgan Stanley (NYSE:MS) |
| **Fund Sponsor** | MSREI | **Year Founded** | 1931 |
| **RE Employees** | 200 | **Investment Staff** | 76 (US) |
| **Real Estate AUM** | $44 Billion | **RIA** | Yes |

## COMPARITIVE ADVANTAGES

1. Platform Strength:

Morgan Stanley Investment Management ("MSIM") has a total AUM of $51.7 billion with $43.8 billion in real estate. Morgan Stanley Real Estate Investing manages global real estate through three products: Prime Property Fund (US Core), Prime Property Fund Asia (Asia Core), and North Haven Real Estate Funds (Global Opportunistic). MSREI has over 200 professionals located in 17 offices across 13 countries. Prime is MSREI's single largest fund and comprises approximately 75% of gross real estate assets in the U.S.

Prime is led by Scott Brown, who is a Managing Director at Morgan Stanley, Head of Prime Property Fund in the U.S. and Global Head of Prime. Mr. Brown has been working with Prime since 1993 and has been fully dedicated to Prime since 2002. Mr. Brown has over 29 years of real estate experience and serves as a member on various investment committees across the platform.

2. Wholly Owned Development Companies:

Prime's operating companies have provided significant value creation relative to the peer set during recent time periods. AMLI is a wholly-owned multifamily development platform focused on the development, acquisition and management of apartments across the U.S. Safeguard Self Storage is a wholly-owned self-storage development company. Both are owned by Prime Property Fund and give investors access to unique proprietary platforms dedicated to their individual sectors.

3. Strong Performance Track Record and Portfolio Positioning:

Prime has provided strong risk-adjusted returns through market cycles. It has meaningfully outperformed the NFI-ODCE Index over all recent major time periods. Prime has created value through its operating companies and through its overweight's to favored sectors such as the industrial and healthcare, relative to the NFI-ODCE.

## POTENTIAL ISSUES AND CONCERNS

1. Higher Fee Load:

Relative to its peers, Prime has a higher total fee load relative to its ODCE peers. The management fee is fixed at 84 basis points for all investors. Prime also has an incentive fee component (5% of the beginning monthly NAV multiplied by the comparable property NOI growth). Prime's historical fee spread relative to the NFI-ODCE is listed below:

| Fee Spread | 1-Year | 3-Year | 5-Year | 7-Year | 10-Year |
|---|---|---|---|---|---|
| **Prime** | 0.85% | 1.05% | 1.09% | 1.16% | 1.24% |
| **NFI-ODCE** | 0.88% | 0.93% | 0.95% | 0.98% | 1.01% |

**Discussion:**

Although Prime has a higher fee load relative to ODCE, it has shown consistent outperformance net of all fees and expenses. The incentive fee is also capped at 35 bps per annum. Prior to 2013, the Management Fee was 90 bps with a capped incentive fee of 45 bps.

2. Mall Exposure:

Relative to peers, Prime does have a significant exposure to malls. Prime's total mall exposure is approximately 6% of the Fund's NAV across five total assets, which are listed below.

- Fashion Valley Mall (San Diego, CA)
- Dadeland Mall (Miami, FL)
- Christiana Mall (Newark, DE)
- Rosedale Shopping Center (Roseville, MN)
- Fox Run Mall (Newington, NH)

Regional and Super Regional Malls have been the lowest performing sub-property type both within the NPI and the Retail sector. As of December 31, 2020, the five-year returns for Regional Malls are 165 basis points and 545 basis points below the returns for the Retail Sector and NPI respectively, while Super Regional Malls are 88 basis points and 468 basis points below the Retail Sector and NPI five year returns, respectively.

**Discussion:**

While malls have been the lowest performing retail sub-sectors, Prime has a history of investing in high-quality assets, including high quality retail. Of the five total mall assets, three are A++ rated (Christiana Mall, Dadeland Mall, and Fashion Valley Mall). A++ malls typically exhibit high productivity (estimated sales per square foot at or above $1,000) and have experienced less valuation pressure versus lower-quality malls. It's also important to note that Prime's total retail exposure is underweight to NFI-ODCE, which has led to positive return attribution relative to the index.

3. Current Global Turmoil

Covid-19 fueled market volatility approximately one year ago in both the stock and bond markets, creating a situation of uncertainty for private real estate pricing. Despite the subsequent rally in public markets, commercial real estate transactions remain muted, with an approximate 50% decrease year-over-year in the third quarter of 2020, restricting the full scope and ability to determine pricing in each sector. The majority of transactions have primarily occurred in the apartment and industrial sectors, so the full impact on the office and retail sectors is still relatively unknown. However, most open-end managers (including Morgan Stanley) have been actively writing down assets at the direction of third-party valuation firms like Altus.

While there is still some lingering uncertainty in private market valuations for certain property types, Townsend would be supportive of clients moving forward with new commitments to (i) portfolios positioned well with underweights to office and retail property types and (ii) funds that offer control and flexibility as to when its capital will be called. That way if investors are not comfortable with current portfolio valuations, investors can rescind or delay commitments.

**Discussion:**

Prime has an active underweight to the office and retail sectors relative to the NFI-ODCE. As of December 2020, Prime's office and retail exposure was 28.9% and 11.5%, respectively, while the ODCE's exposure to those sectors was 32.9% and 14.2%, respectively. While transactions have decreased significantly overall, transaction volume has increased in the industrial and multifamily sectors over the last couple of quarters. We would expect transaction activity to increase in the other primary sectors in the upcoming year, providing a more accurate picture of the impact of valuations on office and retail assets. Prime's deposit queue is approximately $732 million as of December 2020. Based on the manager's projections, investors can expect its capital won't be fully drawn until two to four quarters. Additionally, Prime offers investors a revocable queue meaning investors would the ability to reduce/rescind its commitment prior to funding.

# INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | The Prime Property Fund ("Prime" or the "Fund") is a U.S. open-end diversified Core fund that targets high quality, income-producing Class A properties located in primary markets. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10%, gross of fees. Focus is placed on current income, aiming to generate 6-8% annually. The Fund pursues a slightly higher risk strategy within the Core classification due to its relatively higher use of leverage and utilization of wholly-owned operating companies within the Fund. |
| **Sponsor** | Morgan Stanley Real Estate Investing ("MSREI") has a global platform of real estate investment products and strategies with almost $44 billion in assets under management ("AUM"). PRIME is MSREI's single largest fund at almost 75% of total real estate AUM, which positions it favorably to access the full resources of the MSREI platform. PRIME has experienced net positive inflows over the past few years. In 2016, Morgan Stanley Investment Management announced a new leadership structure, with MSREI becoming part of the Real Assets Group. There is no impact on Prime's business or investment staff. |
| **Operational Due Diligence** | Morgan Stanley has sufficient operational guidelines in place and its valuations policies are in line with industry best practices. A Valuation Committee has been instituted to review appraised values. Any adjustments to an external independent appraisal must be documented and explained to Prime's predominantly independent Board of Directors. The Board of Directors is also responsible for approving any changes to Prime's valuation policy. |
| **Investment Process** | MSREI uses an eight-step investment process: 1) Investment guidelines are developed and approved by the Board. 2) MSREI reviews a robust pipeline of transactions to source deals. 3) Potential investments are tracked through MSREI's investment pipeline. MSREI underwriting teams analyze investments that are appropriate for Prime's strategy. 4) Investments are reviewed by an Allocation Committee if an investment is appropriate for multiple clients. 5) Investments are reviewed and approved by an investment committee of MSREI professionals and representatives from Morgan Stanley. 6) Following investment approval, due diligence is under taken and closing occurs upon approval of portfolio management. 7) Asset management will aim to maximize value of each individual property. Asset managers oversee third-party valuations completed on a quarterly basis. 8) A hold/sell analysis is performed on all investments within the portfolio. |
| **Fund Structure** | The Fund is a limited liability company under Delaware law and has elected to be treated as a REIT for US federal income tax purposes.<br><br>The Fund has two types of shares: voting Shares and non-voting Shares. The Fund will not have more than 190 non-voting Shares issued and outstanding at any time except as necessary to comply with rules relating to REITs or to elect or maintain the Fund. |
| **Performance** | Prime owns one of the longest track records in the core space, with a fund inception in 1973. Prime has outperformed NFI-ODCE over 1-, 3-, 5-, 7-, and 10--year periods, and since inception. Prime's outperformance has been driven by several factors, including the utilization of a wholly-owned AMLI multifamily development platform and a wholly-owned Safeguard self-storage platform, geographic exposure to major markets throughout the US that have generated strong unlevered performance, and tactical property-type over- and underweights. |
| **ESG Policy & Practices** | Prime has a deep ESG platform as well as actively and regularly participates in industry benchmarking and standard practices related to ESG. In 2020, Prime received a GRESB rating of 81 and is four-star rated, scoring within the top third of its peer group. Townsend recommends an Advanced ESG Rating for Prime. |

| | | |
|---|---|---|
| **Overall Rating** | **Buy** | Prime has consistently outperformed NFI-ODCE through accretive acquisitions and dispositions within the US and the utilization of wholly-owned platforms that have generated superior returns on non-core development. Prime is supported by MSREI, an experienced platform with approximately billion AUM. Scott Brown, Portfolio Manager, provides substantial experience to the Fund with 30 years in real estate and over 25 years with Morgan Stanley. Prime is positioned to continue to outperform NFI-ODCE, driven by a tactical overweight to Industrial, a growing allocation to Healthcare, a large pipeline of Multifamily, Industrial, and Self-Storage development, and geographic concentration in outperforming major markets. Townsend recommends Prime as a BUY. |

## STRATEGY

As of December 31, 2020, Prime's gross asset value was $33.4 billion across 376 investments, making Prime the second largest fund within the NFI-ODCE index. The portfolio is well diversified across all major property types and is invested in major markets throughout the US.

Prime's ten largest assets comprise approximately 16% of the total Fund portfolio. These assets include Class-A super regional malls and large-scale CBD office assets in major gateway markets. Approximately 63% of the portfolio is invested in Prime's seven preferred target markets: Southern California (15.6%), Northern California (7.6%), Chicago (8.6%), South Florida (9.2%), New York (7.8%), Boston (6.7%), and Washington, DC (6.4%). Prime's near-term region diversification targets are the following: East (30-40%), South (15-25%), Midwest (5-15%), and West (30-40%).

Prime's near-term property-type diversification targets are the following: Office (25-35%), Apartment (20-30%), Industrial (20-30%), Retail (5-15%), Storage (0-5%), and Healthcare (5-10%). Relative to NFI-ODCE, Morgan Stanley has recently positioned the Fund overweight to industrial to take advantage of the strong fundamentals exhibited within the sector. Same-store industrial NOI Growth was 11.2% in 2020 within Prime's portfolio. Prime also has a unique exposure to the Healthcare sector, which includes thirty medical office buildings and five life-science assets.

As of December 31, 2020, leverage was 19.1%. Non-core exposure represents 9.7% GAV as of 4Q20. Prime's non-core pipeline mostly consists of multifamily, self-storage, and industrial development. Prime's wholly owned AMLI multifamily development platform has been a significant driver of appreciation. Since 2012, AMLI has delivered over 8,000 units. Prime also utilizes a wholly owned Safeguard self-storage platform for self-storage development.

## SPONSOR

Morgan Stanley Real Estate Advisor Inc. is a wholly-owned subsidiary of Morgan Stanley and is functionally located within Morgan Stanley Real Estate Investing (MSREI), itself a part of Morgan Stanley's Merchant Banking division. In 2008, Morgan Stanley changed its status to a bank holding company and participated in the U.S. Treasury's capital injection program (repaid in 2009). The organization also sold off its retail asset management business, to focus on its institutional client base.

In February 2016, Morgan Stanley Investment Management ("MSIM") announced a new leadership and organizational structure which includes the realignment of investment teams across six groups: Real Assets, Solutions & Multi-Asset, Active Fundamental Equity, Private Equity & Credit, Global Fixed Income and Global Equity. MSREI is now part of the Real Asset group, which also encompasses the Firm's global listed real assets and private infrastructure investment teams.

John Klopp was named Head of Real Assets transitioning out of his role as Co-CEO and Co-CIO of MSREI and Head of the Americas. Mr. Klopp continues to sit on the MSREI real estate funds' investment committee and also serves as Affiliate Director of the Prime Property Fund. Olivier de Poulpiquet, who with Mr. Klopp had been Co-CEO and Co-CIO since 2010, now serves as sole Head of MSREI. Lauren Hochfelder Silverman is Head of the Americas.

Prime is the flagship core real estate fund at MS. It is organized as a private REIT and has oversight by an independent Board of Directors. The Board meets quarterly to review the strategy and investment performance of Prime and monitors the management responsibilities of the portfolio management team. The Board also reviews any asset related issues.

| Key Staff | Position | Date Joined | Years of Experience |
|---|---|---|---|
| **Scott Brown** | Portfolio Manager | 2003 | 30 |
| **Candice Todd** | CFO | 2001 | 30 |
| **Bennett Weaver** | Head of Operations | 2013 | 21 |

Scott Brown serves as the Global Head of PRIME, overseeing the PRIME series of real estate core funds globally. He is responsible for the portfolio implementation and management of the Prime Property strategy. His prior experience includes acquisition activities at Lend Lease Real Estate, which is the predecessor to Prime Propriety.

Candice Todd is a Managing Director of Morgan Stanley and the CFO of Prime Property Fund, responsible for the Fund's capital structure and REIT compliance. Prior to joining Morgan Stanley in November 2003, Candice worked for Lend Lease since 1994 and has over 30 years of real estate experience.

Bennett Weaver is the third key component of the Portfolio Management Team and is Head of Operations of Prime Property Fund. Prior to joining Morgan Stanley in July 2004, Bennett worked for Lend Lease and has over 20 years of real estate experience.

The Fund can leverage the global MSREI platform and the broad expertise, deep relationships and powerful franchise of Morgan Stanley, including investment banking, merchant banking, private wealth management, etc., which is a significant benefit to Fund's deal flow.

Investments for Prime are reviewed and voted on by a 12-member senior management investment committee including individuals from MSREI and risk management. John Klopp, co-Chief Executive Officer of the Firm, serves as Chairman.

The Firm's research team is shared across MSREI's products and geographies. In the U.S., the team is mostly responsible for aggregating third party research data by property type and geography. While newly designed top down models have been developed, the Fund mostly draws from bottom up resources of the broader platform to determine what assets are most attractive in each market, and research is used as a check. The acquisition and asset management teams, which are organized by geographic regions, are also shared resources across all MSREI products, and consist of 25 and 14 members, respectively. Acquisition and asset management work closely throughout the due diligence process and during the life of an asset; sharing market information and creating business plans/exit plans for each asset.

Prime owns AMLI Residential ("AMLI"), a multifamily private REIT. AMLI is focused on the development, acquisition and management of luxury apartment communities across the U.S. Thus, almost all of Prime's apartment activity is run through this group. Prime tends to focus on the 8-10 markets that were legacy AMLI strong holds, recently adding a few coastal metro-regions. AMLI is dedicated solely to Prime; with management co-investing alongside the Fund in all the apartment assets.

To reinforce the alignment of interest of key personnel with the performance of the Fund, Morgan Stanley awards shares that vest over time in the Fund based on personal annual performance and contribution to the Fund. Prime's performance fee is used to finance this employee incentive, which aligns the team's compensation to the increase and decrease in the share price of the Fund

## OPERATIONAL DUE DILIGENCE

The Aon Operational Due Diligence ("Aon ODD") team reviewed the fund sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions including: (I) corporate governance, (II) trade/transaction execution, (III) cash controls, (IV) valuation, (V) compliance, regulatory, legal, and controls testing, (VI) counterparty risk oversight, (VII) business continuity/disaster recovery, and (VIII) cyber security.

Morgan Stanley is a large and global investment manager with institutional levels of infrastructure, controls, and oversight across its operating environment. The firm is subject to independent oversight by a Board of Directors and has a robust supporting committee structure. MSIM's policies and procedures are comprehensive, well-documented and subject to reviews by both internal audit and annual SOC1 controls reviews by Ernst & Young.

The Aon ODD rating of the Manager is A1 Pass.

## INVESTMENT PROCESS

MSREI uses an eight-step investment process:

1) Investment guidelines are developed and approved by the Board.

2) MSREI reviews a robust pipeline of transactions to source deals.

3) Potential investments are tracked through MSREI's investment pipeline. MSREI underwriting teams analyze

investments that are appropriate for Prime's strategy.

4) Investments are reviewed by an Allocation Committee if an investment is appropriate for multiple clients.

5) Investments are reviewed and approved by an investment committee of MSREI professionals and representatives from Morgan Stanley.

6) Following investment approval, due diligence is undertaken and closing occurs upon approval of portfolio management.

7) Asset management will aim to maximize value of each individual property. Asset managers oversee third-party valuations completed on a quarterly basis. 8) A hold/sell analysis is performed on all investments within the portfolio.

The portfolio management team includes a dedicated Chief Financial Officer, Candice Todd, that manages the creditworthiness and liquidity of the Fund. Candice has over 30 years of experience and has been with Morgan Stanley for over 25 years.

Risk management oversight is provided at divisional and Firm levels by MSIM Risk and Morgan Stanley's Firm Market Risk Groups. These groups are independent from MSREI.

# FUND STRUCTURE

## SUMMARY

The Fund is a limited liability company under Delaware law and has elected to be treated as a REIT for US federal income tax purposes.

The Fund has two types of shares: voting Shares and non-voting Shares. The Fund will not have more than 190 non-voting Shares issued and outstanding at any time except as necessary to comply with rules relating to REITs or to elect or maintain the Fund.

## REVIEW OF KEY TERMS AND CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | 8% - 10% (gross) |
| **Cash Distributions:** | Fund expects to pay quarterly dividends equal to at least 90% of its REIT taxable income. |
| **Investment Management Fees:** | Calculated based on Net Asset Value<br>All levels of investment: 84 bps |
| **Other Fees:** | None |
| **Performance Fees:** | Accrues on a monthly basis over a calendar year.<br><br>Equal to 5% beginning of the month NAV multiplied by the comparable property NOI growth<br><br>Subject to an annual cap of 35bps per annum of the average monthly NAV for the calendar year. |
| **Debt Mark-to-Market:*** | (0.2)% compared to NFI-ODCE at (0.1)% at 3Q2020 |
| **Redemption Policy:** | All Shareholders have the right to request a redemption of Shares on a quarterly basis. A redemption request received prior to quarter end will be processed so as to bescheduled for payment generally at or shortly after the end of the next quarter. |

*Data as of 3Q2020. Due to a standard reporting lag, the most recent data available is as of 3Q.

### ENTRY AND EXIT PROCESS

All Shareholders have the right to request redemption of Shares on a quarterly basis. Requests received before the end of a quarter will be processed so as to be scheduled for payment generally at (or shortly after) the end of the next calendar quarter in accordance with the Fund's quarterly redemption process. The Fund will redeem Shares at the then Current Share Price on the day of redemption to the extent that the request was received prior to the end of the preceding quarter and the Fund has sufficient cash available to honor requests, consistent with applicable REIT rules and principles of prudent management.

### INVESTMENT MANAGEMENT FEES

Prime's blended fee structure consists of a flat asset management fee of 84 bps per annum and an incentive fee equaling 5% of comparable portfolio same store year-over-year NOI growth that accrues on a monthly basis and is capped at 0.35% of NAV.

## PERFORMANCE – *As of December 31, 2020*

Prime owns one of the longest track records in the core space, with a fund inception in 1973. Prime has outperformed NFI-ODCE over 1-, 3-, 5-, 7-, and 10-year periods, and since inception. Prime's outperformance has been driven by several factors, including the utilization of a wholly-owned AMLI multifamily development platform and a wholly-owned Safeguard self-storage platform, geographic exposure to major markets throughout the US that have generated strong unlevered performance, and tactical property-type over- and underweights. Historical income performance has been diluted by the fund's multifamily and self-storage development portfolios. Prime's leverage (19.1%) is below NFI-ODCE. Prime lowered their target leverage to 15-25% in the near-term.

### NEAR-TERM PERFORMANCE DRIVERS

**Industrial Overweight**

Prime's industrial exposure is 24.8% of GAV, approximately +300bps above NFI-ODCE. Prime has over 56 million square feet of industrial space today and primarily consists of distribution warehouses. Over 92% of Prime's industrial portfolio is in major distribution markets, including southern California, New Jersey, New England, and New York.

**Non-Core Development with Wholly Owned Development Platforms**

Prime's non-core exposure is currently 9.7% GAV. The AMLI multifamily and Safeguard self-storage platforms have been a large driver of appreciation within Prime historically. The Fund's existing pipeline today includes a combination of AMLI and Safeguard projects across the US in development and lease-up, four industrial developments in Atlanta, New York, and New Jersey, and an office asset in Pasadena.

**Healthcare**

Prime currently owns 30 medical office assets and five life-science properties. Calendar year same-store NOI growth was +6.8% for the healthcare sector in 2020.

**Fourth Quarter 2020**

Prime generated a gross return of 1.7% in the fourth quarter, outperforming NFI-ODCE by approximately +40 bps. Performance in the fourth quarter was driven primarily by industrial and healthcare, which generated an unlevered return of +4.1% and +11.6%, respectively, driven by leasing momentum across the both sector portfolios. The total percentage leased across the industrial portfolio reached 96.0%, with 3.8 million square feet leased in the fourth quarter. The healthcare sector's strong performance was comprised of 1.2% income and 10.3% appreciation.

Capital flows continue to remain strong, with Prime raising over $565 million of new subscriptions in the fourth quarter, with a total investment queue of $732 million. The redemption queue by quarter-end was $370 million, with a total of $400 million redemptions paid in the quarter.

# ESG POLICY & PRACTICES

Morgan Stanley has well-developed, transparent ESG policies and specific staff members dedicated to ESG. MSIM has a Sustainability Team and a Global Sustainable Finance Group, which is responsible for the firm's overall sustainability strategy and develops approaches that achieve social, environmental, and financial returns. In June 2020, Mona Benisi was hired as Head of Sustainability for Global Real Assets and is responsible for developing MSIM's ESG investment integration standards, which also includes annually reviewing the firm's ESG policy. In addition to the firm's ESG policy, MSIM also has an annually reviewed DEI policy, code of ethics, sexual harassment policy, as well as yearly training on these policies.

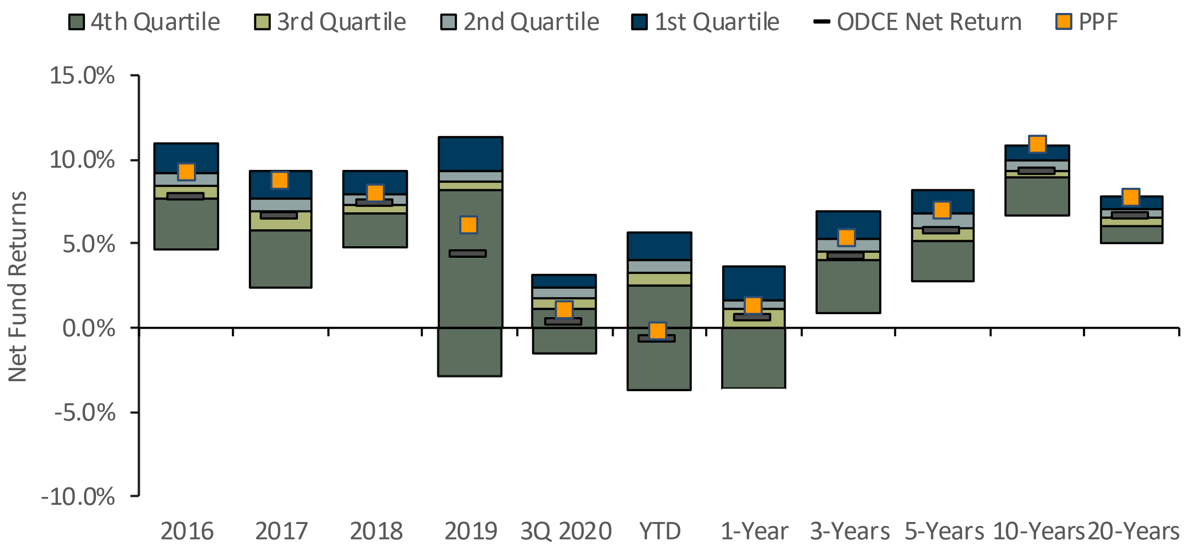
Each investment platform within MSIM has an ESG lead. Rob Poole is Executive Director and responsible for Sustainability for MSREI in the US. Josh Myerber, Deputy Portfolio Manager of Prime Property Fund, is focused on sustainability across the fund.

MSIM, MREI, and Prime have ESG processes in place which encourage consistent positive outcomes in benchmarking and encourage ESG stewardship at all levels. Prime has been a GRESB participant since 2014, with scores in the top third of its peer group and has received a 4-star rating over the past few years. The fund also actively tracks GHG emissions, tracks water and waste consumption at the asset level and works toward LEED Certifications and Energy Star Ratings in assets when applicable. In addition to GRESB, MSIM has also been a PRI Signatory since 2013 (receiving an A rating in the 2019 review), and is also a signatory to the TCFD, U.K. Stewardship Code, and the Japan Stewardship Code, as well as being a participant in SASB.

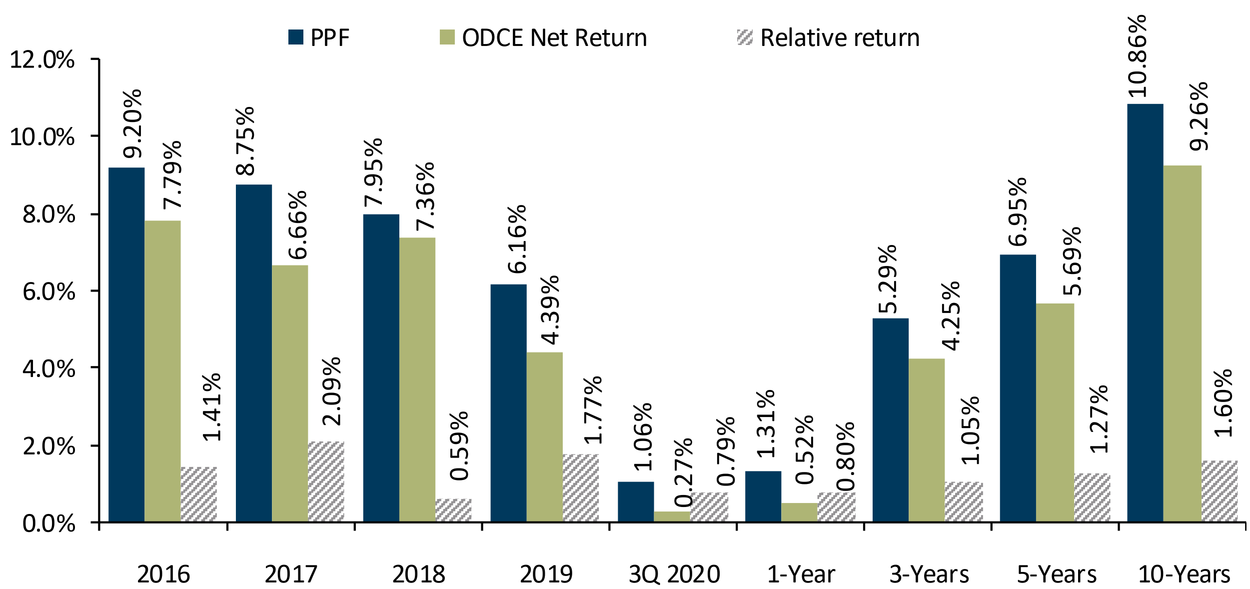
Based on the above referenced factors, Prime's ESG rating is Advanced.

# APPENDIX

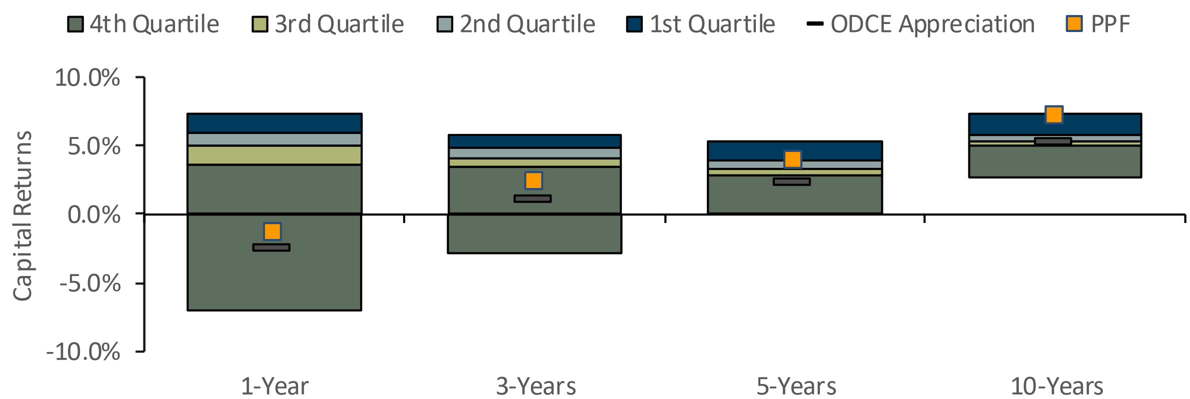
***Historical Performance Quartiles** – As of September 30, 2020*



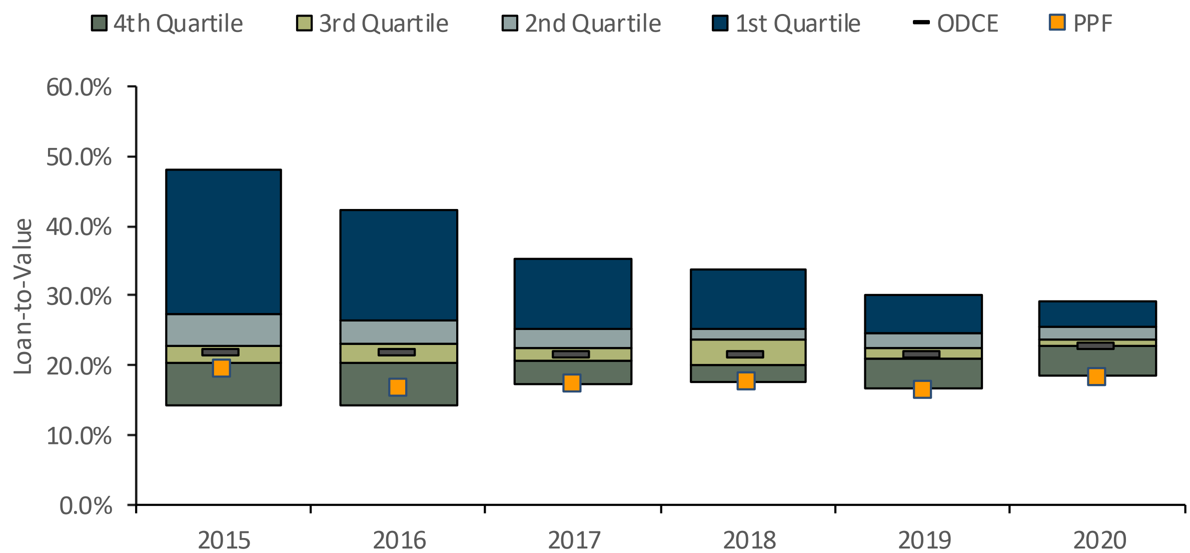

***Historical Relative Fund Performance –** As of September 30, 2020*



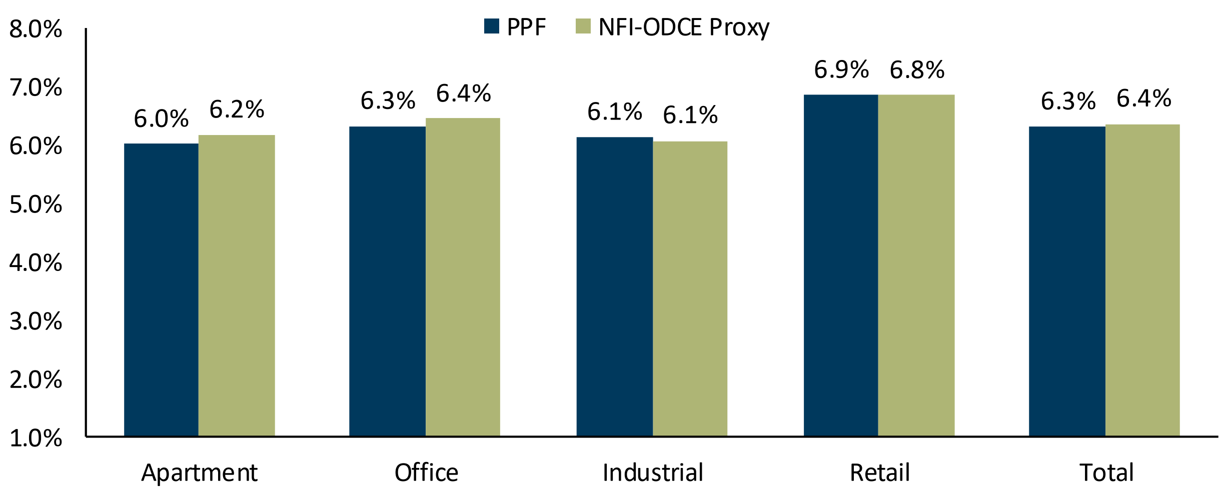
***Capital Return (Appreciation) Historical Performance Quartiles*** *– As of September 30, 2020*



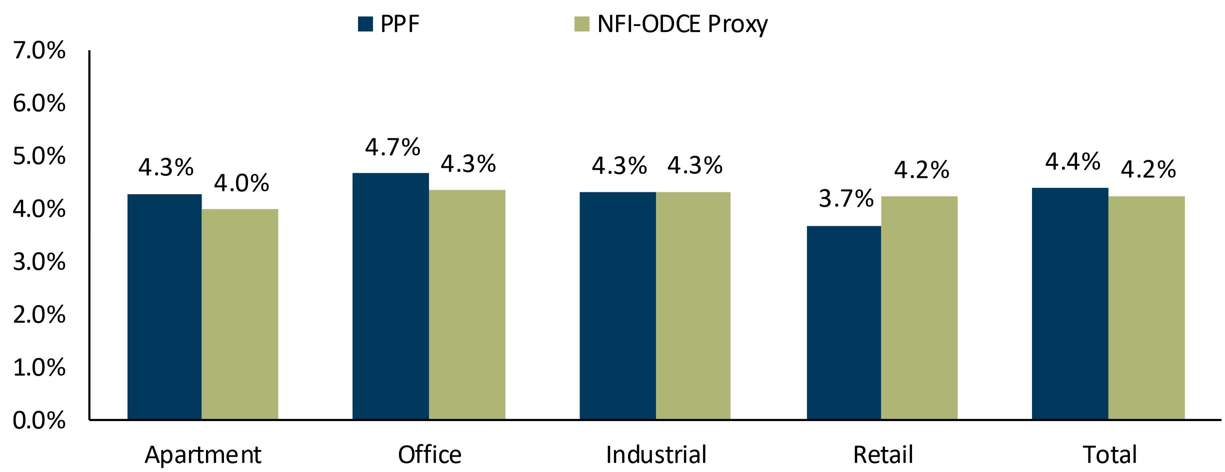

***Progression of Leverage*** *– As of September 30, 2020*



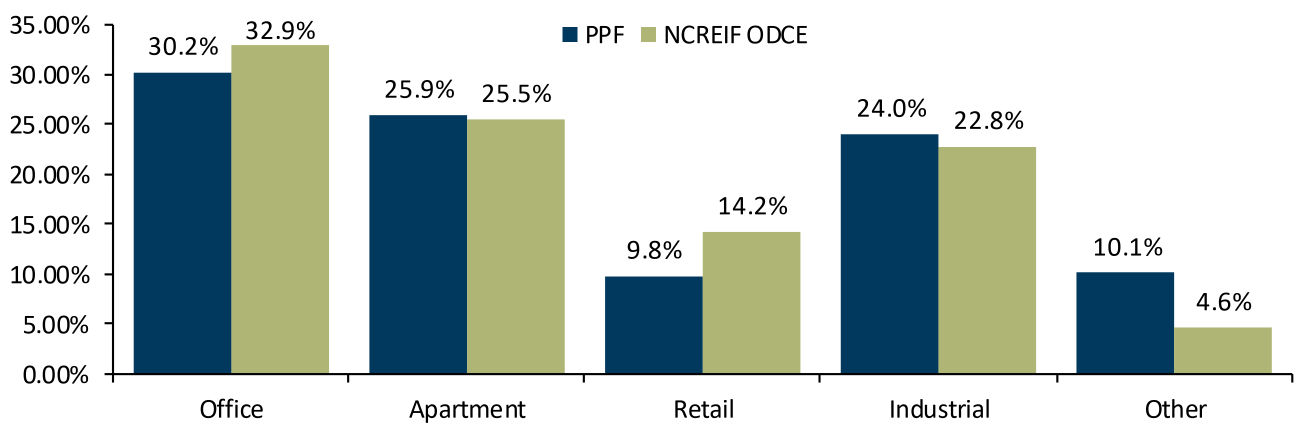

***Discount Rate*** *– As of September 30, 2020*



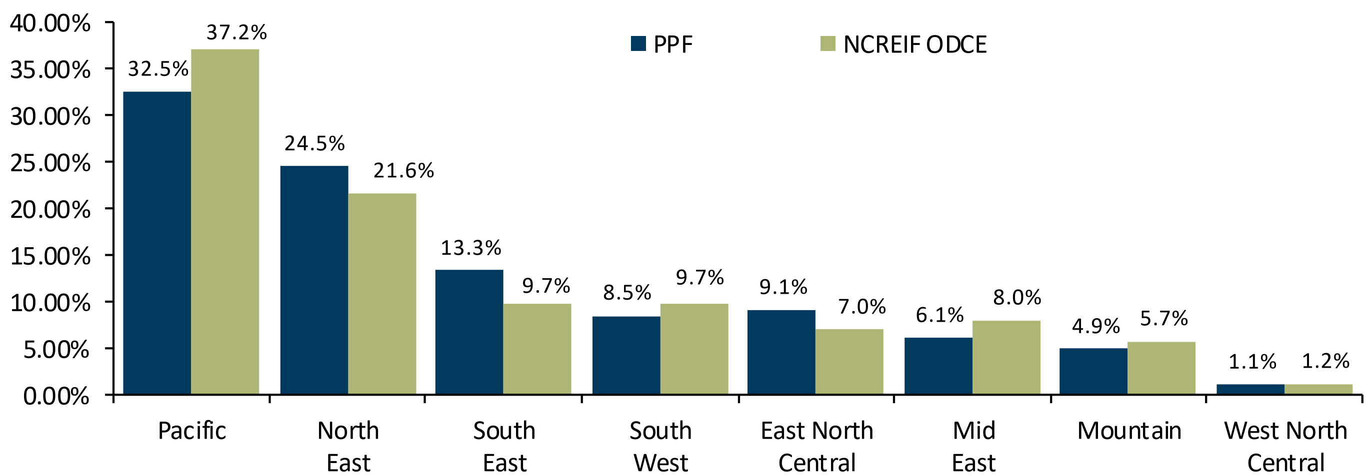
***Forward Cap Rates** – As of September 30, 2020*



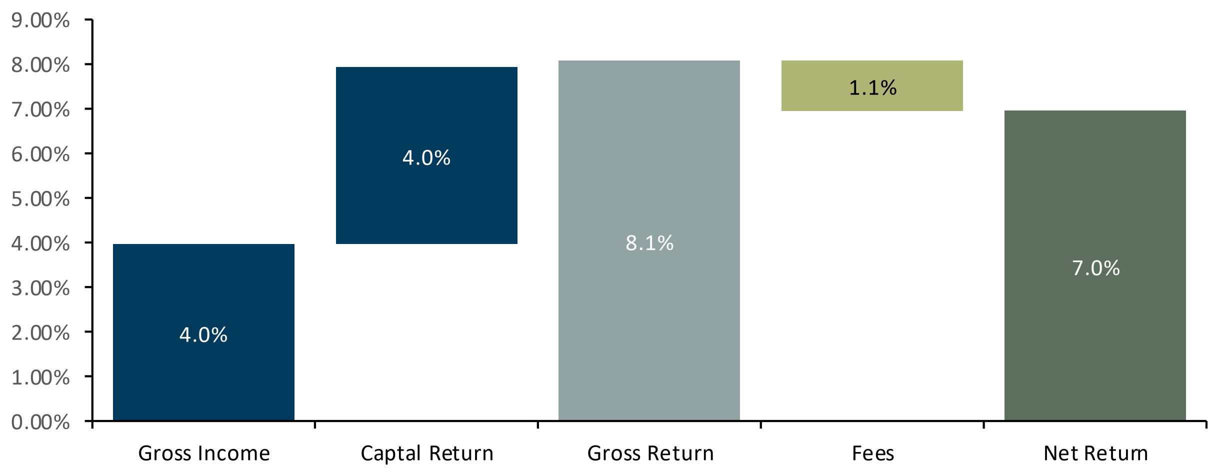

***Property Type Diversification** – As of September 30, 2020*




***Geographic Diversification** – As of September 30, 2020*



***Five Year Attribution*** *– As of September 30, 2020*




***Top 10 U.S. Market Exposures*** *– As of September 30, 2020*

| MSA | % Total Fund NAV |
|---|---|
| Los Angeles | 7.9% |
| Chicago | 3.3% |
| New York | 8.3% |
| Miami | 3.8% |
| Boston | 3.8% |
| San Francisco | 5.8% |
| Washington DC | 2.8% |
| Seattle | 2.6% |
| Denver | 4.6% |
| Atlanta | 7.0% |

# RATINGS EXPLANATION

The overall rating can be interpreted as follows:

| Overall Rating | What does this mean? |
|---|---|
| Buy | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products |
| Qualified | A number of criteria have been met and we consider the investment manager to be qualified to manage client assets |

The ESG rating can be interpreted as follows:

| ESG Rating | Interpretation |
|---|---|
| **Limited** | The fund management team has taken limited steps to address ESG considerations in the portfolio. |
| **Integrated** | The fund management team has taken essential steps to identify, evaluate, and mitigate potential financially material ESG risks within the portfolio. |
| **Advanced** | The fund management Team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate, and potentially mitigate these risks across the entire portfolio. |
| **Not Applicable** | ESG risks and considerations are not applicable to this strategy. |

# ABOUT THE TOWNSEND GROUP – AN AON COMPANY

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

**Disclaimer**

TOWNSEND® GROUP
an Aon company

950 Main Avenue
Suite 1600
Cleveland, OH 44113

## Memorandum

**To:** Arkansas Teacher Retirement System ("ATRS")

**From:** Chae Hong

**CC:** PJ Kelly; Jack Dowd; Richard Ferguson

**Date:** September 27, 2021

**Re:** JP Morgan Strategic Property Fund – $140 million Redemption Recommendation

RREEF Core Plus Industrial Fund - $70 million Commitment Recommendation

MS Prime Property Fund - $70 million Commitment Recommendation

---

### Background and Recommendation

As of Q1 2021 ATRS has invested roughly $283 million with JP Morgan's Strategic Property Fund ("SPF"), an open-ended commingled core real estate fund. This amounts to 31% of the core real estate portfolio and 21% of the total real estate portfolio. On a since inception basis SPF has returned a 6.4% net IRR. During July 2021 SPF announced it fully extinguished the Fund's redemption queue, providing ATRS with an opportunity to reinvest capital to better positioned core real estate opportunities. As such, we recommend ATRS request a $140 million redemption from SPF to be reallocated equally between Morgan Stanley Prime Property Fund ("Prime") and RREEF Core Plus Industrial Fund ("CPIF").

Aon Investments, USA is satisfied with the strategy of Prime and CPIF and its appropriateness for ATRS. Additionally, we believe that the merits of these offering outweigh its risks. Prime and CPIF InTotals are attached in the following Appendix for reference. We recommend that ATRS invest $70 million in Prime and $70 million in CPIF. Additionally, both Prime and CPIF provide investors with various investment vehicles. Townsend recommends ATRS consult with its tax and legal counsel to determine the most appropriate vehicles for the Plan.

### Fund Descriptions

SPF is the largest open-end, diversified core real estate fund in the US. The Fund has a long-term track record of investing in high-quality real estate in major gateway markets throughout the US. The Fund's largest assets include trophy office assets in major central business districts and a portfolio of Class-A super regional malls and lifestyle centers. SPF has historically been underweight to the industrial sector but has made a significant effort over the past twelve to twenty-four months to increase exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019.

Prime is a diversified, open-end Core real estate fund that targets high quality, well-leased, income-producing properties located in select primary markets in the U.S. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10% (gross). Relative to its benchmark, the Fund has been able to consistently generate alpha.

RREEF America L.L.C. ("RREEF"), part of DWS Group GmbH & Co KGa, launched CPIF, a core-plus open-end industrial fund in June 2017. The Fund invests in core (up to 100%) and non-core industrial (up to 50%) with leverage capped at 50% at the portfolio level.

# Appendix

TOWNSENDⓇ GROUP
an Aon company

Real Estate **InTotal**

# J.P. Morgan Asset Management

Strategic Property Fund, LLC

July 2021

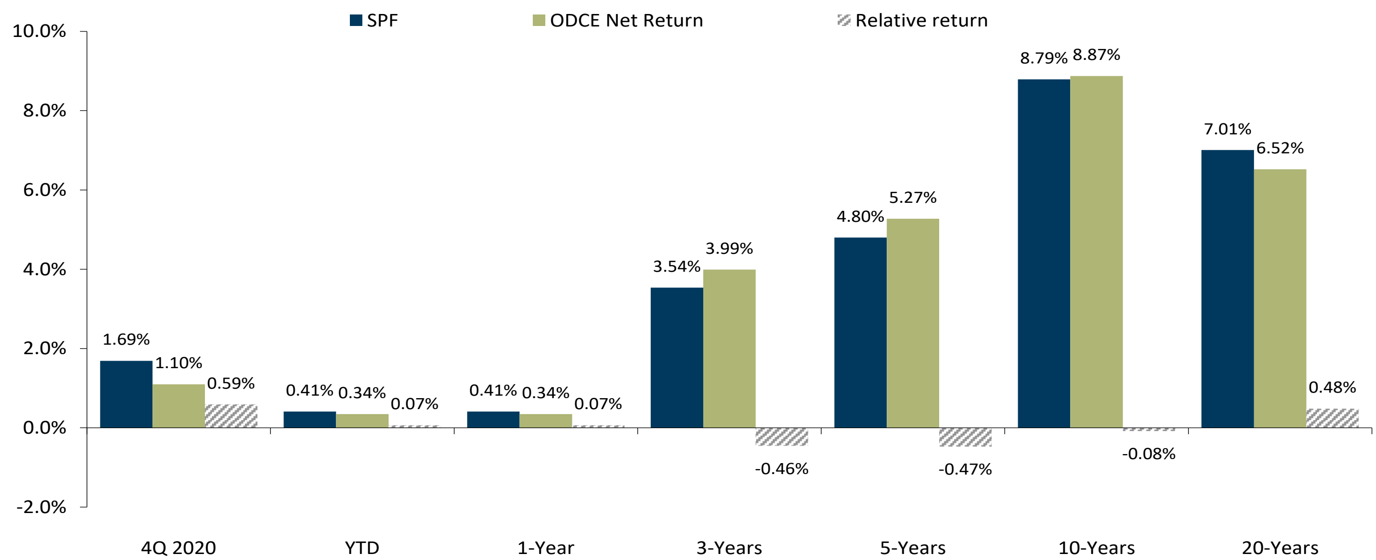
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Previous Rating |
|---|---|---|
| July 2021 | Buy | Buy |

JP Morgan Strategic Property Fund ("JPM SPF" or "SPF" or the "Fund") is the largest open-end, diversified core real estate fund in the US. The Fund has a long-term track record of investing in high-quality real estate in major gateway markets throughout the US. The Fund's largest assets include trophy office assets in major central business districts and a portfolio of Class-A super regional malls and lifestyle centers. SPF has historically been underweight to the industrial sector but has made a significant effort over the past twelve to twenty-four months to increase exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-End Fund | **Risk Segment** | US Diversified Core |
| **Size NAV** | $31.0 Billion | **Average Asset Size (NAV)** | $196.1 Million |
| **Valuations** | Quarterly FMV Debt & Equity | **Minimum Commitment** | $10 million |
| **Leverage** | 23.6% | **Current/Max Non-Core %** | 6.0%/15% |
| **Investment Guidelines** | In line with peers | **Number of Holdings** | 155 |
| **Performance Objectives** | Outperform the NCREIF Fund Index – Open End Diversified Core Equity ("NFI-ODCE") over a full market cycle. | | |
| **Benchmark** | NFI-ODCE | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Sponsor** | J.P. Morgan Chase Bank, N.A. | **Parent** | J.P. Morgan Investment Management Inc. |
| **Headquarters** | New York, NY, United States | **Strategy Inception** | 1998 |
| **Employees** | 7,203 | **Real Estate Team** | 185 |
| **Firm AUM** | $2.3 Trillion | **Real Estate AUM** | $73.2 Billion |

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## COMPARATIVE ADVANTAGES

1. Beta

The Fund's beta over the three-, five-, seven-, and ten- year periods are all less than or slightly above 1, indicating low volatility when compared to NFI-ODCE. As of December 31, 2020, the Fund had a 10-year beta of 1.071. Additionally, the Fund is also the largest in the index and as such, the large portfolio provides investors with a broadly diversified investment across a variety of property types and markets.

2. Unlevered Performance

The Fund's has generated total property-level unlevered performance of +1.9%, +4.7%, and +5.6% respectively over 1-, 3-, and 5-year periods, outperforming ODCE-NPI by +60bps, +33bps, and +9bps. The fund's strong unlevered performance is attributed largely by the Fund's office portfolio. The Fund's office assets generated unlevered performance of +5.0%, +6.5%, and +6.4% over 1-, 3-, and 5- year periods respectively, outperforming ODCE-NPI Office by +356bps, +155bps, and +78bps.

## POTENTIAL ISSUES AND CONCERNS

1. Underweight Industrial

The Fund's underweight to industrial has been a drag on performance versus the index in the near-term as industrial continues to outperform all other sectors. Per NCREIF, industrial has generated unlevered performance of 11.8%, 13.1%, and 12.9% over 1-, 3-, and 5-year periods respectively. The Fund has historically been underweighted to the industrial sector but has made a significant effort over the past three to five years to double exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019. Industrial remains well positioned to benefit from shifting consumption habits and near-term demand is forecasted to continuing outpacing new supply.

2. Large Regional Mall Exposure

The Fund's overweight to retail has been a near-term drag as retail unlevered performance continues to be hindered by e-commerce headwinds. In the second quarter of 2020, the Fund's retail portfolio experienced asset depreciation of -2.6%, driven by retail closings due to the pandemic. The Fund has actively looked to sell down their exposure to the retail sector. The Fund made a significant disposition of four regional malls through a $2.6 billion sale to General Growth Properties/Brookfield in the fourth quarter of 2019. As of 4Q20, the Fund is well overweight to retail by over +700bps compared to the broader NFI-ODCE Index. Going forward, the retail sector will face a challenging period of price discovery as rents rebase and occupancy rates broadly decline.

3. Long-term Underperformance Relative to Index

The Fund has generally underperformed the index, specifically over the 3-, 5-, 10-, and 15-year periods. The Fund's 10-year net return was 8.5%, underperforming NFI-ODCE by -39bps. As a result, the Fund has looked to actively reposition the portfolio in recent years to better achieve their investment goals. Consistent underperformance has led to increased redemption activity from LP's. The Fund had a large redemption queue in 2020 but managed to extinguish the redemption queue in July 2021 with proceeds from the sale of a large disposition in Boston and increased capital flows in 2021.

# INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | JP Morgan Strategic Property Fund is an open-end core fund that seeks to make investments in core real estate properties in the major gateway cities in the U.S. The Fund targets stabilized assets across the four traditional asset types. Key identifiers within SPF's portfolio include trophy CBD office assets and high-rise luxury apartments in major markets, as well as a portfolio of Class-A super regional malls and lifestyle centers. The target return of the Fund is to outperform the NFI-ODCE over a full market cycle and is focused on generating returns primarily through income and moderate appreciation gains. |
| **Sponsor** | The Fund is sponsored by JP Morgan Chase Bank, N.A. ("JPMCB") the investment advisor to the Fund, with support from JP Morgan Asset Management ("JPMAM"), and more specifically JPMAM – Real Estate Americas ("REA" or the "Firm"), a sub-unit of JPMAM. REA reports to its ultimate corporate parent JP Morgan Chase & Co. ("JPMC") through JP Morgan Investment Management Inc. ("JPMIM"), the legal entity responsible for the management of SPF. JPMIM was founded in 1861 and has been providing services to tax exempt clients for over 80 years, with $2.3 trillion in AUM as of December 31, 2020. JPMAM – Global Real Estate ("JPMAM – GRE" or "GRE") is the global platform of real estate investments totalling $73.2 billion across equity and debt investments, primarily in core and value add strategies. |
| **Operational Due Diligence** | The Fund received an A1 Pass. Aon noted no material operational concerns and considers the firm's operations largely align with a well-controlled operating environment. |
| **Investment Process** | The investment process starts with the research team who provides a top-down view of the real estate and capital markets. The acquisitions team then presents deal flow to all JP Morgan real estate portfolio managers with mandates across the risk spectrum. Potential investments that are a fit for SPF go before the Investment Committee. JP Morgan prides itself on being able to utilize its vast network across the organization for deal sourcing where most transactions closed by the acquisitions team are sourced directly from the seller and not through market auctions. We view the investment approval process favorably as it incorporates asset management and research, with these functions counting for two of the four votes on the investment committee. |
| **Fund Structure** | JPM SPF is an open-ended Fund structured with five Fund Investor Vehicles ("FIV") with separate entities as general partners. In 2018, the Firm announced a restructuring of SPF to allow the Fund to accept capital from a more diversified investor base, specifically, non-ERISA and non-US investors. Potential investors in the Fund now include U.S. Qualified Retirement Plans, U.S. taxable and tax-exempt investors, Non-US investors (Section 892), non-US Qualified Foreign Pension Fund ("QFPF"), and other non-U.S. investors. The fund completed its restructure and opened to new capital sources on July 1, 2019. |
| **Performance** | SPF has underperformed NFI-ODCE net over 1-, 3-, 5-, 7-, and 10-year periods. The fund's underweight to industrial has been a drag on performance versus the index in the near-term as industrial continues to outperform all other sectors. The fund's overweight to retail has also been a near-term drag as retail unlevered performance continues to be hindered by e-commerce headwinds. Since 2018, SPF has focused on rebalancing the portfolio by acquiring and investing in two industrial platforms and through the dispositions of the fund's regional |

| | |
|---|---|
| | and super regional mall assets. Over time, SPF will continue to reduce exposure to retail and office. |
| **ESG Policy & Practices** | The Fund is currently Not Rated through Townsend's formal ESG process but is expected to receive a formal rating in 2021-2022. JPMAM Real Estate Americas has ESG Objectives and they are reviewed annually to continuously improve assets with respect to environment, social and governance policies while ultimately improving the environment in which those assets exist and, more importantly, enhance their competitiveness and asset value. |

| | | |
|---|---|---|
| **Overall Rating** | **Buy** | SPF's core real estate investment focus is buying large, stabilized, high-quality assets and investing in only the four traditional property types in the largest primary markets in the US. SPF has maintained a low beta by maintaining low leverage and minimal development within the fund. The Fund's recently completed restructure will allow SPF to raise capital from a much larger investor base, which should encourage additional capital flows and transaction activity. Despite recent fund underperformance, SPF remains a prudent option for investors looking to form a foundation for their allocation to the real estate asset class. |

## STRATEGY

JPM SPF is an active core equity real estate fund that invests in stabilized properties and focuses on acquiring assets with high quality physical improvements; powerful location advantages with high barriers to entry; and competitive market positioning in gateway cities across the United States where attractive demographics and demand drivers exists. SPF's size allows it to be a player in large and complex acquisitions that some of its peers cannot. The Fund can provide investors with diversification, liquidity and stable returns by focusing on asset selection and risk mitigation.

The Fund primarily invests in the four traditional real estate asset classes of office, retail, industrial/warehouse and residential/multifamily rental properties. The Fund continues to acquire new assets for long-term growth and re-balances the portfolio by strategically adding/removing assets in geographic regions or sectors where accretive. Currently the Fund is looking to overweight the industrial sector and has been targeting large portfolio transactions as well as fund investments to help move this initiative forward. The Fund has also focused on underweighting exposure to retail through the sale of regional and super regional mall assets.

## SPONSOR

### PARENT COMPANY

The Fund is sponsored by JP Morgan Chase Bank, N.A. ("JPMCB") the investment advisor to the Fund, with support from JPMAM, and more specifically JPMAM – Real Estate Americas ("REA" or the "Firm"), a sub-unit of JPMAM.

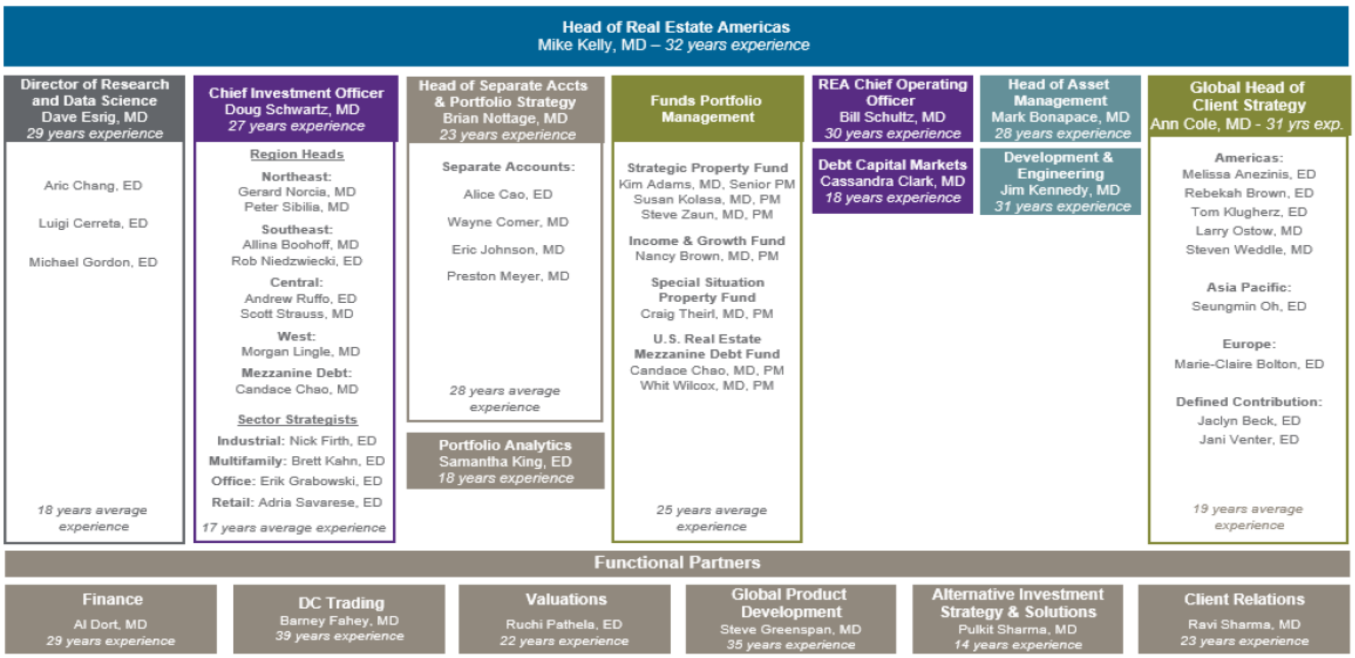
### SPONSOR

The JPMAM- Global Real Estate ("JPMAM-GRE") group reports to JPMC through JP Morgan Investment Management Inc. ("JPMIM"). JPMIM was founded in 1861 and has been providing services to tax exempt clients for over 80 years.

JPMAM-GRE operates as an independent unit within JPMIM with access to the resources, including research and client service, of the broader organization.

## ORGANISATIONAL UPDATES

Recently JPM went through several changes where the PM team was shuffled due to promotions and planned succession planning. Kim Adams was promoted to the senior portfolio manager of SPF. Ms. Adams bring continuity to the Fund as a long-standing PM of SPF. Sue Kolasa and Steve Zaun have been added as PMs to help support Ms. Adams on day to day operations of the Fund. Both have been with JPM for roughly 19 years with Ms. Kolas working as the PM of the Daily Valued Funds while Mr. Zaun was the head of JPMAM's LA office. Mike Kelly was promoted to Head of Real Assets, replacing Kevin Faxon who was moved to the Chair of the platform.




## PLATFORM RESOURCES

Headquartered in New York City since 1970, JPMAM-GRE has continued to expand, opening offices in several U.S. cities and abroad, in an effort to best manage real assets and provide client service.

| Name | Position | Years of Experience |
|---|---|---|
| **Kim Adams** | Senior Portfolio Manager | 26 |
| **Sue Kolasa** | Portfolio Manager | 20 |
| **Steve Zaun** | Portfolio Manager | 20 |
| **Mike Kelly** | Head of Real Assets | 30 |

# OPERATIONAL RISK PROFILE

J.P. Morgan Asset Management ("JPMAM") is a large global asset manager with an institutional level of system infrastructure, controls, and oversight across its operating environment. As a wholly owned subsidiary of a publicly traded company, JPMorgan Chase & Co, the firm must comply with Sarbanes-Oxley requirements and is subject to oversight by numerous regulators including the SEC. To satisfy its regulatory requirements, JPMAM has implemented a comprehensive risk management program, and has established a well-developed governing committee structure to ensure cross-functional participation and in-depth discussion in operating decisions. The firm also utilizes internal Audit, Corporate Compliance, and Business Resilience Programs of the

parent company. JPMAM's reporting lines are well-segregated in the area of compliance, investment risk management, and information technology ("IT") to ensure these processes remain independent from investment activities.

The Fund received an A1 Pass. Aon noted no material operational concerns and considers the firm's operations largely align with a well-controlled operating environment.

## INVESTMENT PROCESS

Headed by Doug Schwartz, the acquisitions team is divided into four Regional Investment Teams, each led by two Regional Co-Heads, one representing Acquisitions and one representing Asset Management, plus a national Mezzanine Debt Acquisition Team. The Acquisition Officers source investments through the numerous relationships established over the years: the JPMC network, direct discussions with owner-sellers, broker submissions, partners and property managers. The team takes regional "ownership" that translates to in-depth market focus with an emphasis on developing new and maintaining existing relationships with institutional owners, developers, brokers, partners and senior lenders nationally. REA prides itself on being able to utilize its vast network across the organization for deal sourcing. Specifically, REA's deal flow derives from a combination of broadly marketed and privately negotiated deals, and positions REA as an experienced, effective and versatile real estate asset management platform. Since 2013 REA has underwritten approximately $10 to $11 billion worth of deals each year, of which it has closed approximately $3 to $3.5 billion per year.

The Asset Managers are responsible for both debt and equity investments across the platform. Asset Managers are charged with an obligation to maximize the investment performance of each asset, and are responsible over the performance of property management, development, and business plan implementation and valuation activities.

The Firm follows a multidisciplinary approach to portfolio management leveraging knowledge across the various platform verticals. A key theme throughout the investment process is the quality and timeliness of research. From a risk management perspective, research acts as an early warning system where the research team is constantly monitoring economic and market data, as well as investment trends. REA has developed proprietary information technology tools that allow team members to access and analyze portfolio data real-time. These tools, coupled with the macro research developed by the in-house research team and the micro knowledge gleaned by investment teams working in various markets inform the investment process and offer a competitive advantage when underwriting new transactions, managing existing assets or disposing of properties owned by the Fund.

All private real estate acquisitions and dispositions go through investment committee. The Fund's IC is comprised of 4 voting members:

- Doug Schwartz, Chief Investment Officer
- Kim Adams, Senior Portfolio Manager
- Mark Bonapace, Head of Asset Management
- Senior representative from the Real Estate Research

The IC is also comprised of 8 Additional participating members:

- Mike Kelly, Head of Real Estate Americas
- James Kennedy, Development and Engineering Group Head
- Al Dort, Financial Group Head
- Brian Nottage, Head of Portfolio Strategy
- Ann Cole, Global Head of Client Strategy
- A Sector Strategist
- Ruchi Pathela, Director of Valuations

- Cassandra Clark, Debt Capital Markets

### VALUATIONS

Prior to August 15, 2018, the Altus Group managed the Firm's valuation process. SPF has now transitioned to have Situs RERC as their third-party valuation firm. Chatham Financial provides debt valuation and debt management services to JPMAM U.S. open end funds. JPMAM's policies and procedures are comprehensive, well-documented and subject to assurance reviews by both internal audit and annual reviews by an external audit firm.

## FUND STRUCTURE

### SUMMARY

JPM SPF's new structure is structured as a Delaware limited liability company that has elected to be treated as a real estate investment trust for U.S. federal income tax purposes. Previously, the Fund was structured as a group trust, which precluded non-ERISA and non-US investors from investment. JPM changed the structure to allow non-ERISA and non-US investors to invest the fund, starting on July 1, 2019.

### REVIEW OF TERMS & CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | Outperformance of NFI-ODCE over a full market cycle. |
| **Cash Distributions** | None, all income of the Fund will be added to the principal of the Fund and invested and reinvested or used to pay Fund Expenses and satisfy Repurchase Requests. |
| **Investment Management Fees** | Investor with Fund NAV below $100 million:<br>100 bps<br><br>Investor with Fund NAV of $100 million or more (waterfall):<br><br>First $100m: 92bps<br>$100-$250m: 80bps<br>$250-$500m: 70bps<br>$500m+: 50bp |
| **Other Fees** | Fee reduced to 15bps for cash balances in excess of 5% of NAV. |
| **Performance Fees** | None. |
| **Debt Mark-to-Market** | None. |
| **Redemption Policy** | Repurchases of the units are redeemed at the NAV at the time the request is satisifed. Up to 10% of the repurchase procceeds may be retained by the Fund to satisfy any tax withholdings or unpaid Advisory and Management fees. |

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### ENTRY AND EXIT PROCESS

SPF has a monthly contribution queue where investors must submit an executed subscription request by the last business day of the month (fax or email is acceptable) to enter the queue for that specific month. Investors may specify in the subscription request a month before which its subscription cannot be called for funding, as long as that specified month is less than 12 months out from the month the subscription request was received.

All Shareholders have the right to request redemption of Shares on a quarterly basis. Requests received 30 days before the end of a quarter will be processed so as to be scheduled for payment generally at (or shortly after) the end of the next calendar quarter in accordance with the Fund's quarterly redemption process. The Fund will redeem Shares at the then Current Share Price on the day of redemption to the extent that the request was received prior to the end of the preceding quarter and the Fund has sufficient cash available to honour requests, consistent with applicable REIT rules and principles of prudent management.

## PERFORMANCE

SPF focuses on providing investors with low beta and real estate outperformance over full real estate cycles. As of December 31, 2020, SPF had a 10-year beta of 0.994. The Fund's 10-year net return was 9.2%, underperforming NFI-ODCE by -57bps. The fund's primary drivers of underperformance include being underweight to industrial, overweight to regional malls, and income performance below NFI-ODCE as a result of lower capitalization rates due to the fund's large gateway market exposure.

The fund's underweight to industrial has been a drag on performance versus the index in the near-term as industrial continues to outperform all other sectors. SPF has historically been underweight to the industrial sector but has made a significant effort over the past three to five years to double exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019.

The fund's overweight to retail has also been a near-term drag as retail unlevered performance continues to be hindered by e-commerce headwinds. In the second quarter, SPF's retail portfolio experienced asset depreciation of -2.6%, driven by retail closings due to the pandemic. SPF has actively looked to sell down their exposure to the retail sector. The Fund made a significant disposition of four regional malls through a $2.6 billion sale to General Growth Properties/Brookfield in the fourth quarter of 2019.

Since SPF focuses on buying high-quality assets within the four traditional property types and major US gateway markets, the Fund's valuation metrics have moved below NFI-ODCE over time as new funds joined the index. SPF generated an income return of 3.9% over the trailing twelve months, -17bps below NFI-ODCE.

## ESG POLICY & PRACTICES

JPMAM Real Estate Americas has ESG Objectives and they are reviewed annually to continuously improve assets with respect to environment, social and governance (ESG) policies while ultimately improving the environment in which those assets exist and, more importantly, enhance their competitiveness and asset value.

JPMAM consistently measures, monitors, and improves asset level data to meet reduction targets for energy, greenhouse gas (GHG) emissions, water, and waste. All landlord paid utilities are benchmarked for each asset using ENERGY STAR Portfolio Manager. Some properties use a third-party data management provider

including Yardi, WegoWise, Code Green and Conservice among others to input data into ENERGY STAR Portfolio Manager. The use of a third-party data management provider is at the discretion of each property team. Most multifamily assets utilize Yardi.

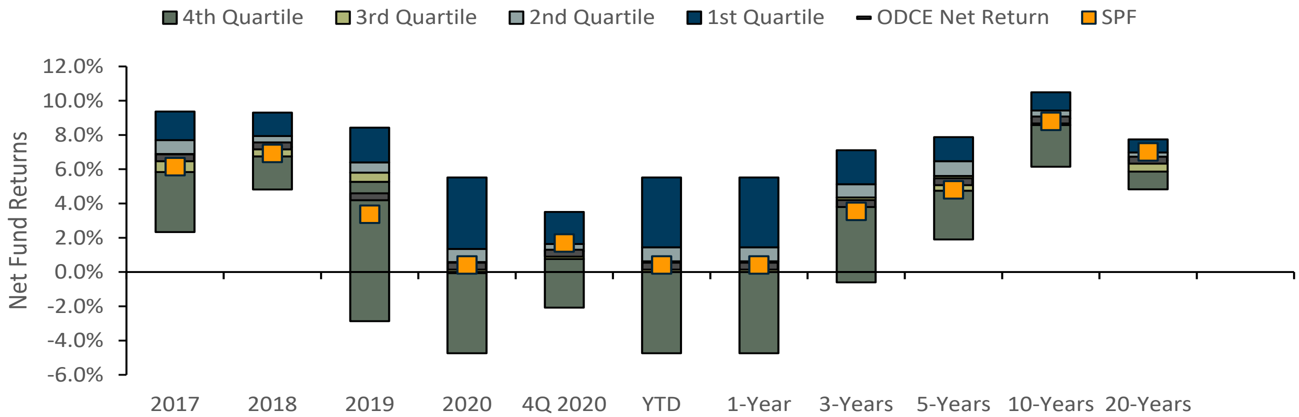
Additionally, property teams complete an annual ESG Survey to collect asset level data on energy, water, and waste conservation measures, resilient efforts and opportunities, as well as social metrics such as tenant and community engagement and health and wellness features.

JPMAM engage a third-party sustainability consultant, LORD Green, to work directly with our property managers and provide support such as trainings on our ESG Program. LORD Green works with each property team to establish a baseline and review that the data is current and accurate. This includes checking for errors, omissions, operational changes, and identifying significant usage changes. For an additional layer of quality assurance, LORD Green completes quarterly sustainability performance indicator reports to compare usage over time and provide context for increases and decreases. These reports are provided to asset managers and portfolio managers and display asset level performance, which is organized by fund, property type, and building configuration.

LORD Green also works with property teams to comply with local and state benchmarking ordinances, pursue annual ENERGY STAR Certification, and earn green building certifications. Each of these submissions requires another quality check and sometimes an additional third-party review. LORD Green also works directly with property teams to find ways to improve efficiency, reduce costs associated with building operations, and implement a comprehensive sustainability program for tenants and residents.

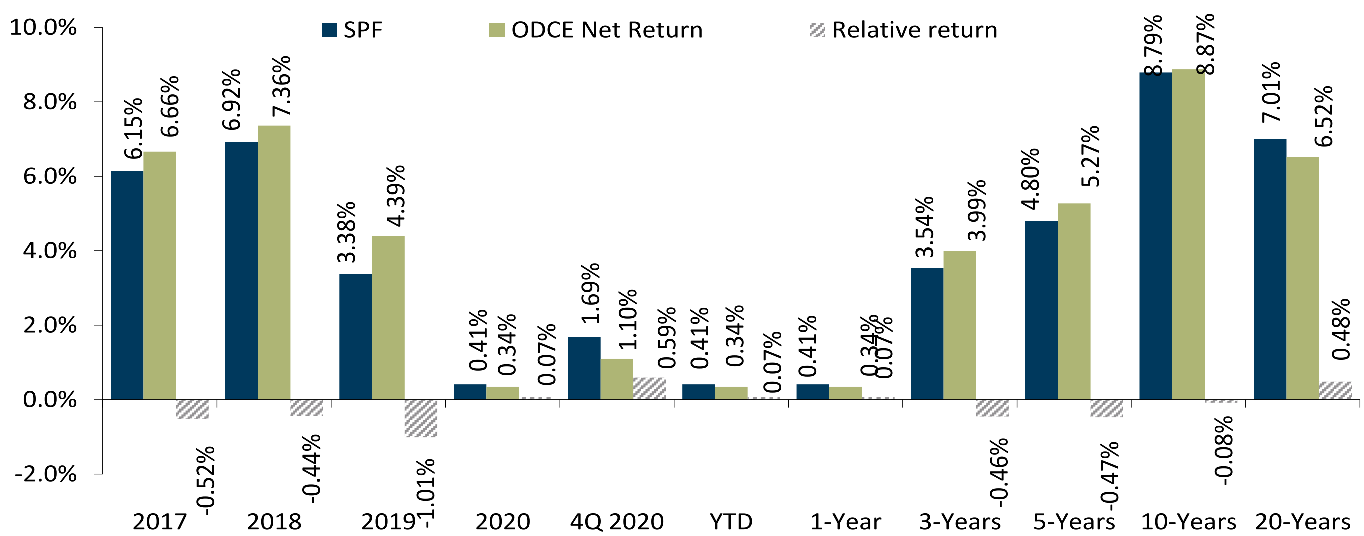
# APPENDIX

***Historical Performance Quartiles** – As of December 31, 2020*

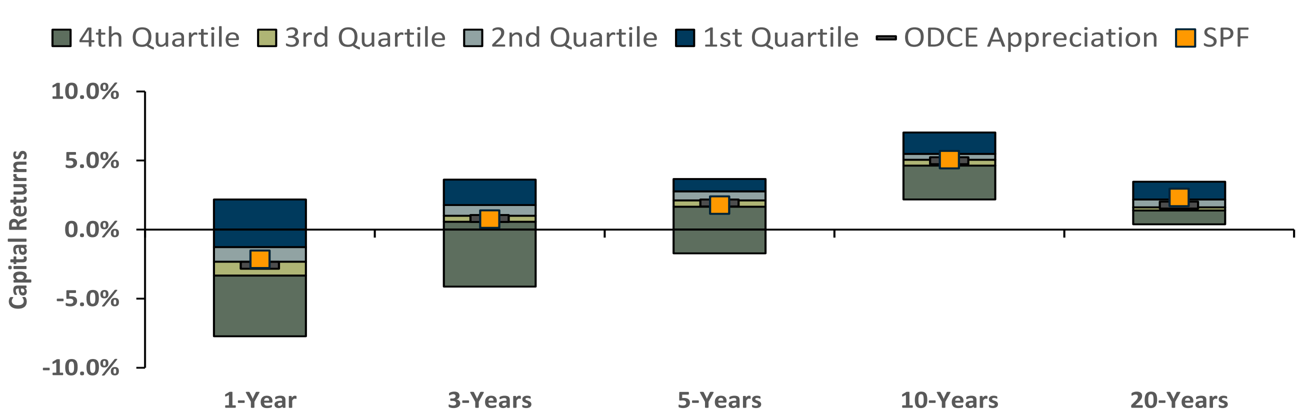



**Source: Townsend U.S. Open-Ended Core Fund database as of December 31, 2020. Range shown is 95th to 5th percentile.**

***Historical Relative Fund Performance** – As of December 31, 2020*




***Capital Return (Appreciation) Historical Performance Quartiles** – As of December 31, 2020*

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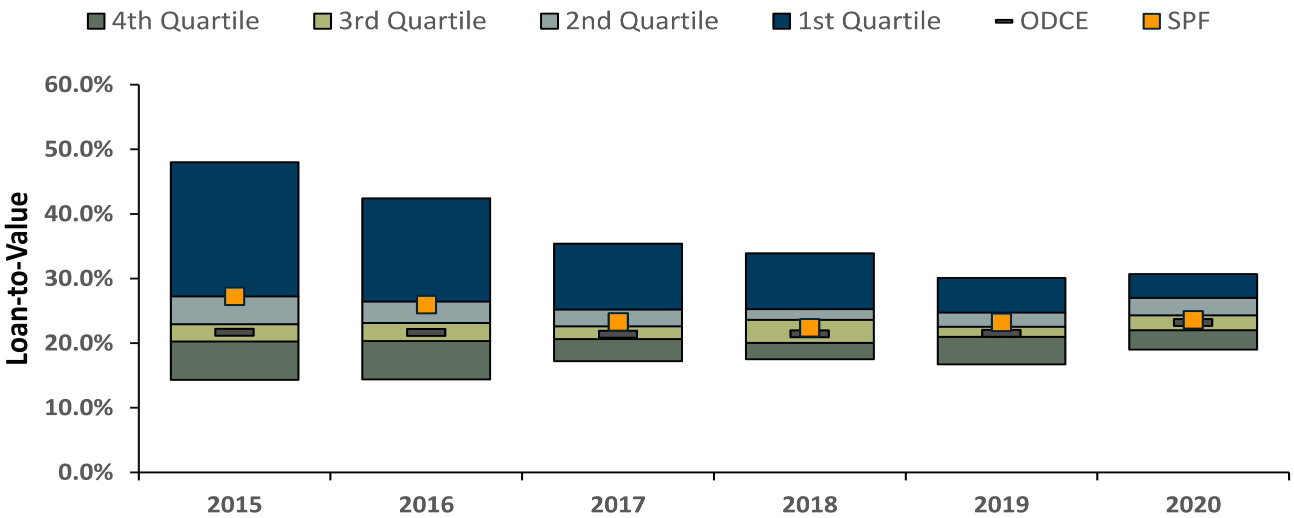
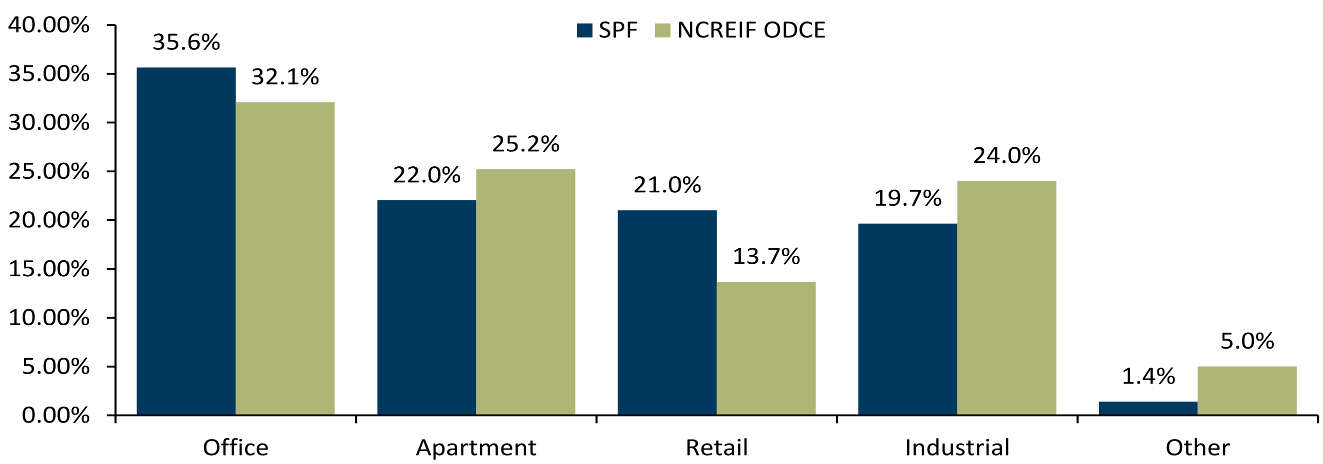
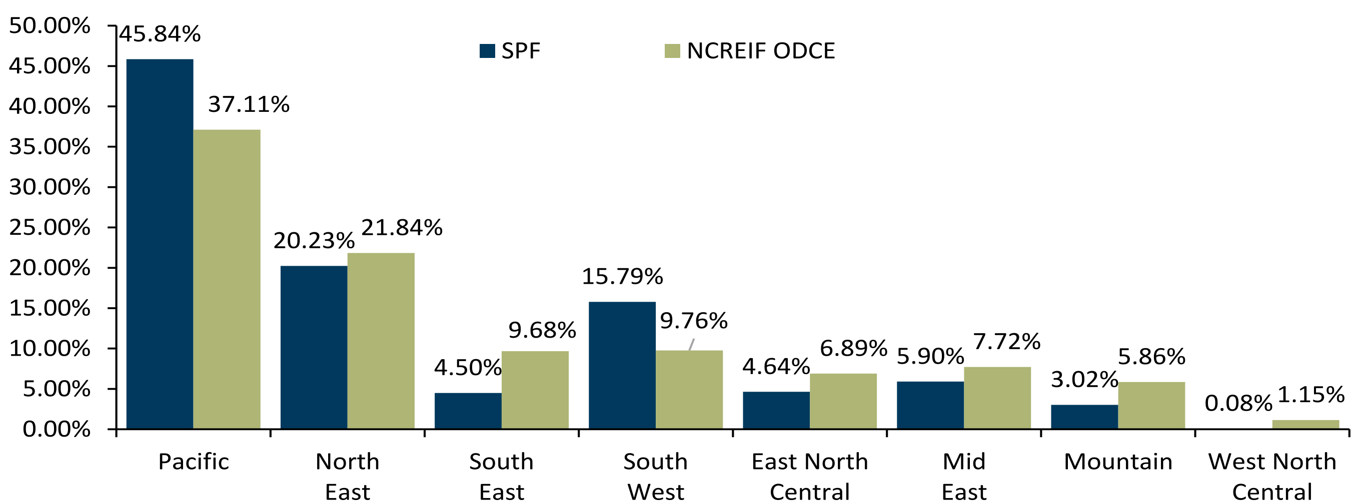
***Progression of Leverage** – As of December 31, 2020*




***Fund Diversification** – As of December 31, 2020*

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***Top 10 U.S. Market Exposures*** *–As of December 31, 2020*

| MSA | % Total Fund GAV |
|---|---|
| Los Angeles-Long Beach | 13.2% |
| New York-Northern New Jersey | 12.3% |
| Boston-Cambridge | 11.9% |
| Dallas-Fort Worth | 11.0% |
| San Jose-Sunnyvale | 7.5% |
| San Francisco-Oakland | 6.2% |
| Riverside-San Bernardino | 5.3% |
| Washington-Arlington | 4.8% |
| Chicago-Joliet-Naperville | 4.7% |
| San Diego-Carlsbad | 4.4% |

## Top Ten Assets (by MV)

| Property | City | State | Sector | $MV | Comment |
|---|---|---|---|---|---|
| **Edens - SPF** | Various | Various | Retail | $1,871,695,307 | Edens Investment Trust (Edens) is a national retail real estate investment company that invests in urban retail centers. |
| **DSRG - SPF** | Various | Various | Retail | $1,824,904,137 | Donahue Schriber Realty Group (DSRG) is a REIT specializing in grocery-anchored shopping centers. |
| **Century Plaza Towers** | Los Angeles | CA | Office | $1,390,269,191 | |
| **Valley Fair Mall** | San Jose | CA | Retail | $1,319,722,376 | |
| **1345 Avenue of the Americas** | New York | NY | Office | $1,084,146,445 | |
| **200 Fifth Avenue** | New York | NY | Office | $1,024,324,063 | |
| **Alliance Texas - Industrial** | Fort Worth | TX | Industrial | $963,126,528 | |
| **NorthPark Center JV** | Dallas | TX | Retail | $958,952,562 | |
| **China Basin** | San Francisco | CA | Office | $906,506,004 | |
| **Royal Hawaiian Center** | Honolulu | HI | Retail | $901,120,435 | |

## Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product and its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

**Buy** – Townsend recommends the investment for those client portfolios where it is a fit.

**Qualified** – Townsend believes the sponsor to be qualified to manage client assets.

## ESG Rating Explanation

**Positive –** The Fund Management Team demonstrates high awareness of all known and potentially financially material ESG risks in the investment strategy and, at present, has incorporated appropriate processes to identify, evaluate and potentially mitigate these risks across the entire portfolio. No material operational concerns; firm's operations largely align with a well-controlled environment.

**Neutral –** The Fund Management Team demonstrates an awareness of potential ESG risks in the investment strategy and has taken some steps to identify, evaluate and potentially mitigate these risks.

**Negative** – The Fund Management Team appears unaware or unconcerned with ESG risks in the investment strategy and has not taken any material steps to address ESG considerations in the portfolio.

**N/A (Not Applicable) –** An evaluation of ESG risks is not directly applicable to this strategy and therefore an ESG rating has not been assessed.

**NR (Not Rated) –** An evaluation of ESG risks is not yet available for this strategy.

## Operational Due Diligence Rating Explanation

**A1 Pass –** No material operational concerns; firm's operations largely align with a well-controlled environment.

**A2 Pass –** The firm's operations largely align with a well-controlled environment, with limited exceptions.

**Conditional Pass** – AON identified specific operation concerns that the firm agreed to address in a reasonable time frame.

**Fail –** AON noted material operational concerns that introduce potential economic or reputational exposure.

## About Townsend Group – An Aon Company

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

TOWNSEND GROUP
an Aon company

Real Estate InTotal

# Morgan Stanley Real Estate Investing

Prime Property Fund

March 2021

Trade Secret and Confidential

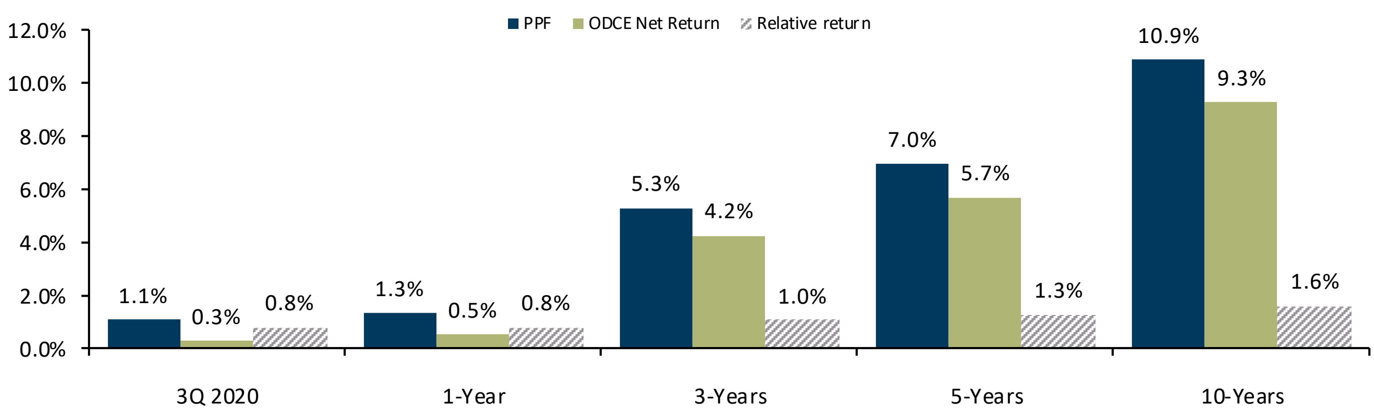
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Current Rating | Previous Rating |
|---|---|---|
| February 2021 | BUY | BUY |

The Prime Property Fund ("Prime", "PPF" or the "Fund") is a diversified, open-end Core real estate fund that targets high quality, well-leased, income-producing properties located in select primary markets in the U.S. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10% (gross). Relative to its benchmark, the Fund has been able to consistently generate alpha.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-Ended | **Risk Segment** | Core |
| **Size NAV** | $26.7 Billion | **Strategy Inception** | 1973 |
| **Current/Maximum Fund Leverage** | 19.1%/50.0% | **Current/Max Non-Core Exposure** | 9.7%/20.0% |
| **Valuations** | Quarterly/Altus | **Minimum Commitment** | $5 million |
| **Investment Guidelines** | NFI-ODCE | **Number of Holdings** | 376 |
| **Performance Objective** | Outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10%, gross of fees. | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Headquarters** | New York, NY | **Parent Company** | Morgan Stanley (NYSE:MS) |
| **Fund Sponsor** | MSREI | **Year Founded** | 1931 |
| **RE Employees** | 200 | **Investment Staff** | 76 (US) |
| **Real Estate AUM** | $44 Billion | **RIA** | Yes |

## COMPARITIVE ADVANTAGES

1. Platform Strength:

Morgan Stanley Investment Management ("MSIM") has a total AUM of $51.7 billion with $43.8 billion in real estate. Morgan Stanley Real Estate Investing manages global real estate through three products: Prime Property Fund (US Core), Prime Property Fund Asia (Asia Core), and North Haven Real Estate Funds (Global Opportunistic). MSREI has over 200 professionals located in 17 offices across 13 countries. Prime is MSREI's single largest fund and comprises approximately 75% of gross real estate assets in the U.S.

Prime is led by Scott Brown, who is a Managing Director at Morgan Stanley, Head of Prime Property Fund in the U.S. and Global Head of Prime. Mr. Brown has been working with Prime since 1993 and has been fully dedicated to Prime since 2002. Mr. Brown has over 29 years of real estate experience and serves as a member on various investment committees across the platform.

2. Wholly Owned Development Companies:

Prime's operating companies have provided significant value creation relative to the peer set during recent time periods. AMLI is a wholly-owned multifamily development platform focused on the development, acquisition and management of apartments across the U.S. Safeguard Self Storage is a wholly-owned self-storage development company. Both are owned by Prime Property Fund and give investors access to unique proprietary platforms dedicated to their individual sectors.

3. Strong Performance Track Record and Portfolio Positioning:

Prime has provided strong risk-adjusted returns through market cycles. It has meaningfully outperformed the NFI-ODCE Index over all recent major time periods. Prime has created value through its operating companies and through its overweight's to favored sectors such as the industrial and healthcare, relative to the NFI-ODCE.

## POTENTIAL ISSUES AND CONCERNS

1. Higher Fee Load:

Relative to its peers, Prime has a higher total fee load relative to its ODCE peers. The management fee is fixed at 84 basis points for all investors. Prime also has an incentive fee component (5% of the beginning monthly NAV multiplied by the comparable property NOI growth). Prime's historical fee spread relative to the NFI-ODCE is listed below:

| Fee Spread | 1-Year | 3-Year | 5-Year | 7-Year | 10-Year |
|---|---|---|---|---|---|
| Prime | 0.85% | 1.05% | 1.09% | 1.16% | 1.24% |
| NFI-ODCE | 0.88% | 0.93% | 0.95% | 0.98% | 1.01% |

**Discussion:**

Although Prime has a higher fee load relative to ODCE, it has shown consistent outperformance net of all fees and expenses. The incentive fee is also capped at 35 bps per annum. Prior to 2013, the Management Fee was 90 bps with a capped incentive fee of 45 bps.

2. Mall Exposure:

Relative to peers, Prime does have a significant exposure to malls. Prime's total mall exposure is approximately 6% of the Fund's NAV across five total assets, which are listed below.

- Fashion Valley Mall (San Diego, CA)
- Dadeland Mall (Miami, FL)
- Christiana Mall (Newark, DE)
- Rosedale Shopping Center (Roseville, MN)
- Fox Run Mall (Newington, NH)

Regional and Super Regional Malls have been the lowest performing sub-property type both within the NPI and the Retail sector. As of December 31, 2020, the five-year returns for Regional Malls are 165 basis points and 545 basis points below the returns for the Retail Sector and NPI respectively, while Super Regional Malls are 88 basis points and 468 basis points below the Retail Sector and NPI five year returns, respectively.

**Discussion:**

While malls have been the lowest performing retail sub-sectors, Prime has a history of investing in high-quality assets, including high quality retail. Of the five total mall assets, three are A++ rated (Christiana Mall, Dadeland Mall, and Fashion Valley Mall). A++ malls typically exhibit high productivity (estimated sales per square foot at or above $1,000) and have experienced less valuation pressure versus lower-quality malls. It's also important to note that Prime's total retail exposure is underweight to NFI-ODCE, which has led to positive return attribution relative to the index.

3. Current Global Turmoil

Covid-19 fueled market volatility approximately one year ago in both the stock and bond markets, creating a situation of uncertainty for private real estate pricing. Despite the subsequent rally in public markets, commercial real estate transactions remain muted, with an approximate 50% decrease year-over-year in the third quarter of 2020, restricting the full scope and ability to determine pricing in each sector. The majority of transactions have primarily occurred in the apartment and industrial sectors, so the full impact on the office and retail sectors is still relatively unknown. However, most open-end managers (including Morgan Stanley) have been actively writing down assets at the direction of third-party valuation firms like Altus.

While there is still some lingering uncertainty in private market valuations for certain property types, Townsend would be supportive of clients moving forward with new commitments to (i) portfolios positioned well with underweights to office and retail property types and (ii) funds that offer control and flexibility as to when its capital will be called. That way if investors are not comfortable with current portfolio valuations, investors can rescind or delay commitments.

**Discussion:**

Prime has an active underweight to the office and retail sectors relative to the NFI-ODCE. As of December 2020, Prime's office and retail exposure was 28.9% and 11.5%, respectively, while the ODCE's exposure to those sectors was 32.9% and 14.2%, respectively. While transactions have decreased significantly overall, transaction volume has increased in the industrial and multifamily sectors over the last couple of quarters. We would expect transaction activity to increase in the other primary sectors in the upcoming year, providing a more accurate picture of the impact of valuations on office and retail assets. Prime's deposit queue is approximately $732 million as of December 2020. Based on the manager's projections, investors can expect its capital won't be fully drawn until two to four quarters. Additionally, Prime offers investors a revocable queue meaning investors would the ability to reduce/rescind its commitment prior to funding.

# INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | The Prime Property Fund ("Prime" or the "Fund") is a U.S. open-end diversified Core fund that targets high quality, income-producing Class A properties located in primary markets. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10%, gross of fees. Focus is placed on current income, aiming to generate 6-8% annually. The Fund pursues a slightly higher risk strategy within the Core classification due to its relatively higher use of leverage and utilization of wholly-owned operating companies within the Fund. |
| **Sponsor** | Morgan Stanley Real Estate Investing ("MSREI") has a global platform of real estate investment products and strategies with almost $44 billion in assets under management ("AUM"). PRIME is MSREI's single largest fund at almost 75% of total real estate AUM, which positions it favorably to access the full resources of the MSREI platform. PRIME has experienced net positive inflows over the past few years. In 2016, Morgan Stanley Investment Management announced a new leadership structure, with MSREI becoming part of the Real Assets Group. There is no impact on Prime's business or investment staff. |
| **Operational Due Diligence** | Morgan Stanley has sufficient operational guidelines in place and its valuations policies are in line with industry best practices. A Valuation Committee has been instituted to review appraised values. Any adjustments to an external independent appraisal must be documented and explained to Prime's predominantly independent Board of Directors. The Board of Directors is also responsible for approving any changes to Prime's valuation policy. |
| **Investment Process** | MSREI uses an eight-step investment process: 1) Investment guidelines are developed and approved by the Board. 2) MSREI reviews a robust pipeline of transactions to source deals. 3) Potential investments are tracked through MSREI's investment pipeline. MSREI underwriting teams analyze investments that are appropriate for Prime's strategy. 4) Investments are reviewed by an Allocation Committee if an investment is appropriate for multiple clients. 5) Investments are reviewed and approved by an investment committee of MSREI professionals and representatives from Morgan Stanley. 6) Following investment approval, due diligence is under taken and closing occurs upon approval of portfolio management. 7) Asset management will aim to maximize value of each individual property. Asset managers oversee third-party valuations completed on a quarterly basis. 8) A hold/sell analysis is performed on all investments within the portfolio. |
| **Fund Structure** | The Fund is a limited liability company under Delaware law and has elected to be treated as a REIT for US federal income tax purposes.<br><br>The Fund has two types of shares: voting Shares and non-voting Shares. The Fund will not have more than 190 non-voting Shares issued and outstanding at any time except as necessary to comply with rules relating to REITs or to elect or maintain the Fund. |
| **Performance** | Prime owns one of the longest track records in the core space, with a fund inception in 1973. Prime has outperformed NFI-ODCE over 1-, 3-, 5-, 7-, and 10--year periods, and since inception. Prime's outperformance has been driven by several factors, including the utilization of a wholly-owned AMLI multifamily development platform and a wholly-owned Safeguard self-storage platform, geographic exposure to major markets throughout the US that have generated strong unlevered performance, and tactical property-type over- and underweights. |
| **ESG Policy & Practices** | Prime has a deep ESG platform as well as actively and regularly participates in industry benchmarking and standard practices related to ESG. In 2020, Prime received a GRESB rating of 81 and is four-star rated, scoring within the top third of its peer group. Townsend recommends an Advanced ESG Rating for Prime. |

| | | |
|---|---|---|
| **Overall Rating** | **Buy** | Prime has consistently outperformed NFI-ODCE through accretive acquisitions and dispositions within the US anc the utilization of wholly-owned platforms that have generated superior returns on non-core development. Prime is supported by MSREI, an experienced platform with approximately billion AUM. Scott Brown, Portfolio Manager, provides substantial experience to the Fund with 30 years in real estate and over 25 years with Morgan Stanley. Prime is positioned to continue to outperform NFI-ODCE, driven by a tactical overweight to Industrial, a growing allocation to Healthcare, a large pipeline of Multifamily, Industrial, and Self-Storage development, and geographic concentration in outperforming major markets. Townsend recommends Prime as a BUY. |

# STRATEGY

As of December 31, 2020, Prime's gross asset value was $33.4 billion across 376 investments, making Prime the second largest fund within the NFI-ODCE index. The portfolio is well diversified across all major property types and is invested in major markets throughout the US.

Prime's ten largest assets comprise approximately 16% of the total Fund portfolio. These assets include Class-A super regional malls and large-scale CBD office assets in major gateway markets. Approximately 63% of the portfolio is invested in Prime's seven preferred target markets: Southern California (15.6%), Northern California (7.6%), Chicago (8.6%), South Florida (9.2%), New York (7.8%), Boston (6.7%), and Washington, DC (6.4%). Prime's near-term region diversification targets are the following: East (30-40%), South (15-25%), Midwest (5-15%), and West (30-40%).

Prime's near-term property-type diversification targets are the following: Office (25-35%), Apartment (20-30%), Industrial (20-30%), Retail (5-15%), Storage (0-5%), and Healthcare (5-10%). Relative to NFI-ODCE, Morgan Stanley has recently positioned the Fund overweight to industrial to take advantage of the strong fundamentals exhibited within the sector. Same-store industrial NOI Growth was 11.2% in 2020 within Prime's portfolio. Prime also has a unique exposure to the Healthcare sector, which includes thirty medical office buildings and five life-science assets.

As of December 31, 2020, leverage was 19.1%. Non-core exposure represents 9.7% GAV as of 4Q20. Prime's non-core pipeline mostly consists of multifamily, self-storage, and industrial development. Prime's wholly owned AMLI multifamily development platform has been a significant driver of appreciation. Since 2012, AMLI has delivered over 8,000 units. Prime also utilizes a wholly owned Safeguard self-storage platform for self-storage development.

# SPONSOR

Morgan Stanley Real Estate Advisor Inc. is a wholly-owned subsidiary of Morgan Stanley and is functionally located within Morgan Stanley Real Estate Investing (MSREI), itself a part of Morgan Stanley's Merchant Banking division. In 2008, Morgan Stanley changed its status to a bank holding company and participated in the U.S. Treasury's capital injection program (repaid in 2009). The organization also sold off its retail asset management business, to focus on its institutional client base.

In February 2016, Morgan Stanley Investment Management ("MSIM") announced a new leadership and organizational structure which includes the realignment of investment teams across six groups: Real Assets, Solutions & Multi-Asset, Active Fundamental Equity, Private Equity & Credit, Global Fixed Income and Global Equity. MSREI is now part of the Real Asset group, which also encompasses the Firm's global listed real assets and private infrastructure investment teams.

John Klopp was named Head of Real Assets transitioning out of his role as Co-CEO and Co-CIO of MSREI and Head of the Americas. Mr. Klopp continues to sit on the MSREI real estate funds' investment committee and also serves as Affiliate Director of the Prime Property Fund. Olivier de Poulpiquet, who with Mr. Klopp had been Co-CEO and Co-CIO since 2010, now serves as sole Head of MSREI. Lauren Hochfelder Silverman is Head of the Americas.

Prime is the flagship core real estate fund at MS. It is organized as a private REIT and has oversight by an independent Board of Directors. The Board meets quarterly to review the strategy and investment performance of Prime and monitors the management responsibilities of the portfolio management team. The Board also reviews any asset related issues.

| Key Staff | Position | Date Joined | Years of Experience |
|---|---|---|---|
| **Scott Brown** | Portfolio Manager | 2003 | 30 |
| **Candice Todd** | CFO | 2001 | 30 |
| **Bennett Weaver** | Head of Operations | 2013 | 21 |

Scott Brown serves as the Global Head of PRIME, overseeing the PRIME series of real estate core funds globally. He is responsible for the portfolio implementation and management of the Prime Property strategy. His prior experience includes acquisition activities at Lend Lease Real Estate, which is the predecessor to Prime Propriety.

Candice Todd is a Managing Director of Morgan Stanley and the CFO of Prime Property Fund, responsible for the Fund's capital structure and REIT compliance. Prior to joining Morgan Stanley in November 2003, Candice worked for Lend Lease since 1994 and has over 30 years of real estate experience.

Bennett Weaver is the third key component of the Portfolio Management Team and is Head of Operations of Prime Property Fund. Prior to joining Morgan Stanley in July 2004, Bennett worked for Lend Lease and has over 20 years of real estate experience.

The Fund can leverage the global MSREI platform and the broad expertise, deep relationships and powerful franchise of Morgan Stanley, including investment banking, merchant banking, private wealth management, etc., which is a significant benefit to Fund's deal flow.

Investments for Prime are reviewed and voted on by a 12-member senior management investment committee including individuals from MSREI and risk management. John Klopp, co-Chief Executive Officer of the Firm, serves as Chairman.

The Firm's research team is shared across MSREI's products and geographies. In the U.S., the team is mostly responsible for aggregating third party research data by property type and geography. While newly designed top down models have been developed, the Fund mostly draws from bottom up resources of the broader platform to determine what assets are most attractive in each market, and research is used as a check. The acquisition and asset management teams, which are organized by geographic regions, are also shared resources across all MSREI products, and consist of 25 and 14 members, respectively. Acquisition and asset management work closely throughout the due diligence process and during the life of an asset; sharing market information and creating business plans/exit plans for each asset.

Prime owns AMLI Residential ("AMLI"), a multifamily private REIT. AMLI is focused on the development, acquisition and management of luxury apartment communities across the U.S. Thus, almost all of Prime's apartment activity is run through this group. Prime tends to focus on the 8-10 markets that were legacy AMLI strong holds, recently adding a few coastal metro-regions. AMLI is dedicated solely to Prime; with management co-investing alongside the Fund in all the apartment assets.

To reinforce the alignment of interest of key personnel with the performance of the Fund, Morgan Stanley awards shares that vest over time in the Fund based on personal annual performance and contribution to the Fund. Prime's performance fee is used to finance this employee incentive, which aligns the team's compensation to the increase and decrease in the share price of the Fund

## OPERATIONAL DUE DILIGENCE

The Aon Operational Due Diligence ("Aon ODD") team reviewed the fund sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions including: (I) corporate governance, (II) trade/transaction execution, (III) cash controls, (IV) valuation, (V) compliance, regulatory, legal, and controls testing, (VI) counterparty risk oversight, (VII) business continuity/disaster recovery, and (VIII) cyber security.

Morgan Stanley is a large and global investment manager with institutional levels of infrastructure, controls, and oversight across its operating environment. The firm is subject to independent oversight by a Board of Directors and has a robust supporting committee structure. MSIM's policies and procedures are comprehensive, well-documented and subject to reviews by both internal audit and annual SOC1 controls reviews by Ernst & Young.

The Aon ODD rating of the Manager is A1 Pass.

## INVESTMENT PROCESS

MSREI uses an eight-step investment process:

1) Investment guidelines are developed and approved by the Board.

2) MSREI reviews a robust pipeline of transactions to source deals.

3) Potential investments are tracked through MSREI's investment pipeline. MSREI underwriting teams analyze

investments that are appropriate for Prime's strategy.

4) Investments are reviewed by an Allocation Committee if an investment is appropriate for multiple clients.

5) Investments are reviewed and approved by an investment committee of MSREI professionals and representatives from Morgan Stanley.

6) Following investment approval, due diligence is undertaken and closing occurs upon approval of portfolio management.

7) Asset management will aim to maximize value of each individual property. Asset managers oversee third-party valuations completed on a quarterly basis. 8) A hold/sell analysis is performed on all investments within the portfolio.

The portfolio management team includes a dedicated Chief Financial Officer, Candice Todd, that manages the creditworthiness and liquidity of the Fund. Candice has over 30 years of experience and has been with Morgan Stanley for over 25 years.

Risk management oversight is provided at divisional and Firm levels by MSIM Risk and Morgan Stanley's Firm Market Risk Groups. These groups are independent from MSREI.

# FUND STRUCTURE

### SUMMARY

The Fund is a limited liability company under Delaware law and has elected to be treated as a REIT for US federal income tax purposes.

The Fund has two types of shares: voting Shares and non-voting Shares. The Fund will not have more than 190 non-voting Shares issued and outstanding at any time except as necessary to comply with rules relating to REITs or to elect or maintain the Fund.

### REVIEW OF KEY TERMS AND CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | 8% - 10% (gross) |
| **Cash Distributions:** | Fund expects to pay quarterly dividends equal to at least 90% of its REIT taxable income. |
| **Investment Management Fees:** | Calculated based on Net Asset Value<br>All levels of investment: 84 bps |
| **Other Fees:** | None |
| **Performance Fees:** | Accrues on a monthly basis over a calendar year.<br><br>Equal to 5% beginning of the month NAV multiplied by the comparable property NOI growth<br><br>Subject to an annual cap of 35bps per annum of the average monthly NAV for the calendar year. |
| **Debt Mark-to-Market:*** | (0.2)% compared to NFI-ODCE at (0.1)% at 3Q2020 |
| **Redemption Policy:** | All Shareholders have the right to request a redemption of Shares on a quarterly basis. A redemption request received prior to quarter end will be processed so as to bescheduled for payment generally at or shortly after the end of the next quarter. |

*Data as of 3Q2020. Due to a standard reporting lag, the most recent data available is as of 3Q.

### ENTRY AND EXIT PROCESS

All Shareholders have the right to request redemption of Shares on a quarterly basis. Requests received before the end of a quarter will be processed so as to be scheduled for payment generally at (or shortly after) the end of the next calendar quarter in accordance with the Fund's quarterly redemption process. The Fund will redeem Shares at the then Current Share Price on the day of redemption to the extent that the request was received prior to the end of the preceding quarter and the Fund has sufficient cash available to honor requests, consistent with applicable REIT rules and principles of prudent management.

### INVESTMENT MANAGEMENT FEES

Prime's blended fee structure consists of a flat asset management fee of 84 bps per annum and an incentive fee equaling 5% of comparable portfolio same store year-over-year NOI growth that accrues on a monthly basis and is capped at 0.35% of NAV.

## PERFORMANCE *– As of December 31, 2020*

Prime owns one of the longest track records in the core space, with a fund inception in 1973. Prime has outperformed NFI-ODCE over 1-, 3-, 5-, 7-, and 10-year periods, and since inception. Prime's outperformance has been driven by several factors, including the utilization of a wholly-owned AMLI multifamily development platform and a wholly-owned Safeguard self-storage platform, geographic exposure to major markets throughout the US that have generated strong unlevered performance, and tactical property-type over- and underweights. Historical income performance has been diluted by the fund's multifamily and self-storage development portfolios. Prime's leverage (19.1%) is below NFI-ODCE. Prime lowered their target leverage to 15-25% in the near-term.

### NEAR-TERM PERFORMANCE DRIVERS

**Industrial Overweight**

Prime's industrial exposure is 24.8% of GAV, approximately +300bps above NFI-ODCE. Prime has over 56 million square feet of industrial space today and primarily consists of distribution warehouses. Over 92% of Prime's industrial portfolio is in major distribution markets, including southern California, New Jersey, New England, and New York.

**Non-Core Development with Wholly Owned Development Platforms**

Prime's non-core exposure is currently 9.7% GAV. The AMLI multifamily and Safeguard self-storage platforms have been a large driver of appreciation within Prime historically. The Fund's existing pipeline today includes a combination of AMLI and Safeguard projects across the US in development and lease-up, four industrial developments in Atlanta, New York, and New Jersey, and an office asset in Pasadena.

**Healthcare**

Prime currently owns 30 medical office assets and five life-science properties. Calendar year same-store NOI growth was +6.8% for the healthcare sector in 2020.

**Fourth Quarter 2020**

Prime generated a gross return of 1.7% in the fourth quarter, outperforming NFI-ODCE by approximately +40 bps. Performance in the fourth quarter was driven primarily by industrial and healthcare, which generated an unlevered return of +4.1% and +11.6%, respectively, driven by leasing momentum across the both sector portfolios. The total percentage leased across the industrial portfolio reached 96.0%, with 3.8 million square feet leased in the fourth quarter. The healthcare sector's strong performance was comprised of 1.2% income and 10.3% appreciation.

Capital flows continue to remain strong, with Prime raising over $565 million of new subscriptions in the fourth quarter, with a total investment queue of $732 million. The redemption queue by quarter-end was $370 million, with a total of $400 million redemptions paid in the quarter.

# ESG POLICY & PRACTICES

Morgan Stanley has well-developed, transparent ESG policies and specific staff members dedicated to ESG. MSIM has a Sustainability Team and a Global Sustainable Finance Group, which is responsible for the firm's overall sustainability strategy and develops approaches that achieve social, environmental, and financial returns. In June 2020, Mona Benisi was hired as Head of Sustainability for Global Real Assets and is responsible for developing MSIM's ESG investment integration standards, which also includes annually reviewing the firm's ESG policy. In addition to the firm's ESG policy, MSIM also has an annually reviewed DEI policy, code of ethics, sexual harassment policy, as well as yearly training on these policies.

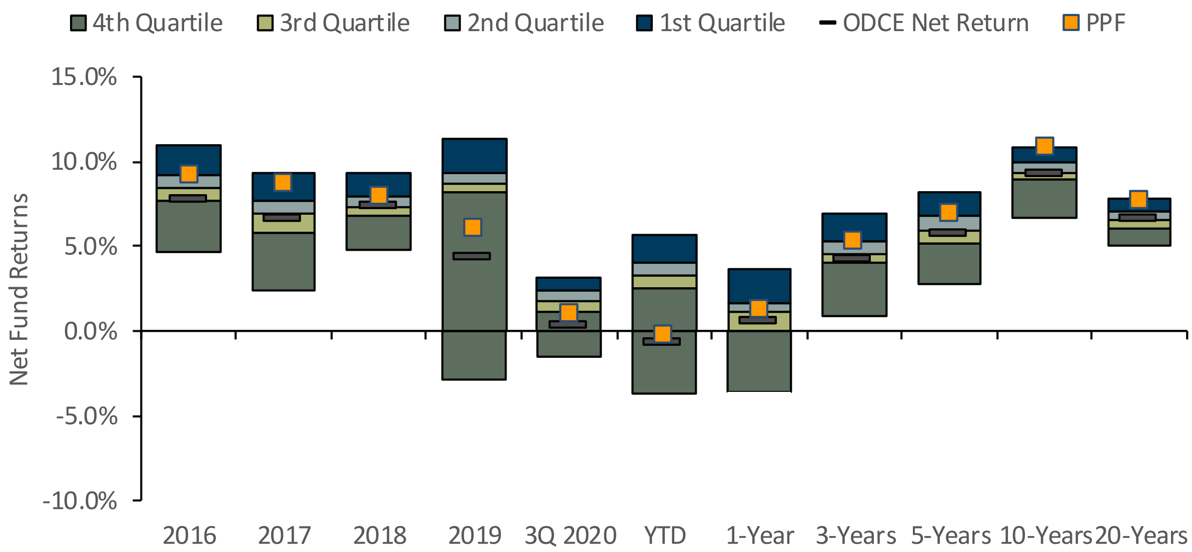
Each investment platform within MSIM has an ESG lead. Rob Poole is Executive Director and responsible for Sustainability for MSREI in the US. Josh Myerber, Deputy Portfolio Manager of Prime Property Fund, is focused on sustainability across the fund.

MSIM, MREI, and Prime have ESG processes in place which encourage consistent positive outcomes in benchmarking and encourage ESG stewardship at all levels. Prime has been a GRESB participant since 2014, with scores in the top third of its peer group and has received a 4-star rating over the past few years. The fund also actively tracks GHG emissions, tracks water and waste consumption at the asset level and works toward LEED Certifications and Energy Star Ratings in assets when applicable. In addition to GRESB, MSIM has also been a PRI Signatory since 2013 (receiving an A rating in the 2019 review), and is also a signatory to the TCFD, U.K. Stewardship Code, and the Japan Stewardship Code, as well as being a participant in SASB.

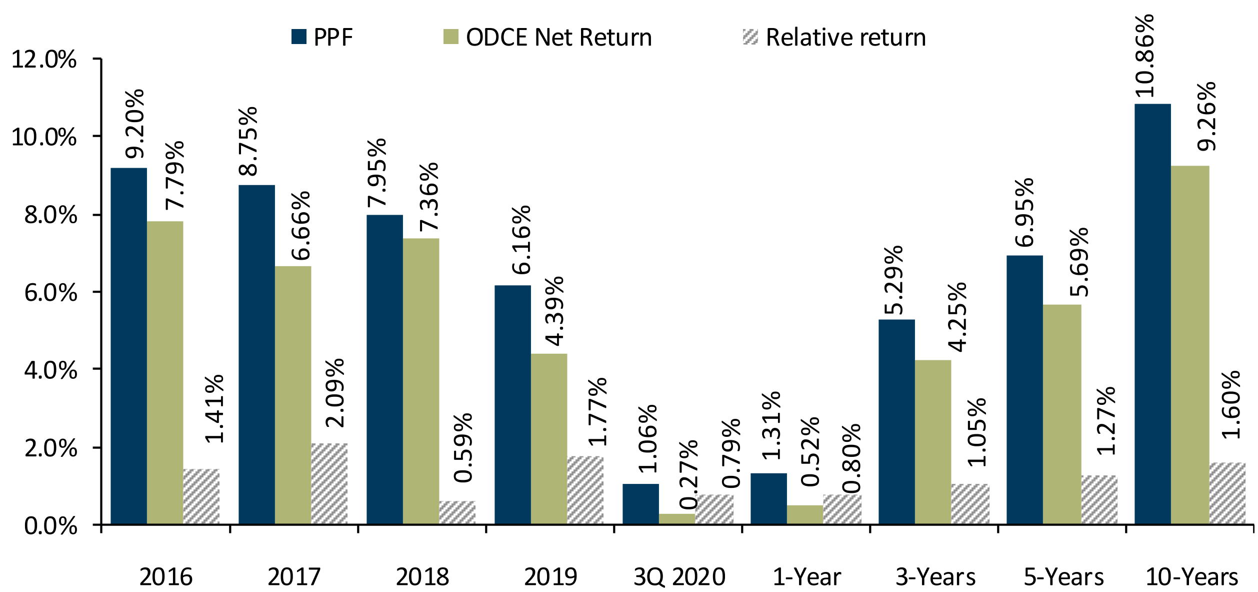
Based on the above referenced factors, Prime's ESG rating is Advanced.

# APPENDIX

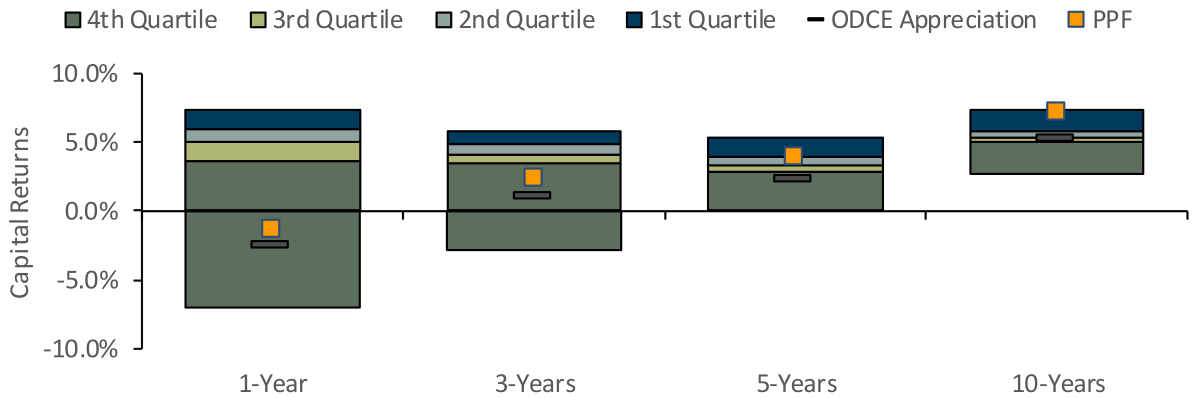
***Historical Performance Quartiles** – As of September 30, 2020*



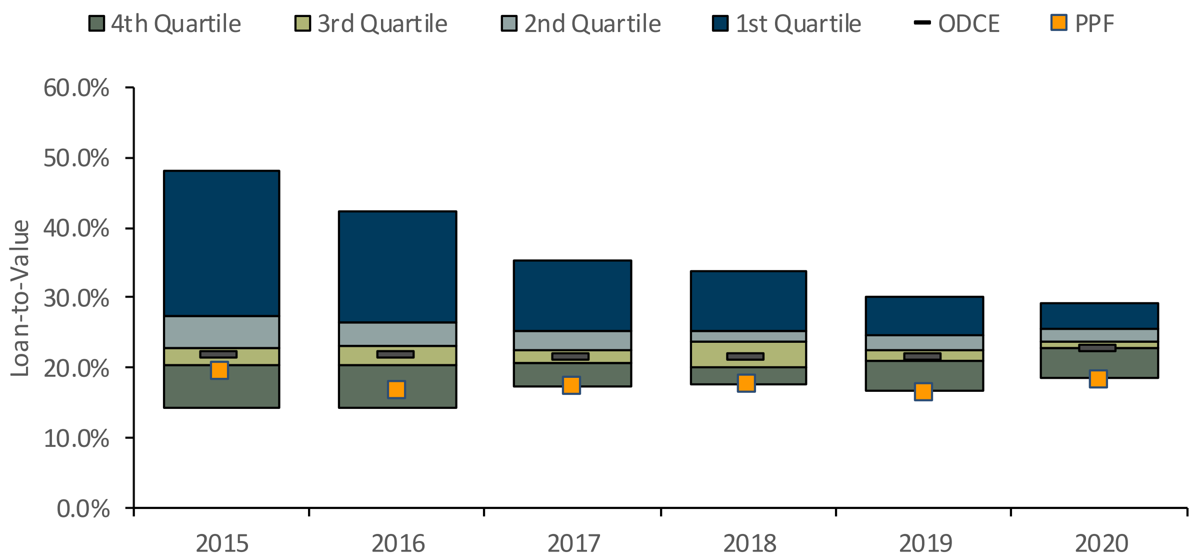

***Historical Relative Fund Performance –** As of September 30, 2020*



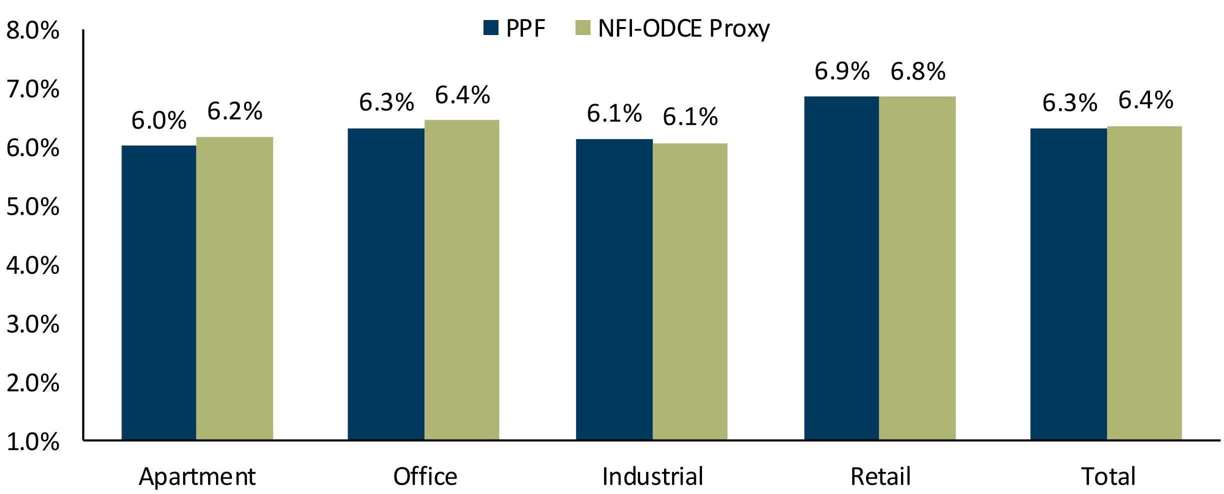
***Capital Return (Appreciation) Historical Performance Quartiles** – As of September 30, 2020*



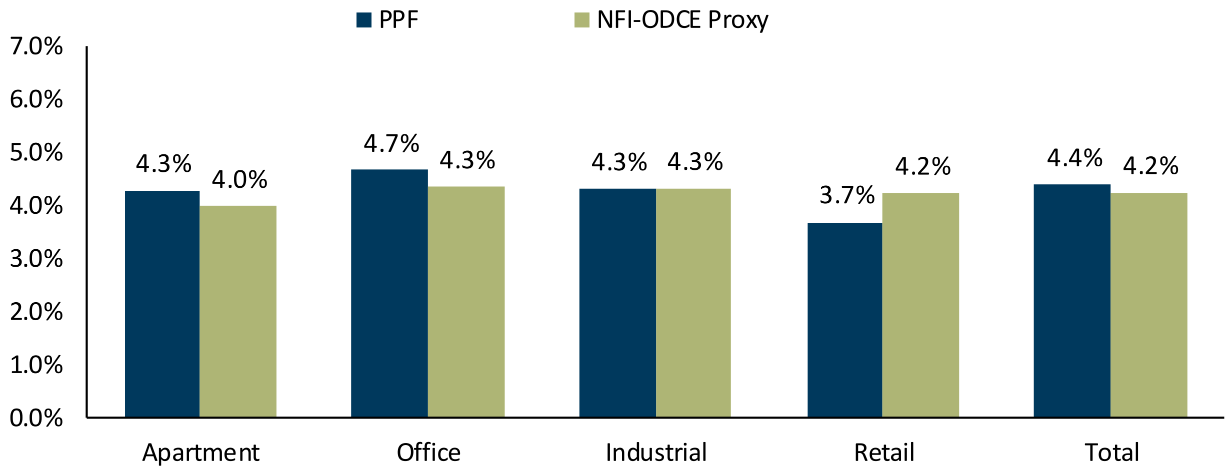

***Progression of Leverage** – As of September 30, 2020*



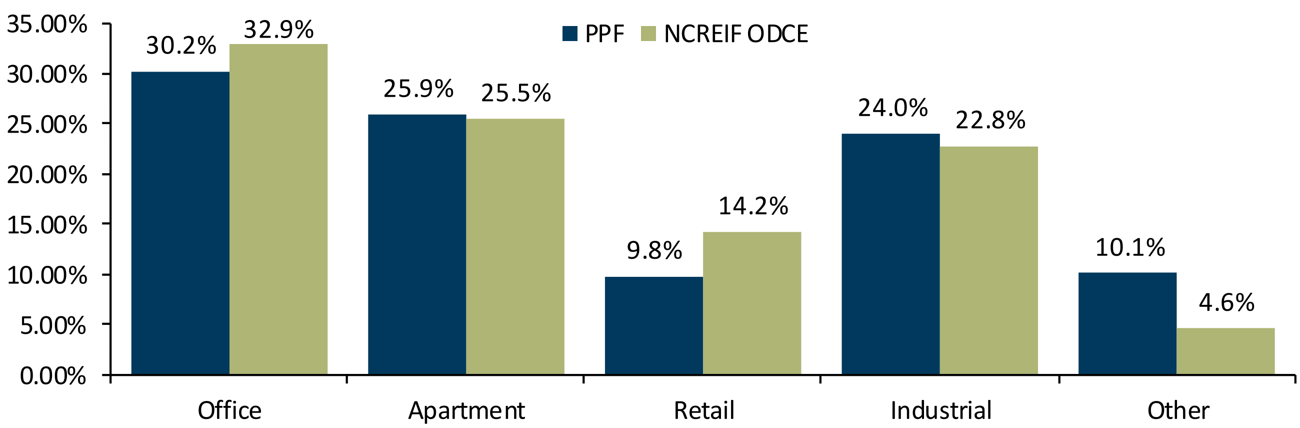

***Discount Rate** – As of September 30, 2020*



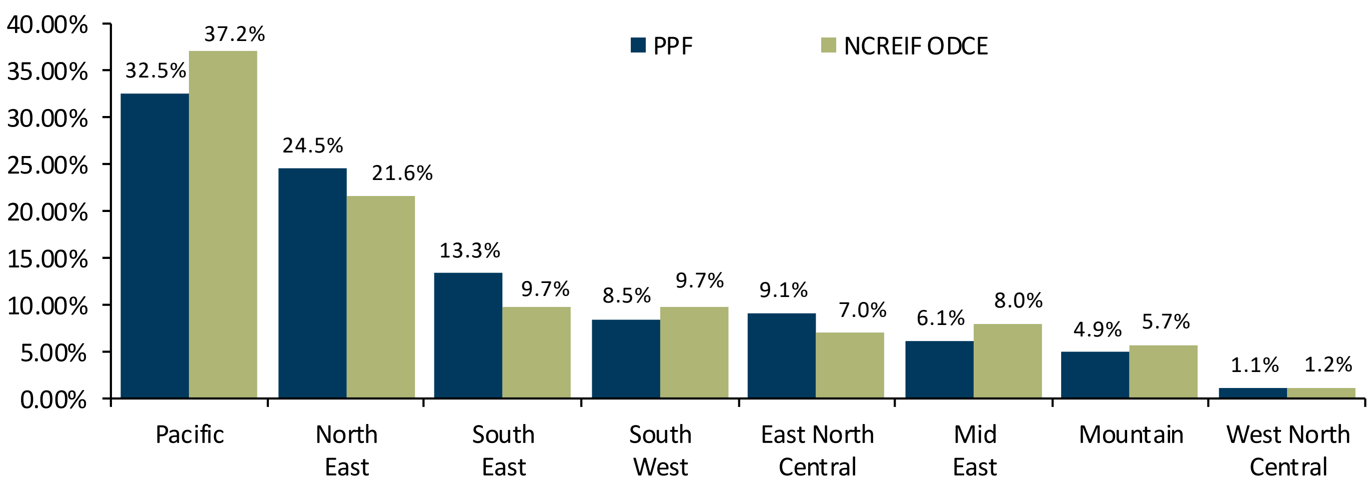
***Forward Cap Rates** – As of September 30, 2020*



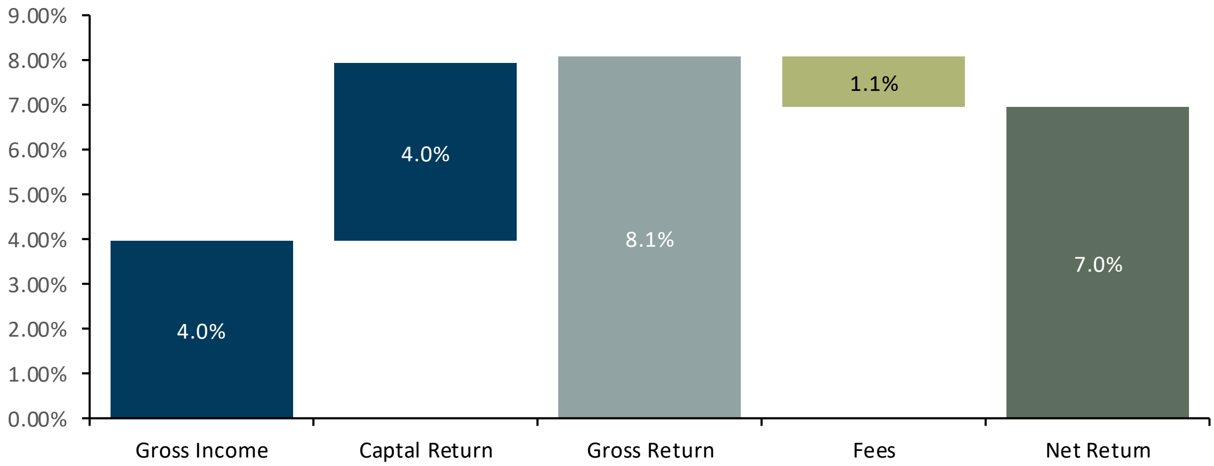

***Property Type Diversification** – As of September 30, 2020*




***Geographic Diversification** – As of September 30, 2020*



***Five Year Attribution** – As of September 30, 2020*




***Top 10 U.S. Market Exposures** – As of September 30, 2020*

| MSA | % Total Fund NAV |
|---|---|
| Los Angeles | 7.9% |
| Chicago | 3.3% |
| New York | 8.3% |
| Miami | 3.8% |
| Boston | 3.8% |
| San Francisco | 5.8% |
| Washington DC | 2.8% |
| Seattle | 2.6% |
| Denver | 4.6% |
| Atlanta | 7.0% |

# RATINGS EXPLANATION

The overall rating can be interpreted as follows:

| Overall Rating | What does this mean? |
|---|---|
| Buy | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products |
| Qualified | A number of criteria have been met and we consider the investment manager to be qualified to manage client assets |

The ESG rating can be interpreted as follows:

| ESG Rating | Interpretation |
|---|---|
| **Limited** | The fund management team has taken limited steps to address ESG considerations in the portfolio. |
| **Integrated** | The fund management team has taken essential steps to identify, evaluate, and mitigate potential financially material ESG risks within the portfolio. |
| **Advanced** | The fund management Team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate, and potentially mitigate these risks across the entire portfolio. |
| **Not Applicable** | ESG risks and considerations are not applicable to this strategy. |

# ABOUT THE TOWNSEND GROUP – AN AON COMPANY

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

**Disclaimer**

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Past Performance is no guarantee of future results. Investing involves risk, including possible loss of principal.

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TOWNSEND GROUP
an Aon company

Real Estate **InTotal**

# DWS Group GmbH & Co. KGaA

Core Plus Industrial Fund L.P.

August 2021

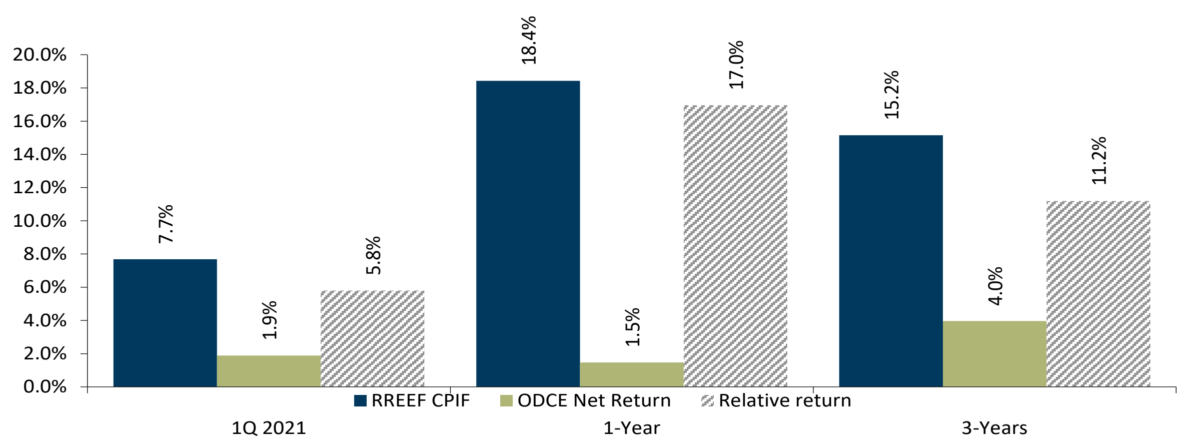
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Previous Rating |
|---|---|---|
| August 2021 | Buy | Buy |

RREEF America L.L.C. (“RREEF”), part of DWS Group GmbH & Co KGa (“DWS” or the “Sponsor”), launched RREEF Core Plus Industrial Fund L.P. (“CPIF” or the “Fund”), a core-plus open-end industrial fund in June 2017. The Fund invests in core (up to 100%) and non-core industrial (up to 50%) with leverage capped at 50% at the portfolio level.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-End Fund | **Risk Segment** | Core-Plus |
| **Size NAV** | $1.3 Billion | **Average Asset Size (NAV)** | $51.3 Million |
| **Valuations** | Quarterly FMV Debt & Equity | **Minimum Commitment** | $5 Million |
| **Leverage** | <50% LTV at portfolio level | **Current/Max Non-Core %** | 10.0%/25% |
| **Investment Guidelines** | - Max 25% speculative development (<50% pre-leased)<br>- Max 50% non-core<br>- Max of 10% to single property<br>- Max of 30% to single MSA | **Number of Holdings** | 25 |
| **Performance Objectives** | NPI Industrial + 50-100 bps, gross | | |
| **Benchmark** | NPI Industrial | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Sponsor** | DWS Group GmbH & Co. KGaA (XTRA:DWS) | **Parent** | DWS Group GmbH & Co. KGaA (XTRA:DWS) |
| **Headquarters** | New York City, NY (RREEF), Germany (DWS) | **Strategy Inception** | 2017 |
| **Employees** | 400+ | **Real Estate Team** | 5 |
| **Firm AUM** | €759 billion | **Real Estate AUM** | $67.8 billion |

707

## COMPARATIVE ADVANTAGES

1. Strong Industrial Track Record
    - RREEF's U.S. industrial track record is strong on both an absolute return and relative return basis over all measurement periods (compared to NPI Industrial sub-index).
    - Over the trailing twelve-month period, CPIF's generated a 18.79% gross return, outperforming NPI Industrial by +468bps.

2. Experienced Team
    - DWS/RREEF is a multi-decade manager of institutional real estate held in comingled funds and separate accounts. The Fund is staffed with one seasoned portfolio manager and one new portfolio manager, each of whom have worked within the industry for over 22 years. Darrel Campos is the lead portfolio manager for the Fund with 100% of his time dedicated to the Fund and has been with RREEF for 23 years. Catherine Minor is a recent addition to the team, filing the role of senior portfolio manager, but also has prior experience at RREEF during a previous 5-year stint at the firm in a development manager role.
    - The Fund's management team leverages RREEF/DWS's experienced research & strategy team and transaction teams to identify target markets. DWS has a dedicated Value Add & Development team, which formulates strategy & executes for both their separate accounts and comingled funds. Over the past 45 months, DWS has completed, constructed, or committed to 20 industrial ground-up development projects totalling $1.7 billion and approximately 8 million rentable square feet.

3. Favorable View on Industrial
    - Townsend continues to view the industrial property type favorably as do many institutional investors and research groups. E-commerce driven changes and resultant increases in demand for warehousing and logistics facilities is an ongoing multi-year tailwind behind thematic investment in the property type. YOY, e-commerce grew 32.1% despite a global recession, while retail consumption grew only 6.9% total. The targeted property types' inherent exposure to the evolution of e-commerce, a long-term demand driver, gives it potential for relative outperformance.

4. Development Accretive to Risk Adjusted Returns
    - The Fund targets up to 50% non-core and up to 25% speculative (<50% pre-leased) development. Given where pricing is for core industrial assets, this development component provides an attractive entry point for a long-term hold strategy as compared to buying at market pricing.
    - The Fund manages near the 25% speculative development limitation as it builds scale in order to take advantage of the market dynamics and the impact that development will have on its relatively small NAV (compared to other U.S. open-end industrial funds).
    - Development yield spreads are 50-150 basis points wide of stabilized yields, depending on market. With national vacancy levels at historic lows and supply/demand remaining in balance, this yield premium is still attractive to long-term core investors.
    - DWS has in-house development capabilities with a dedicated Value-add and Development team. CPIF leverages these in-house capabilities to underwrite and/or execute value-add activities. Consistent with most institutional fund strategies, particularly in the open-end space, the Fund will generally partner with local development partners to execute its development strategies. Those development partners are generally incentivized with fee and promote structures.

## POTENTIAL ISSUES AND CONCERNS

1. Limited Liquidity
    - As a relatively new open-end fund, CPIF does not have the requisite size to provide the liquidity it is supposed to offer as an open-end fund. Additionally, investors will also have to accept a 2-year initial lock-up period.

**Discussion**: RREEF has shown fundraising momentum for CPIF with $525 million of capital commitments received in just 1Q21 alone and a capital entry queue of $462 million as of April 2021. The two-year lockout is standard for new open-end funds, though typically come with a benefit such as fee savings.

2. Speculative Development Risk
   - Up to 25% of the Fund can be invested in speculative development. This is higher than the comparable funds such as Clarion Lion Industrial Trust (15% speculative development cap) and Prologis U.S. Logistics Fund (no speculative development).

**Discussion**: Depending on market conditions and prudent management of the development pipeline, CPIF's higher speculative development cap may continue to enable the Fund to generate superior risk adjusted returns due to the return premium provided by speculative development. Investors will rely on the Fund management which is overseen independent Board of Directors to set the development strategy for the Fund and will outline the limit on speculative development exposure. Depending on market conditions, DWS's House View, and/or input from the Fund's independent Board of Directors, CPIF may implement a development cap lower than 25%. The Board of Directors has full fiduciary responsibility to the Fund's shareholders and is expected to act in the best interests of investors without conflict.

## INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | The Fund invests in high quality industrial assets via core, transitional, and development investments primarily located in and around U.S. major metropolitan areas with an emphasis on infill locations. Primary return drivers include: market selection, long-term industrial structural factors (e.g. e-commerce), development at a discount to market value, and active asset management of the operating portfolio. The Fund seeks to distribute a quarterly dividend competitive with comparable open-end industrial funds (~4%) with a total return objective to outperform NPI Industrial by 50-100 basis points. |
| **Sponsor** | DWS is a leading asset manager with over €759 billion in AUM as of September 30, 2020. DWS has over 60 years' experience in Germany and across Europe in a full spectrum of investment disciplines. DWS' US real estate investment business was originally founded by RREEF in 1975 and has grown to become one of the largest real estate investment managers globally. DWS has over $67.8 billion in real estate AUM today. |
| **Operational Due Diligence** | The Altus Group manages the Firm's valuation process. The Board maintains responsibility for the valuation policy and may change the frequency of external valuations based upon prevailing market conditions and other relevant factors. The valuation policy is reviewed each quarter and can be modified at the Board's discretion. |
| **Investment Process** | Americas Real Estate Transactions team is led by Tim Ellsworth, a senior leader with 23 years tenure with the firm. Tim's team of Acquisitions Officers are organized along regional lines with specific markets and regional coverage. Acquisition officers are property generalists and as such are responsible for all sectors, including industrial. Acquisitions Officers source both core and non-core investments, originating these opportunities through a variety of sources including but not limited to property owners, real estate brokers, mortgage bankers and investment bankers. |

| | | |
|---|---|---|
| **Fund Structure** | | RREEF Core Plus Industrial Lower Fund II L.P., a Delaware limited partnership, was formed on April 10, 2017 and acquired (indirectly through its direct and indirect subsidiaries) its initial investments on June 7, 2017. RREEF Core Plus Industrial Fund L.P., a Delaware limited partnership, will generally participate (directly or indirectly) in investments, alongside any parallel fund, on a pro rata pari passu basis, subject to legal, tax, accounting, regulatory, and other considerations. Currently, the Delaware Fund holds all investments through the Lower Fund. |
| **Performance** | | CPIF has outperformed NFI-ODCE net over 1- and 3-year periods. The fund's industrial focus has driven performance versus the index in the near-term as industrial continues to outperform all other sectors. The Fund's overweight to the Pacific sub-region relative to the benchmark has contributed to the strong outperformance, as the sub-region continues to be one of the benchmark's top performers. |
| **ESG Policy & Practices** | | The Fund is currently rated as Advanced through Townsend's formal ESG process. |
| **Overall Rating** | **Buy** | CPIF's strategy is to invest in high quality industrial assets via core, transitional, and development investments primarily located in and around U.S. major metropolitan areas with an emphasis on infill locations. The Fund is achieving strong returns when compared to the benchmark while only 2% invested in speculative development, in large part to their allocations to some of the strongest performing MSAs for industrial within the U.S. |

## STRATEGY

- Portfolio Characteristics: CPIF targets high quality industrial assets, primarily distribution and warehouse properties, and seeks to continue constructing a geographically diversified portfolio in major metros with an emphasis on infill locations. The Fund's current portfolio composition is as follows[1]:
  - $1.4 billion in Fund GAV, $1.3 million Fund NAV
  - 18 core, 7 non-core properties
  - Square Feet: 6.9 million total
  - Discount rate: 6.2%
  - Cap Rate: 4.6%
  - WALT: 6.0 years for Core properties
  - Rents: 11.2% below market for Core properties
  - Tenancy: 112 tenants with mix of logistics, consumer retail, manufacturing, and other for Core Properties

- Pipeline: $47 million of recently developments

- Target Markets: Major metros with emphasis on infill locations. Target markets include: Southern California, Bay Area, Seattle, Denver, Chicago, NY/NJ, Atlanta, Dallas, and Miami.

- Current Portfolio Diversification:
  - 67% in coastal markets including Seattle, Southern California, Chicago, and Miami.
  - 33% located in Central PA and New Jersey, both primary distribution hubs[2]

[1] As of 3/31/21 unless otherwise noted
[2] Includes the six pending transactions which were under contract or letter of intent

- Business Plans:
  - Core (Target 75%, Minimum 50%)
    - Invest in high quality industrial assets primarily located in and around major metro areas with good income producing qualities including: high occupancies, manageable lease roll, quality tenants, and good sub-markets. CPIF expects to do single asset and portfolio acquisitions.
  - Non-Core (Target 25%, Maximum 50%)
    - Repositioning*:* Well-located assets that will benefit from capital programs.
    - Lease-up: Under-leased assets that will benefit from active asset management
    - Core with Optionality: Core assets that offer increased return potential as a result of developable land or other property improvements
    - Forward purchases: Commitments to purchase assets prior to development completion once certain de-risking hurdles have been met in order to acquire core at a discount to market value.
    - Lend to Core: Provide construction financing for assets under development with commitment to commit debt to equity at a pre-negotiated price upon certain de-risking hurdles being met (e.g. lease-up, completion). Strategy seeks to provide income during development and acquisition at discount to market value upon stabilization.
    - Development[3]: May include build-to-suit, partially pre-leased, and speculative development. Strategy seeks to provide access to core product at a discount to market value upon stabilization. The Fund may sell development assets or hold as core depending on Fund portfolio strategy.
    - Transitory Markets: Assets in temporarily distressed markets identified by research, asset management and transactions teams.

# SPONSOR

### OVERVIEW

RREEF was established in 1975 to invest in core real estate and has since sponsored several series of such funds and has also managed separate accounts for various U.S. tax-exempt investors. Deutsche Bank acquired RREEF in 2002 to complement its existing real estate asset management business, which at that time was largely focused in Europe and Asia Pacific.

Following the RREEF acquisition, all real estate activities within Deutsche Bank's Asset Management Division were united under the RREEF Real Estate brand. On March 23, 2018 Deutsche Asset Management rebranded to DWS. On the same date, Deustche Bank listed a minority share (21%) in the asset management business through an IPO on the Frankfurt Stock Exchange with Deustche Bank retaining a majority (79%) interest. Part of the rationale for the DWS IPO was to separate DWS and insulate it from volatility associated with the parent company.

DWS's Private Real Estate business sits within the Alternatives platform which also includes Private Infrastructure, Liquid Real Assets, Private Equity, Sustainable Investments, and Hedge Funds. DWS's Alternatives business is headquartered in New York, with U.S. corporate branch offices in San Francisco and Chicago. The RREEF Core Plus Industrial Fund investment team is primarily based in the San Francisco and New York offices. In addition to the three corporate offices, the U.S. real estate asset management organization operates out of nine regional offices in key cities around the country.

[3] Speculative development is capped at 25% of Fund GAV

# RREEF CORE PLUS INDUSTRIAL FUND

## Governance and management team

DWS

Fund Governance and Oversight

**Independent Board of Managers**

Americas Real Estate Investment Committee

Todd Henderson
Head of Real Estate, Americas
Board of Managers & Investment Committee
18 30

Portfolio Management Team

Darrell Campos
Lead Portfolio Manager
23 29

Joe Cappelletti
Chief Financial Officer
36 36

Jessica Hamill
Fund Controller
6 12

Portfolio and Asset Management
Property Specialists

Fund Operations
3 investment professionals

Broader Real Estate Resources

| Asset Management | Capital Markets | ESG & Sustainability | Global Client Group | Operations | Research & Strategy | Transactions |
|---|---|---|---|---|---|---|

Source: DWS. Years with firm/industry as of December 31, 2020.

# Years with firm   # Years with industry

# PRIVATE REAL ESTATE LEADERSHIP TEAM—AMERICAS

## Senior leaders average 18 years with the firm and 30 years with the industry

DWS

**TODD HENDERSON (CEO)**
Head of Real Estate, Americas
18 30

| Marc Feliciano (CIO) | Tim Ellsworth | Mike Nigro | Laura Gaylord | Vikram Mehra |
|---|---|---|---|---|
| Portfolio Management and Asset Management | Transactions | Value Add & Development | Client Coverage | COO |
| 16 28 | 23 38 | 16 24 | 18 36 | 16 22 |

**INVESTMENT FUNCTIONS[1]**

| Portfolio Management[2] | Transactions | Asset Management | Research & Strategy | ESG[3] | Central Functions |
|---|---|---|---|---|---|
| 48 employees | 16 employees | 39 employees | 7 employees | 4 employees | 19 employees |

(1) As of September 30, 2020.
(2) Includes personnel of real estate debt team.
(3) Includes three external employees.
Source: DWS. As of December 31, 2020. Years with firm/industry as of December 31, 2020.

Years with firm # Years with industry #

# OPERATIONAL RISK PROFILE

An Aon specialist team is reviewing the Sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions including: (i) corporate governance, (ii) trade/transaction execution, (iii) cash controls, (iv) valuation, (v) compliance, regulatory, legal, and controls testing, (vi) counterparty risk oversight, (vii) business continuity/disaster recovery, and (viii) cyber security.

RREEF America L.L.C. is a majority-owned subsidiary of DWS, the investment management arm of Deutsche Bank AB, a publicly-traded global investment bank. The Manager generally demonstrates a well-controlled operating environment, including appropriate governance and oversight structures, regulatory compliance capabilities, and technology and security protocols. The firm implements highly automated processes, and all functions are well-monitored and controlled. The Manager utilizes commercially viable technology and applications including trading, accounting, order management, and compliance systems that allow for a high degree of straight through processing. These controls and processes drive the A1 Pass rating.

# INVESTMENT PROCESS

The Fund Team has the primary responsibility for investment decision-making for the Fund, along with the Investment Committee. The CPIF Board of Directors approves the Annual Strategic Investment Plan. All Investment Committee decisions for the Fund must be approved unanimously.

Summary of Acquisition Process:

- Sourcing: Based on acquisition criteria from the CPIF Annual Strategic Investment Plan as updated by the portfolio management team, members of the transactions team go out and source suitable investments. Acquisitions Officers operate regionally and are property generalists. They continually visit their designated markets to meet with developers, owners, brokers, and bankers to communicate acquisitions criteria to keep current on market conditions.
- Screening: Once a property is identified that meets client objectives, the property is logged into the Transactions group's weekly report that summarizes the status of all potential acquisitions. Weekly calls are held between members of Transactions, Portfolio Management, Asset Management, and Investment Committee to update participants on the status of potential acquisitions.
- Underwriting: Potential transactions are put through an initial underwriting by the Acquisitions Officer with input from Research and Asset Management. An LOI is submitted after the initial underwriting. In concert with the LOI, a preliminary memo is prepared to further socialize the opportunity among Investment Committee and Portfolio Management. Based on feedback from Investment Committee and Portfolio Management, cash flow assumptions are revised and a best and final LOI is submitted.
- Allocation: If the LOI is accepted, the Acquisitions officer prepares an extension of the preliminary investment memo which fully considers investment returns, risk, and timing. This memo is presented to portfolio managers for allocation.
- Due Diligence: Once allocated, the Transactions group coordinates formal due diligence which includes: legal, physical, financial, market, portfolio, and compliance.
- Approval: At completion of due diligence, the Acquisitions Officer makes a formal presentation to the Investment Committee who are already educated on the deal since they have been updated throughout due diligence via the weekly transaction review meeting and Investment Committee meetings.

Asset Management:

- Geographically focused asset managers that specialize in property type enables deep market knowledge which is used to properly position properties and negotiate leases to drive value
- Asset management group includes engineering teams to assist Asset Managers with capital expenditures, environmental, and structural issues.
- Property Management is outsourced to third parties and overseen by Asset Management.

Dispositions:

- The decision to sell a property originates from the Fund Team who has primary responsibility to ensure the Fund's objectives are met.
- Through the Annual Strategic Investment Plan and valuation process, each property is reviewed against the investment objectives. Using market profiles and property specific characteristics, the Fund Team determines whether to present a property for sale to Investment Committee.
- Once identified for sale, a property is presented to IC which reviews the recommendation and decides whether to assign the property to the Transactions team for sale.

`

# FUND STRUCTURE

## OVERVIEW

CPIF is a U.S. open-end industrial fund structured with various entry points depending on the tax status of the investor. The Fund's investments will be held indirectly through various holding structures in one or more entities.

## REVIEW OF TERMS & CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | NPI Industrial + 50-100 bps, gross at Fund level |
| **Cash Distributions** | None |
| **Investment Management Fees** | Less than $25mm: 1.15%<br>Next $50mm: 0.95%<br>Next $75mm: 0.85%<br>Next $75mm: 0.75%<br>Thereafter: 0.65% |
| **Other Fees** | Fund may be charged up to $2.0M and amortized over 5 years |
| **Performance Fees** | 15% of total profits after a return of capital and an 8% preferred return at the end of each three year incentive period, calculated at LP level.<br><br>Payment subject to a 25% holdback which will be paid out at the end of the next three year measurement period if the hurdle is met. |
| **Debt Mark-to-Market** | None |
| **Redemption Policy** | 2-year initial lock up period |

## ENTRY AND EXIT PROCESS

*Entry:* The Fund is restricted to accredited investors, open for investment to endowments, foundations and taxable investors. Investors are required to complete a subscription agreement, which will be reviewed by RREEF. Initial subscriptions must be in the minimum amount of $5 million.

*Exit:* Investors must submit notification via email or hard copy letter to the Fund and give two months' notice prior to quarter-end. Absent a redemption queue, the trade date occurs at quarter end. The Fund allocates funds being used to satisfy redemption requests proportionately among all redeeming investors (pro-rata).

## PERFORMANCE

RREEF began to pursue industrial warehouse development (in addition to its core industrial strategies) in 1997. In order to demonstrate the firm's track record in both core and development, the track record in Figure 11 has been presented from 1997 onward. RREEF's U.S. industrial track record is strong on both an absolute return and relative return basis over all measurement periods (compared to NPI Industrial sub-index).

The Fund has a shorter track record since its inception was only July 2017. Over the trailing twelve-month period, CPIF's generated a 18.8% total gross return, outperforming the NPI Industrial by 468 basis points and exceeding the Fund's goal of 50-100 basis points. One likely contributor to the Fund's success over the benchmark is the 64% allocation to the Pacific sub-region, which has consistently been one of the benchmark's top performers over the past year, delivering a total return of 14.8%. The Fund is currently overweight this sub-region relative to the benchmark by 22% and has significant exposure to several of the sub-region's top gateway markets including San Diego (15%), Seattle (14%), and Los Angeles (12%), which saw total trailing 12-month returns of 14.9%, 13.4%, and 11.3%, respectively, during 2020.

The trailing 12-month same store net operating income for fourth quarter 2020 was up 3 percent from fourth quarter 2019, which is reflective of positive leasing activity, including earlier than anticipated lease-up of vacant spaces, achieving higher rents, and providing fewer concessions than anticipated. Additionally, the Fund's weighted average IRR and Exit cap rate have compressed 22 basis points and 19 basis points, respectively, due to continued strong investor demand for industrial product within the Fund's existing market exposures. Compared to year-end 2019, the Fund's core portfolio weighted average going in cap rate decreased 19 basis points. This has led to a growth in the Fund's Gross Real Estate market values of 23%.

## ESG POLICY & PRACTICES

DWS has well defined ESG policies, which are interwoven into the Firm's Sustainability House Views consisting of (1) Data Collection, (2) Implementation, (3) Goal Setting, and (4) Measurement. The Firm published their ESG Policy in 2020; however, it's worth noting that this policy was derived from DWS' Standards of Sustainability first published in 2011 and DWS' Sustainability House Views published in 2015. The firm maintains an annually reviewed code of ethics, DEI policy, non-discrimination policies, and code of conduct, all of which require annual training by DWS employees.

In 2017 the Responsible Investment Leadership Team ("RILT") took charge of overseeing the development and implementation of the global ESG and responsible investment strategy across DWS. The RILT is chaired by the Head of Responsible Investments and consists of the CIO for Responsible Investments and senior representatives from coverage, marketing, product, communications, corporate strategy and transformation, and human resources. The RILT meets regularly to discuss issues and initiatives across the Firm relating to ESG and sustainability. The Head of Responsible Investments reports to the DWS Executive Board member who also serves as the Global Head of Client Coverage. In regard to DWS staff, approximately 27% of executive positions at the firm management level were held by women, up from 22% in 2019.

ESG considerations are evaluated by DWS at all stages of the real estate investment cycle from acquisition, throughout the hold period, and at disposition. DWS employs a strategy of continuous evaluation of ESG considerations after acquisition with the goal of improving the value of the asset through reduction of energy and water consumption, effective waste diversion practices, health and wellness programs, third-party green labels and certifications, and asset hardening through climate risk and resiliency assessments. Specifically, DWS invests in technical building assessments during the hold period. Assessments are conducted both internally by DWS staff as well as by qualified third-party vendors and consultants, such as Measurabl. These technical building assessments are deployed to assess risks related to climate change, GHG emissions, energy efficiency, tenant engagement strategies such as transportation, waste management, and water savings. Since the

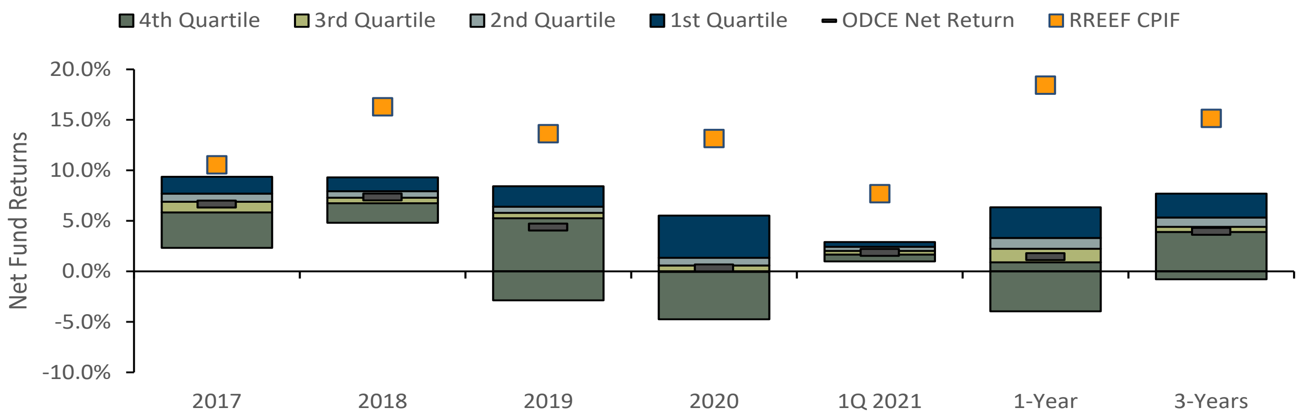
beginning of 2016, all DWS properties are required to choose a feasible efficiency measure assessment and add the recommended project to the budget.

The Fund is in its infancy stage with regard to submitting to GRESB, first reporting in 2020. It should be noted that a fund's first report with GRESB typically receive a relatively poor score; however, CPIF scored well relative to its industrial peers. For new funds, progressive improvement in subsequent years' reports should be a strong indication of the Fund's advancement. Additionally, the Firm was an early adopter of the Principals for Responsible Investment ("PRI"), becoming a signatory in 2008. Since 2008, DWS has scored inline or better than the median PRI signatory, with this past year's assessment scored an A+. Furthermore, DWS is a member or signatory of the Task Force for Climate Related Financial Disclosures, the Urban Land Institute, Climate Disclosure Project, UK Sustainable Investment and Finance Association, NAREIT Sustainability Council, Ceres, and many more.

Based on the above referenced factors, we have concluded CPIF's ESG rating to be "Advanced". DWS' commitment to ESG dates back to 2008 when the firm became a signatory of PRI. Additionally, the Firm stands out amongst its peers in that DWS has dedicated team to oversee the Firm's ESG initiatives. CPIF's partnership with GRESB is relatively new, and even so, in 2020 CPIF scored relatively well amongst the industrial fund peer set, further supporting the "Advanced" rating.

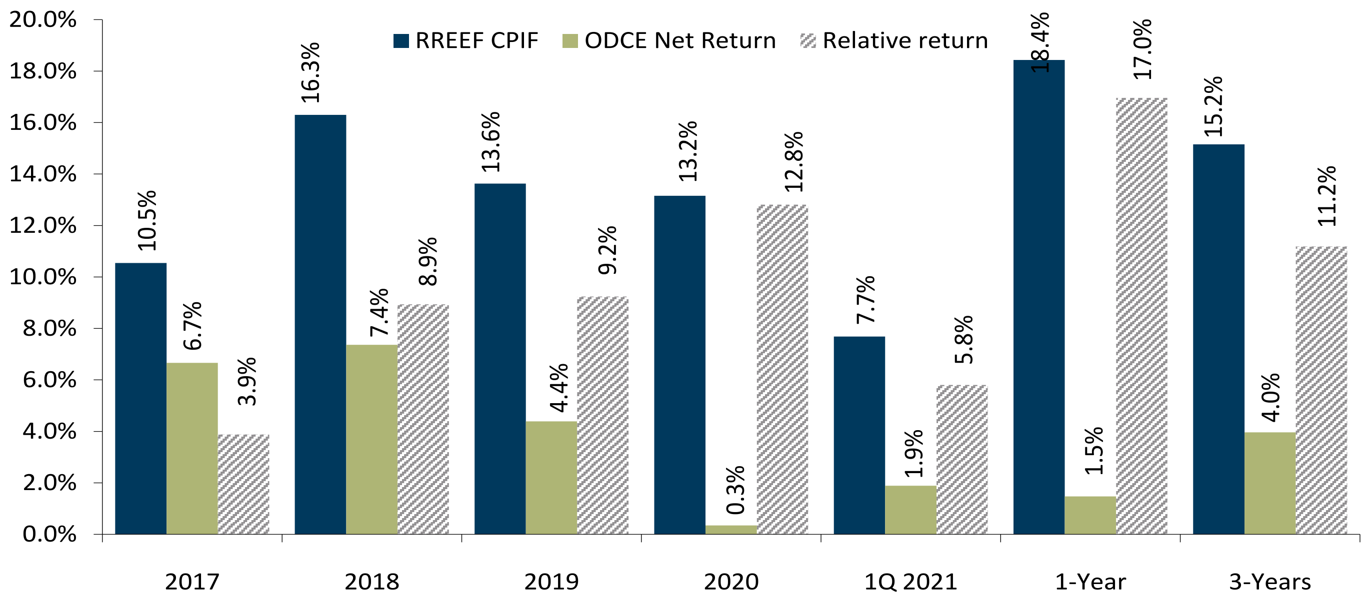
# APPENDIX

***Historical Performance Quartiles** – As of March 31, 2021*

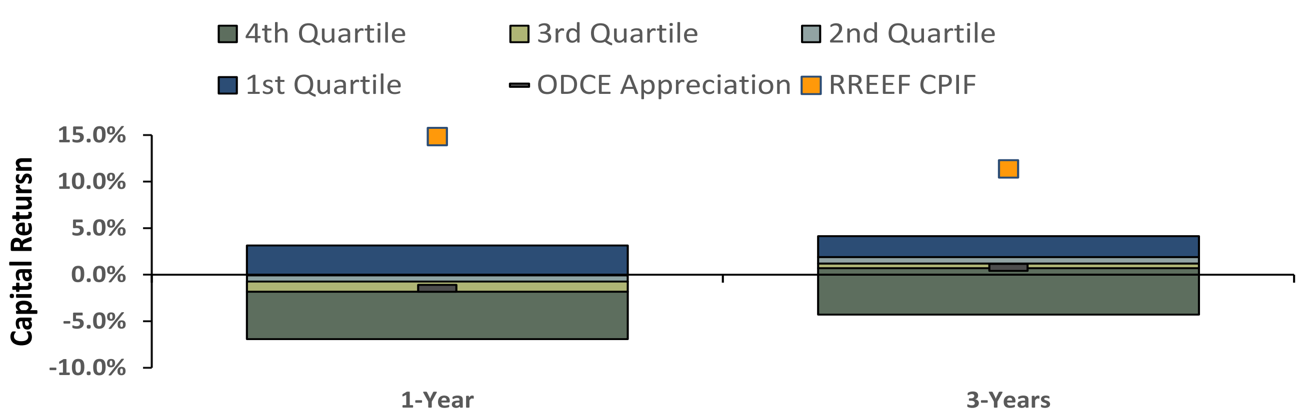



**Source: Townsend U.S. Open-Ended Core Fund database as of March 31, 2021. Range shown is 95th to 5th percentile.**

***Historical Relative Fund Performance** – As of March 31, 2021*

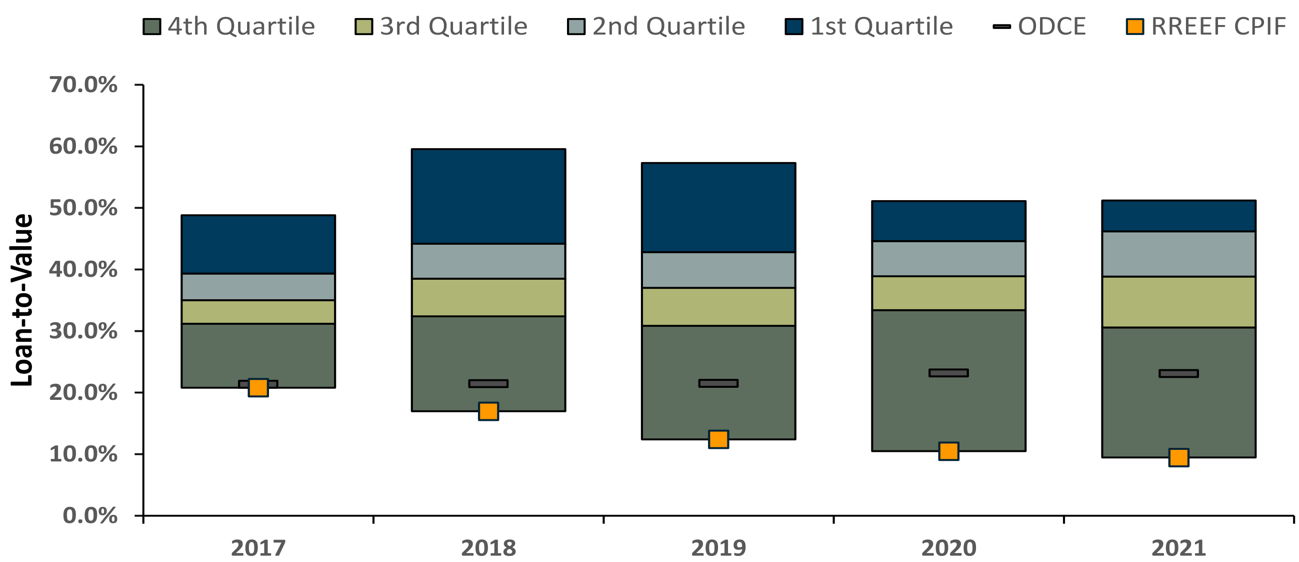



***Capital Return (Appreciation) Historical Performance Quartiles** – As of March 31, 2021*

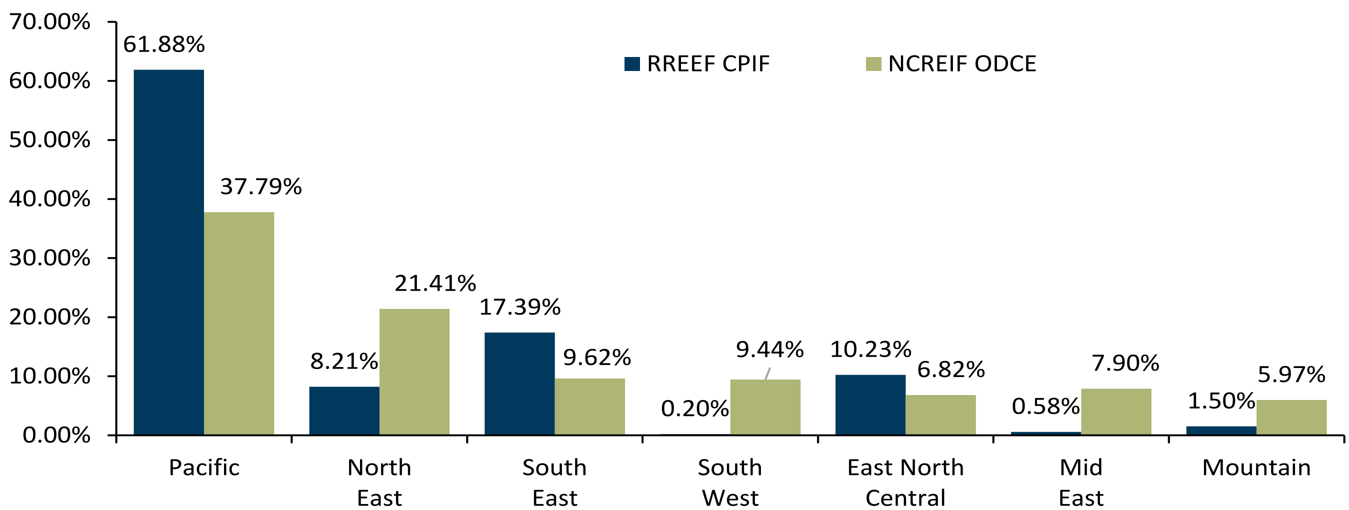



718

***Progression of Leverage –*** *As of March 31, 2021*




***Fund Diversification*** *– As of March 31, 2021*




719

***Top 10 U.S. Market Exposures*** *–As of March 31, 2021*

| MSA | % Total Fund NAV |
|---|---|
| Miami-Fort Lauderdale-Pompano Beach, | 17.6% |
| Los Angeles-Long Beach-Santa Ana, CA | 15.1% |
| San Diego-Carlsbad-San Marcos, CA | 14.9% |
| Seattle-Tacoma-Bellevue, WA | 11.2% |
| Chicago-Naperville-Joliet, IL-IN-WI | 10.4% |
| Portland-Vancouver-Beaverton, OR-WA | 9.6% |
| Riverside-San Bernardino-Ontario, CA | 7.1% |
| Trenton-Ewing, NJ | 5.9% |
| San Jose-Sunnyvale-Santa Clara, CA | 3.7% |
| York-Hanover, PA | 2.3% |

## Top Ten Assets (by MV)

| Property | City | State | $MV |
|---|---|---|---|
| **Vantage Point** | Poway | CA | 186,100,000 |
| **Portland Distribution Center** | Portland | OR | 123,200,000 |
| **Olympia** | Kent | WA | 107,318,000 |
| **Centergate at Gratigny - Phase I** | Hialeah | FL | 100,900,000 |
| **Centergate at Gratigny - Phase II** | Hialeah | FL | 96,400,000 |
| **9050 Hermosa** | Rancho Cucamonga | CA | 90,700,000 |
| **159 Milford** | East Windsor | NJ | 75,300,000 |
| **Jefferson Industrial** | Elk Grove Village | IL | 55,700,000 |
| **Nelson Business Park** | City of Industry | CA | 52,100,000 |
| **111 Uranium** | Sunnyvale | CA | 47,700,000 |

## Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product and its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

**Buy** – Townsend recommends the investment for those client portfolios where it is a fit.

**Qualified** – Townsend believes the sponsor to be qualified to manage client assets.

## Operational Risk Profile Rating Explanation

| Rating | Definition |
|---|---|
| ✓+ | Aon completed its review process and noted no material operational concerns within the areas it reviewed and finds that these aspects of the firm's operations largely align with a well-controlled operating environment. |
| ✓ | Aon completed its review process and the firm's operations within the areas Aon reviewed largely align with a well-controlled operating environment, with limited exceptions. Managers may be rated within this category due to resource limitations or asset class limitations or where isolated areas do not align with best practice. |
| No Rating | Aon was unable to complete its review process due to incomplete information, policies and procedures that are under development or in transition, or for other reasons. Aon may review the rating if these items are addressed. |
| ✓- | Aon completed its review process and noted material operational concerns that introduce the potential for economic loss or reputational risk exposure. |

## About Townsend Group – An Aon Company

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

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Past Performance is no guarantee of future results. Investing involves risk, including possible loss of principal.

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**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-46**

## Approving Investment in Morgan Stanley Prime Property Fund, LLC

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its real assets investment consultant, Aon Hewitt Investment Consulting, Inc., along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Morgan Stanley Prime Property Fund, LLC,** a U.S. open-end diversified core fund that targets the highest quality income-producing properties located in primary markets.

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$70 million dollars ($70,000,000.00)** in **Morgan Stanley Prime Property Fund, LLC.** The total investment amount is to be determined by the real assets consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED,*** That the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

__________________________________
**Mr. Danny Knight,** ***Chair***
***Arkansas Teacher Retirement System***

TOWNSEND® GROUP
an Aon company

Real Estate **InTotal**

# DWS Group GmbH & Co. KGaA

Core Plus Industrial Fund L.P.

August 2021

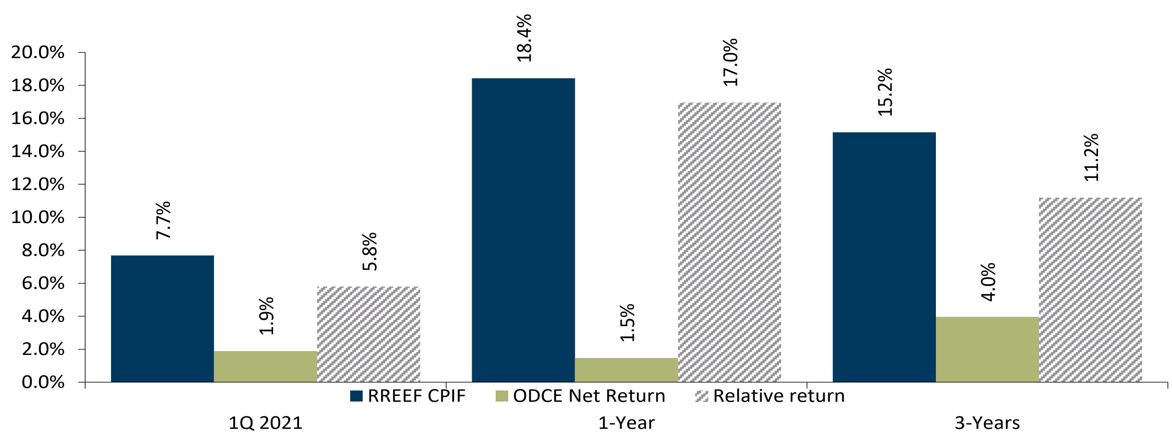
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Previous Rating |
|---|---|---|
| August 2021 | Buy | Buy |

RREEF America L.L.C. (“RREEF”), part of DWS Group GmbH & Co KGa (“DWS” or the “Sponsor”), launched RREEF Core Plus Industrial Fund L.P. (“CPIF” or the “Fund”), a core-plus open-end industrial fund in June 2017. The Fund invests in core (up to 100%) and non-core industrial (up to 50%) with leverage capped at 50% at the portfolio level.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-End Fund | **Risk Segment** | Core-Plus |
| **Size NAV** | $1.3 Billion | **Average Asset Size (NAV)** | $51.3 Million |
| **Valuations** | Quarterly FMV Debt & Equity | **Minimum Commitment** | $5 Million |
| **Leverage** | <50% LTV at portfolio level | **Current/Max Non-Core %** | 10.0%/25% |
| **Investment Guidelines** | - Max 25% speculative development (<50% pre-leased)<br>- Max 50% non-core<br>- Max of 10% to single property<br>- Max of 30% to single MSA | **Number of Holdings** | 25 |
| **Performance Objectives** | NPI Industrial + 50-100 bps, gross | | |
| **Benchmark** | NPI Industrial | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Sponsor** | DWS Group GmbH & Co. KGaA (XTRA:DWS) | **Parent** | DWS Group GmbH & Co. KGaA (XTRA:DWS) |
| **Headquarters** | New York City, NY (RREEF), Germany (DWS) | **Strategy Inception** | 2017 |
| **Employees** | 400+ | **Real Estate Team** | 5 |
| **Firm AUM** | €759 billion | **Real Estate AUM** | $67.8 billion |

724

## COMPARATIVE ADVANTAGES

1. Strong Industrial Track Record
   - RREEF's U.S. industrial track record is strong on both an absolute return and relative return basis over all measurement periods (compared to NPI Industrial sub-index).
   - Over the trailing twelve-month period, CPIF's generated a 18.79% gross return, outperforming NPI Industrial by +468bps.

2. Experienced Team
   - DWS/RREEF is a multi-decade manager of institutional real estate held in comingled funds and separate accounts. The Fund is staffed with one seasoned portfolio manager and one new portfolio manager, each of whom have worked within the industry for over 22 years. Darrel Campos is the lead portfolio manager for the Fund with 100% of his time dedicated to the Fund and has been with RREEF for 23 years. Catherine Minor is a recent addition to the team, filing the role of senior portfolio manager, but also has prior experience at RREEF during a previous 5-year stint at the firm in a development manager role.
   - The Fund's management team leverages RREEF/DWS's experienced research & strategy team and transaction teams to identify target markets. DWS has a dedicated Value Add & Development team, which formulates strategy & executes for both their separate accounts and comingled funds. Over the past 45 months, DWS has completed, constructed, or committed to 20 industrial ground-up development projects totalling $1.7 billion and approximately 8 million rentable square feet.

3. Favorable View on Industrial
   - Townsend continues to view the industrial property type favorably as do many institutional investors and research groups. E-commerce driven changes and resultant increases in demand for warehousing and logistics facilities is an ongoing multi-year tailwind behind thematic investment in the property type. YOY, e-commerce grew 32.1% despite a global recession, while retail consumption grew only 6.9% total. The targeted property types' inherent exposure to the evolution of e-commerce, a long-term demand driver, gives it potential for relative outperformance.

4. Development Accretive to Risk Adjusted Returns
   - The Fund targets up to 50% non-core and up to 25% speculative (<50% pre-leased) development. Given where pricing is for core industrial assets, this development component provides an attractive entry point for a long-term hold strategy as compared to buying at market pricing.
   - The Fund manages near the 25% speculative development limitation as it builds scale in order to take advantage of the market dynamics and the impact that development will have on its relatively small NAV (compared to other U.S. open-end industrial funds).
   - Development yield spreads are 50-150 basis points wide of stabilized yields, depending on market. With national vacancy levels at historic lows and supply/demand remaining in balance, this yield premium is still attractive to long-term core investors.
   - DWS has in-house development capabilities with a dedicated Value-add and Development team. CPIF leverages these in-house capabilities to underwrite and/or execute value-add activities. Consistent with most institutional fund strategies, particularly in the open-end space, the Fund will generally partner with local development partners to execute its development strategies. Those development partners are generally incentivized with fee and promote structures.

## POTENTIAL ISSUES AND CONCERNS

1. Limited Liquidity
   - As a relatively new open-end fund, CPIF does not have the requisite size to provide the liquidity it is supposed to offer as an open-end fund. Additionally, investors will also have to accept a 2-year initial lock-up period.

**Discussion**: RREEF has shown fundraising momentum for CPIF with $525 million of capital commitments received in just 1Q21 alone and a capital entry queue of $462 million as of April 2021. The two-year lockout is standard for new open-end funds, though typically come with a benefit such as fee savings.

2. Speculative Development Risk
   - Up to 25% of the Fund can be invested in speculative development. This is higher than the comparable funds such as Clarion Lion Industrial Trust (15% speculative development cap) and Prologis U.S. Logistics Fund (no speculative development).

   **Discussion**: Depending on market conditions and prudent management of the development pipeline, CPIF's higher speculative development cap may continue to enable the Fund to generate superior risk adjusted returns due to the return premium provided by speculative development. Investors will rely on the Fund management which is overseen independent Board of Directors to set the development strategy for the Fund and will outline the limit on speculative development exposure. Depending on market conditions, DWS's House View, and/or input from the Fund's independent Board of Directors, CPIF may implement a development cap lower than 25%. The Board of Directors has full fiduciary responsibility to the Fund's shareholders and is expected to act in the best interests of investors without conflict.

## INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | The Fund invests in high quality industrial assets via core, transitional, and development investments primarily located in and around U.S. major metropolitan areas with an emphasis on infill locations. Primary return drivers include: market selection, long-term industrial structural factors (e.g. e-commerce), development at a discount to market value, and active asset management of the operating portfolio. The Fund seeks to distribute a quarterly dividend competitive with comparable open-end industrial funds (~4%) with a total return objective to outperform NPI Industrial by 50-100 basis points. |
| **Sponsor** | DWS is a leading asset manager with over €759 billion in AUM as of September 30, 2020. DWS has over 60 years' experience in Germany and across Europe in a full spectrum of investment disciplines. DWS' US real estate investment business was originally founded by RREEF in 1975 and has grown to become one of the largest real estate investment managers globally. DWS has over $67.8 billion in real estate AUM today. |
| **Operational Due Diligence** | The Altus Group manages the Firm's valuation process. The Board maintains responsibility for the valuation policy and may change the frequency of external valuations based upon prevailing market conditions and other relevant factors. The valuation policy is reviewed each quarter and can be modified at the Board's discretion. |
| **Investment Process** | Americas Real Estate Transactions team is led by Tim Ellsworth, a senior leader with 23 years tenure with the firm. Tim's team of Acquisitions Officers are organized along regional lines with specific markets and regional coverage. Acquisition officers are property generalists and as such are responsible for all sectors, including industrial. Acquisitions Officers source both core and non-core investments, originating these opportunities through a variety of sources including but not limited to property owners, real estate brokers, mortgage bankers and investment bankers. |

| | | |
|---|---|---|
| **Fund Structure** | RREEF Core Plus Industrial Lower Fund II L.P., a Delaware limited partnership, was formed on April 10, 2017 and acquired (indirectly through its direct and indirect subsidiaries) its initial investments on June 7, 2017. RREEF Core Plus Industrial Fund L.P., a Delaware limited partnership, will generally participate (directly or indirectly) in investments, alongside any parallel fund, on a pro rata pari passu basis, subject to legal, tax, accounting, regulatory, and other considerations. Currently, the Delaware Fund holds all investments through the Lower Fund. | |
| **Performance** | CPIF has outperformed NFI-ODCE net over 1- and 3-year periods. The fund's industrial focus has driven performance versus the index in the near-term as industrial continues to outperform all other sectors. The Fund's overweight to the Pacific sub-region relative to the benchmark has contributed to the strong outperformance, as the sub-region continues to be one of the benchmark's top performers. | |
| **ESG Policy & Practices** | The Fund is currently rated as Advanced through Townsend's formal ESG process. | |
| **Overall Rating** | **Buy** | CPIF's strategy is to invest in high quality industrial assets via core, transitional, and development investments primarily located in and around U.S. major metropolitan areas with an emphasis on infill locations. The Fund is achieving strong returns when compared to the benchmark while only 2% invested in speculative development, in large part to their allocations to some of the strongest performing MSAs for industrial within the U.S. |

## STRATEGY

- Portfolio Characteristics: CPIF targets high quality industrial assets, primarily distribution and warehouse properties, and seeks to continue constructing a geographically diversified portfolio in major metros with an emphasis on infill locations. The Fund's current portfolio composition is as follows[1]:
  - $1.4 billion in Fund GAV, $1.3 million Fund NAV
  - 18 core, 7 non-core properties
  - Square Feet: 6.9 million total
  - Discount rate:  6.2%
  - Cap Rate: 4.6%
  - WALT: 6.0 years for Core properties
  - Rents: 11.2% below market for Core properties
  - Tenancy: 112 tenants with mix of logistics, consumer retail, manufacturing, and other for Core Properties

- Pipeline: $47 million of recently developments

- Target Markets: Major metros with emphasis on infill locations. Target markets include: Southern California, Bay Area, Seattle, Denver, Chicago, NY/NJ, Atlanta, Dallas, and Miami.

- Current Portfolio Diversification:
  - 67% in coastal markets including Seattle, Southern California, Chicago, and Miami.
  - 33% located in Central PA and New Jersey, both primary distribution hubs[2]

[1] As of 3/31/21 unless otherwise noted
[2] Includes the six pending transactions which were under contract or letter of intent

- Business Plans:
  - Core (Target 75%, Minimum 50%)
    - Invest in high quality industrial assets primarily located in and around major metro areas with good income producing qualities including: high occupancies, manageable lease roll, quality tenants, and good sub-markets. CPIF expects to do single asset and portfolio acquisitions.
  - Non-Core (Target 25%, Maximum 50%)
    - Repositioning*:* Well-located assets that will benefit from capital programs.
    - Lease-up: Under-leased assets that will benefit from active asset management
    - Core with Optionality: Core assets that offer increased return potential as a result of developable land or other property improvements
    - Forward purchases: Commitments to purchase assets prior to development completion once certain de-risking hurdles have been met in order to acquire core at a discount to market value.
    - Lend to Core: Provide construction financing for assets under development with commitment to commit debt to equity at a pre-negotiated price upon certain de-risking hurdles being met (e.g. lease-up, completion). Strategy seeks to provide income during development and acquisition at discount to market value upon stabilization.
    - Development[3]: May include build-to-suit, partially pre-leased, and speculative development. Strategy seeks to provide access to core product at a discount to market value upon stabilization. The Fund may sell development assets or hold as core depending on Fund portfolio strategy.
    - Transitory Markets: Assets in temporarily distressed markets identified by research, asset management and transactions teams.

# SPONSOR

### OVERVIEW

RREEF was established in 1975 to invest in core real estate and has since sponsored several series of such funds and has also managed separate accounts for various U.S. tax-exempt investors. Deutsche Bank acquired RREEF in 2002 to complement its existing real estate asset management business, which at that time was largely focused in Europe and Asia Pacific.

Following the RREEF acquisition, all real estate activities within Deutsche Bank's Asset Management Division were united under the RREEF Real Estate brand. On March 23, 2018 Deutsche Asset Management rebranded to DWS. On the same date, Deustche Bank listed a minority share (21%) in the asset management business through an IPO on the Frankfurt Stock Exchange with Deustche Bank retaining a majority (79%) interest. Part of the rationale for the DWS IPO was to separate DWS and insulate it from volatility associated with the parent company.

DWS's Private Real Estate business sits within the Alternatives platform which also includes Private Infrastructure, Liquid Real Assets, Private Equity, Sustainable Investments, and Hedge Funds. DWS's Alternatives business is headquartered in New York, with U.S. corporate branch offices in San Francisco and Chicago. The RREEF Core Plus Industrial Fund investment team is primarily based in the San Francisco and New York offices. In addition to the three corporate offices, the U.S. real estate asset management organization operates out of nine regional offices in key cities around the country.

[3] Speculative development is capped at 25% of Fund GAV

# RREEF CORE PLUS INDUSTRIAL FUND

## Governance and management team

Fund Governance and Oversight

**Independent Board of Managers**

Americas Real Estate Investment Committee

Todd Henderson
Head of Real Estate, Americas
Board of Managers & Investment Committee
18 30

Portfolio Management Team

Darrell Campos
Lead Portfolio Manager
23 29

Joe Cappelletti
Chief Financial Officer
36 36

Jessica Hamill
Fund Controller
6 12

Portfolio and Asset Management
Property Specialists

Fund Operations
3 investment professionals

Broader Real Estate Resources

| Asset Management | Capital Markets | ESG & Sustainability | Global Client Group | Operations | Research & Strategy | Transactions |
|---|---|---|---|---|---|---|

Source: DWS. Years with firm/industry as of December 31, 2020.

# Years with firm  # Years with industry

# PRIVATE REAL ESTATE LEADERSHIP TEAM—AMERICAS

## Senior leaders average 18 years with the firm and 30 years with the industry

**TODD HENDERSON (CEO)**
Head of Real Estate, Americas
18 30

| Marc Feliciano (CIO) | Tim Ellsworth | Mike Nigro | Laura Gaylord | Vikram Mehra |
|---|---|---|---|---|
| Portfolio Management and Asset Management | Transactions | Value Add & Development | Client Coverage | COO |
| 16 28 | 23 38 | 16 24 | 18 36 | 16 22 |

**INVESTMENT FUNCTIONS**[1]

| Portfolio Management[2] | Transactions | Asset Management | Research & Strategy | ESG[3] | Central Functions |
|---|---|---|---|---|---|
| 48 employees | 16 employees | 39 employees | 7 employees | 4 employees | 19 employees |

(1) As of September 30, 2020.
(2) Includes personnel of real estate debt team.
(3) Includes three external employees.
Source: DWS. As of December 31, 2020. Years with firm/industry as of December 31, 2020.

Years with firm # Years with industry #

# OPERATIONAL RISK PROFILE

An Aon specialist team is reviewing the Sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions including: (i) corporate governance, (ii) trade/transaction execution, (iii) cash controls, (iv) valuation, (v) compliance, regulatory, legal, and controls testing, (vi) counterparty risk oversight, (vii) business continuity/disaster recovery, and (viii) cyber security.

RREEF America L.L.C. is a majority-owned subsidiary of DWS, the investment management arm of Deutsche Bank AB, a publicly-traded global investment bank. The Manager generally demonstrates a well-controlled operating environment, including appropriate governance and oversight structures, regulatory compliance capabilities, and technology and security protocols. The firm implements highly automated processes, and all functions are well-monitored and controlled. The Manager utilizes commercially viable technology and applications including trading, accounting, order management, and compliance systems that allow for a high degree of straight through processing. These controls and processes drive the A1 Pass rating.

# INVESTMENT PROCESS

The Fund Team has the primary responsibility for investment decision-making for the Fund, along with the Investment Committee. The CPIF Board of Directors approves the Annual Strategic Investment Plan. All Investment Committee decisions for the Fund must be approved unanimously.

Summary of Acquisition Process:

- Sourcing: Based on acquisition criteria from the CPIF Annual Strategic Investment Plan as updated by the portfolio management team, members of the transactions team go out and source suitable investments. Acquisitions Officers operate regionally and are property generalists. They continually visit their designated markets to meet with developers, owners, brokers, and bankers to communicate acquisitions criteria to keep current on market conditions.
- Screening: Once a property is identified that meets client objectives, the property is logged into the Transactions group's weekly report that summarizes the status of all potential acquisitions. Weekly calls are held between members of Transactions, Portfolio Management, Asset Management, and Investment Committee to update participants on the status of potential acquisitions.
- Underwriting: Potential transactions are put through an initial underwriting by the Acquisitions Officer with input from Research and Asset Management. An LOI is submitted after the initial underwriting. In concert with the LOI, a preliminary memo is prepared to further socialize the opportunity among Investment Committee and Portfolio Management. Based on feedback from Investment Committee and Portfolio Management, cash flow assumptions are revised and a best and final LOI is submitted.
- Allocation: If the LOI is accepted, the Acquisitions officer prepares an extension of the preliminary investment memo which fully considers investment returns, risk, and timing. This memo is presented to portfolio managers for allocation.
- Due Diligence: Once allocated, the Transactions group coordinates formal due diligence which includes: legal, physical, financial, market, portfolio, and compliance.
- Approval: At completion of due diligence, the Acquisitions Officer makes a formal presentation to the Investment Committee who are already educated on the deal since they have been updated throughout due diligence via the weekly transaction review meeting and Investment Committee meetings.

Asset Management:

- Geographically focused asset managers that specialize in property type enables deep market knowledge which is used to properly position properties and negotiate leases to drive value
- Asset management group includes engineering teams to assist Asset Managers with capital expenditures, environmental, and structural issues.
- Property Management is outsourced to third parties and overseen by Asset Management.

Dispositions:

- The decision to sell a property originates from the Fund Team who has primary responsibility to ensure the Fund's objectives are met.
- Through the Annual Strategic Investment Plan and valuation process, each property is reviewed against the investment objectives. Using market profiles and property specific characteristics, the Fund Team determines whether to present a property for sale to Investment Committee.
- Once identified for sale, a property is presented to IC which reviews the recommendation and decides whether to assign the property to the Transactions team for sale.

`

# FUND STRUCTURE

## OVERVIEW

CPIF is a U.S. open-end industrial fund structured with various entry points depending on the tax status of the investor. The Fund's investments will be held indirectly through various holding structures in one or more entities.

## REVIEW OF TERMS & CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | NPI Industrial + 50-100 bps, gross at Fund level |
| **Cash Distributions** | None |
| **Investment Management Fees** | Less than $25mm: 1.15%<br>Next $50mm: 0.95%<br>Next $75mm: 0.85%<br>Next $75mm: 0.75%<br>Thereafter: 0.65% |
| **Other Fees** | Fund may be charged up to $2.0M and amortized over 5 years |
| **Performance Fees** | 15% of total profits after a return of capital and an 8% preferred return at the end of each three year incentive period, calculated at LP level.<br><br>Payment subject to a 25% holdback which will be paid out at the end of the next three year measurement period if the hurdle is met. |
| **Debt Mark-to-Market** | None |
| **Redemption Policy** | 2-year initial lock up period |

## ENTRY AND EXIT PROCESS

*Entry:* The Fund is restricted to accredited investors, open for investment to endowments, foundations and taxable investors. Investors are required to complete a subscription agreement, which will be reviewed by RREEF. Initial subscriptions must be in the minimum amount of $5 million.

*Exit:* Investors must submit notification via email or hard copy letter to the Fund and give two months' notice prior to quarter-end. Absent a redemption queue, the trade date occurs at quarter end. The Fund allocates funds being used to satisfy redemption requests proportionately among all redeeming investors (pro-rata).

## PERFORMANCE

RREEF began to pursue industrial warehouse development (in addition to its core industrial strategies) in 1997. In order to demonstrate the firm's track record in both core and development, the track record in Figure 11 has been presented from 1997 onward. RREEF's U.S. industrial track record is strong on both an absolute return and relative return basis over all measurement periods (compared to NPI Industrial sub-index).

The Fund has a shorter track record since its inception was only July 2017. Over the trailing twelve-month period, CPIF's generated a 18.8% total gross return, outperforming the NPI Industrial by 468 basis points and exceeding the Fund's goal of 50-100 basis points. One likely contributor to the Fund's success over the benchmark is the 64% allocation to the Pacific sub-region, which has consistently been one of the benchmark's top performers over the past year, delivering a total return of 14.8%. The Fund is currently overweight this sub-region relative to the benchmark by 22% and has significant exposure to several of the sub-region's top gateway markets including San Diego (15%), Seattle (14%), and Los Angeles (12%), which saw total trailing 12-month returns of 14.9%, 13.4%, and 11.3%, respectively, during 2020.

The trailing 12-month same store net operating income for fourth quarter 2020 was up 3 percent from fourth quarter 2019, which is reflective of positive leasing activity, including earlier than anticipated lease-up of vacant spaces, achieving higher rents, and providing fewer concessions than anticipated. Additionally, the Fund's weighted average IRR and Exit cap rate have compressed 22 basis points and 19 basis points, respectively, due to continued strong investor demand for industrial product within the Fund's existing market exposures. Compared to year-end 2019, the Fund's core portfolio weighted average going in cap rate decreased 19 basis points. This has led to a growth in the Fund's Gross Real Estate market values of 23%.

## ESG POLICY & PRACTICES

DWS has well defined ESG policies, which are interwoven into the Firm's Sustainability House Views consisting of (1) Data Collection, (2) Implementation, (3) Goal Setting, and (4) Measurement. The Firm published their ESG Policy in 2020; however, it's worth noting that this policy was derived from DWS' Standards of Sustainability first published in 2011 and DWS' Sustainability House Views published in 2015. The firm maintains an annually reviewed code of ethics, DEI policy, non-discrimination policies, and code of conduct, all of which require annual training by DWS employees.

In 2017 the Responsible Investment Leadership Team ("RILT") took charge of overseeing the development and implementation of the global ESG and responsible investment strategy across DWS. The RILT is chaired by the Head of Responsible Investments and consists of the CIO for Responsible Investments and senior representatives from coverage, marketing, product, communications, corporate strategy and transformation, and human resources. The RILT meets regularly to discuss issues and initiatives across the Firm relating to ESG and sustainability. The Head of Responsible Investments reports to the DWS Executive Board member who also serves as the Global Head of Client Coverage. In regard to DWS staff, approximately 27% of executive positions at the firm management level were held by women, up from 22% in 2019.

ESG considerations are evaluated by DWS at all stages of the real estate investment cycle from acquisition, throughout the hold period, and at disposition. DWS employs a strategy of continuous evaluation of ESG considerations after acquisition with the goal of improving the value of the asset through reduction of energy and water consumption, effective waste diversion practices, health and wellness programs, third-party green labels and certifications, and asset hardening through climate risk and resiliency assessments. Specifically, DWS invests in technical building assessments during the hold period. Assessments are conducted both internally by DWS staff as well as by qualified third-party vendors and consultants, such as Measurabl. These technical building assessments are deployed to assess risks related to climate change, GHG emissions, energy efficiency, tenant engagement strategies such as transportation, waste management, and water savings. Since the

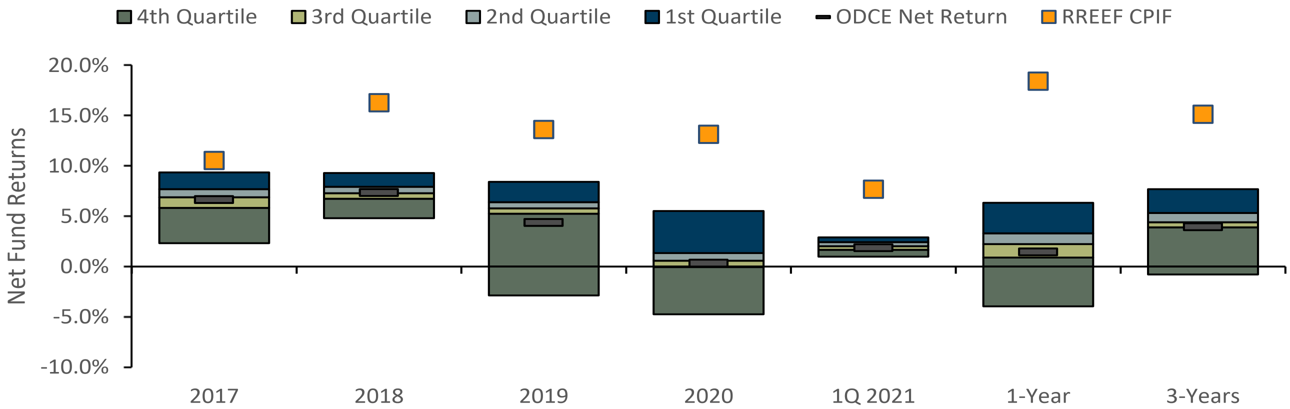
beginning of 2016, all DWS properties are required to choose a feasible efficiency measure assessment and add the recommended project to the budget.

The Fund is in its infancy stage with regard to submitting to GRESB, first reporting in 2020. It should be noted that a fund's first report with GRESB typically receive a relatively poor score; however, CPIF scored well relative to its industrial peers. For new funds, progressive improvement in subsequent years' reports should be a strong indication of the Fund's advancement. Additionally, the Firm was an early adopter of the Principals for Responsible Investment ("PRI"), becoming a signatory in 2008. Since 2008, DWS has scored inline or better than the median PRI signatory, with this past year's assessment scored an A+. Furthermore, DWS is a member or signatory of the Task Force for Climate Related Financial Disclosures, the Urban Land Institute, Climate Disclosure Project, UK Sustainable Investment and Finance Association, NAREIT Sustainability Council, Ceres, and many more.

Based on the above referenced factors, we have concluded CPIF's ESG rating to be "Advanced". DWS' commitment to ESG dates back to 2008 when the firm became a signatory of PRI. Additionally, the Firm stands out amongst its peers in that DWS has dedicated team to oversee the Firm's ESG initiatives. CPIF's partnership with GRESB is relatively new, and even so, in 2020 CPIF scored relatively well amongst the industrial fund peer set, further supporting the "Advanced" rating.

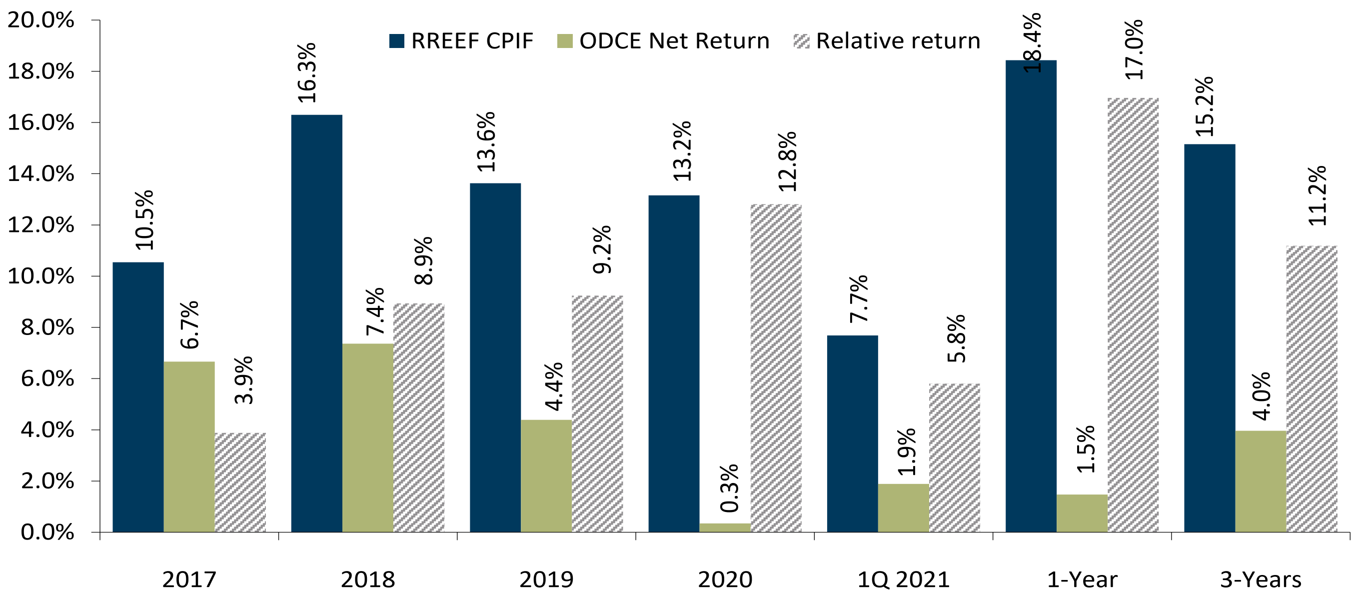
# APPENDIX

***Historical Performance Quartiles*** *– As of March 31, 2021*

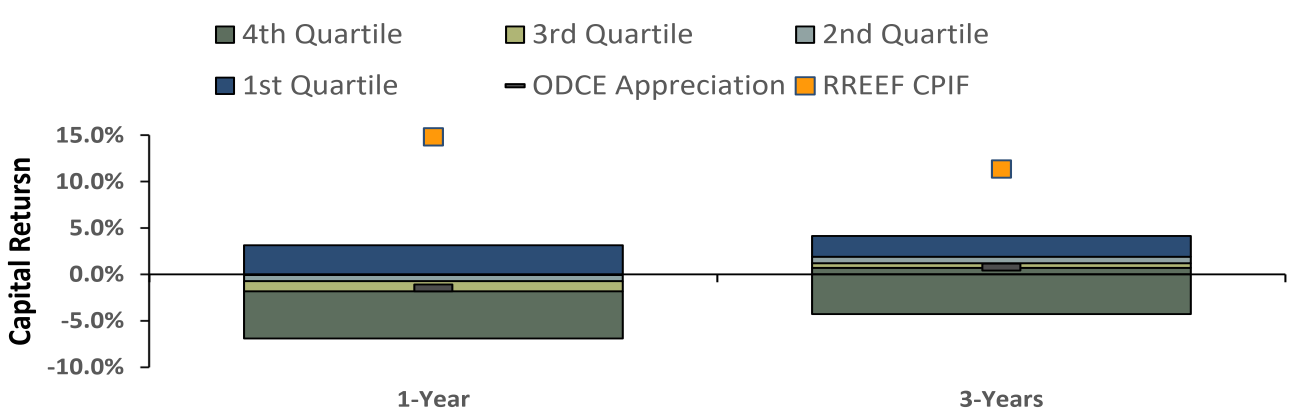



**Source: Townsend U.S. Open-Ended Core Fund database as of March 31, 2021. Range shown is 95th to 5th percentile.**

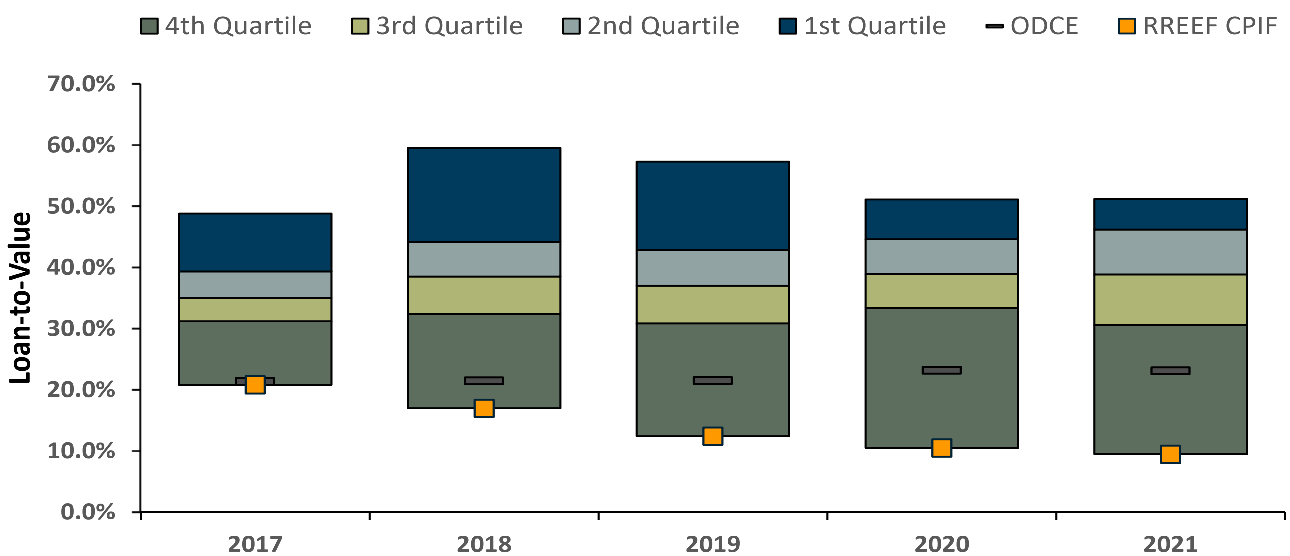
***Historical Relative Fund Performance** – As of March 31, 2021*



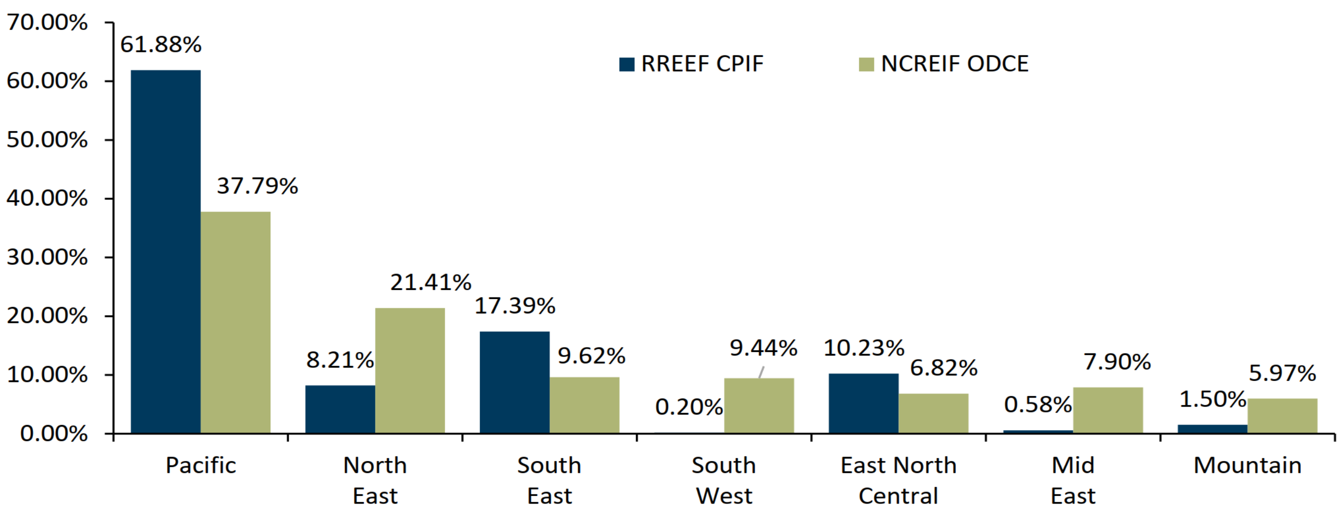

***Capital Return (Appreciation) Historical Performance Quartiles** – As of March 31, 2021*



***Progression of Leverage** – As of March 31, 2021*




***Fund Diversification** – As of March 31, 2021*

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***Top 10 U.S. Market Exposures*** *–As of March 31, 2021*

| MSA | % Total Fund NAV |
|---|---|
| Miami-Fort Lauderdale-Pompano Beach, | 17.6% |
| Los Angeles-Long Beach-Santa Ana, CA | 15.1% |
| San Diego-Carlsbad-San Marcos, CA | 14.9% |
| Seattle-Tacoma-Bellevue, WA | 11.2% |
| Chicago-Naperville-Joliet, IL-IN-WI | 10.4% |
| Portland-Vancouver-Beaverton, OR-WA | 9.6% |
| Riverside-San Bernardino-Ontario, CA | 7.1% |
| Trenton-Ewing, NJ | 5.9% |
| San Jose-Sunnyvale-Santa Clara, CA | 3.7% |
| York-Hanover, PA | 2.3% |

## Top Ten Assets (by MV)

| Property | City | State | $MV |
|---|---|---|---|
| **Vantage Point** | Poway | CA | 186,100,000 |
| **Portland Distribution Center** | Portland | OR | 123,200,000 |
| **Olympia** | Kent | WA | 107,318,000 |
| **Centergate at Gratigny - Phase I** | Hialeah | FL | 100,900,000 |
| **Centergate at Gratigny - Phase II** | Hialeah | FL | 96,400,000 |
| **9050 Hermosa** | Rancho Cucamonga | CA | 90,700,000 |
| **159 Milford** | East Windsor | NJ | 75,300,000 |
| **Jefferson Industrial** | Elk Grove Village | IL | 55,700,000 |
| **Nelson Business Park** | City of Industry | CA | 52,100,000 |
| **111 Uranium** | Sunnyvale | CA | 47,700,000 |

## Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product and its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

**Buy** – Townsend recommends the investment for those client portfolios where it is a fit.

**Qualified** – Townsend believes the sponsor to be qualified to manage client assets.

## Operational Risk Profile Rating Explanation

| Rating | Definition |
|---|---|
| ✓+ | Aon completed its review process and noted no material operational concerns within the areas it reviewed and finds that these aspects of the firm's operations largely align with a well-controlled operating environment. |
| ✓ | Aon completed its review process and the firm's operations within the areas Aon reviewed largely align with a well-controlled operating environment, with limited exceptions. Managers may be rated within this category due to resource limitations or asset class limitations or where isolated areas do not align with best practice. |
| **No Rating** | Aon was unable to complete its review process due to incomplete information, policies and procedures that are under development or in transition, or for other reasons. Aon may review the rating if these items are addressed. |
| ✓- | Aon completed its review process and noted material operational concerns that introduce the potential for economic loss or reputational risk exposure. |

## About Townsend Group – An Aon Company

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

### Disclaimer

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Past Performance is no guarantee of future results. Investing involves risk, including possible loss of principal.

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Suite 1600
Cleveland, OH 44113

## Memorandum

**To:** Arkansas Teacher Retirement System ("ATRS")

**From:** Chae Hong

**CC:** PJ Kelly; Jack Dowd; Richard Ferguson

**Date:** September 27, 2021

**Re:** JP Morgan Strategic Property Fund – $140 million Redemption Recommendation

RREEF Core Plus Industrial Fund - $70 million Commitment Recommendation

MS Prime Property Fund - $70 million Commitment Recommendation

---

### Background and Recommendation

As of Q1 2021 ATRS has invested roughly $283 million with JP Morgan's Strategic Property Fund ("SPF"), an open-ended commingled core real estate fund. This amounts to 31% of the core real estate portfolio and 21% of the total real estate portfolio. On a since inception basis SPF has returned a 6.4% net IRR. During July 2021 SPF announced it fully extinguished the Fund's redemption queue, providing ATRS with an opportunity to reinvest capital to better positioned core real estate opportunities. As such, we recommend ATRS request a $140 million redemption from SPF to be reallocated equally between Morgan Stanley Prime Property Fund ("Prime") and RREEF Core Plus Industrial Fund ("CPIF").

Aon Investments, USA is satisfied with the strategy of Prime and CPIF and its appropriateness for ATRS. Additionally, we believe that the merits of these offering outweigh its risks. Prime and CPIF InTotals are attached in the following Appendix for reference. We recommend that ATRS invest $70 million in Prime and $70 million in CPIF. Additionally, both Prime and CPIF provide investors with various investment vehicles. Townsend recommends ATRS consult with its tax and legal counsel to determine the most appropriate vehicles for the Plan.

### Fund Descriptions

SPF is the largest open-end, diversified core real estate fund in the US. The Fund has a long-term track record of investing in high-quality real estate in major gateway markets throughout the US. The Fund's largest assets include trophy office assets in major central business districts and a portfolio of Class-A super regional malls and lifestyle centers. SPF has historically been underweight to the industrial sector but has made a significant effort over the past twelve to twenty-four months to increase exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019.

Prime is a diversified, open-end Core real estate fund that targets high quality, well-leased, income-producing properties located in select primary markets in the U.S. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10% (gross). Relative to its benchmark, the Fund has been able to consistently generate alpha.

RREEF America L.L.C. ("RREEF"), part of DWS Group GmbH & Co KGa, launched CPIF, a core-plus open-end industrial fund in June 2017. The Fund invests in core (up to 100%) and non-core industrial (up to 50%) with leverage capped at 50% at the portfolio level.

# Appendix

Real Estate **InTotal**

# J.P. Morgan Asset Management

Strategic Property Fund, LLC

July 2021

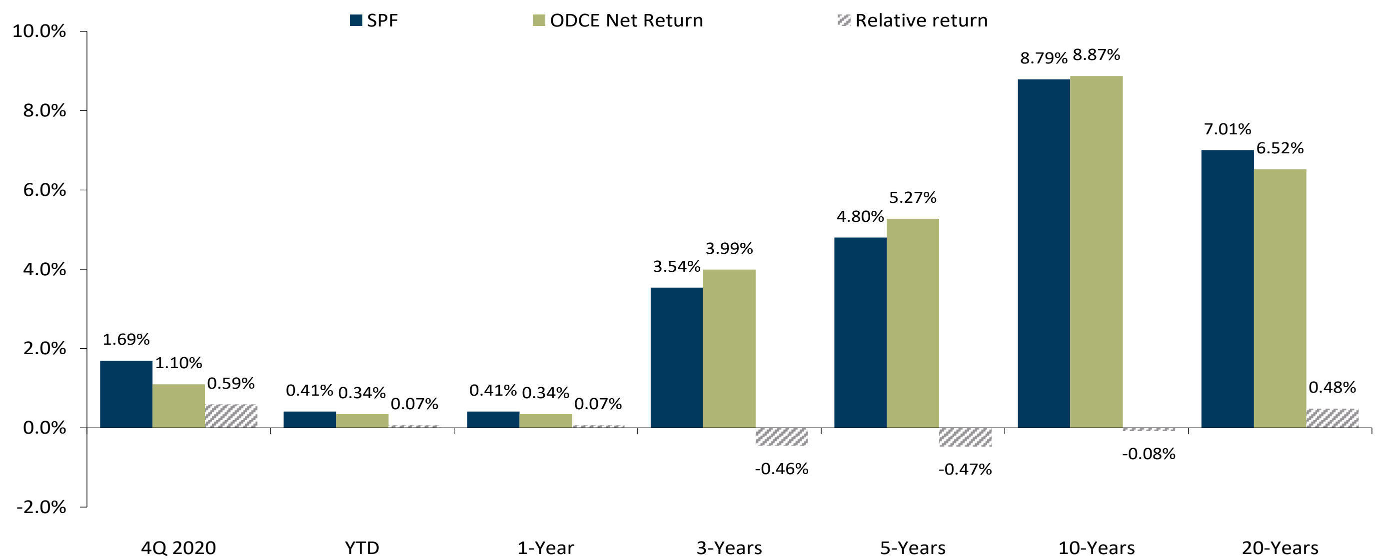
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Previous Rating |
|---|---|---|
| July 2021 | Buy | Buy |

JP Morgan Strategic Property Fund ("JPM SPF" or "SPF" or the "Fund") is the largest open-end, diversified core real estate fund in the US. The Fund has a long-term track record of investing in high-quality real estate in major gateway markets throughout the US. The Fund's largest assets include trophy office assets in major central business districts and a portfolio of Class-A super regional malls and lifestyle centers. SPF has historically been underweight to the industrial sector but has made a significant effort over the past twelve to twenty-four months to increase exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-End Fund | **Risk Segment** | US Diversified Core |
| **Size NAV** | $31.0 Billion | **Average Asset Size (NAV)** | $196.1 Million |
| **Valuations** | Quarterly FMV Debt & Equity | **Minimum Commitment** | $10 million |
| **Leverage** | 23.6% | **Current/Max Non-Core %** | 6.0%/15% |
| **Investment Guidelines** | In line with peers | **Number of Holdings** | 155 |
| **Performance Objectives** | Outperform the NCREIF Fund Index – Open End Diversified Core Equity ("NFI-ODCE") over a full market cycle. | | |
| **Benchmark** | NFI-ODCE | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Sponsor** | J.P. Morgan Chase Bank, N.A. | **Parent** | J.P. Morgan Investment Management Inc. |
| **Headquarters** | New York, NY, United States | **Strategy Inception** | 1998 |
| **Employees** | 7,203 | **Real Estate Team** | 185 |
| **Firm AUM** | $2.3 Trillion | **Real Estate AUM** | $73.2 Billion |

## COMPARATIVE ADVANTAGES

1. Beta

The Fund's beta over the three-, five-, seven-, and ten- year periods are all less than or slightly above 1, indicating low volatility when compared to NFI-ODCE. As of December 31, 2020, the Fund had a 10-year beta of 1.071. Additionally, the Fund is also the largest in the index and as such, the large portfolio provides investors with a broadly diversified investment across a variety of property types and markets.

2. Unlevered Performance

The Fund's has generated total property-level unlevered performance of +1.9%, +4.7%, and +5.6% respectively over 1-, 3-, and 5-year periods, outperforming ODCE-NPI by +60bps, +33bps, and +9bps. The fund's strong unlevered performance is attributed largely by the Fund's office portfolio. The Fund's office assets generated unlevered performance of +5.0%, +6.5%, and +6.4% over 1-, 3-, and 5- year periods respectively, outperforming ODCE-NPI Office by +356bps, +155bps, and +78bps.

## POTENTIAL ISSUES AND CONCERNS

1. Underweight Industrial

The Fund's underweight to industrial has been a drag on performance versus the index in the near-term as industrial continues to outperform all other sectors. Per NCREIF, industrial has generated unlevered performance of 11.8%, 13.1%, and 12.9% over 1-, 3-, and 5-year periods respectively. The Fund has historically been underweighted to the industrial sector but has made a significant effort over the past three to five years to double exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019. Industrial remains well positioned to benefit from shifting consumption habits and near-term demand is forecasted to continuing outpacing new supply.

2. Large Regional Mall Exposure

The Fund's overweight to retail has been a near-term drag as retail unlevered performance continues to be hindered by e-commerce headwinds. In the second quarter of 2020, the Fund's retail portfolio experienced asset depreciation of -2.6%, driven by retail closings due to the pandemic. The Fund has actively looked to sell down their exposure to the retail sector. The Fund made a significant disposition of four regional malls through a $2.6 billion sale to General Growth Properties/Brookfield in the fourth quarter of 2019. As of 4Q20, the Fund is well overweight to retail by over +700bps compared to the broader NFI-ODCE Index. Going forward, the retail sector will face a challenging period of price discovery as rents rebase and occupancy rates broadly decline.

3. Long-term Underperformance Relative to Index

The Fund has generally underperformed the index, specifically over the 3-, 5-, 10-, and 15-year periods. The Fund's 10-year net return was 8.5%, underperforming NFI-ODCE by -39bps. As a result, the Fund has looked to actively reposition the portfolio in recent years to better achieve their investment goals. Consistent underperformance has led to increased redemption activity from LP's. The Fund had a large redemption queue in 2020 but managed to extinguish the redemption queue in July 2021 with proceeds from the sale of a large disposition in Boston and increased capital flows in 2021.

# INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | JP Morgan Strategic Property Fund is an open-end core fund that seeks to make investments in core real estate properties in the major gateway cities in the U.S. The Fund targets stabilized assets across the four traditional asset types. Key identifiers within SPF's portfolio include trophy CBD office assets and high-rise luxury apartments in major markets, as well as a portfolio of Class-A super regional malls and lifestyle centers. The target return of the Fund is to outperform the NFI-ODCE over a full market cycle and is focused on generating returns primarily through income and moderate appreciation gains. |
| **Sponsor** | The Fund is sponsored by JP Morgan Chase Bank, N.A. ("JPMCB") the investment advisor to the Fund, with support from JP Morgan Asset Management ("JPMAM"), and more specifically JPMAM – Real Estate Americas ("REA" or the "Firm"), a sub-unit of JPMAM. REA reports to its ultimate corporate parent JP Morgan Chase & Co. ("JPMC") through JP Morgan Investment Management Inc. ("JPMIM"), the legal entity responsible for the management of SPF. JPMIM was founded in 1861 and has been providing services to tax exempt clients for over 80 years, with $2.3 trillion in AUM as of December 31, 2020. JPMAM – Global Real Estate ("JPMAM – GRE" or "GRE") is the global platform of real estate investments totalling $73.2 billion across equity and debt investments, primarily in core and value add strategies. |
| **Operational Due Diligence** | The Fund received an A1 Pass. Aon noted no material operational concerns and considers the firm's operations largely align with a well-controlled operating environment. |
| **Investment Process** | The investment process starts with the research team who provides a top-down view of the real estate and capital markets. The acquisitions team then presents deal flow to all JP Morgan real estate portfolio managers with mandates across the risk spectrum. Potential investments that are a fit for SPF go before the Investment Committee. JP Morgan prides itself on being able to utilize its vast network across the organization for deal sourcing where most transactions closed by the acquisitions team are sourced directly from the seller and not through market auctions. We view the investment approval process favorably as it incorporates asset management and research, with these functions counting for two of the four votes on the investment committee. |
| **Fund Structure** | JPM SPF is an open-ended Fund structured with five Fund Investor Vehicles ("FIV") with separate entities as general partners. In 2018, the Firm announced a restructuring of SPF to allow the Fund to accept capital from a more diversified investor base, specifically, non-ERISA and non-US investors. Potential investors in the Fund now include U.S. Qualified Retirement Plans, U.S. taxable and tax-exempt investors, Non-US investors (Section 892), non-US Qualified Foreign Pension Fund ("QFPF"), and other non-U.S. investors. The fund completed its restructure and opened to new capital sources on July 1, 2019. |
| **Performance** | SPF has underperformed NFI-ODCE net over 1-, 3-, 5-, 7-, and 10-year periods. The fund's underweight to industrial has been a drag on performance versus the index in the near-term as industrial continues to outperform all other sectors. The fund's overweight to retail has also been a near-term drag as retail unlevered performance continues to be hindered by e-commerce headwinds. Since 2018, SPF has focused on rebalancing the portfolio by acquiring and investing in two industrial platforms and through the dispositions of the fund's regional |

and super regional mall assets. Over time, SPF will continue to reduce exposure to retail and office.

| | | |
|---|---|---|
| **ESG Policy & Practices** | | The Fund is currently Not Rated through Townsend's formal ESG process but is expected to receive a formal rating in 2021-2022. JPMAM Real Estate Americas has ESG Objectives and they are reviewed annually to continuously improve assets with respect to environment, social and governance policies while ultimately improving the environment in which those assets exist and, more importantly, enhance their competitiveness and asset value. |
| **Overall Rating** | **Buy** | SPF's core real estate investment focus is buying large, stabilized, high-quality assets and investing in only the four traditional property types in the largest primary markets in the US. SPF has maintained a low beta by maintaining low leverage and minimal development within the fund. The Fund's recently completed restructure will allow SPF to raise capital from a much larger investor base, which should encourage additional capital flows and transaction activity. Despite recent fund underperformance, SPF remains a prudent option for investors looking to form a foundation for their allocation to the real estate asset class. |

# STRATEGY

JPM SPF is an active core equity real estate fund that invests in stabilized properties and focuses on acquiring assets with high quality physical improvements; powerful location advantages with high barriers to entry; and competitive market positioning in gateway cities across the United States where attractive demographics and demand drivers exists. SPF's size allows it to be a player in large and complex acquisitions that some of its peers cannot. The Fund can provide investors with diversification, liquidity and stable returns by focusing on asset selection and risk mitigation.

The Fund primarily invests in the four traditional real estate asset classes of office, retail, industrial/warehouse and residential/multifamily rental properties. The Fund continues to acquire new assets for long-term growth and re-balances the portfolio by strategically adding/removing assets in geographic regions or sectors where accretive. Currently the Fund is looking to overweight the industrial sector and has been targeting large portfolio transactions as well as fund investments to help move this initiative forward. The Fund has also focused on underweighting exposure to retail through the sale of regional and super regional mall assets.

# SPONSOR

## PARENT COMPANY

The Fund is sponsored by JP Morgan Chase Bank, N.A. ("JPMCB") the investment advisor to the Fund, with support from JPMAM, and more specifically JPMAM – Real Estate Americas ("REA" or the "Firm"), a sub-unit of JPMAM.

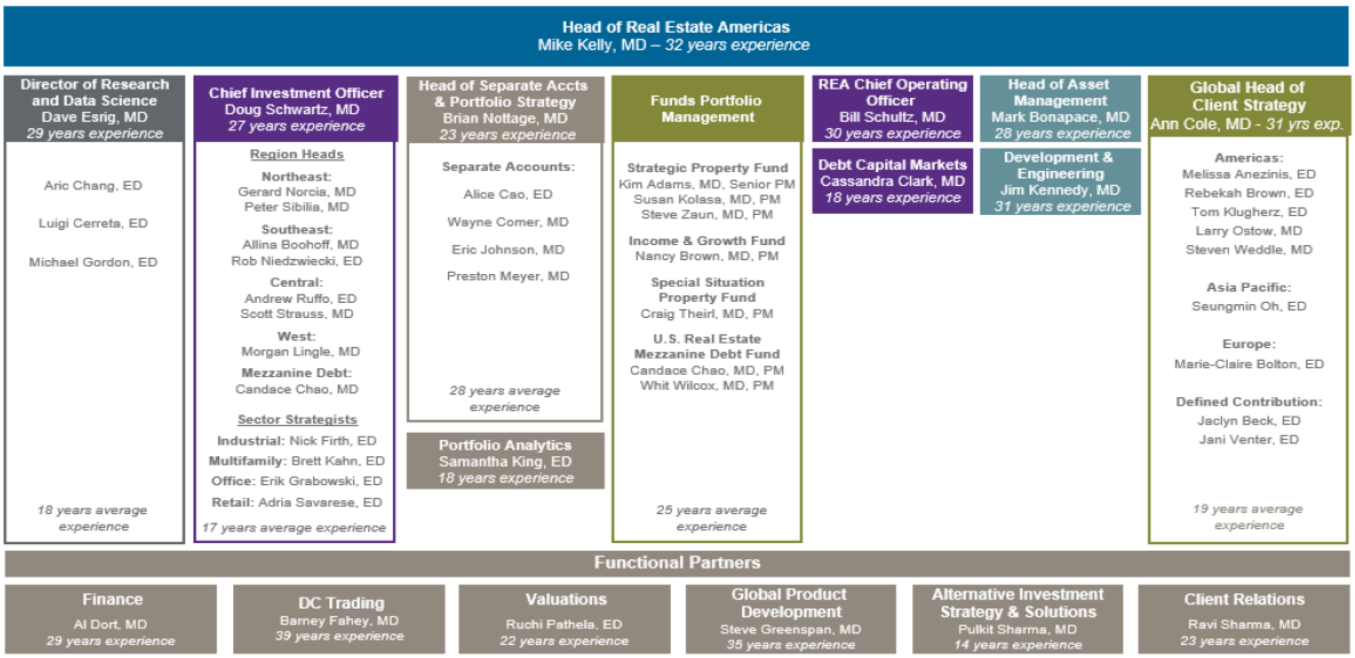
## SPONSOR

The JPMAM- Global Real Estate ("JPMAM-GRE") group reports to JPMC through JP Morgan Investment Management Inc. ("JPMIM"). JPMIM was founded in 1861 and has been providing services to tax exempt clients for over 80 years.

JPMAM-GRE operates as an independent unit within JPMIM with access to the resources, including research and client service, of the broader organization.

## ORGANISATIONAL UPDATES

Recently JPM went through several changes where the PM team was shuffled due to promotions and planned succession planning. Kim Adams was promoted to the senior portfolio manager of SPF. Ms. Adams bring continuity to the Fund as a long-standing PM of SPF. Sue Kolasa and Steve Zaun have been added as PMs to help support Ms. Adams on day to day operations of the Fund. Both have been with JPM for roughly 19 years with Ms. Kolas working as the PM of the Daily Valued Funds while Mr. Zaun was the head of JPMAM's LA office. Mike Kelly was promoted to Head of Real Assets, replacing Kevin Faxon who was moved to the Chair of the platform.




## PLATFORM RESOURCES

Headquartered in New York City since 1970, JPMAM-GRE has continued to expand, opening offices in several U.S. cities and abroad, in an effort to best manage real assets and provide client service.

| Name | Position | Years of Experience |
|---|---|---|
| **Kim Adams** | Senior Portfolio Manager | 26 |
| **Sue Kolasa** | Portfolio Manager | 20 |
| **Steve Zaun** | Portfolio Manager | 20 |
| **Mike Kelly** | Head of Real Assets | 30 |

# OPERATIONAL RISK PROFILE

J.P. Morgan Asset Management ("JPMAM") is a large global asset manager with an institutional level of system infrastructure, controls, and oversight across its operating environment. As a wholly owned subsidiary of a publicly traded company, JPMorgan Chase & Co, the firm must comply with Sarbanes-Oxley requirements and is subject to oversight by numerous regulators including the SEC. To satisfy its regulatory requirements, JPMAM has implemented a comprehensive risk management program, and has established a well-developed governing committee structure to ensure cross-functional participation and in-depth discussion in operating decisions. The firm also utilizes internal Audit, Corporate Compliance, and Business Resilience Programs of the

parent company. JPMAM's reporting lines are well-segregated in the area of compliance, investment risk management, and information technology ("IT") to ensure these processes remain independent from investment activities.

The Fund received an A1 Pass. Aon noted no material operational concerns and considers the firm's operations largely align with a well-controlled operating environment.

## INVESTMENT PROCESS

Headed by Doug Schwartz, the acquisitions team is divided into four Regional Investment Teams, each led by two Regional Co-Heads, one representing Acquisitions and one representing Asset Management, plus a national Mezzanine Debt Acquisition Team. The Acquisition Officers source investments through the numerous relationships established over the years: the JPMC network, direct discussions with owner-sellers, broker submissions, partners and property managers. The team takes regional "ownership" that translates to in-depth market focus with an emphasis on developing new and maintaining existing relationships with institutional owners, developers, brokers, partners and senior lenders nationally. REA prides itself on being able to utilize its vast network across the organization for deal sourcing. Specifically, REA's deal flow derives from a combination of broadly marketed and privately negotiated deals, and positions REA as an experienced, effective and versatile real estate asset management platform. Since 2013 REA has underwritten approximately $10 to $11 billion worth of deals each year, of which it has closed approximately $3 to $3.5 billion per year.

The Asset Managers are responsible for both debt and equity investments across the platform. Asset Managers are charged with an obligation to maximize the investment performance of each asset, and are responsible over the performance of property management, development, and business plan implementation and valuation activities.

The Firm follows a multidisciplinary approach to portfolio management leveraging knowledge across the various platform verticals. A key theme throughout the investment process is the quality and timeliness of research. From a risk management perspective, research acts as an early warning system where the research team is constantly monitoring economic and market data, as well as investment trends. REA has developed proprietary information technology tools that allow team members to access and analyze portfolio data real-time. These tools, coupled with the macro research developed by the in-house research team and the micro knowledge gleaned by investment teams working in various markets inform the investment process and offer a competitive advantage when underwriting new transactions, managing existing assets or disposing of properties owned by the Fund.

All private real estate acquisitions and dispositions go through investment committee. The Fund's IC is comprised of 4 voting members:

- Doug Schwartz, Chief Investment Officer
- Kim Adams, Senior Portfolio Manager
- Mark Bonapace, Head of Asset Management
- Senior representative from the Real Estate Research

The IC is also comprised of 8 Additional participating members:

- Mike Kelly, Head of Real Estate Americas
- James Kennedy, Development and Engineering Group Head
- Al Dort, Financial Group Head
- Brian Nottage, Head of Portfolio Strategy
- Ann Cole, Global Head of Client Strategy
- A Sector Strategist
- Ruchi Pathela, Director of Valuations

- Cassandra Clark, Debt Capital Markets

### VALUATIONS

Prior to August 15, 2018, the Altus Group managed the Firm's valuation process. SPF has now transitioned to have Situs RERC as their third-party valuation firm. Chatham Financial provides debt valuation and debt management services to JPMAM U.S. open end funds. JPMAM's policies and procedures are comprehensive, well-documented and subject to assurance reviews by both internal audit and annual reviews by an external audit firm.

## FUND STRUCTURE

### SUMMARY

JPM SPF's new structure is structured as a Delaware limited liability company that has elected to be treated as a real estate investment trust for U.S. federal income tax purposes. Previously, the Fund was structured as a group trust, which precluded non-ERISA and non-US investors from investment. JPM changed the structure to allow non-ERISA and non-US investors to invest the fund, starting on July 1, 2019.

### REVIEW OF TERMS & CONDITIONS

| **Key Terms** | |
|---|---|
| **Target Return:** | Outperformance of NFI-ODCE over a full market cycle. |
| **Cash Distributions** | None, all income of the Fund will be added to the principal of the Fund and invested and reinvested or used to pay Fund Expenses and satisfy Repurchase Requests. |
| **Investment Management Fees** | Investor with Fund NAV below $100 million:<br>100 bps<br><br>Investor with Fund NAV of $100 million or more (waterfall):<br><br>First $100m: 92bps<br>$100-$250m: 80bps<br>$250-$500m: 70bps<br>$500m+: 50bp |
| **Other Fees** | Fee reduced to 15bps for cash balances in excess of 5% of NAV. |
| **Performance Fees** | None. |
| **Debt Mark-to-Market** | None. |
| **Redemption Policy** | Repurchases of the units are redeemed at the NAV at the time the request is satisifed. Up to 10% of the repurchase procceeds may be retained by the Fund to satisfy any tax withholdings or unpaid Advisory and Management fees. |

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### ENTRY AND EXIT PROCESS

SPF has a monthly contribution queue where investors must submit an executed subscription request by the last business day of the month (fax or email is acceptable) to enter the queue for that specific month. Investors may specify in the subscription request a month before which its subscription cannot be called for funding, as long as that specified month is less than 12 months out from the month the subscription request was received.

All Shareholders have the right to request redemption of Shares on a quarterly basis. Requests received 30 days before the end of a quarter will be processed so as to be scheduled for payment generally at (or shortly after) the end of the next calendar quarter in accordance with the Fund's quarterly redemption process. The Fund will redeem Shares at the then Current Share Price on the day of redemption to the extent that the request was received prior to the end of the preceding quarter and the Fund has sufficient cash available to honour requests, consistent with applicable REIT rules and principles of prudent management.

## PERFORMANCE

SPF focuses on providing investors with low beta and real estate outperformance over full real estate cycles. As of December 31, 2020, SPF had a 10-year beta of 0.994. The Fund's 10-year net return was 9.2%, underperforming NFI-ODCE by -57bps. The fund's primary drivers of underperformance include being underweight to industrial, overweight to regional malls, and income performance below NFI-ODCE as a result of lower capitalization rates due to the fund's large gateway market exposure.

The fund's underweight to industrial has been a drag on performance versus the index in the near-term as industrial continues to outperform all other sectors. SPF has historically been underweight to the industrial sector but has made a significant effort over the past three to five years to double exposure toward the sector allocation with the acquisition of Real Term Industrial in 2018 and a new joint venture with Black Creek Industrial in 2019.

The fund's overweight to retail has also been a near-term drag as retail unlevered performance continues to be hindered by e-commerce headwinds. In the second quarter, SPF's retail portfolio experienced asset depreciation of -2.6%, driven by retail closings due to the pandemic. SPF has actively looked to sell down their exposure to the retail sector. The Fund made a significant disposition of four regional malls through a $2.6 billion sale to General Growth Properties/Brookfield in the fourth quarter of 2019.

Since SPF focuses on buying high-quality assets within the four traditional property types and major US gateway markets, the Fund's valuation metrics have moved below NFI-ODCE over time as new funds joined the index. SPF generated an income return of 3.9% over the trailing twelve months, -17bps below NFI-ODCE.

## ESG POLICY & PRACTICES

JPMAM Real Estate Americas has ESG Objectives and they are reviewed annually to continuously improve assets with respect to environment, social and governance (ESG) policies while ultimately improving the environment in which those assets exist and, more importantly, enhance their competitiveness and asset value.

JPMAM consistently measures, monitors, and improves asset level data to meet reduction targets for energy, greenhouse gas (GHG) emissions, water, and waste. All landlord paid utilities are benchmarked for each asset using ENERGY STAR Portfolio Manager. Some properties use a third-party data management provider

including Yardi, WegoWise, Code Green and Conservice among others to input data into ENERGY STAR Portfolio Manager. The use of a third-party data management provider is at the discretion of each property team. Most multifamily assets utilize Yardi.

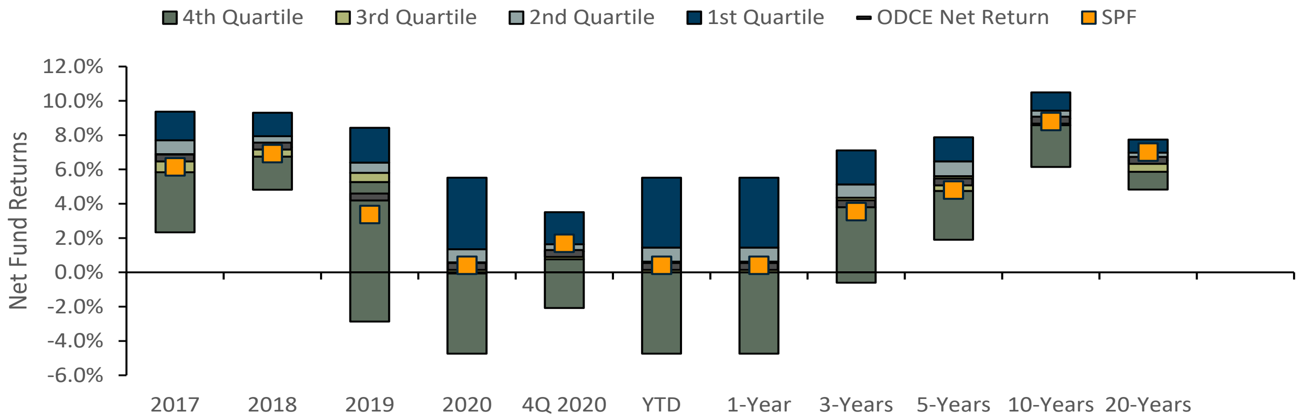
Additionally, property teams complete an annual ESG Survey to collect asset level data on energy, water, and waste conservation measures, resilient efforts and opportunities, as well as social metrics such as tenant and community engagement and health and wellness features.

JPMAM engage a third-party sustainability consultant, LORD Green, to work directly with our property managers and provide support such as trainings on our ESG Program. LORD Green works with each property team to establish a baseline and review that the data is current and accurate. This includes checking for errors, omissions, operational changes, and identifying significant usage changes. For an additional layer of quality assurance, LORD Green completes quarterly sustainability performance indicator reports to compare usage over time and provide context for increases and decreases. These reports are provided to asset managers and portfolio managers and display asset level performance, which is organized by fund, property type, and building configuration.

LORD Green also works with property teams to comply with local and state benchmarking ordinances, pursue annual ENERGY STAR Certification, and earn green building certifications. Each of these submissions requires another quality check and sometimes an additional third-party review. LORD Green also works directly with property teams to find ways to improve efficiency, reduce costs associated with building operations, and implement a comprehensive sustainability program for tenants and residents.

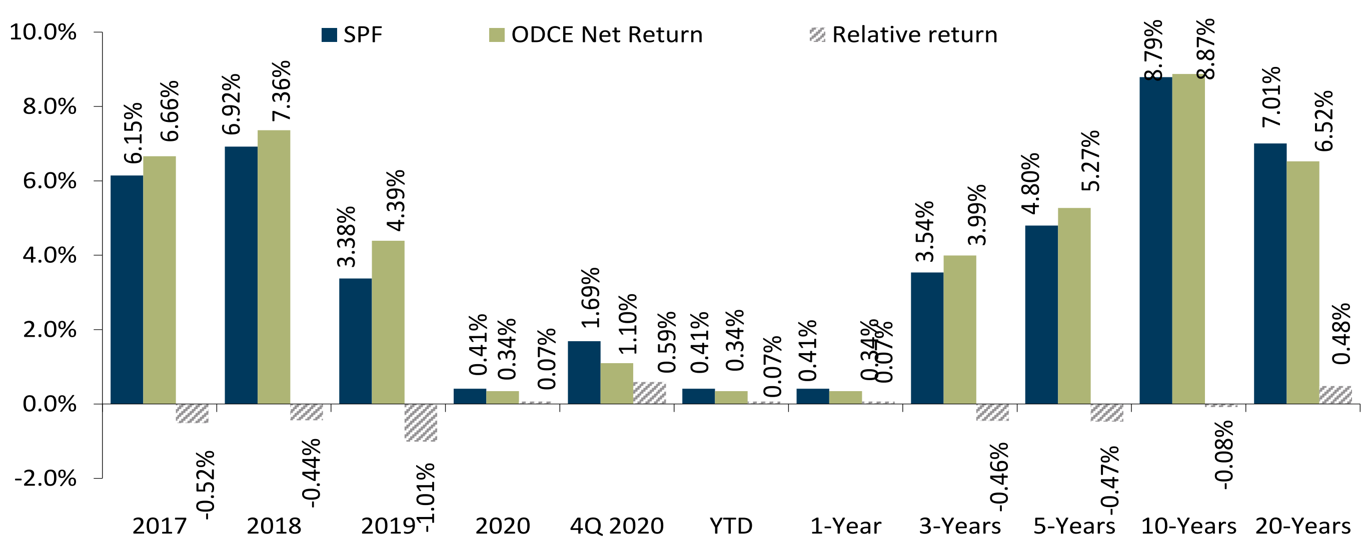
# APPENDIX

***Historical Performance Quartiles** – As of December 31, 2020*

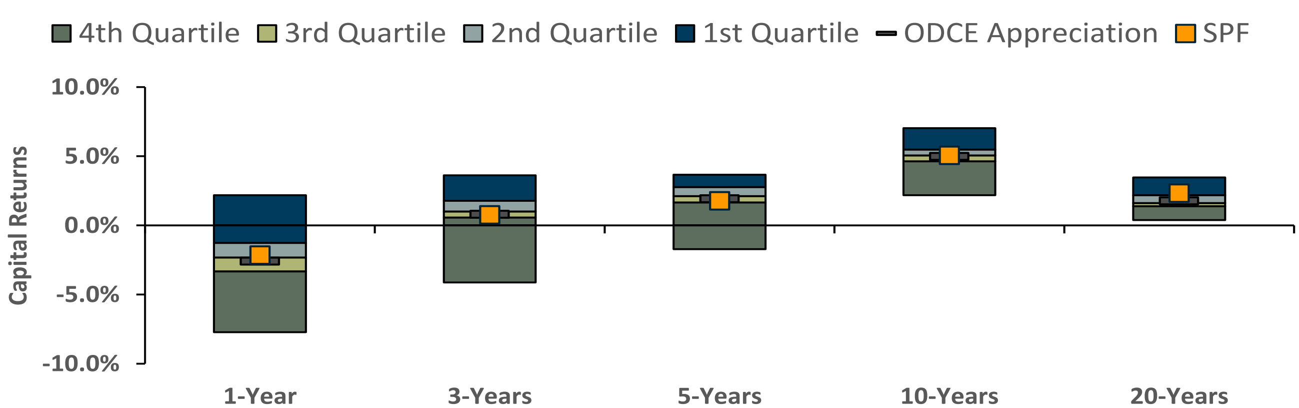



**Source: Townsend U.S. Open-Ended Core Fund database as of December 31, 2020. Range shown is 95th to 5th percentile.**

***Historical Relative Fund Performance** – As of December 31, 2020*




***Capital Return (Appreciation) Historical Performance Quartiles** – As of December 31, 2020*

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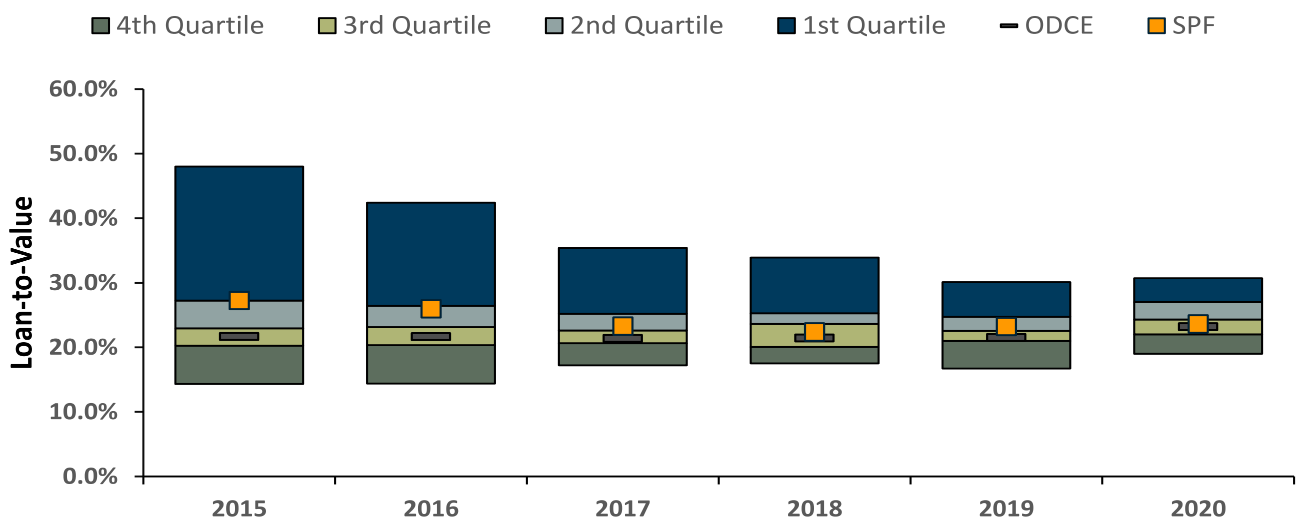
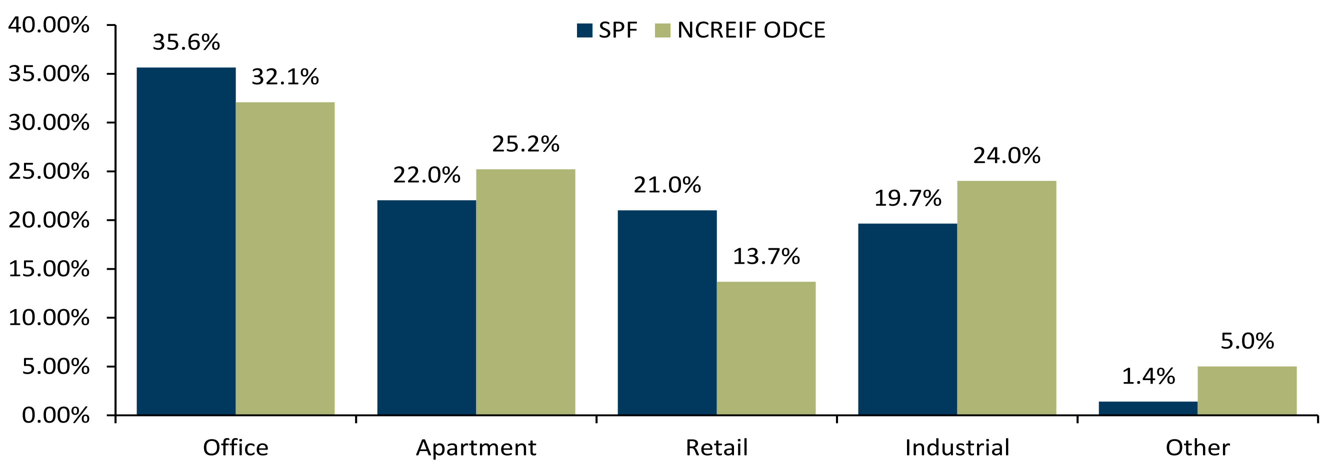
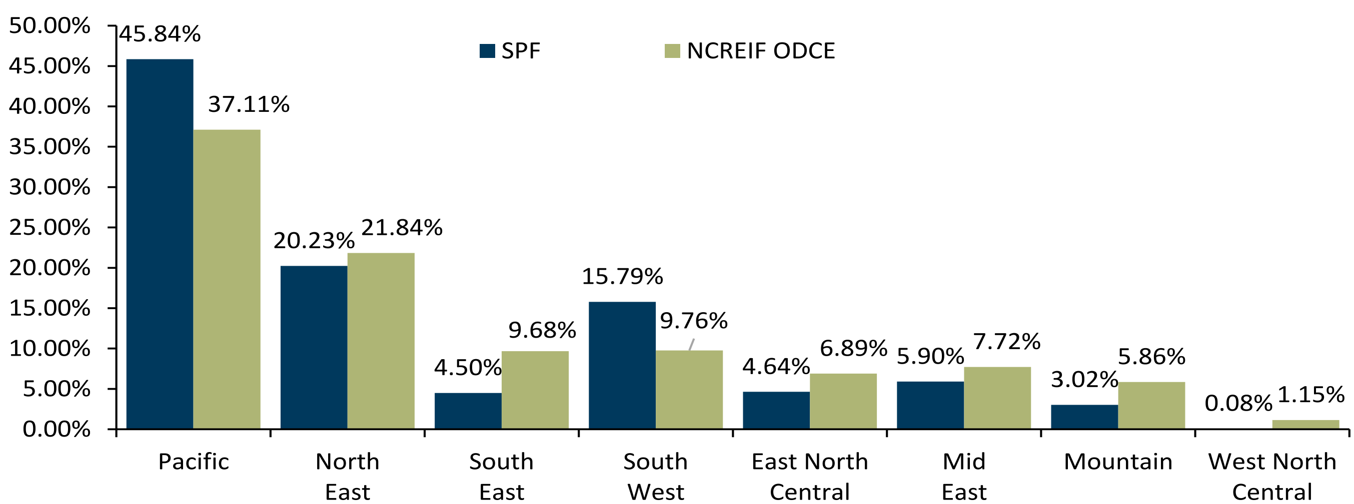
***Progression of Leverage** – As of December 31, 2020*




***Fund Diversification** – As of December 31, 2020*

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***Top 10 U.S. Market Exposures*** *–As of December 31, 2020*

| MSA | % Total Fund GAV |
|---|---|
| Los Angeles-Long Beach | 13.2% |
| New York-Northern New Jersey | 12.3% |
| Boston-Cambridge | 11.9% |
| Dallas-Fort Worth | 11.0% |
| San Jose-Sunnyvale | 7.5% |
| San Francisco-Oakland | 6.2% |
| Riverside-San Bernardino | 5.3% |
| Washington-Arlington | 4.8% |
| Chicago-Joliet-Naperville | 4.7% |
| San Diego-Carlsbad | 4.4% |

## Top Ten Assets (by MV)

| Property | City | State | Sector | $MV | Comment |
|---|---|---|---|---|---|
| **Edens - SPF** | Various | Various | Retail | $1,871,695,307 | Edens Investment Trust (Edens) is a national retail real estate investment company that invests in urban retail centers. |
| **DSRG - SPF** | Various | Various | Retail | $1,824,904,137 | Donahue Schriber Realty Group (DSRG) is a REIT specializing in grocery-anchored shopping centers. |
| **Century Plaza Towers** | Los Angeles | CA | Office | $1,390,269,191 | |
| **Valley Fair Mall** | San Jose | CA | Retail | $1,319,722,376 | |
| **1345 Avenue of the Americas** | New York | NY | Office | $1,084,146,445 | |
| **200 Fifth Avenue** | New York | NY | Office | $1,024,324,063 | |
| **Alliance Texas - Industrial** | Fort Worth | TX | Industrial | $963,126,528 | |
| **NorthPark Center JV** | Dallas | TX | Retail | $958,952,562 | |
| **China Basin** | San Francisco | CA | Office | $906,506,004 | |
| **Royal Hawaiian Center** | Honolulu | HI | Retail | $901,120,435 | |

## Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product and its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

**Buy** – Townsend recommends the investment for those client portfolios where it is a fit.

**Qualified** – Townsend believes the sponsor to be qualified to manage client assets.

## ESG Rating Explanation

**Positive –** The Fund Management Team demonstrates high awareness of all known and potentially financially material ESG risks in the investment strategy and, at present, has incorporated appropriate processes to identify, evaluate and potentially mitigate these risks across the entire portfolio. No material operational concerns; firm's operations largely align with a well-controlled environment.

**Neutral –** The Fund Management Team demonstrates an awareness of potential ESG risks in the investment strategy and has taken some steps to identify, evaluate and potentially mitigate these risks.

**Negative** – The Fund Management Team appears unaware or unconcerned with ESG risks in the investment strategy and has not taken any material steps to address ESG considerations in the portfolio.

**N/A (Not Applicable) –** An evaluation of ESG risks is not directly applicable to this strategy and therefore an ESG rating has not been assessed.

**NR (Not Rated) –** An evaluation of ESG risks is not yet available for this strategy.

## Operational Due Diligence Rating Explanation

**A1 Pass –** No material operational concerns; firm's operations largely align with a well-controlled environment.

**A2 Pass –** The firm's operations largely align with a well-controlled environment, with limited exceptions.

**Conditional Pass** – AON identified specific operation concerns that the firm agreed to address in a reasonable time frame.

**Fail –** AON noted material operational concerns that introduce potential economic or reputational exposure.

## About Townsend Group – An Aon Company

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

**Disclaimer**

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Past Performance is no guarantee of future results. Investing involves risk, including possible loss of principal.

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Real Estate InTotal

# Morgan Stanley Real Estate Investing

Prime Property Fund

March 2021

Trade Secret and Confidential

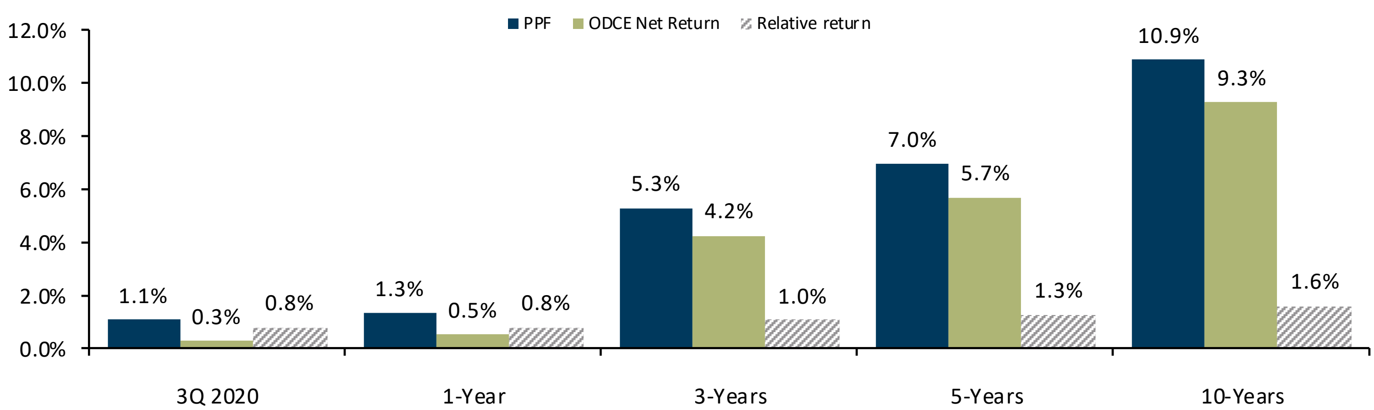
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Current Rating | Previous Rating |
|---|---|---|
| February 2021 | BUY | BUY |

The Prime Property Fund ("Prime", "PPF" or the "Fund") is a diversified, open-end Core real estate fund that targets high quality, well-leased, income-producing properties located in select primary markets in the U.S. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10% (gross). Relative to its benchmark, the Fund has been able to consistently generate alpha.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-Ended | **Risk Segment** | Core |
| **Size NAV** | $26.7 Billion | **Strategy Inception** | 1973 |
| **Current/Maximum Fund Leverage** | 19.1%/50.0% | **Current/Max Non-Core Exposure** | 9.7%/20.0% |
| **Valuations** | Quarterly/Altus | **Minimum Commitment** | $5 million |
| **Investment Guidelines** | NFI-ODCE | **Number of Holdings** | 376 |
| **Performance Objective** | Outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10%, gross of fees. | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Headquarters** | New York, NY | **Parent Company** | Morgan Stanley (NYSE:MS) |
| **Fund Sponsor** | MSREI | **Year Founded** | 1931 |
| **RE Employees** | 200 | **Investment Staff** | 76 (US) |
| **Real Estate AUM** | $44 Billion | **RIA** | Yes |

## COMPARITIVE ADVANTAGES

1. Platform Strength:

Morgan Stanley Investment Management ("MSIM") has a total AUM of $51.7 billion with $43.8 billion in real estate. Morgan Stanley Real Estate Investing manages global real estate through three products: Prime Property Fund (US Core), Prime Property Fund Asia (Asia Core), and North Haven Real Estate Funds (Global Opportunistic). MSREI has over 200 professionals located in 17 offices across 13 countries. Prime is MSREI's single largest fund and comprises approximately 75% of gross real estate assets in the U.S.

Prime is led by Scott Brown, who is a Managing Director at Morgan Stanley, Head of Prime Property Fund in the U.S. and Global Head of Prime. Mr. Brown has been working with Prime since 1993 and has been fully dedicated to Prime since 2002. Mr. Brown has over 29 years of real estate experience and serves as a member on various investment committees across the platform.

2. Wholly Owned Development Companies:

Prime's operating companies have provided significant value creation relative to the peer set during recent time periods. AMLI is a wholly-owned multifamily development platform focused on the development, acquisition and management of apartments across the U.S. Safeguard Self Storage is a wholly-owned self-storage development company. Both are owned by Prime Property Fund and give investors access to unique proprietary platforms dedicated to their individual sectors.

3. Strong Performance Track Record and Portfolio Positioning:

Prime has provided strong risk-adjusted returns through market cycles. It has meaningfully outperformed the NFI-ODCE Index over all recent major time periods. Prime has created value through its operating companies and through its overweight's to favored sectors such as the industrial and healthcare, relative to the NFI-ODCE.

## POTENTIAL ISSUES AND CONCERNS

1. Higher Fee Load:

Relative to its peers, Prime has a higher total fee load relative to its ODCE peers. The management fee is fixed at 84 basis points for all investors. Prime also has an incentive fee component (5% of the beginning monthly NAV multiplied by the comparable property NOI growth). Prime's historical fee spread relative to the NFI-ODCE is listed below:

| Fee Spread | 1-Year | 3-Year | 5-Year | 7-Year | 10-Year |
|---|---|---|---|---|---|
| **Prime** | 0.85% | 1.05% | 1.09% | 1.16% | 1.24% |
| **NFI-ODCE** | 0.88% | 0.93% | 0.95% | 0.98% | 1.01% |

**Discussion:**

Although Prime has a higher fee load relative to ODCE, it has shown consistent outperformance net of all fees and expenses. The incentive fee is also capped at 35 bps per annum. Prior to 2013, the Management Fee was 90 bps with a capped incentive fee of 45 bps.

2. Mall Exposure:

Relative to peers, Prime does have a significant exposure to malls. Prime's total mall exposure is approximately 6% of the Fund's NAV across five total assets, which are listed below.

- Fashion Valley Mall (San Diego, CA)
- Dadeland Mall (Miami, FL)
- Christiana Mall (Newark, DE)
- Rosedale Shopping Center (Roseville, MN)
- Fox Run Mall (Newington, NH)

Regional and Super Regional Malls have been the lowest performing sub-property type both within the NPI and the Retail sector. As of December 31, 2020, the five-year returns for Regional Malls are 165 basis points and 545 basis points below the returns for the Retail Sector and NPI respectively, while Super Regional Malls are 88 basis points and 468 basis points below the Retail Sector and NPI five year returns, respectively.

**Discussion:**

While malls have been the lowest performing retail sub-sectors, Prime has a history of investing in high-quality assets, including high quality retail. Of the five total mall assets, three are A++ rated (Christiana Mall, Dadeland Mall, and Fashion Valley Mall). A++ malls typically exhibit high productivity (estimated sales per square foot at or above $1,000) and have experienced less valuation pressure versus lower-quality malls. It's also important to note that Prime's total retail exposure is underweight to NFI-ODCE, which has led to positive return attribution relative to the index.

3. Current Global Turmoil

Covid-19 fueled market volatility approximately one year ago in both the stock and bond markets, creating a situation of uncertainty for private real estate pricing. Despite the subsequent rally in public markets, commercial real estate transactions remain muted, with an approximate 50% decrease year-over-year in the third quarter of 2020, restricting the full scope and ability to determine pricing in each sector. The majority of transactions have primarily occurred in the apartment and industrial sectors, so the full impact on the office and retail sectors is still relatively unknown. However, most open-end managers (including Morgan Stanley) have been actively writing down assets at the direction of third-party valuation firms like Altus.

While there is still some lingering uncertainty in private market valuations for certain property types, Townsend would be supportive of clients moving forward with new commitments to (i) portfolios positioned well with underweights to office and retail property types and (ii) funds that offer control and flexibility as to when its capital will be called. That way if investors are not comfortable with current portfolio valuations, investors can rescind or delay commitments.

**Discussion:**

Prime has an active underweight to the office and retail sectors relative to the NFI-ODCE. As of December 2020, Prime's office and retail exposure was 28.9% and 11.5%, respectively, while the ODCE's exposure to those sectors was 32.9% and 14.2%, respectively. While transactions have decreased significantly overall, transaction volume has increased in the industrial and multifamily sectors over the last couple of quarters. We would expect transaction activity to increase in the other primary sectors in the upcoming year, providing a more accurate picture of the impact of valuations on office and retail assets. Prime's deposit queue is approximately $732 million as of December 2020. Based on the manager's projections, investors can expect its capital won't be fully drawn until two to four quarters. Additionally, Prime offers investors a revocable queue meaning investors would the ability to reduce/rescind its commitment prior to funding.

# INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | The Prime Property Fund ("Prime" or the "Fund") is a U.S. open-end diversified Core fund that targets high quality, income-producing Class A properties located in primary markets. Its goal is to outperform its benchmark (NFI-ODCE) annually and over the long-term, as well as achieve an aggregate annual total return on invested equity of 8-10%, gross of fees. Focus is placed on current income, aiming to generate 6-8% annually. The Fund pursues a slightly higher risk strategy within the Core classification due to its relatively higher use of leverage and utilization of wholly-owned operating companies within the Fund. |
| **Sponsor** | Morgan Stanley Real Estate Investing ("MSREI") has a global platform of real estate investment products and strategies with almost $44 billion in assets under management ("AUM"). PRIME is MSREI's single largest fund at almost 75% of total real estate AUM, which positions it favorably to access the full resources of the MSREI platform. PRIME has experienced net positive inflows over the past few years. In 2016, Morgan Stanley Investment Management announced a new leadership structure, with MSREI becoming part of the Real Assets Group. There is no impact on Prime's business or investment staff. |
| **Operational Due Diligence** | Morgan Stanley has sufficient operational guidelines in place and its valuations policies are in line with industry best practices. A Valuation Committee has been instituted to review appraised values. Any adjustments to an external independent appraisal must be documented and explained to Prime's predominantly independent Board of Directors. The Board of Directors is also responsible for approving any changes to Prime's valuation policy. |
| **Investment Process** | MSREI uses an eight-step investment process: 1) Investment guidelines are developed and approved by the Board. 2) MSREI reviews a robust pipeline of transactions to source deals. 3) Potential investments are tracked through MSREI's investment pipeline. MSREI underwriting teams analyze investments that are appropriate for Prime's strategy. 4) Investments are reviewed by an Allocation Committee if an investment is appropriate for multiple clients. 5) Investments are reviewed and approved by an investment committee of MSREI professionals and representatives from Morgan Stanley. 6) Following investment approval, due diligence is under taken and closing occurs upon approval of portfolio management. 7) Asset management will aim to maximize value of each individual property. Asset managers oversee third-party valuations completed on a quarterly basis. 8) A hold/sell analysis is performed on all investments within the portfolio. |
| **Fund Structure** | The Fund is a limited liability company under Delaware law and has elected to be treated as a REIT for US federal income tax purposes.<br><br>The Fund has two types of shares: voting Shares and non-voting Shares. The Fund will not have more than 190 non-voting Shares issued and outstanding at any time except as necessary to comply with rules relating to REITs or to elect or maintain the Fund. |
| **Performance** | Prime owns one of the longest track records in the core space, with a fund inception in 1973. Prime has outperformed NFI-ODCE over 1-, 3-, 5-, 7-, and 10--year periods, and since inception. Prime's outperformance has been driven by several factors, including the utilization of a wholly-owned AMLI multifamily development platform and a wholly-owned Safeguard self-storage platform, geographic exposure to major markets throughout the US that have generated strong unlevered performance, and tactical property-type over- and underweights. |
| **ESG Policy & Practices** | Prime has a deep ESG platform as well as actively and regularly participates in industry benchmarking and standard practices related to ESG. In 2020, Prime received a GRESB rating of 81 and is four-star rated, scoring within the top third of its peer group. Townsend recommends an Advanced ESG Rating for Prime. |

| | | |
|---|---|---|
| **Overall Rating** | **Buy** | Prime has consistently outperformed NFI-ODCE through accretive acquisitions and dispositions within the US and the utilization of wholly-owned platforms that have generated superior returns on non-core development. Prime is supported by MSREI, an experienced platform with approximately billion AUM. Scott Brown, Portfolio Manager, provides substantial experience to the Fund with 30 years in real estate and over 25 years with Morgan Stanley. Prime is positioned to continue to outperform NFI-ODCE, driven by a tactical overweight to Industrial, a growing allocation to Healthcare, a large pipeline of Multifamily, Industrial, and Self-Storage development, and geographic concentration in outperforming major markets. Townsend recommends Prime as a BUY. |

## STRATEGY

As of December 31, 2020, Prime's gross asset value was $33.4 billion across 376 investments, making Prime the second largest fund within the NFI-ODCE index. The portfolio is well diversified across all major property types and is invested in major markets throughout the US.

Prime's ten largest assets comprise approximately 16% of the total Fund portfolio. These assets include Class-A super regional malls and large-scale CBD office assets in major gateway markets. Approximately 63% of the portfolio is invested in Prime's seven preferred target markets: Southern California (15.6%), Northern California (7.6%), Chicago (8.6%), South Florida (9.2%), New York (7.8%), Boston (6.7%), and Washington, DC (6.4%). Prime's near-term region diversification targets are the following: East (30-40%), South (15-25%), Midwest (5-15%), and West (30-40%).

Prime's near-term property-type diversification targets are the following: Office (25-35%), Apartment (20-30%), Industrial (20-30%), Retail (5-15%), Storage (0-5%), and Healthcare (5-10%). Relative to NFI-ODCE, Morgan Stanley has recently positioned the Fund overweight to industrial to take advantage of the strong fundamentals exhibited within the sector. Same-store industrial NOI Growth was 11.2% in 2020 within Prime's portfolio. Prime also has a unique exposure to the Healthcare sector, which includes thirty medical office buildings and five life-science assets.

As of December 31, 2020, leverage was 19.1%. Non-core exposure represents 9.7% GAV as of 4Q20. Prime's non-core pipeline mostly consists of multifamily, self-storage, and industrial development. Prime's wholly owned AMLI multifamily development platform has been a significant driver of appreciation. Since 2012, AMLI has delivered over 8,000 units. Prime also utilizes a wholly owned Safeguard self-storage platform for self-storage development.

## SPONSOR

Morgan Stanley Real Estate Advisor Inc. is a wholly-owned subsidiary of Morgan Stanley and is functionally located within Morgan Stanley Real Estate Investing (MSREI), itself a part of Morgan Stanley's Merchant Banking division. In 2008, Morgan Stanley changed its status to a bank holding company and participated in the U.S. Treasury's capital injection program (repaid in 2009). The organization also sold off its retail asset management business, to focus on its institutional client base.

In February 2016, Morgan Stanley Investment Management ("MSIM") announced a new leadership and organizational structure which includes the realignment of investment teams across six groups: Real Assets, Solutions & Multi-Asset, Active Fundamental Equity, Private Equity & Credit, Global Fixed Income and Global Equity. MSREI is now part of the Real Asset group, which also encompasses the Firm's global listed real assets and private infrastructure investment teams.

John Klopp was named Head of Real Assets transitioning out of his role as Co-CEO and Co-CIO of MSREI and Head of the Americas. Mr. Klopp continues to sit on the MSREI real estate funds' investment committee and also serves as Affiliate Director of the Prime Property Fund. Olivier de Poulpiquet, who with Mr. Klopp had been Co-CEO and Co-CIO since 2010, now serves as sole Head of MSREI. Lauren Hochfelder Silverman is Head of the Americas.

Prime is the flagship core real estate fund at MS. It is organized as a private REIT and has oversight by an independent Board of Directors. The Board meets quarterly to review the strategy and investment performance of Prime and monitors the management responsibilities of the portfolio management team. The Board also reviews any asset related issues.

| Key Staff | Position | Date Joined | Years of Experience |
|---|---|---|---|
| **Scott Brown** | Portfolio Manager | 2003 | 30 |
| **Candice Todd** | CFO | 2001 | 30 |
| **Bennett Weaver** | Head of Operations | 2013 | 21 |

Scott Brown serves as the Global Head of PRIME, overseeing the PRIME series of real estate core funds globally. He is responsible for the portfolio implementation and management of the Prime Property strategy. His prior experience includes acquisition activities at Lend Lease Real Estate, which is the predecessor to Prime Propriety.

Candice Todd is a Managing Director of Morgan Stanley and the CFO of Prime Property Fund, responsible for the Fund's capital structure and REIT compliance. Prior to joining Morgan Stanley in November 2003, Candice worked for Lend Lease since 1994 and has over 30 years of real estate experience.

Bennett Weaver is the third key component of the Portfolio Management Team and is Head of Operations of Prime Property Fund. Prior to joining Morgan Stanley in July 2004, Bennett worked for Lend Lease and has over 20 years of real estate experience.

The Fund can leverage the global MSREI platform and the broad expertise, deep relationships and powerful franchise of Morgan Stanley, including investment banking, merchant banking, private wealth management, etc., which is a significant benefit to Fund's deal flow.

Investments for Prime are reviewed and voted on by a 12-member senior management investment committee including individuals from MSREI and risk management. John Klopp, co-Chief Executive Officer of the Firm, serves as Chairman.

The Firm's research team is shared across MSREI's products and geographies. In the U.S., the team is mostly responsible for aggregating third party research data by property type and geography. While newly designed top down models have been developed, the Fund mostly draws from bottom up resources of the broader platform to determine what assets are most attractive in each market, and research is used as a check. The acquisition and asset management teams, which are organized by geographic regions, are also shared resources across all MSREI products, and consist of 25 and 14 members, respectively. Acquisition and asset management work closely throughout the due diligence process and during the life of an asset; sharing market information and creating business plans/exit plans for each asset.

Prime owns AMLI Residential ("AMLI"), a multifamily private REIT. AMLI is focused on the development, acquisition and management of luxury apartment communities across the U.S. Thus, almost all of Prime's apartment activity is run through this group. Prime tends to focus on the 8-10 markets that were legacy AMLI strong holds, recently adding a few coastal metro-regions. AMLI is dedicated solely to Prime; with management co-investing alongside the Fund in all the apartment assets.

To reinforce the alignment of interest of key personnel with the performance of the Fund, Morgan Stanley awards shares that vest over time in the Fund based on personal annual performance and contribution to the Fund. Prime's performance fee is used to finance this employee incentive, which aligns the team's compensation to the increase and decrease in the share price of the Fund

## OPERATIONAL DUE DILIGENCE

The Aon Operational Due Diligence ("Aon ODD") team reviewed the fund sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions including: (I) corporate governance, (II) trade/transaction execution, (III) cash controls, (IV) valuation, (V) compliance, regulatory, legal, and controls testing, (VI) counterparty risk oversight, (VII) business continuity/disaster recovery, and (VIII) cyber security.

Morgan Stanley is a large and global investment manager with institutional levels of infrastructure, controls, and oversight across its operating environment. The firm is subject to independent oversight by a Board of Directors and has a robust supporting committee structure. MSIM's policies and procedures are comprehensive, well-documented and subject to reviews by both internal audit and annual SOC1 controls reviews by Ernst & Young.

The Aon ODD rating of the Manager is A1 Pass.

## INVESTMENT PROCESS

MSREI uses an eight-step investment process:

1) Investment guidelines are developed and approved by the Board.

2) MSREI reviews a robust pipeline of transactions to source deals.

3) Potential investments are tracked through MSREI's investment pipeline. MSREI underwriting teams analyze

investments that are appropriate for Prime's strategy.

4) Investments are reviewed by an Allocation Committee if an investment is appropriate for multiple clients.

5) Investments are reviewed and approved by an investment committee of MSREI professionals and representatives from Morgan Stanley.

6) Following investment approval, due diligence is undertaken and closing occurs upon approval of portfolio management.

7) Asset management will aim to maximize value of each individual property. Asset managers oversee third-party valuations completed on a quarterly basis. 8) A hold/sell analysis is performed on all investments within the portfolio.

The portfolio management team includes a dedicated Chief Financial Officer, Candice Todd, that manages the creditworthiness and liquidity of the Fund. Candice has over 30 years of experience and has been with Morgan Stanley for over 25 years.

Risk management oversight is provided at divisional and Firm levels by MSIM Risk and Morgan Stanley's Firm Market Risk Groups. These groups are independent from MSREI.

# FUND STRUCTURE

## SUMMARY

The Fund is a limited liability company under Delaware law and has elected to be treated as a REIT for US federal income tax purposes.

The Fund has two types of shares: voting Shares and non-voting Shares. The Fund will not have more than 190 non-voting Shares issued and outstanding at any time except as necessary to comply with rules relating to REITs or to elect or maintain the Fund.

## REVIEW OF KEY TERMS AND CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | 8% - 10% (gross) |
| **Cash Distributions:** | Fund expects to pay quarterly dividends equal to at least 90% of its REIT taxable income. |
| **Investment Management Fees:** | Calculated based on Net Asset Value<br>All levels of investment: 84 bps |
| **Other Fees:** | None |
| **Performance Fees:** | Accrues on a monthly basis over a calendar year.<br><br>Equal to 5% beginning of the month NAV multiplied by the comparable property NOI growth<br><br>Subject to an annual cap of 35bps per annum of the average monthly NAV for the calendar year. |
| **Debt Mark-to-Market:*** | (0.2)% compared to NFI-ODCE at (0.1)% at 3Q2020 |
| **Redemption Policy:** | All Shareholders have the right to request a redemption of Shares on a quarterly basis. A redemption request received prior to quarter end will be processed so as to bescheduled for payment generally at or shortly after the end of the next quarter. |

*Data as of 3Q2020. Due to a standard reporting lag, the most recent data available is as of 3Q.

### ENTRY AND EXIT PROCESS

All Shareholders have the right to request redemption of Shares on a quarterly basis. Requests received before the end of a quarter will be processed so as to be scheduled for payment generally at (or shortly after) the end of the next calendar quarter in accordance with the Fund's quarterly redemption process. The Fund will redeem Shares at the then Current Share Price on the day of redemption to the extent that the request was received prior to the end of the preceding quarter and the Fund has sufficient cash available to honor requests, consistent with applicable REIT rules and principles of prudent management.

### INVESTMENT MANAGEMENT FEES

Prime's blended fee structure consists of a flat asset management fee of 84 bps per annum and an incentive fee equaling 5% of comparable portfolio same store year-over-year NOI growth that accrues on a monthly basis and is capped at 0.35% of NAV.

## PERFORMANCE *– As of December 31, 2020*

Prime owns one of the longest track records in the core space, with a fund inception in 1973. Prime has outperformed NFI-ODCE over 1-, 3-, 5-, 7-, and 10-year periods, and since inception. Prime's outperformance has been driven by several factors, including the utilization of a wholly-owned AMLI multifamily development platform and a wholly-owned Safeguard self-storage platform, geographic exposure to major markets throughout the US that have generated strong unlevered performance, and tactical property-type over- and underweights. Historical income performance has been diluted by the fund's multifamily and self-storage development portfolios. Prime's leverage (19.1%) is below NFI-ODCE. Prime lowered their target leverage to 15-25% in the near-term.

### NEAR-TERM PERFORMANCE DRIVERS

**Industrial Overweight**

Prime's industrial exposure is 24.8% of GAV, approximately +300bps above NFI-ODCE. Prime has over 56 million square feet of industrial space today and primarily consists of distribution warehouses. Over 92% of Prime's industrial portfolio is in major distribution markets, including southern California, New Jersey, New England, and New York.

**Non-Core Development with Wholly Owned Development Platforms**

Prime's non-core exposure is currently 9.7% GAV. The AMLI multifamily and Safeguard self-storage platforms have been a large driver of appreciation within Prime historically. The Fund's existing pipeline today includes a combination of AMLI and Safeguard projects across the US in development and lease-up, four industrial developments in Atlanta, New York, and New Jersey, and an office asset in Pasadena.

**Healthcare**

Prime currently owns 30 medical office assets and five life-science properties. Calendar year same-store NOI growth was +6.8% for the healthcare sector in 2020.

**Fourth Quarter 2020**

Prime generated a gross return of 1.7% in the fourth quarter, outperforming NFI-ODCE by approximately +40 bps. Performance in the fourth quarter was driven primarily by industrial and healthcare, which generated an unlevered return of +4.1% and +11.6%, respectively, driven by leasing momentum across the both sector portfolios. The total percentage leased across the industrial portfolio reached 96.0%, with 3.8 million square feet leased in the fourth quarter. The healthcare sector's strong performance was comprised of 1.2% income and 10.3% appreciation.

Capital flows continue to remain strong, with Prime raising over $565 million of new subscriptions in the fourth quarter, with a total investment queue of $732 million. The redemption queue by quarter-end was $370 million, with a total of $400 million redemptions paid in the quarter.

# ESG POLICY & PRACTICES

Morgan Stanley has well-developed, transparent ESG policies and specific staff members dedicated to ESG. MSIM has a Sustainability Team and a Global Sustainable Finance Group, which is responsible for the firm's overall sustainability strategy and develops approaches that achieve social, environmental, and financial returns. In June 2020, Mona Benisi was hired as Head of Sustainability for Global Real Assets and is responsible for developing MSIM's ESG investment integration standards, which also includes annually reviewing the firm's ESG policy. In addition to the firm's ESG policy, MSIM also has an annually reviewed DEI policy, code of ethics, sexual harassment policy, as well as yearly training on these policies.

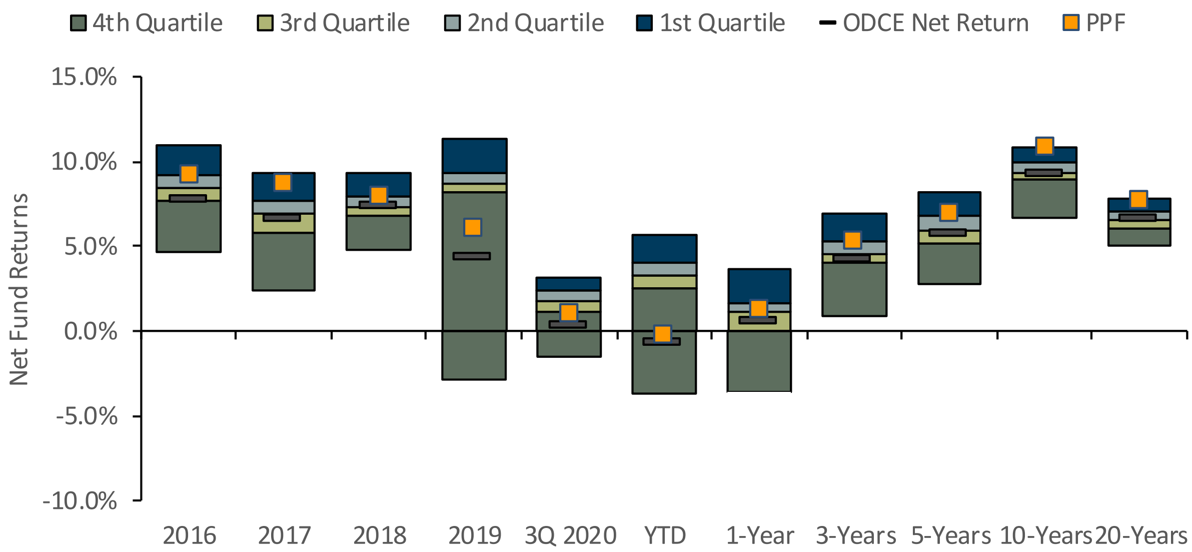
Each investment platform within MSIM has an ESG lead. Rob Poole is Executive Director and responsible for Sustainability for MSREI in the US. Josh Myerber, Deputy Portfolio Manager of Prime Property Fund, is focused on sustainability across the fund.

MSIM, MREI, and Prime have ESG processes in place which encourage consistent positive outcomes in benchmarking and encourage ESG stewardship at all levels. Prime has been a GRESB participant since 2014, with scores in the top third of its peer group and has received a 4-star rating over the past few years. The fund also actively tracks GHG emissions, tracks water and waste consumption at the asset level and works toward LEED Certifications and Energy Star Ratings in assets when applicable. In addition to GRESB, MSIM has also been a PRI Signatory since 2013 (receiving an A rating in the 2019 review), and is also a signatory to the TCFD, U.K. Stewardship Code, and the Japan Stewardship Code, as well as being a participant in SASB.

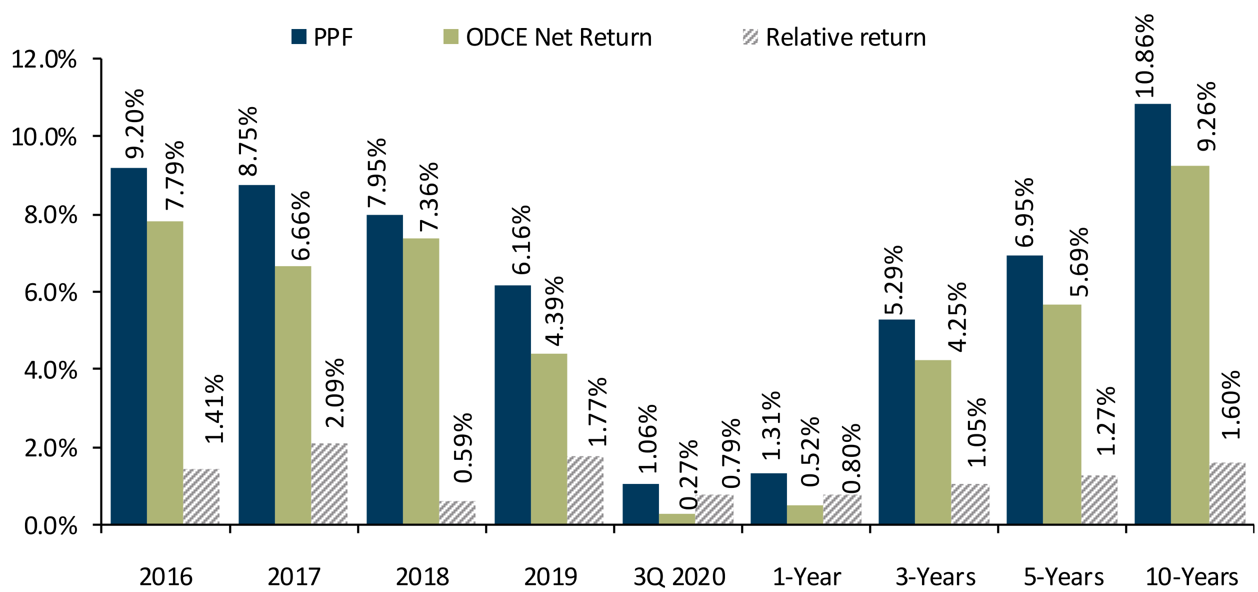
Based on the above referenced factors, Prime's ESG rating is Advanced.

# APPENDIX

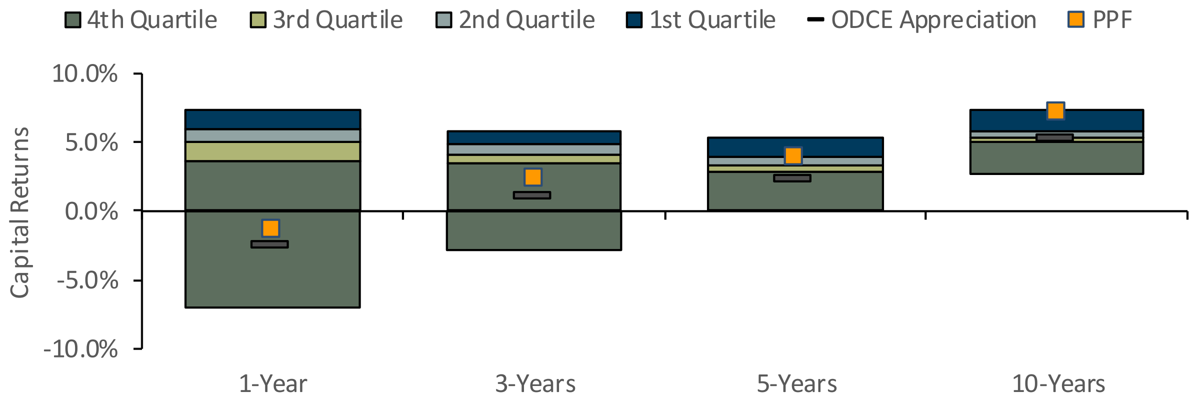
***Historical Performance Quartiles** – As of September 30, 2020*



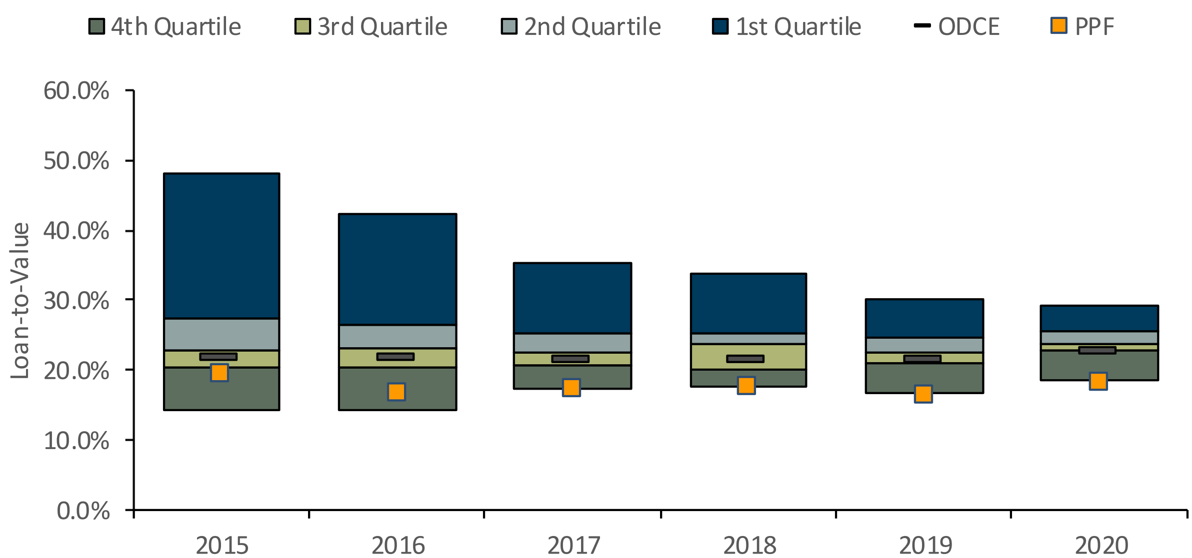

***Historical Relative Fund Performance –** As of September 30, 2020*



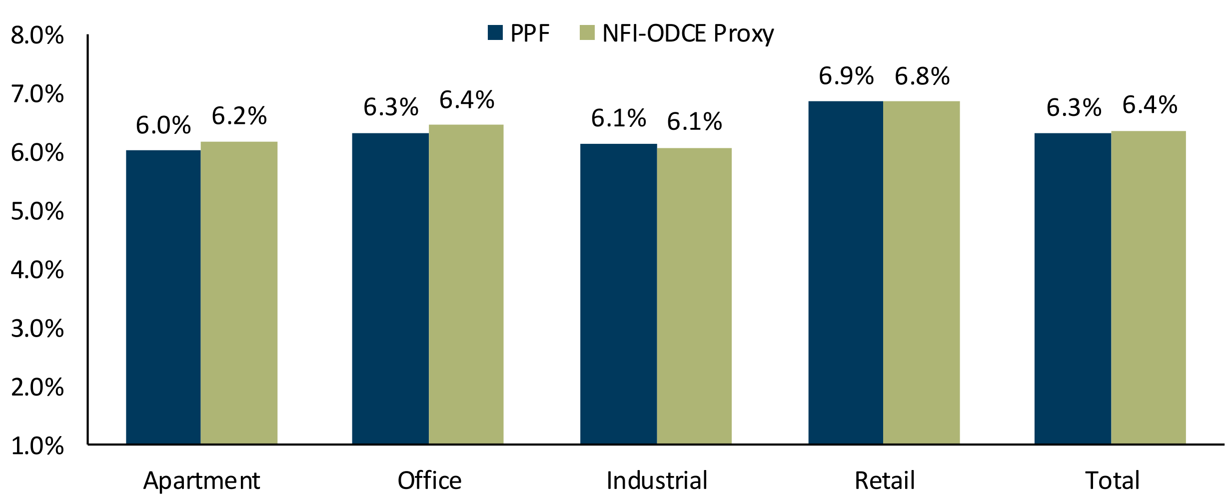
***Capital Return (Appreciation) Historical Performance Quartiles** – As of September 30, 2020*



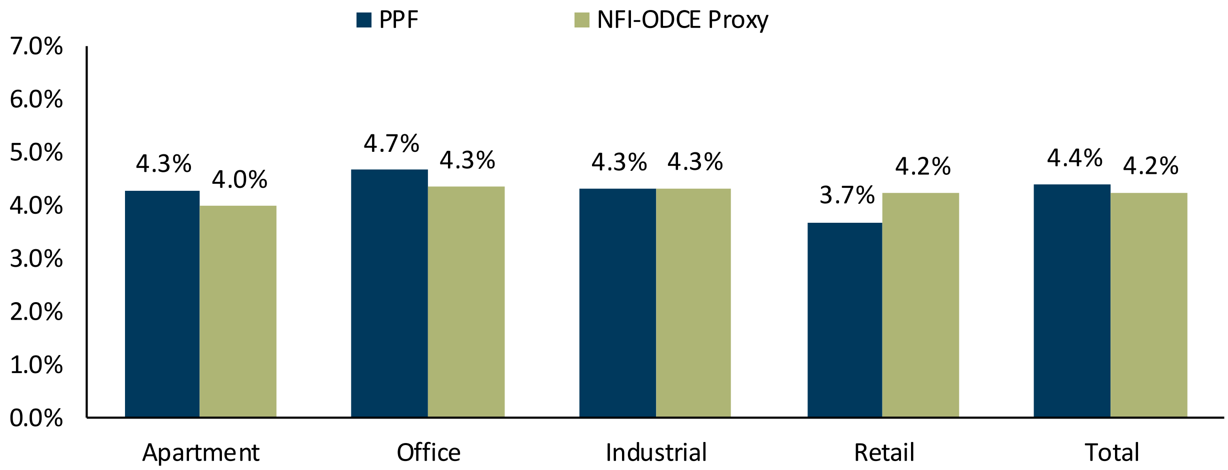

***Progression of Leverage** – As of September 30, 2020*



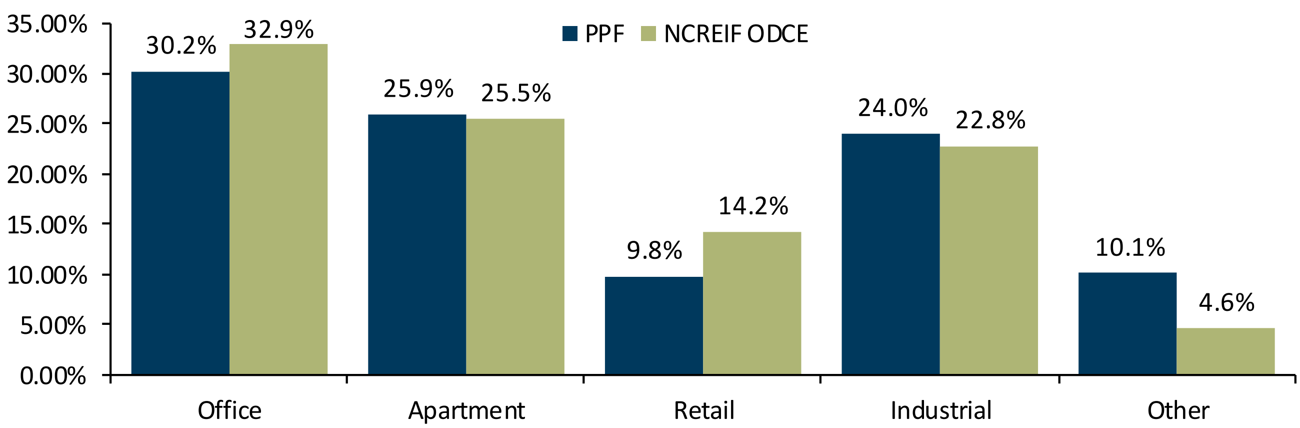

***Discount Rate** – As of September 30, 2020*



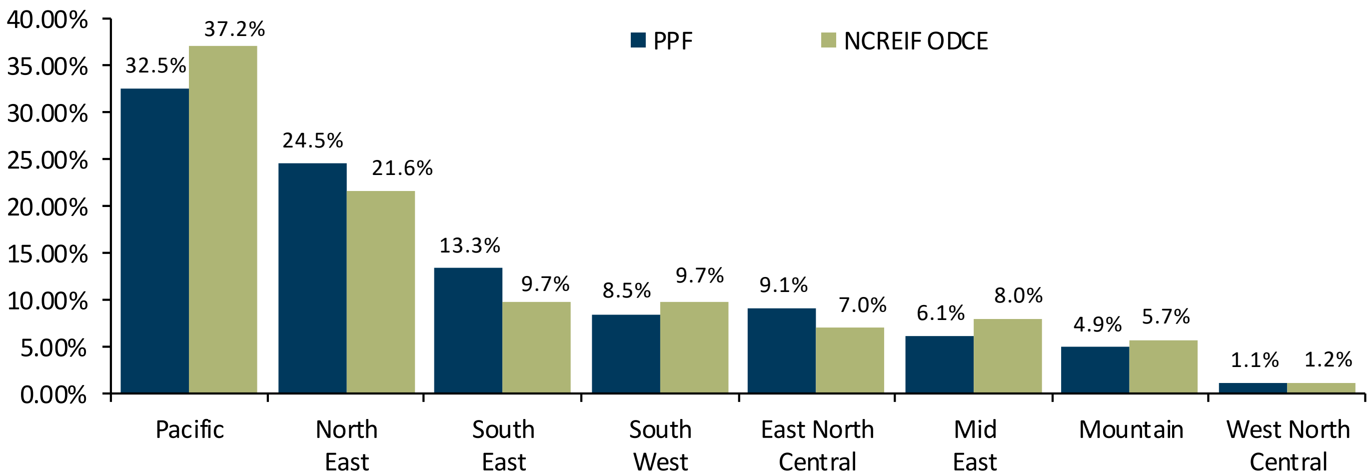
***Forward Cap Rates** – As of September 30, 2020*



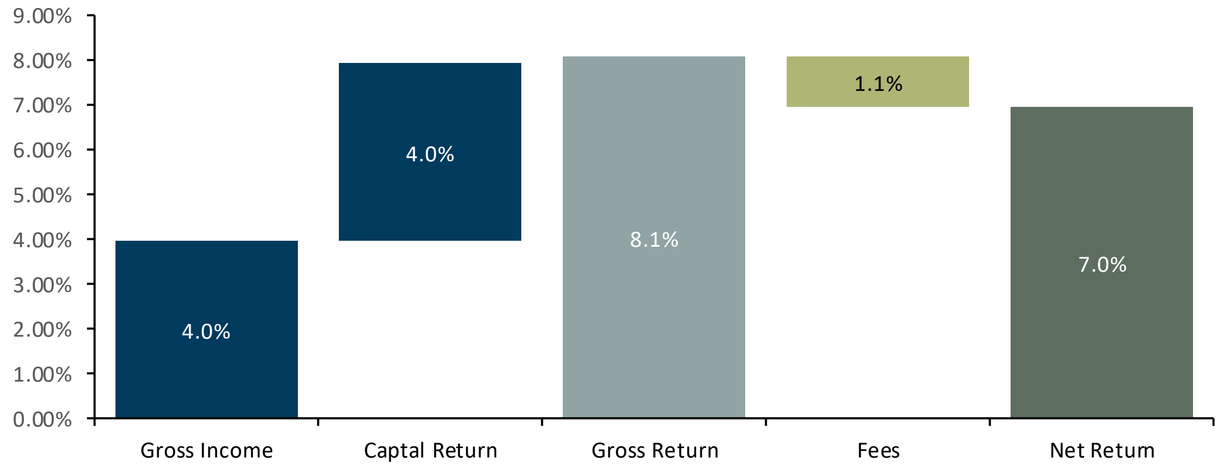

***Property Type Diversification** – As of September 30, 2020*




***Geographic Diversification** – As of September 30, 2020*



***Five Year Attribution** – As of September 30, 2020*




***Top 10 U.S. Market Exposures** – As of September 30, 2020*

| MSA | % Total Fund NAV |
|---|---|
| Los Angeles | 7.9% |
| Chicago | 3.3% |
| New York | 8.3% |
| Miami | 3.8% |
| Boston | 3.8% |
| San Francisco | 5.8% |
| Washington DC | 2.8% |
| Seattle | 2.6% |
| Denver | 4.6% |
| Atlanta | 7.0% |

# RATINGS EXPLANATION

The overall rating can be interpreted as follows:

| Overall Rating | What does this mean? |
|---|---|
| Buy | We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products |
| Qualified | A number of criteria have been met and we consider the investment manager to be qualified to manage client assets |

The ESG rating can be interpreted as follows:

| ESG Rating | Interpretation |
|---|---|
| Limited | The fund management team has taken limited steps to address ESG considerations in the portfolio. |
| Integrated | The fund management team has taken essential steps to identify, evaluate, and mitigate potential financially material ESG risks within the portfolio. |
| Advanced | The fund management Team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate, and potentially mitigate these risks across the entire portfolio. |
| Not Applicable | ESG risks and considerations are not applicable to this strategy. |

# ABOUT THE TOWNSEND GROUP – AN AON COMPANY

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

**Disclaimer**

Real Estate **InTotal**

# DWS Group GmbH & Co. KGaA

Core Plus Industrial Fund L.P.

August 2021

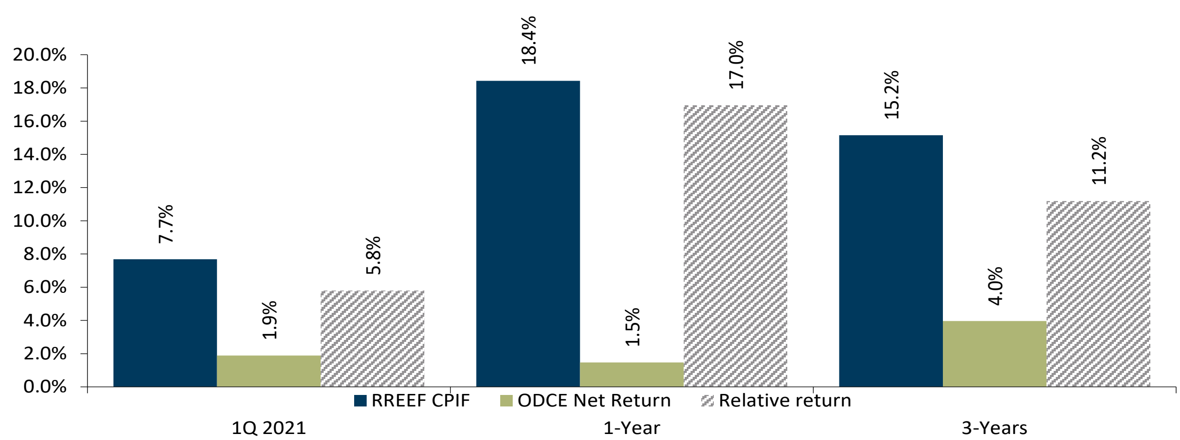
# EXECUTIVE SUMMARY

## OVERVIEW

| Review Date | Rating | Previous Rating |
|---|---|---|
| August 2021 | Buy | Buy |

RREEF America L.L.C. ("RREEF"), part of DWS Group GmbH & Co KGa ("DWS" or the "Sponsor"), launched RREEF Core Plus Industrial Fund L.P. ("CPIF" or the "Fund"), a core-plus open-end industrial fund in June 2017. The Fund invests in core (up to 100%) and non-core industrial (up to 50%) with leverage capped at 50% at the portfolio level.

*Historical Net Fund Level Performance:*




*Strategy Summary*

| | | | |
|---|---|---|---|
| **Fund Structure** | Open-End Fund | **Risk Segment** | Core-Plus |
| **Size NAV** | $1.3 Billion | **Average Asset Size (NAV)** | $51.3 Million |
| **Valuations** | Quarterly FMV Debt & Equity | **Minimum Commitment** | $5 Million |
| **Leverage** | <50% LTV at portfolio level | **Current/Max Non-Core %** | 10.0%/25% |
| **Investment Guidelines** | - Max 25% speculative development (<50% pre-leased)<br>- Max 50% non-core<br>- Max of 10% to single property<br>- Max of 30% to single MSA | **Number of Holdings** | 25 |
| **Performance Objectives** | NPI Industrial + 50-100 bps, gross | | |
| **Benchmark** | NPI Industrial | | |

*Firm Summary*

| | | | |
|---|---|---|---|
| **Sponsor** | DWS Group GmbH & Co. KGaA (XTRA:DWS) | **Parent** | DWS Group GmbH & Co. KGaA (XTRA:DWS) |
| **Headquarters** | New York City, NY (RREEF), Germany (DWS) | **Strategy Inception** | 2017 |
| **Employees** | 400+ | **Real Estate Team** | 5 |
| **Firm AUM** | €759 billion | **Real Estate AUM** | $67.8 billion |

773

## COMPARATIVE ADVANTAGES

1. Strong Industrial Track Record
   - RREEF's U.S. industrial track record is strong on both an absolute return and relative return basis over all measurement periods (compared to NPI Industrial sub-index).
   - Over the trailing twelve-month period, CPIF's generated a 18.79% gross return, outperforming NPI Industrial by +468bps.

2. Experienced Team
   - DWS/RREEF is a multi-decade manager of institutional real estate held in comingled funds and separate accounts. The Fund is staffed with one seasoned portfolio manager and one new portfolio manager, each of whom have worked within the industry for over 22 years. Darrel Campos is the lead portfolio manager for the Fund with 100% of his time dedicated to the Fund and has been with RREEF for 23 years. Catherine Minor is a recent addition to the team, filing the role of senior portfolio manager, but also has prior experience at RREEF during a previous 5-year stint at the firm in a development manager role.
   - The Fund's management team leverages RREEF/DWS's experienced research & strategy team and transaction teams to identify target markets. DWS has a dedicated Value Add & Development team, which formulates strategy & executes for both their separate accounts and comingled funds. Over the past 45 months, DWS has completed, constructed, or committed to 20 industrial ground-up development projects totalling $1.7 billion and approximately 8 million rentable square feet.

3. Favorable View on Industrial
   - Townsend continues to view the industrial property type favorably as do many institutional investors and research groups. E-commerce driven changes and resultant increases in demand for warehousing and logistics facilities is an ongoing multi-year tailwind behind thematic investment in the property type. YOY, e-commerce grew 32.1% despite a global recession, while retail consumption grew only 6.9% total. The targeted property types' inherent exposure to the evolution of e-commerce, a long-term demand driver, gives it potential for relative outperformance.

4. Development Accretive to Risk Adjusted Returns
   - The Fund targets up to 50% non-core and up to 25% speculative (<50% pre-leased) development. Given where pricing is for core industrial assets, this development component provides an attractive entry point for a long-term hold strategy as compared to buying at market pricing.
   - The Fund manages near the 25% speculative development limitation as it builds scale in order to take advantage of the market dynamics and the impact that development will have on its relatively small NAV (compared to other U.S. open-end industrial funds).
   - Development yield spreads are 50-150 basis points wide of stabilized yields, depending on market. With national vacancy levels at historic lows and supply/demand remaining in balance, this yield premium is still attractive to long-term core investors.
   - DWS has in-house development capabilities with a dedicated Value-add and Development team. CPIF leverages these in-house capabilities to underwrite and/or execute value-add activities. Consistent with most institutional fund strategies, particularly in the open-end space, the Fund will generally partner with local development partners to execute its development strategies. Those development partners are generally incentivized with fee and promote structures.

## POTENTIAL ISSUES AND CONCERNS

1. Limited Liquidity
   - As a relatively new open-end fund, CPIF does not have the requisite size to provide the liquidity it is supposed to offer as an open-end fund. Additionally, investors will also have to accept a 2-year initial lock-up period.

**Discussion**: RREEF has shown fundraising momentum for CPIF with $525 million of capital commitments received in just 1Q21 alone and a capital entry queue of $462 million as of April 2021. The two-year lockout is standard for new open-end funds, though typically come with a benefit such as fee savings.

2. Speculative Development Risk
   - Up to 25% of the Fund can be invested in speculative development. This is higher than the comparable funds such as Clarion Lion Industrial Trust (15% speculative development cap) and Prologis U.S. Logistics Fund (no speculative development).

**Discussion**: Depending on market conditions and prudent management of the development pipeline, CPIF's higher speculative development cap may continue to enable the Fund to generate superior risk adjusted returns due to the return premium provided by speculative development. Investors will rely on the Fund management which is overseen independent Board of Directors to set the development strategy for the Fund and will outline the limit on speculative development exposure. Depending on market conditions, DWS's House View, and/or input from the Fund's independent Board of Directors, CPIF may implement a development cap lower than 25%. The Board of Directors has full fiduciary responsibility to the Fund's shareholders and is expected to act in the best interests of investors without conflict.

## INVESTMENT MANAGER EVALUATION

| Factor | Comments |
|---|---|
| **Strategy** | The Fund invests in high quality industrial assets via core, transitional, and development investments primarily located in and around U.S. major metropolitan areas with an emphasis on infill locations. Primary return drivers include: market selection, long-term industrial structural factors (e.g. e-commerce), development at a discount to market value, and active asset management of the operating portfolio. The Fund seeks to distribute a quarterly dividend competitive with comparable open-end industrial funds (~4%) with a total return objective to outperform NPI Industrial by 50-100 basis points. |
| **Sponsor** | DWS is a leading asset manager with over €759 billion in AUM as of September 30, 2020. DWS has over 60 years' experience in Germany and across Europe in a full spectrum of investment disciplines. DWS' US real estate investment business was originally founded by RREEF in 1975 and has grown to become one of the largest real estate investment managers globally. DWS has over $67.8 billion in real estate AUM today. |
| **Operational Due Diligence** | The Altus Group manages the Firm's valuation process. The Board maintains responsibility for the valuation policy and may change the frequency of external valuations based upon prevailing market conditions and other relevant factors. The valuation policy is reviewed each quarter and can be modified at the Board's discretion. |
| **Investment Process** | Americas Real Estate Transactions team is led by Tim Ellsworth, a senior leader with 23 years tenure with the firm. Tim's team of Acquisitions Officers are organized along regional lines with specific markets and regional coverage. Acquisition officers are property generalists and as such are responsible for all sectors, including industrial. Acquisitions Officers source both core and non-core investments, originating these opportunities through a variety of sources including but not limited to property owners, real estate brokers, mortgage bankers and investment bankers. |

| | | |
|---|---|---|
| **Fund Structure** | RREEF Core Plus Industrial Lower Fund II L.P., a Delaware limited partnership, was formed on April 10, 2017 and acquired (indirectly through its direct and indirect subsidiaries) its initial investments on June 7, 2017. RREEF Core Plus Industrial Fund L.P., a Delaware limited partnership, will generally participate (directly or indirectly) in investments, alongside any parallel fund, on a pro rata pari passu basis, subject to legal, tax, accounting, regulatory, and other considerations. Currently, the Delaware Fund holds all investments through the Lower Fund. | |
| **Performance** | CPIF has outperformed NFI-ODCE net over 1- and 3-year periods. The fund's industrial focus has driven performance versus the index in the near-term as industrial continues to outperform all other sectors. The Fund's overweight to the Pacific sub-region relative to the benchmark has contributed to the strong outperformance, as the sub-region continues to be one of the benchmark's top performers. | |
| **ESG Policy & Practices** | The Fund is currently rated as Advanced through Townsend's formal ESG process. | |
| **Overall Rating** | **Buy** | CPIF's strategy is to invest in high quality industrial assets via core, transitional, and development investments primarily located in and around U.S. major metropolitan areas with an emphasis on infill locations. The Fund is achieving strong returns when compared to the benchmark while only 2% invested in speculative development, in large part to their allocations to some of the strongest performing MSAs for industrial within the U.S. |

## STRATEGY

- Portfolio Characteristics: CPIF targets high quality industrial assets, primarily distribution and warehouse properties, and seeks to continue constructing a geographically diversified portfolio in major metros with an emphasis on infill locations. The Fund's current portfolio composition is as follows[1]:
  - $1.4 billion in Fund GAV, $1.3 million Fund NAV
  - 18 core, 7 non-core properties
  - Square Feet: 6.9 million total
  - Discount rate: 6.2%
  - Cap Rate: 4.6%
  - WALT: 6.0 years for Core properties
  - Rents: 11.2% below market for Core properties
  - Tenancy: 112 tenants with mix of logistics, consumer retail, manufacturing, and other for Core Properties

- Pipeline: $47 million of recently developments

- Target Markets: Major metros with emphasis on infill locations. Target markets include: Southern California, Bay Area, Seattle, Denver, Chicago, NY/NJ, Atlanta, Dallas, and Miami.

- Current Portfolio Diversification:
  - 67% in coastal markets including Seattle, Southern California, Chicago, and Miami.
  - 33% located in Central PA and New Jersey, both primary distribution hubs[2]

[1] As of 3/31/21 unless otherwise noted
[2] Includes the six pending transactions which were under contract or letter of intent

- Business Plans:
    - Core (Target 75%, Minimum 50%)
        - Invest in high quality industrial assets primarily located in and around major metro areas with good income producing qualities including: high occupancies, manageable lease roll, quality tenants, and good sub-markets. CPIF expects to do single asset and portfolio acquisitions.
    - Non-Core (Target 25%, Maximum 50%)
        - Repositioning*:* Well-located assets that will benefit from capital programs.
        - Lease-up: Under-leased assets that will benefit from active asset management
        - Core with Optionality: Core assets that offer increased return potential as a result of developable land or other property improvements
        - Forward purchases: Commitments to purchase assets prior to development completion once certain de-risking hurdles have been met in order to acquire core at a discount to market value.
        - Lend to Core: Provide construction financing for assets under development with commitment to commit debt to equity at a pre-negotiated price upon certain de-risking hurdles being met (e.g. lease-up, completion). Strategy seeks to provide income during development and acquisition at discount to market value upon stabilization.
        - Development[3]: May include build-to-suit, partially pre-leased, and speculative development. Strategy seeks to provide access to core product at a discount to market value upon stabilization. The Fund may sell development assets or hold as core depending on Fund portfolio strategy.
        - Transitory Markets: Assets in temporarily distressed markets identified by research, asset management and transactions teams.

# SPONSOR

### OVERVIEW

RREEF was established in 1975 to invest in core real estate and has since sponsored several series of such funds and has also managed separate accounts for various U.S. tax-exempt investors. Deutsche Bank acquired RREEF in 2002 to complement its existing real estate asset management business, which at that time was largely focused in Europe and Asia Pacific.

Following the RREEF acquisition, all real estate activities within Deutsche Bank's Asset Management Division were united under the RREEF Real Estate brand. On March 23, 2018 Deutsche Asset Management rebranded to DWS. On the same date, Deustche Bank listed a minority share (21%) in the asset management business through an IPO on the Frankfurt Stock Exchange with Deustche Bank retaining a majority (79%) interest. Part of the rationale for the DWS IPO was to separate DWS and insulate it from volatility associated with the parent company.

DWS's Private Real Estate business sits within the Alternatives platform which also includes Private Infrastructure, Liquid Real Assets, Private Equity, Sustainable Investments, and Hedge Funds. DWS's Alternatives business is headquartered in New York, with U.S. corporate branch offices in San Francisco and Chicago. The RREEF Core Plus Industrial Fund investment team is primarily based in the San Francisco and New York offices. In addition to the three corporate offices, the U.S. real estate asset management organization operates out of nine regional offices in key cities around the country.

[3] Speculative development is capped at 25% of Fund GAV

# RREEF CORE PLUS INDUSTRIAL FUND

## Governance and management team

Fund Governance and Oversight

**Independent Board of Managers**

Americas Real Estate Investment Committee

Todd Henderson
Head of Real Estate, Americas
Board of Managers & Investment Committee
18 30

Portfolio Management Team

Darrell Campos
Lead Portfolio Manager
23 29

Joe Cappelletti
Chief Financial Officer
36 36

Jessica Hamill
Fund Controller
6 12

Portfolio and Asset Management
Property Specialists

Fund Operations
3 investment professionals

Broader Real Estate Resources

| Asset Management | Capital Markets | ESG & Sustainability | Global Client Group | Operations | Research & Strategy | Transactions |
|---|---|---|---|---|---|---|

Source: DWS. Years with firm/industry as of December 31, 2020.

# Years with firm  # Years with industry

# PRIVATE REAL ESTATE LEADERSHIP TEAM—AMERICAS

## Senior leaders average 18 years with the firm and 30 years with the industry

**TODD HENDERSON (CEO)**
Head of Real Estate, Americas
18 30

| Marc Feliciano (CIO) | Tim Ellsworth | Mike Nigro | Laura Gaylord | Vikram Mehra |
|---|---|---|---|---|
| Portfolio Management and Asset Management | Transactions | Value Add & Development | Client Coverage | COO |
| 16 28 | 23 38 | 16 24 | 18 36 | 16 22 |

**INVESTMENT FUNCTIONS[1]**

| Portfolio Management[2] | Transactions | Asset Management | Research & Strategy | ESG[3] | Central Functions |
|---|---|---|---|---|---|
| 48 employees | 16 employees | 39 employees | 7 employees | 4 employees | 19 employees |

(1) As of September 30, 2020.
(2) Includes personnel of real estate debt team.
(3) Includes three external employees.
Source: DWS. As of December 31, 2020. Years with firm/industry as of December 31, 2020.

Years with firm # Years with industry #

## OPERATIONAL RISK PROFILE

An Aon specialist team is reviewing the Sponsor's policies, procedures, and capabilities across a range of operations, middle and back office, and control functions including: (i) corporate governance, (ii) trade/transaction execution, (iii) cash controls, (iv) valuation, (v) compliance, regulatory, legal, and controls testing, (vi) counterparty risk oversight, (vii) business continuity/disaster recovery, and (viii) cyber security.

RREEF America L.L.C. is a majority-owned subsidiary of DWS, the investment management arm of Deutsche Bank AB, a publicly-traded global investment bank. The Manager generally demonstrates a well-controlled operating environment, including appropriate governance and oversight structures, regulatory compliance capabilities, and technology and security protocols. The firm implements highly automated processes, and all functions are well-monitored and controlled. The Manager utilizes commercially viable technology and applications including trading, accounting, order management, and compliance systems that allow for a high degree of straight through processing. These controls and processes drive the A1 Pass rating.

## INVESTMENT PROCESS

The Fund Team has the primary responsibility for investment decision-making for the Fund, along with the Investment Committee. The CPIF Board of Directors approves the Annual Strategic Investment Plan. All Investment Committee decisions for the Fund must be approved unanimously.

Summary of Acquisition Process:

- Sourcing: Based on acquisition criteria from the CPIF Annual Strategic Investment Plan as updated by the portfolio management team, members of the transactions team go out and source suitable investments. Acquisitions Officers operate regionally and are property generalists. They continually visit their designated markets to meet with developers, owners, brokers, and bankers to communicate acquisitions criteria to keep current on market conditions.
- Screening: Once a property is identified that meets client objectives, the property is logged into the Transactions group's weekly report that summarizes the status of all potential acquisitions. Weekly calls are held between members of Transactions, Portfolio Management, Asset Management, and Investment Committee to update participants on the status of potential acquisitions.
- Underwriting: Potential transactions are put through an initial underwriting by the Acquisitions Officer with input from Research and Asset Management. An LOI is submitted after the initial underwriting. In concert with the LOI, a preliminary memo is prepared to further socialize the opportunity among Investment Committee and Portfolio Management. Based on feedback from Investment Committee and Portfolio Management, cash flow assumptions are revised and a best and final LOI is submitted.
- Allocation: If the LOI is accepted, the Acquisitions officer prepares an extension of the preliminary investment memo which fully considers investment returns, risk, and timing. This memo is presented to portfolio managers for allocation.
- Due Diligence: Once allocated, the Transactions group coordinates formal due diligence which includes: legal, physical, financial, market, portfolio, and compliance.
- Approval: At completion of due diligence, the Acquisitions Officer makes a formal presentation to the Investment Committee who are already educated on the deal since they have been updated throughout due diligence via the weekly transaction review meeting and Investment Committee meetings.

Asset Management:

- Geographically focused asset managers that specialize in property type enables deep market knowledge which is used to properly position properties and negotiate leases to drive value
- Asset management group includes engineering teams to assist Asset Managers with capital expenditures, environmental, and structural issues.
- Property Management is outsourced to third parties and overseen by Asset Management.

Dispositions:
- The decision to sell a property originates from the Fund Team who has primary responsibility to ensure the Fund's objectives are met.
- Through the Annual Strategic Investment Plan and valuation process, each property is reviewed against the investment objectives. Using market profiles and property specific characteristics, the Fund Team determines whether to present a property for sale to Investment Committee.
- Once identified for sale, a property is presented to IC which reviews the recommendation and decides whether to assign the property to the Transactions team for sale.

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# FUND STRUCTURE

## OVERVIEW

CPIF is a U.S. open-end industrial fund structured with various entry points depending on the tax status of the investor. The Fund's investments will be held indirectly through various holding structures in one or more entities.

## REVIEW OF TERMS & CONDITIONS

| Key Terms | |
|---|---|
| **Target Return:** | NPI Industrial + 50-100 bps, gross at Fund level |
| **Cash Distributions** | None |
| **Investment Management Fees** | Less than $25mm: 1.15%<br>Next $50mm: 0.95%<br>Next $75mm: 0.85%<br>Next $75mm: 0.75%<br>Thereafter: 0.65% |
| **Other Fees** | Fund may be charged up to $2.0M and amortized over 5 years |
| **Performance Fees** | 15% of total profits after a return of capital and an 8% preferred return at the end of each three year incentive period, calculated at LP level.<br><br>Payment subject to a 25% holdback which will be paid out at the end of the next three year measurement period if the hurdle is met. |
| **Debt Mark-to-Market** | None |
| **Redemption Policy** | 2-year initial lock up period |

## ENTRY AND EXIT PROCESS

*Entry:* The Fund is restricted to accredited investors, open for investment to endowments, foundations and taxable investors. Investors are required to complete a subscription agreement, which will be reviewed by RREEF. Initial subscriptions must be in the minimum amount of $5 million.

*Exit:* Investors must submit notification via email or hard copy letter to the Fund and give two months' notice prior to quarter-end. Absent a redemption queue, the trade date occurs at quarter end. The Fund allocates funds being used to satisfy redemption requests proportionately among all redeeming investors (pro-rata).

## PERFORMANCE

RREEF began to pursue industrial warehouse development (in addition to its core industrial strategies) in 1997. In order to demonstrate the firm's track record in both core and development, the track record in Figure 11 has been presented from 1997 onward. RREEF's U.S. industrial track record is strong on both an absolute return and relative return basis over all measurement periods (compared to NPI Industrial sub-index).

The Fund has a shorter track record since its inception was only July 2017. Over the trailing twelve-month period, CPIF's generated a 18.8% total gross return, outperforming the NPI Industrial by 468 basis points and exceeding the Fund's goal of 50-100 basis points. One likely contributor to the Fund's success over the benchmark is the 64% allocation to the Pacific sub-region, which has consistently been one of the benchmark's top performers over the past year, delivering a total return of 14.8%. The Fund is currently overweight this sub-region relative to the benchmark by 22% and has significant exposure to several of the sub-region's top gateway markets including San Diego (15%), Seattle (14%), and Los Angeles (12%), which saw total trailing 12-month returns of 14.9%, 13.4%, and 11.3%, respectively, during 2020.

The trailing 12-month same store net operating income for fourth quarter 2020 was up 3 percent from fourth quarter 2019, which is reflective of positive leasing activity, including earlier than anticipated lease-up of vacant spaces, achieving higher rents, and providing fewer concessions than anticipated. Additionally, the Fund's weighted average IRR and Exit cap rate have compressed 22 basis points and 19 basis points, respectively, due to continued strong investor demand for industrial product within the Fund's existing market exposures. Compared to year-end 2019, the Fund's core portfolio weighted average going in cap rate decreased 19 basis points. This has led to a growth in the Fund's Gross Real Estate market values of 23%.

## ESG POLICY & PRACTICES

DWS has well defined ESG policies, which are interwoven into the Firm's Sustainability House Views consisting of (1) Data Collection, (2) Implementation, (3) Goal Setting, and (4) Measurement. The Firm published their ESG Policy in 2020; however, it's worth noting that this policy was derived from DWS' Standards of Sustainability first published in 2011 and DWS' Sustainability House Views published in 2015. The firm maintains an annually reviewed code of ethics, DEI policy, non-discrimination policies, and code of conduct, all of which require annual training by DWS employees.

In 2017 the Responsible Investment Leadership Team ("RILT") took charge of overseeing the development and implementation of the global ESG and responsible investment strategy across DWS. The RILT is chaired by the Head of Responsible Investments and consists of the CIO for Responsible Investments and senior representatives from coverage, marketing, product, communications, corporate strategy and transformation, and human resources. The RILT meets regularly to discuss issues and initiatives across the Firm relating to ESG and sustainability. The Head of Responsible Investments reports to the DWS Executive Board member who also serves as the Global Head of Client Coverage. In regard to DWS staff, approximately 27% of executive positions at the firm management level were held by women, up from 22% in 2019.

ESG considerations are evaluated by DWS at all stages of the real estate investment cycle from acquisition, throughout the hold period, and at disposition. DWS employs a strategy of continuous evaluation of ESG considerations after acquisition with the goal of improving the value of the asset through reduction of energy and water consumption, effective waste diversion practices, health and wellness programs, third-party green labels and certifications, and asset hardening through climate risk and resiliency assessments. Specifically, DWS invests in technical building assessments during the hold period. Assessments are conducted both internally by DWS staff as well as by qualified third-party vendors and consultants, such as Measurabl. These technical building assessments are deployed to assess risks related to climate change, GHG emissions, energy efficiency, tenant engagement strategies such as transportation, waste management, and water savings. Since the

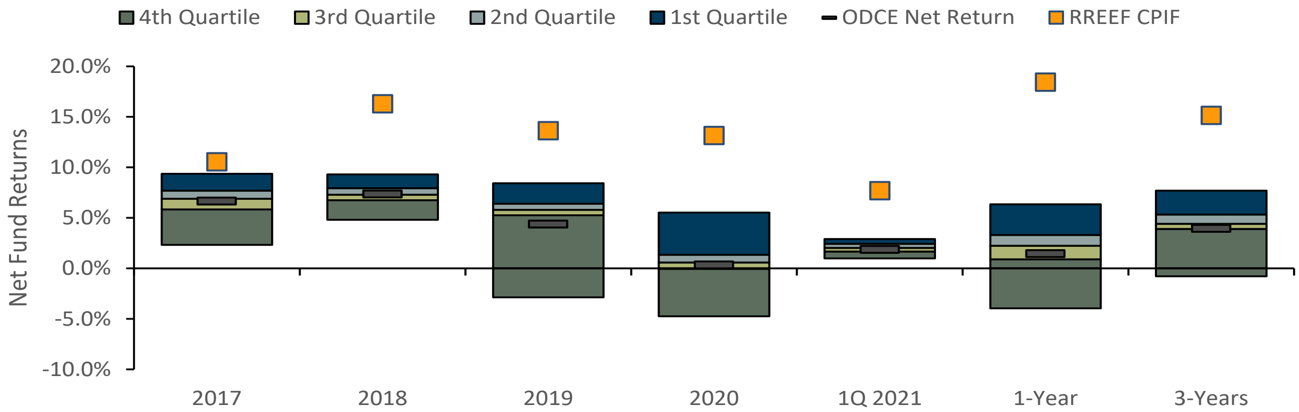
beginning of 2016, all DWS properties are required to choose a feasible efficiency measure assessment and add the recommended project to the budget.

The Fund is in its infancy stage with regard to submitting to GRESB, first reporting in 2020. It should be noted that a fund's first report with GRESB typically receive a relatively poor score; however, CPIF scored well relative to its industrial peers. For new funds, progressive improvement in subsequent years' reports should be a strong indication of the Fund's advancement. Additionally, the Firm was an early adopter of the Principals for Responsible Investment ("PRI"), becoming a signatory in 2008. Since 2008, DWS has scored inline or better than the median PRI signatory, with this past year's assessment scored an A+. Furthermore, DWS is a member or signatory of the Task Force for Climate Related Financial Disclosures, the Urban Land Institute, Climate Disclosure Project, UK Sustainable Investment and Finance Association, NAREIT Sustainability Council, Ceres, and many more.

Based on the above referenced factors, we have concluded CPIF's ESG rating to be "Advanced". DWS' commitment to ESG dates back to 2008 when the firm became a signatory of PRI. Additionally, the Firm stands out amongst its peers in that DWS has dedicated team to oversee the Firm's ESG initiatives. CPIF's partnership with GRESB is relatively new, and even so, in 2020 CPIF scored relatively well amongst the industrial fund peer set, further supporting the "Advanced" rating.

# APPENDIX

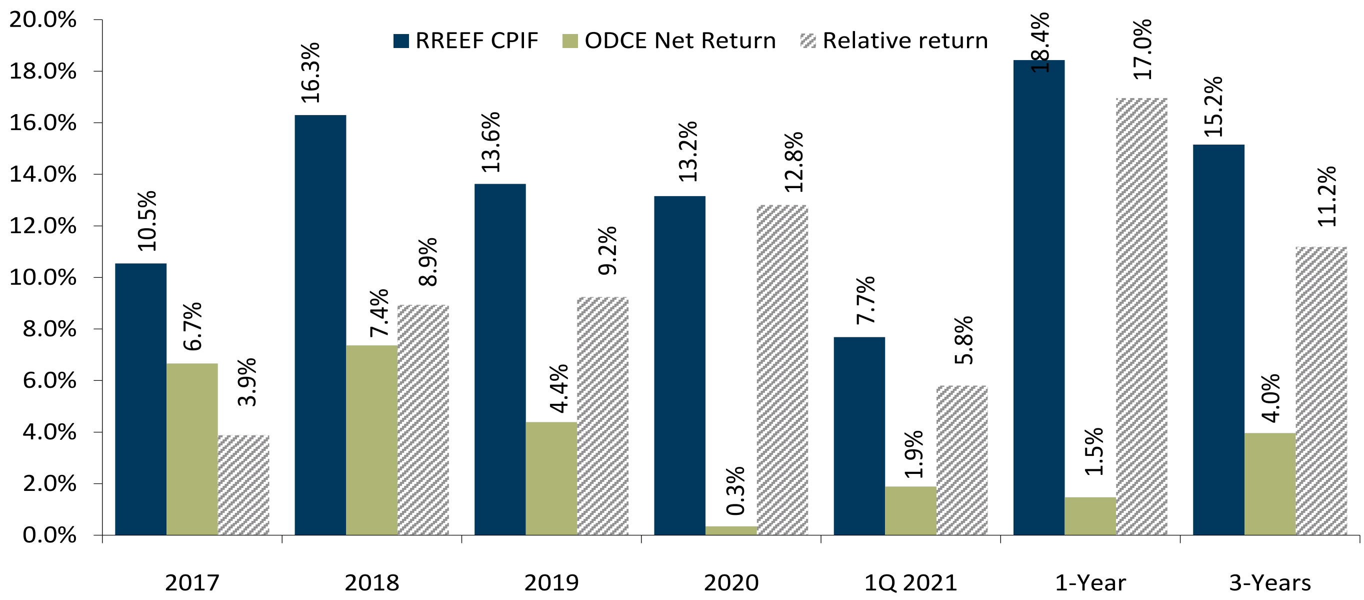
***Historical Performance Quartiles** – As of March 31, 2021*



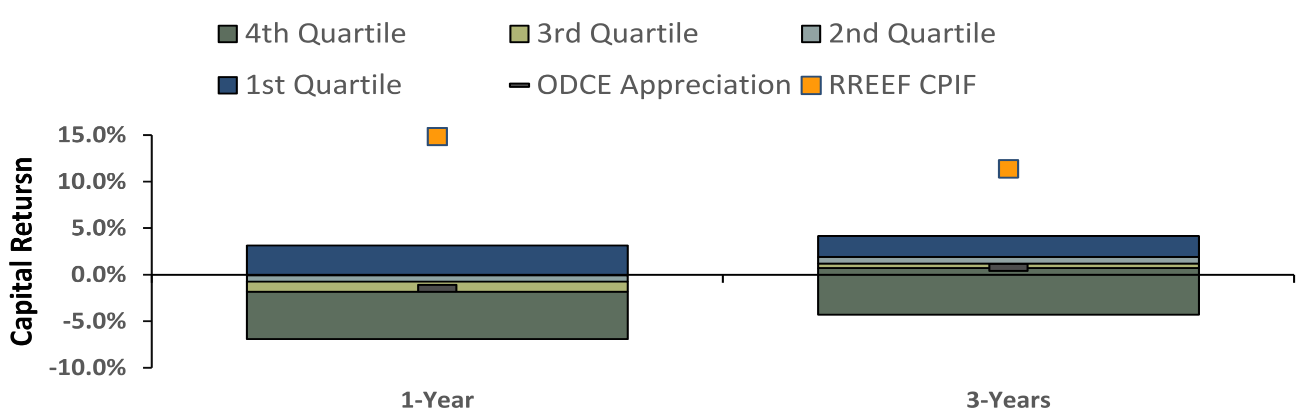

**Source: Townsend U.S. Open-Ended Core Fund database as of March 31, 2021. Range shown is 95th to 5th percentile.**

783

***Historical Relative Fund Performance –** As of March 31, 2021*

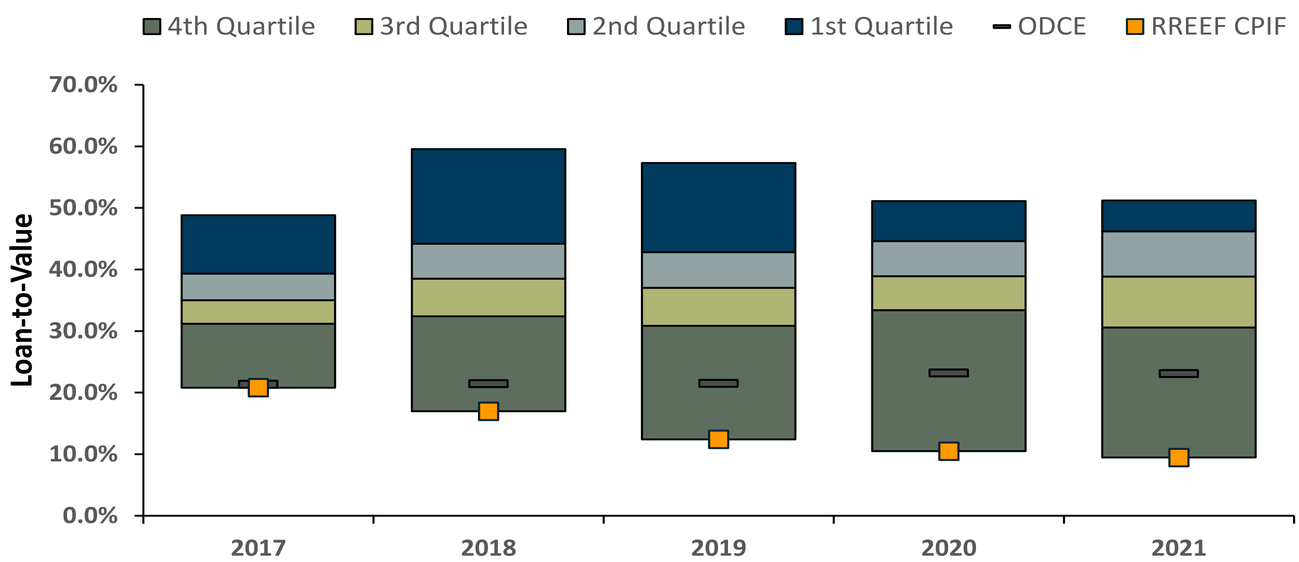



***Capital Return (Appreciation) Historical Performance Quartiles –** As of March 31, 2021*

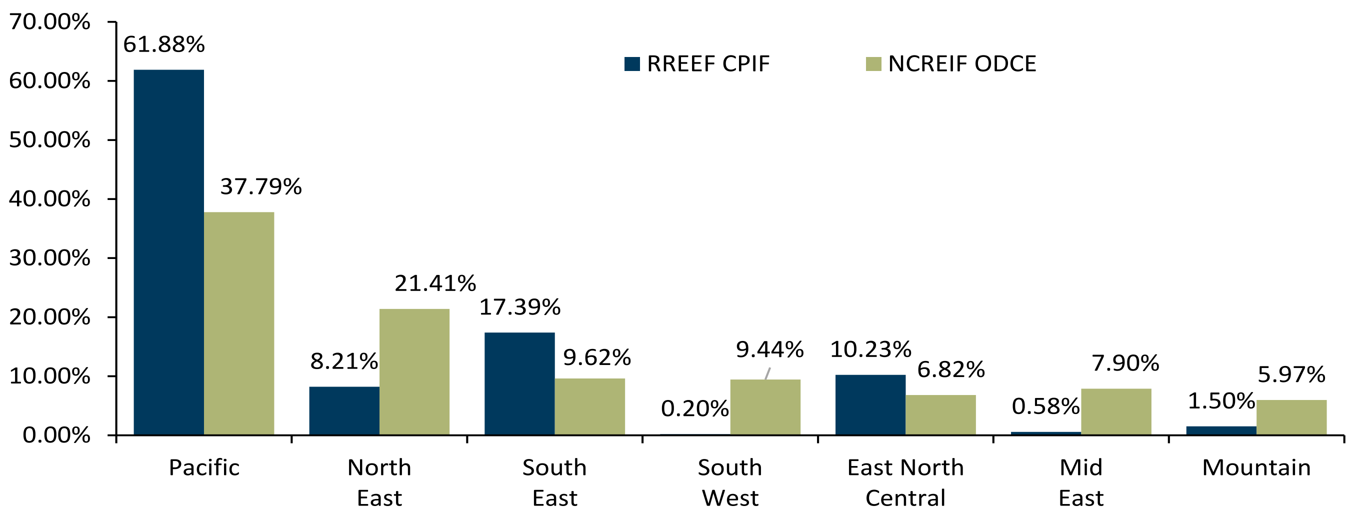



784

***Progression of Leverage –*** *As of March 31, 2021*




***Fund Diversification*** *– As of March 31, 2021*




785

***Top 10 U.S. Market Exposures*** *–As of March 31, 2021*

| MSA | % Total Fund NAV |
|---|---|
| Miami-Fort Lauderdale-Pompano Beach, | 17.6% |
| Los Angeles-Long Beach-Santa Ana, CA | 15.1% |
| San Diego-Carlsbad-San Marcos, CA | 14.9% |
| Seattle-Tacoma-Bellevue, WA | 11.2% |
| Chicago-Naperville-Joliet, IL-IN-WI | 10.4% |
| Portland-Vancouver-Beaverton, OR-WA | 9.6% |
| Riverside-San Bernardino-Ontario, CA | 7.1% |
| Trenton-Ewing, NJ | 5.9% |
| San Jose-Sunnyvale-Santa Clara, CA | 3.7% |
| York-Hanover, PA | 2.3% |

## Top Ten Assets (by MV)

| Property | City | State | $MV |
|---|---|---|---|
| **Vantage Point** | Poway | CA | 186,100,000 |
| **Portland Distribution Center** | Portland | OR | 123,200,000 |
| **Olympia** | Kent | WA | 107,318,000 |
| **Centergate at Gratigny - Phase I** | Hialeah | FL | 100,900,000 |
| **Centergate at Gratigny - Phase II** | Hialeah | FL | 96,400,000 |
| **9050 Hermosa** | Rancho Cucamonga | CA | 90,700,000 |
| **159 Milford** | East Windsor | NJ | 75,300,000 |
| **Jefferson Industrial** | Elk Grove Village | IL | 55,700,000 |
| **Nelson Business Park** | City of Industry | CA | 52,100,000 |
| **111 Uranium** | Sunnyvale | CA | 47,700,000 |

## Investment Rating Explanation

The comments and assertions reflect Townsend views of the specific investment product and its strengths and weaknesses in general and in the context of Townsend's *View of the World* and same vintage alternative choices.

**Buy** – Townsend recommends the investment for those client portfolios where it is a fit.

**Qualified** – Townsend believes the sponsor to be qualified to manage client assets.

## Operational Risk Profile Rating Explanation

| Rating | Definition |
|---|---|
| ✓+ | Aon completed its review process and noted no material operational concerns within the areas it reviewed and finds that these aspects of the firm's operations largely align with a well-controlled operating environment. |
| ✓ | Aon completed its review process and the firm's operations within the areas Aon reviewed largely align with a well-controlled operating environment, with limited exceptions. Managers may be rated within this category due to resource limitations or asset class limitations or where isolated areas do not align with best practice. |
| No Rating | Aon was unable to complete its review process due to incomplete information, policies and procedures that are under development or in transition, or for other reasons. Aon may review the rating if these items are addressed. |
| ✓- | Aon completed its review process and noted material operational concerns that introduce the potential for economic loss or reputational risk exposure. |

### About Townsend Group – An Aon Company

Founded in 1983, The Townsend Group provides custom real asset solutions that help clients worldwide achieve their unique investment goals. As an Aon company, The Townsend Group is now part of one of the top three outsourced chief investment officer (OCIO) providers in the world measured by global assets under management. Aon's Investment organization, including Townsend, manages more than $130 billion of worldwide assets under management and has advised on more than $240 billion of real estate assets.

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-47**

## Approving Investment in RREEF Core Plus Industrial Fund L.P.

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its real assets investment consultant, Aon Hewitt Investment Consulting, Inc., along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **RREEF Core Plus Industrial Fund L.P.,** an open-ended core plus fund that invests in high quality industrial real estate assets in U.S. major metropolitan areas.

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$70 million dollars ($70,000,000.00)** in **RREEF Core Plus Industrial Fund L.P** The total investment amount is to be determined by the real assets investment consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED,*** That the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 27th day of September, 2021.**

________________________________
**Mr. Danny Knight,** ***Chair***
***Arkansas Teacher Retirement System***

FRANKLIN PARK

# Arkansas Teacher Retirement System
# Private Equity Portfolio Review

March 31, 2021

# Table of Contents

## Executive Summary

**Portfolio Summary**

Since establishing the private equity program in 1996, Arkansas Teacher Retirement System ("ATRS") has committed approximately $5.5 billion to 88 primary funds, 26 fund-of-funds, 1 co-investment fund, and 12 direct investments through March 31, 2021. Of the $5.5 billion committed, 86% has been contributed, 111% of contributed capital has been returned, and a total value of 1.6 times contributed capital has been generated. ATRS' portfolio has outperformed the Dow Jones U.S. Total Stock Market Index equivalent ("PME") by 40 basis points since inception.

Investment Activity

For the three months ended March 31, 2021, ATRS made capital contributions of app0roximately $83.1 million and received distributions of $410.8 million, for net distributions of $327.7 million.

Commitment Activity

Since January 1, 2021, ATRS closed on $30.0 million commitments to both Greenbriar V and Alpine Investors VIII. Additionally, ATRS approved a $30.0 million commitment to Revelstoke III, which remains pending.

**Market Commentary**

COVID-19 Update

The COVID-19 outbreak continues to affect private capital markets, including fund manager operations, economic conditions, capital market activity, portfolio management, and fundraising.

U.S. Private Equity

Despite the pandemic conditions, the past two quarters have produced PE investment activity well in excess of the quarterly averages since 2015. Fundraising has also continued at a healthy pace, with Q1 totals putting 2021 on pace to exceed 2020 levels and approach the post-crisis peak of 2019. Pricing and leverage also continue to climb, with median entry multiples at 11.5x EBITDA and median leverage multiples in excess of 6x EBITDA.

U.S. Venture Capital

U.S. Venture Capital activity continues to accelerate through the pandemic across all facets of the industry. The $69 billion of investment activity in Q1 represents nearly half of total deployment during 2018 and 2019. Similarly, the $33 billion aggregate capital raised is more than half of the $60 billion raised in all of 2019 and puts 2021 on pace to exceed the record total of $80 billion raised in 2020. Exit activity is also on a historic pace with Q1 2021 activity nearly exceeding the liquidity generated in all of 2018.

Franklin Park

August 17, 2021

## Portfolio Overview

## Portfolio Summary

FRANKLIN PARK

| Group | Num. | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | Remaining Value (%) | Exposure ($) | DPI | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **By Vehicle** | | | | | | | | | | | |
| 1996-2000: Legacy Portfolio | 13 | 1,106,390,461 | 1,070,676,238 | 0 | 1,639,782,207 | 422,096 | 0.0% | 422,096 | 1.5 x | 1.5 x | 9.2% |
| 2005-2006: CSFB Portfolio | 2 | 654,300,000 | 688,031,545 | 65,028,757 | 990,461,473 | 127,708,031 | 4.6% | 192,736,788 | 1.4 x | 1.6 x | 9.1% |
| Post 2006 Fund Portfolio | 100 | 3,223,323,718 | 2,448,143,000 | 1,179,996,962 | 2,167,663,882 | 2,299,709,372 | 82.9% | 3,479,706,335 | 0.9 x | 1.8 x | 17.6% |
| Big River Steel | 8 | 257,880,449 | 257,940,356 | 0 | 409,273,903 | 20,632,303 | 0.7% | 20,632,303 | 1.6 x | 1.7 x | 14.4% |
| Blue Oak Arkansas | 1 | 18,000,000 | 19,740,000 | 0 | 5,385,136 | 0 | 0.0% | 0 | 0.3 x | 0.3 x | -34.8% |
| Highland LLC | 2 | 218,244,727 | 234,114,727 | 0 | 31,674,525 | 284,738,219 | 10.3% | 284,738,219 | 0.1 x | 1.4 x | 19.0% |
| GTLA Holdings | 1 | 20,000,000 | 20,000,000 | 0 | 0 | 40,000,000 | 1.4% | 40,000,000 | 0.0 x | 2.0 x | 30.7% |
| **Total** | **127** | **5,498,139,355** | **4,738,645,866** | **1,245,025,719** | **5,244,241,126** | **2,773,210,021** | **100.0%** | **4,018,235,741** | **1.1 x** | **1.7 x** | **11.6%** |
| **By Fund Type** | | | | | | | | | | | |
| Co-Investment Fund | 1 | 263,823,718 | 267,849,817 | 175,022,736 | 211,369,488 | 249,439,601 | 9.0% | 424,462,337 | 0.8 x | 1.7 x | 18.4% |
| Fund-of-Funds | 26 | 1,394,300,000 | 1,097,585,690 | 391,370,531 | 1,295,340,067 | 920,436,957 | 33.2% | 1,311,807,488 | 1.2 x | 2.0 x | 12.9% |
| Operating Company | 12 | 514,125,176 | 531,795,084 | 0 | 446,333,564 | 345,370,522 | 12.5% | 345,370,522 | 0.8 x | 1.5 x | 14.3% |
| Primary Fund | 88 | 3,325,890,461 | 2,841,415,276 | 678,632,452 | 3,291,198,007 | 1,257,962,941 | 45.4% | 1,936,595,394 | 1.2 x | 1.6 x | 10.8% |
| **Total** | **127** | **5,498,139,355** | **4,738,645,866** | **1,245,025,719** | **5,244,241,126** | **2,773,210,021** | **100.0%** | **4,018,235,741** | **1.1 x** | **1.7 x** | **11.6%** |

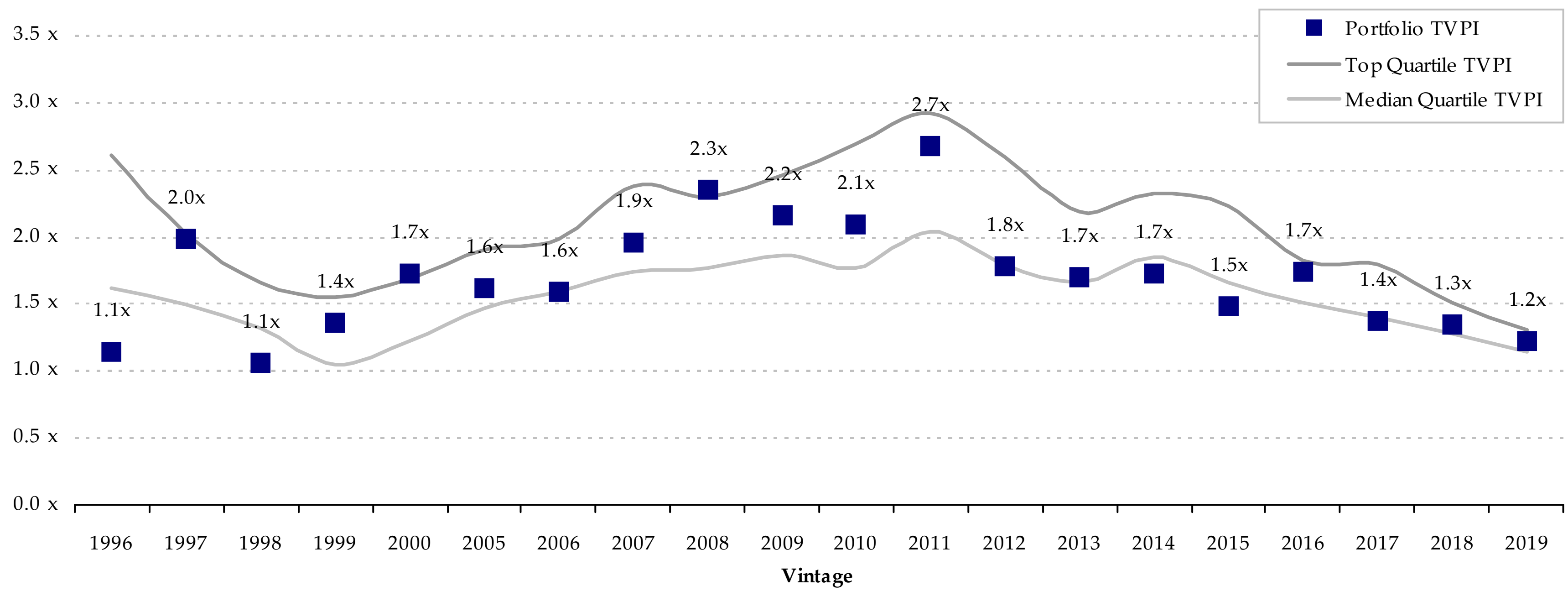
# Portfolio Summary

FRANKLIN PARK

| Group | Num. | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | Remaining Value (%) | Exposure ($) | DPI | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **By Strategy** | | | | | | | | | | | |
| Buyout | 63 | 2,512,390,461 | 2,041,730,596 | 616,157,314 | 2,468,057,900 | 1,017,966,342 | 36.7% | 1,634,123,657 | 1.2 x | 1.7 x | 11.5% |
| Distressed Debt | 3 | 100,000,000 | 93,881,464 | 26,467,703 | 83,834,844 | 50,936,192 | 1.8% | 77,403,895 | 0.9 x | 1.4 x | 7.3% |
| Growth Equity | 3 | 120,000,000 | 87,904,590 | 34,957,033 | 184,079,668 | 63,803,832 | 2.3% | 98,760,865 | 2.1 x | 2.8 x | 20.8% |
| Hard Assets | 12 | 545,744,727 | 541,306,410 | 42,177,211 | 215,006,143 | 435,325,667 | 15.7% | 477,502,878 | 0.4 x | 1.2 x | 7.1% |
| Infrastructure | 8 | 270,880,449 | 272,676,670 | 0 | 406,433,749 | 20,632,303 | 0.7% | 20,632,303 | 1.5 x | 1.6 x | 12.3% |
| Mezzanine | 7 | 285,000,000 | 187,266,547 | 42,652,294 | 214,038,365 | 33,001,926 | 1.2% | 75,654,220 | 1.1 x | 1.3 x | 10.1% |
| Multi-Strategy | 6 | 974,123,718 | 1,022,869,396 | 240,534,493 | 1,230,488,268 | 381,311,956 | 13.7% | 621,846,449 | 1.2 x | 1.6 x | 8.5% |
| Special Assets | 1 | 30,000,000 | 8,497,598 | 21,502,402 | 3,195 | 6,587,838 | 0.2% | 28,090,240 | 0.0 x | 0.8 x | -16.2% |
| Structured Capital | 3 | 85,000,000 | 82,937,149 | 24,021,062 | 41,549,819 | 63,166,895 | 2.3% | 87,187,957 | 0.5 x | 1.3 x | 10.0% |
| Turnaround | 8 | 210,000,000 | 149,850,645 | 87,055,962 | 146,541,514 | 87,668,188 | 3.2% | 174,724,150 | 1.0 x | 1.6 x | 15.1% |
| Venture Capital | 13 | 365,000,000 | 249,724,801 | 109,500,245 | 254,207,661 | 612,808,882 | 22.1% | 722,309,127 | 1.0 x | 3.5 x | 27.2% |
| **Total** | **127** | **5,498,139,355** | **4,738,645,866** | **1,245,025,719** | **5,244,241,126** | **2,773,210,021** | **100.0%** | **4,018,235,741** | **1.1 x** | **1.7 x** | **11.6%** |
| **By Sub-Asset Class** | | | | | | | | | | | |
| Corporate Finance | 102 | 4,619,014,179 | 3,957,125,982 | 1,135,525,474 | 4,543,699,901 | 1,815,030,617 | 65.4% | 2,950,556,092 | 1.1 x | 1.6 x | 10.7% |
| Direct Investments | 12 | 514,125,176 | 531,795,084 | 0 | 446,333,564 | 345,370,522 | 12.5% | 345,370,522 | 0.8 x | 1.5 x | 14.3% |
| Venture Capital | 13 | 365,000,000 | 249,724,801 | 109,500,245 | 254,207,661 | 612,808,882 | 22.1% | 722,309,127 | 1.0 x | 3.5 x | 27.2% |
| **Total** | **127** | **5,498,139,355** | **4,738,645,866** | **1,245,025,719** | **5,244,241,126** | **2,773,210,021** | **100.0%** | **4,018,235,741** | **1.1 x** | **1.7 x** | **11.6%** |

- Remaining Value is defined as the investor's value as reported by the fund's manager.
- Exposure is defined as the sum of the investor's Remaining Value plus Unfunded Commitment.
- DPI is the ratio of Distributed Capital to Contributed Capital.
- TVPI is the ratio of Distributed Capital plus Remaining Value to Contributed Capital.
- Net IRR is defined as the annualized, compound rate of return using daily draws, distributions and Remaining Value as of the Report Date, net of fees and expenses, including late closing interest.
- Results include fully liquidated investments (if applicable).
- Commitments made in a foreign currency have been converted into U.S. dollars using an exchange rate as of the Report Date.

## TVPI by Vintage

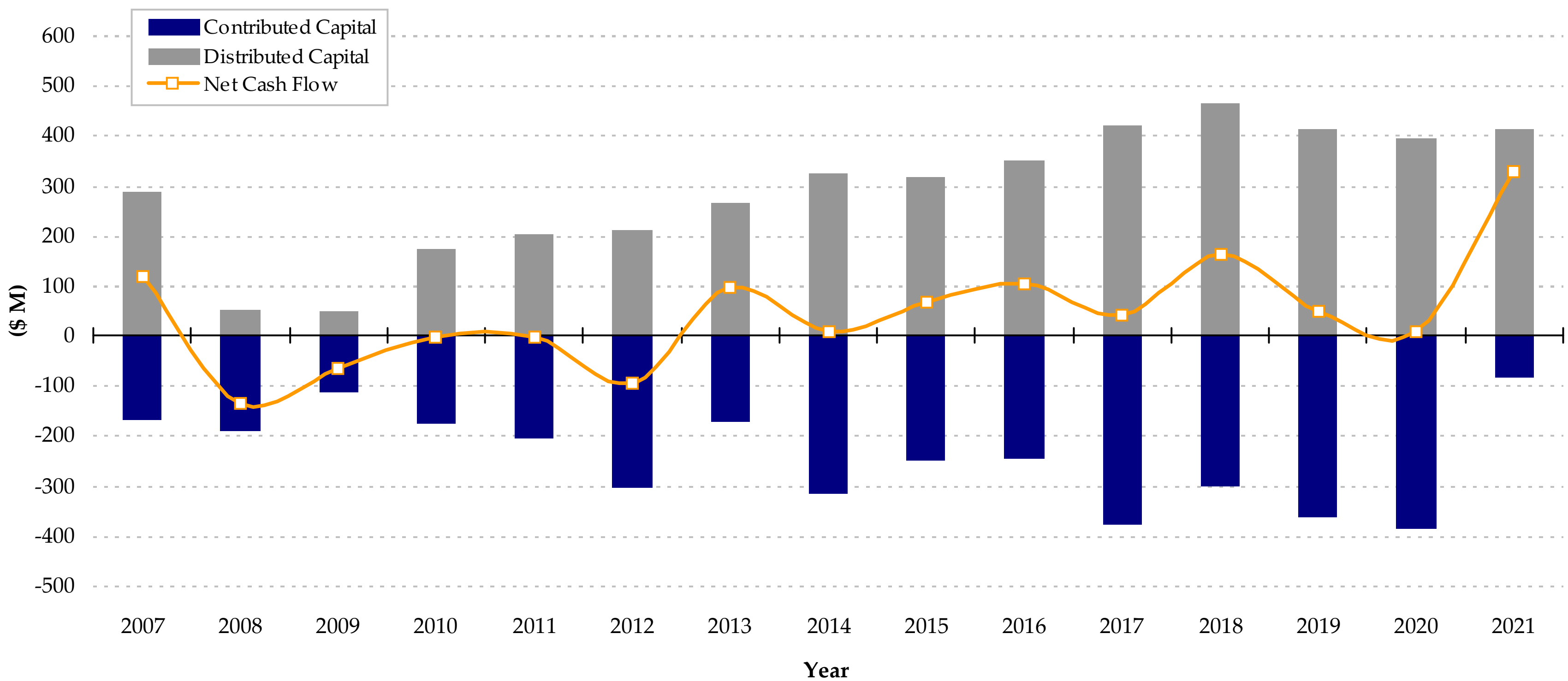



## Net IRR vs. PME vs. Cambridge Associates: U.S. All Private Equity

| Calculation Set | 1-Year | 3-Year | 5-Year | 10-Year | Inception |
|---|---|---|---|---|---|
| Aggregate Portfolio | 37.4% | 21.8% | 19.4% | 15.9% | 11.6% |
| DJ US TSM TR Index* Public Market Equivalent | 72.3% | 16.7% | 16.3% | 13.5% | 7.6% |
| Cambridge Associates: U.S. All Private Equity | 33.5% | 21.6% | 17.9% | 16.1% | N/A |
| Post 2006 Fund Portfolio | 53.3% | 24.1% | 21.1% | 18.0% | 17.6% |
| DJ US TSM TR Index* Public Market Equivalent (Post 2006 Fund Portfolio) | 71.5% | 16.7% | 16.2% | 14.2% | 14.0% |

** The Dow Jones U.S. Total Stock Market Total Return Index measures all U.S. equity securities that have readily available prices and is calculated with dividend reinvestment.*

- Benchmark TVPI represents vintage year first quartile per Cambridge Associates, as of December 31, 2020. The portfolio is compared to data compiled across multiple strategies including U.S. Buyout, Growth Equity, Venture Capital, Mezzanine, Distressed, Fund-of-funds, and Secondary funds.
- Net IRR is defined as the annualized, compound rate of return using daily draws, distributions and Remaining Value as of the Report Date, net of fees and expenses, including late closing interest.
- The public market equivalent (PME) represents the performance of a public market index expressed in terms of an IRR, using the same cash flows and timing as the investor's investment activity in private equity. The PME serves as a proxy for the return the investor could have achieved by investing in the public market. The PME return assumes cash flows are invested at the end of each day.
- Cambridge Associates: U.S. All Private Equity reflects the pooled net IRR based on data compiled from Cambridge Associates as of December 31, 2020.
- Benchmark data is not available (N/A).

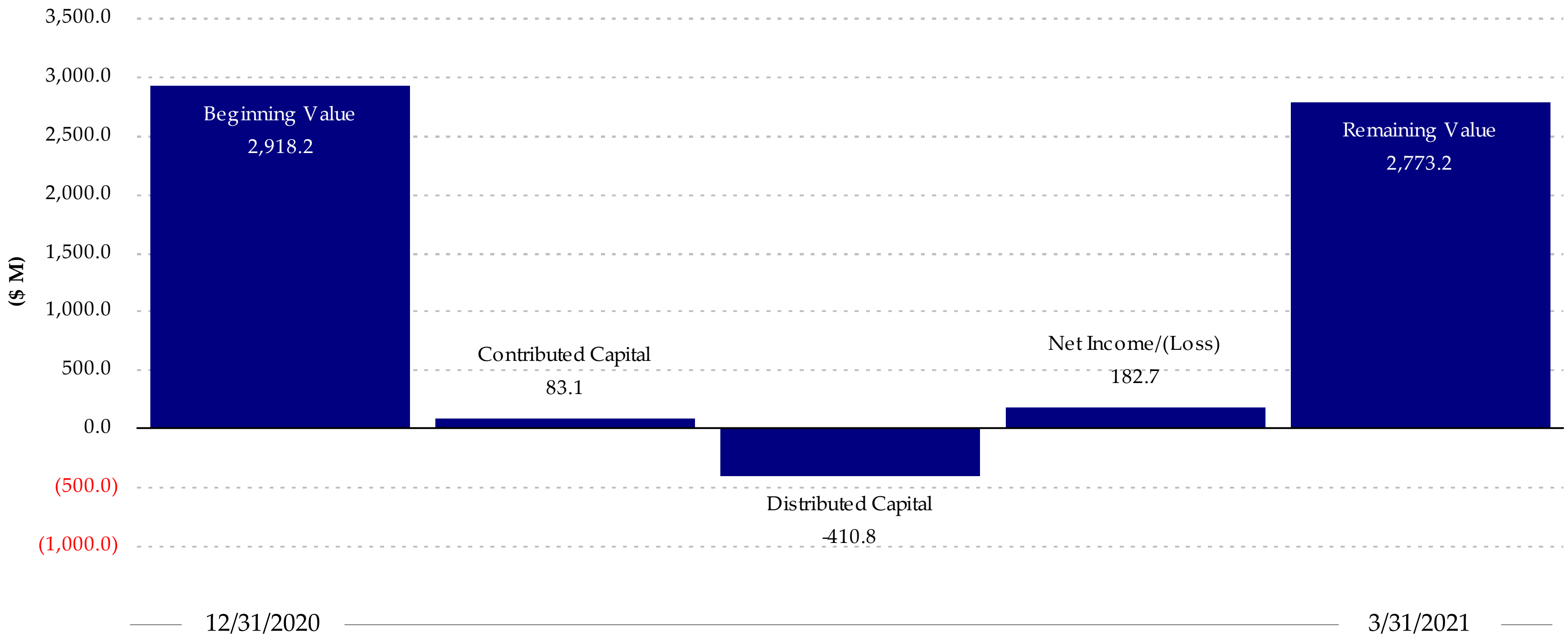



**2021 ($)**

| Distributed | Contributed | Net Cash Flow |
|---|---|---|
| 410,804,883 | -83,132,121 | 327,672,763 |

- Cash flow data was compiled through the Report Date.

## Quarterly Portfolio Activity




| | |
|---|---|
| Percent Change in Value | 6.3% |

- Beginning Value represents the aggregate Remaining Value of the portfolio as of the prior quarter-end.
- Percent Change in Value is calculated by dividing Net Income / (Loss) by Beginning Value.

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## Commitments for Year Ended December 31, 2020

| Fund | Strategy | Date | Commitment ($) |
|---|---|---|---|
| Thoma Bravo Explore I | Buyout | Jan 2020 | 20,000,000 |
| FP Venture XIII | Venture Capital | Feb 2020 | 60,000,000 |
| BV X | Buyout | Feb 2020 | 30,000,000 |
| FP Intnl X | Buyout | Mar 2020 | 30,000,000 |
| Greyrock V | Mezzanine | Apr 2020 | 35,000,000 |
| Thoma Bravo XIV | Buyout | May 2020 | 20,000,000 |
| Thoma Bravo Discover III | Buyout | May 2020 | 20,000,000 |
| LLR VI | Growth Equity | Sep 2020 | 30,000,000 |
| **Total** | | | **245,000,000** |

## Year to Date Commitments as of August 17, 2021

| Fund | Strategy | Date | Commitment ($) |
|---|---|---|---|
| Greenbriar V | Buyout | Feb 2021 | 30,000,000 |
| Alpine Investors VIII | Buyout | Aug 2021 | 30,000,000 |
| **Total** | | | **60,000,000** |

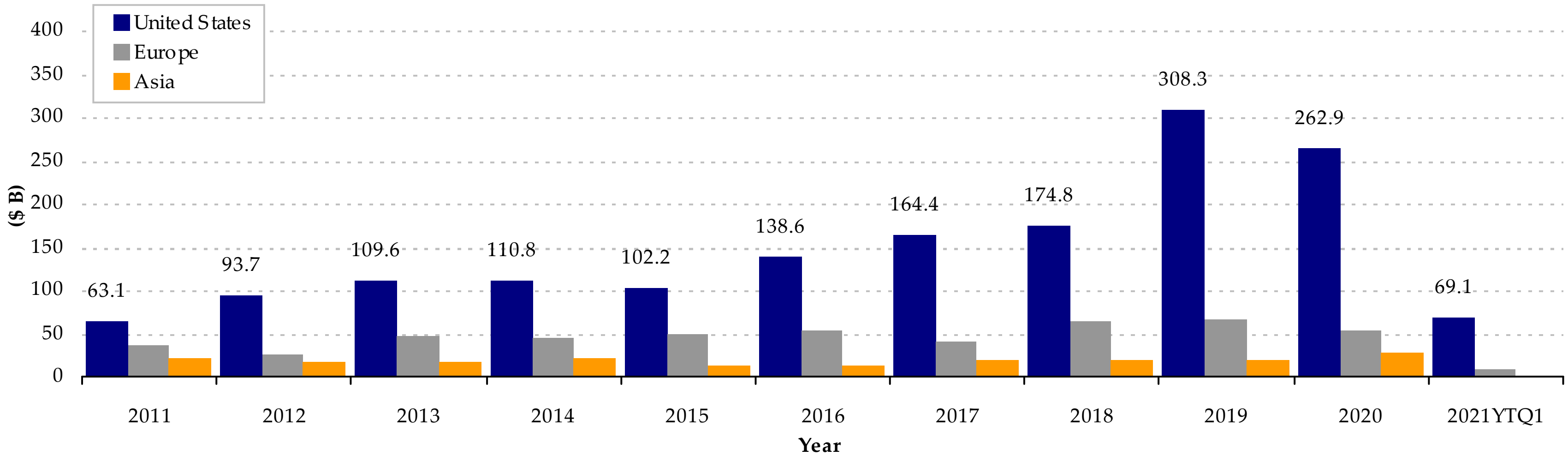
## Approved and Pending Commitments as of August 17, 2021

| Fund | Strategy | Date | Target Commitment ($) |
|---|---|---|---|
| Revelstoke III | Buyout | N/A | 30,000,000 |

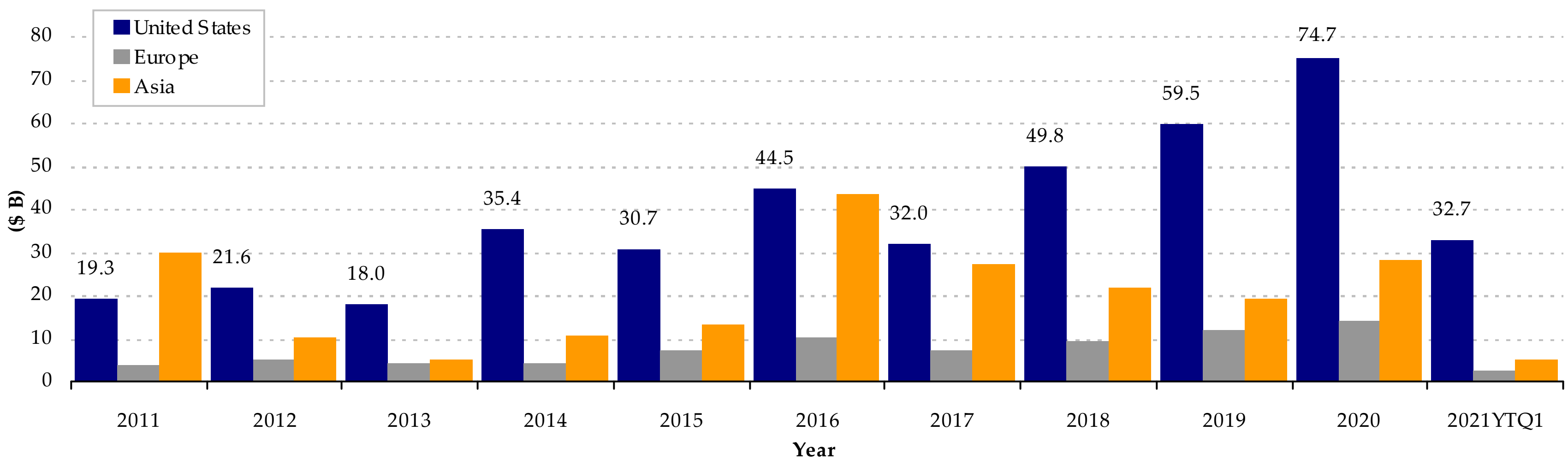
- Commitments made in a foreign currency have been converted into U.S. dollars using an exchange rate as of the Report Date, if applicable.
- ATRS committed an additional $30.0 million to FPCF Access, bringing total commitments to the Fund to $90.0 million. ATRS also committed an additional $30.0 million to FP Intnl X, bringing total commitments to the Fund to $60.0 million.

# Market Update

## Buyout Funds

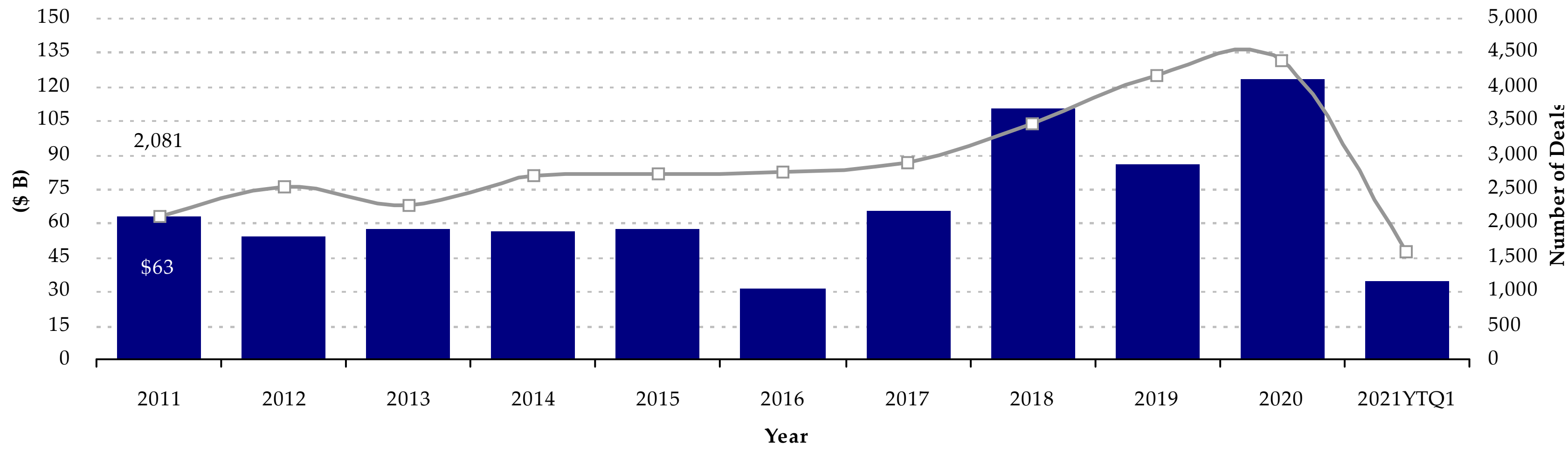



## Venture Funds

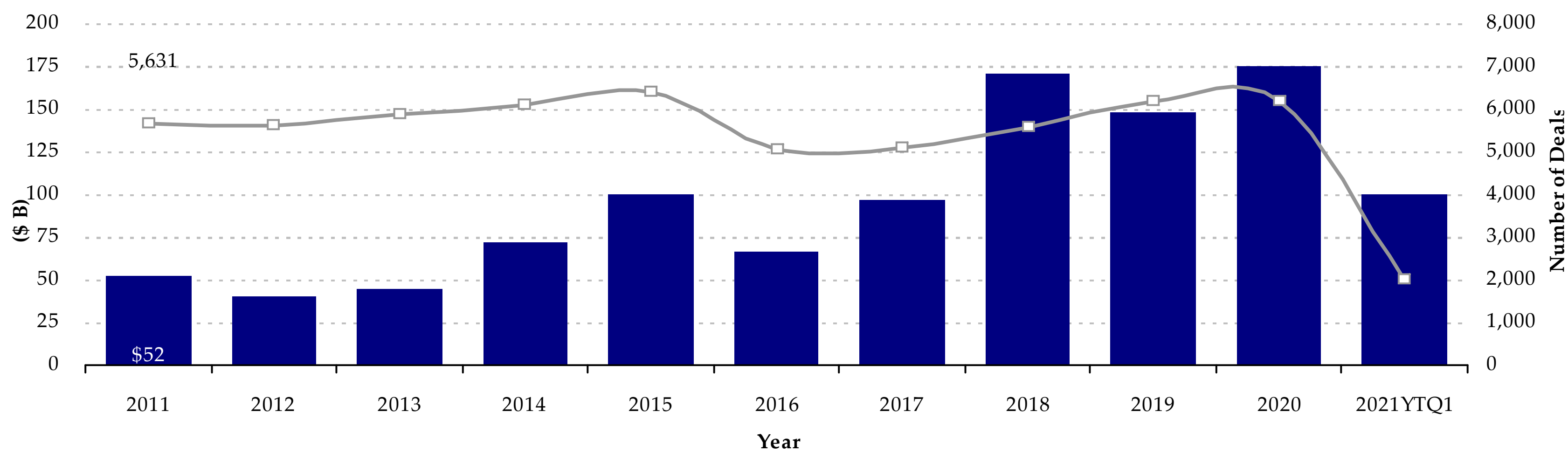



- Source: Thomson One Private Equity.
- Data compiled through 1Q 2021.

## U.S. Buyout

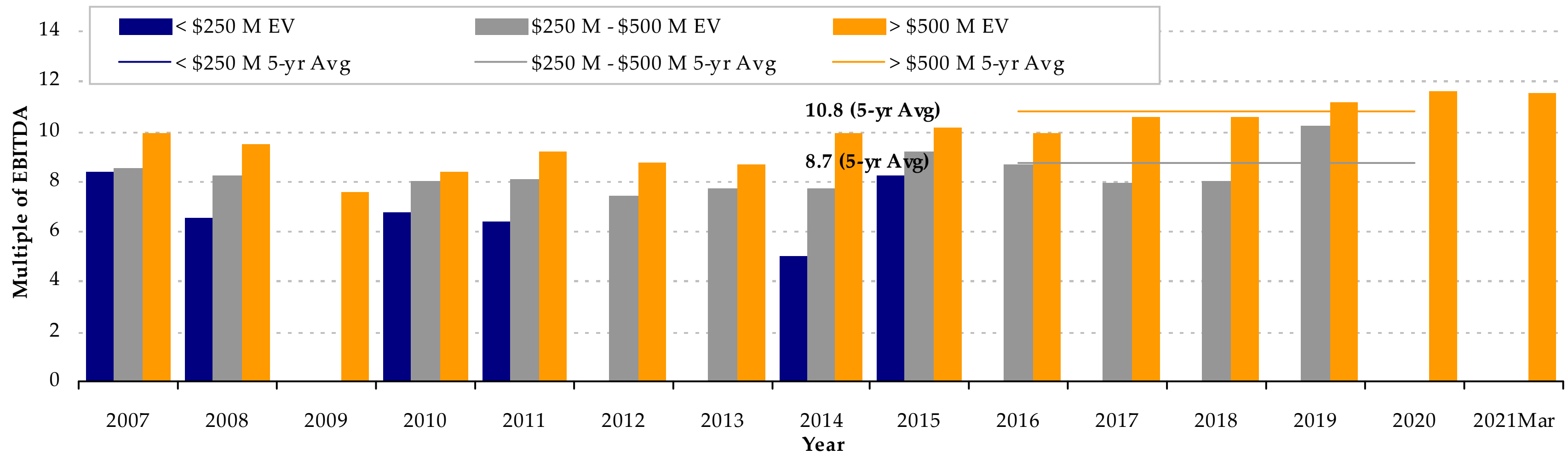



## U.S. Venture

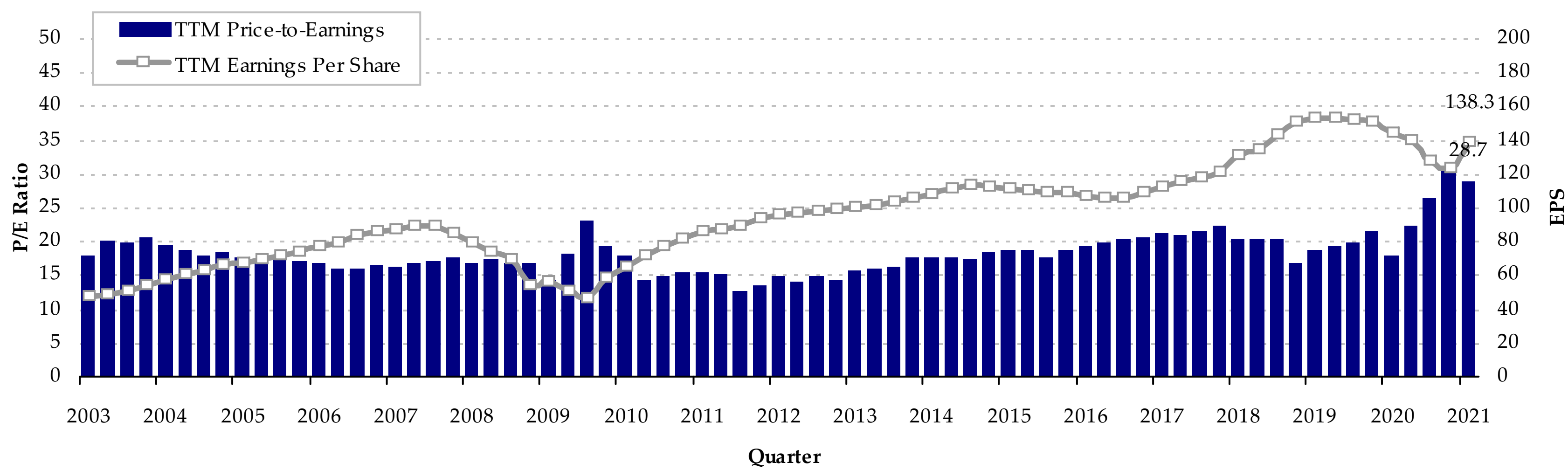



- Source: Thomson One Private Equity.
- Data compiled through 1Q 2021.

## U.S. LBO Pricing Multiples




## S&P 500 Valuation and Earnings




- Source: Standard & Poor's Leveraged Commentary.

# Exit Activity

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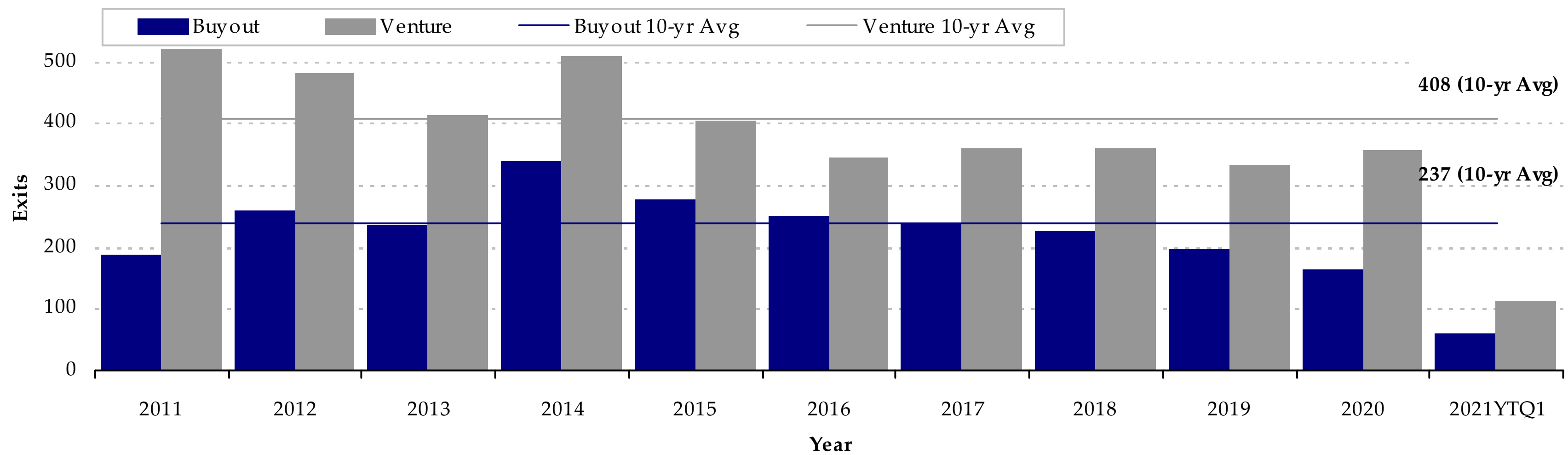
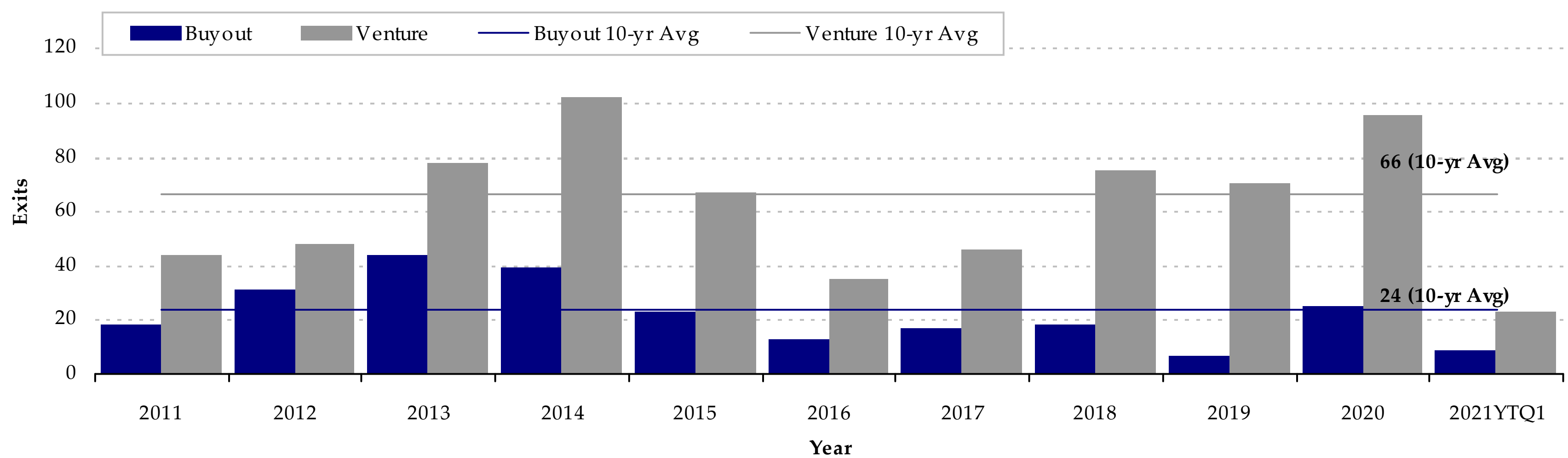
## U.S. Mergers and Acquisitions




## U.S. Initial Public Offerings




- Source: Thomson One Private Equity.
- Data compiled through 1Q 2021.

## Vintage Returns

| Group | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| U.S. All PE Median | 13.1% | 16.4% | 15.3% | 13.7% | 17.2% | 16.5% | 16.7% | 19.5% | 21.1% | 18.0% |
| U.S. All PE Top Quartile | 22.2% | 23.6% | 21.4% | 20.3% | 25.4% | 25.3% | 28.0% | 33.9% | 34.2% | 38.8% |
| U.S. Buyout Median | 18.4% | 17.9% | 15.8% | 14.5% | 20.4% | 18.4% | 18.8% | 25.9% | 16.6% | 17.4% |
| U.S. Buyout Top Quartile | 23.5% | 23.9% | 23.3% | 21.9% | 25.5% | 26.4% | 28.9% | 38.0% | 27.8% | 34.9% |
| U.S. Energy Median | 6.5% | -2.4% | -1.2% | 2.9% | 6.3% | 1.9% | 4.5% | 1.0% | 1.9% | -1.2% |
| U.S. Energy Top Quartile | 19.5% | 6.2% | 5.4% | 14.6% | 11.6% | 10.3% | 8.4% | 8.3% | 8.1% | 15.1% |
| U.S. Real Estate Median | 13.4% | 15.2% | 11.3% | 10.8% | 10.4% | 11.3% | 10.6% | 9.4% | 10.0% | -0.4% |
| U.S. Real Estate Top Quartile | 18.8% | 20.9% | 15.0% | 16.3% | 13.1% | 13.9% | 13.3% | 12.6% | 12.1% | 9.1% |
| U.S. Venture Median | 16.2% | 19.1% | 17.4% | 15.9% | 19.6% | 17.9% | 21.0% | 20.4% | 25.4% | 18.0% |
| U.S. Venture Top Quartile | 26.4% | 25.8% | 25.5% | 26.5% | 30.0% | 25.6% | 31.8% | 38.5% | 38.6% | 39.5% |

- Source: Cambridge Associates.
- Data compiled through December 31, 2020.

## Performance Analysis

# Investment Performance by Strategy

| Investment | Vintage | Fund Size | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|---|
| **Buyout** | | | | | | | | | |
| 21st Century Group I * | 2000 | $80,365,451 | 25,000,000 | 27,141,173 | 0 | 22,841,928 | 0 | 0.8 x | -3.8% |
| Advent GPE VI-A | 2008 | $9,000,000,000 | 40,000,000 | 40,167,228 | 0 | 79,351,051 | 5,130,288 | 2.1 x | 16.7% |
| Altaris Constellation | 2017 | $165,000,000 | 20,000,000 | 16,263,116 | 5,543,214 | 2,199,308 | 32,108,762 | 2.1 x | 25.0% |
| Altaris IV | 2018 | $1,085,000,000 | 24,000,000 | 16,043,685 | 7,956,315 | 0 | 21,526,398 | 1.3 x | 16.8% |
| Altus Capital II | 2010 | $200,000,000 | 20,000,000 | 18,555,037 | 4,381,151 | 21,881,638 | 7,237,209 | 1.6 x | 11.8% |
| American Industrial VI | 2016 | $1,845,000,000 | 20,000,000 | 22,514,755 | 3,602,011 | 9,827,796 | 22,862,321 | 1.5 x | 13.9% |
| American Industrial VII | 2019 | $3,075,000,000 | 30,000,000 | 10,454,190 | 20,269,071 | 723,261 | 9,955,608 | 1.0 x | 8.0% |
| Arlington IV | 2016 | $700,000,000 | 23,000,000 | 22,485,147 | 2,556,517 | 10,436,233 | 32,891,787 | 1.9 x | 28.3% |
| Arlington V | 2019 | $1,692,000,000 | 25,000,000 | 4,991,866 | 20,008,134 | 0 | 6,528,880 | 1.3 x | 42.8% |
| Boston Ventures VII | 2006 | $434,507,010 | 50,000,000 | 43,016,769 | 8,258,947 | 44,748,285 | 5,451,448 | 1.2 x | 2.8% |
| BV IX | 2017 | $750,000,000 | 30,000,000 | 24,992,716 | 10,071,249 | 5,063,574 | 33,124,975 | 1.5 x | 31.0% |
| BV VIII | 2012 | $486,800,000 | 30,000,000 | 27,215,697 | 3,065,489 | 38,027,943 | 21,749,702 | 2.2 x | 50.9% |
| BV X | 2020 | $1,122,000,000 | 30,000,000 | 544,210 | 29,455,790 | 0 | -91,256 | -0.2 x | NMF |
| Clearlake V | 2018 | $3,623,125,000 | 30,000,000 | 27,627,305 | 6,573,707 | 8,435,222 | 53,984,562 | 2.3 x | 56.1% |
| Clearlake VI | 2020 | $7,068,000,000 | 30,000,000 | 14,556,094 | 15,531,378 | 250,159 | 16,224,297 | 1.1 x | NMF |
| Court Square III | 2012 | $3,173,449,997 | 40,000,000 | 43,522,955 | 2,698,272 | 36,226,344 | 38,135,064 | 1.7 x | 18.1% |
| Cypress MBP II * | 1999 | $2,376,060,606 | 50,000,000 | 52,304,562 | 0 | 50,840,220 | 0 | 1.0 x | -0.5% |
| DLJ MBP III * | 2000 | $5,304,941,647 | 200,000,000 | 215,345,711 | 0 | 458,746,671 | 0 | 2.1 x | 19.4% |
| Doughty Hanson III * | 1997 | $2,660,000,000 | 100,000,000 | 99,374,207 | 0 | 197,482,184 | 0 | 2.0 x | 13.5% |
| DW Healthcare III | 2012 | $268,147,500 | 40,000,000 | 37,138,408 | 2,861,592 | 56,029,790 | 14,632,932 | 1.9 x | 18.4% |
| DW Healthcare IV | 2016 | $294,274,000 | 30,000,000 | 29,106,500 | 2,422,466 | 13,506,581 | 35,690,862 | 1.7 x | 26.8% |
| DW Healthcare V | 2019 | $611,000,000 | 30,000,000 | 9,826,274 | 20,173,726 | 0 | 8,309,522 | 0.8 x | -15.8% |
| FP CF Access | 2020 | $146,408,500 | 90,000,000 | 16,847,534 | 73,260,061 | 0 | 16,950,880 | 1.0 x | NMF |
| FP Intnl 2011 | 2011 | $45,000,000 | 25,000,000 | 23,001,840 | 2,344,354 | 20,384,864 | 14,920,873 | 1.5 x | 8.8% |
| FP Intnl 2012 | 2012 | $70,000,000 | 25,000,000 | 16,785,714 | 8,425,598 | 10,772,743 | 12,891,268 | 1.4 x | 8.9% |
| FP Intnl 2013 | 2013 | $97,000,000 | 20,000,000 | 13,814,433 | 6,331,784 | 3,075,158 | 19,201,851 | 1.6 x | 11.3% |
| FP Intnl 2014 | 2014 | $97,000,000 | 25,000,000 | 16,005,155 | 9,128,207 | 8,055,913 | 17,359,261 | 1.6 x | 15.1% |
| FP Intnl 2015 | 2015 | $113,000,000 | 25,000,000 | 17,035,398 | 8,069,774 | 3,723,257 | 20,785,539 | 1.4 x | 13.4% |
| FP Intnl 2016 | 2016 | $97,000,000 | 25,000,000 | 15,902,062 | 9,221,257 | 2,479,253 | 18,670,318 | 1.3 x | 11.1% |
| FP Intnl 2017 | 2017 | $98,000,000 | 25,000,000 | 14,923,469 | 10,204,534 | 2,179,745 | 25,456,089 | 1.9 x | 36.2% |
| FP Intnl 2018 | 2018 | $65,500,000 | 25,000,000 | 16,984,733 | 8,187,903 | 0 | 23,051,945 | 1.4 x | 33.4% |
| FP Intnl 2019 | 2019 | $70,500,000 | 30,000,000 | 7,234,042 | 22,948,673 | 0 | 9,376,642 | 1.3 x | 46.3% |
| FP Intnl X | 2021 | $139,000,000 | 60,000,000 | 1,294,964 | 58,719,384 | 0 | 1,255,378 | 1.0 x | NMF |
| Greenbriar V | 2021 | $1,618,737,475 | 30,000,000 | 0 | 30,000,000 | 0 | -129,435 | N/A | NMF |
| HMTF III * | 1996 | $2,458,754,795 | 76,743,018 | 76,799,039 | 0 | 87,834,289 | 0 | 1.1 x | 1.8% |
| HMTF IV * | 1998 | $4,023,532,721 | 100,000,000 | 98,010,015 | 0 | 67,130,479 | 0 | 0.7 x | -6.1% |

| Investment | Vintage | Fund Size | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|---|
| HMTF V * | 2000 | $1,552,965,194 | 207,366,433 | 205,198,451 | 0 | 378,102,491 | 0 | 1.8 x | 17.6% |
| JF Lehman III | 2011 | $575,500,000 | 39,000,000 | 44,012,406 | 5,309,096 | 51,266,292 | 15,879,554 | 1.5 x | 10.8% |
| JF Lehman IV | 2016 | $833,000,000 | 30,000,000 | 28,223,001 | 1,776,999 | 25,463,138 | 39,771,937 | 2.3 x | 35.3% |
| JF Lehman V | 2020 | $1,350,000,000 | 30,000,000 | 8,084,103 | 21,915,898 | 0 | 7,267,545 | 0.9 x | NMF |
| Mason Wells III | 2010 | $525,000,000 | 30,000,000 | 28,553,580 | 1,446,420 | 74,837,372 | 10,058,418 | 3.0 x | 20.5% |
| Oak Hill I * | 1999 | $1,600,000,000 | 50,000,000 | 50,786,497 | 0 | 91,264,962 | 0 | 1.8 x | 10.6% |
| One Rock II | 2017 | $964,000,000 | 30,000,000 | 26,377,212 | 5,741,192 | 3,906,746 | 35,761,254 | 1.5 x | 20.7% |
| Riverside IV | 2009 | $406,091,370 | 40,000,000 | 31,433,665 | 0 | 74,584,420 | 235,836 | 2.4 x | 21.3% |
| Riverside V | 2013 | $531,833,200 | 35,000,000 | 35,877,470 | 916,947 | 24,247,705 | 25,585,915 | 1.4 x | 8.6% |
| Riverside VI | 2019 | $327,916,667 | 30,000,000 | 13,996,370 | 16,003,630 | 0 | 12,695,068 | 0.9 x | -9.5% |
| Second Cinven * | 1998 | £904,547,000 | 65,281,010 | 65,281,010 | 0 | 104,700,661 | 0 | 1.6 x | 9.3% |
| Siris III | 2015 | $1,810,000,000 | 25,000,000 | 30,847,080 | 4,137,215 | 18,308,892 | 23,580,587 | 1.4 x | 13.9% |
| Siris IV | 2019 | $3,452,454,000 | 30,000,000 | 16,809,292 | 14,977,399 | 2,481,341 | 17,212,712 | 1.2 x | 11.2% |
| SK Capital V | 2018 | $2,013,000,000 | 30,000,000 | 19,177,198 | 10,822,802 | 10,490 | 22,092,845 | 1.2 x | 15.2% |
| Thoma Bravo Discover | 2016 | $1,074,000,000 | 10,000,000 | 11,350,409 | 1,767,370 | 10,030,161 | 21,355,979 | 2.8 x | 39.1% |
| Thoma Bravo Discover II | 2018 | $2,402,685,000 | 17,000,000 | 13,548,801 | 3,673,210 | 222,011 | 23,003,713 | 1.7 x | 44.6% |
| Thoma Bravo Discover III | 2021 | $3,861,470,000 | 20,000,000 | 0 | 20,000,000 | 0 | 127,501 | N/A | NMF |
| Thoma Bravo Explore I | 2020 | $1,127,120,000 | 20,000,000 | 3,821,541 | 16,178,459 | 0 | 4,955,398 | 1.3 x | NMF |
| Thoma Bravo XI | 2014 | $3,662,000,000 | 20,000,000 | 20,785,558 | 2,135,646 | 40,382,363 | 34,074,649 | 3.6 x | 31.7% |
| Thoma Bravo XII | 2016 | $7,603,860,000 | 30,000,000 | 32,615,034 | 5,286,569 | 7,903,757 | 47,514,953 | 1.7 x | 18.3% |
| Thoma Bravo XIII | 2019 | $12,575,745,000 | 30,000,000 | 29,644,074 | 9,400,965 | 15,449,096 | 35,808,677 | 1.7 x | 62.9% |
| Thoma Bravo XIV | 2021 | $17,889,895,914 | 20,000,000 | 0 | 20,000,000 | 0 | -22,945 | N/A | NMF |
| Vista Equity III | 2007 | $1,287,129,725 | 50,000,000 | 54,336,098 | 3,894,584 | 127,483,122 | 4,147,272 | 2.4 x | 28.5% |
| Vista Foundation II | 2013 | $1,145,000,000 | 15,000,000 | 15,663,619 | 7,471,017 | 13,755,963 | 15,149,807 | 1.8 x | 15.1% |
| Vista Foundation III | 2016 | $2,950,561,226 | 30,000,000 | 29,299,003 | 12,141,630 | 23,268,647 | 30,706,013 | 1.8 x | 28.1% |
| Wellspring V | 2011 | $1,194,387,756 | 40,000,000 | 45,877,620 | 14,387,533 | 62,177,579 | 13,095,319 | 1.6 x | 16.4% |
| Wicks IV | 2011 | $414,000,000 | 40,000,000 | 42,305,501 | 4,502,175 | 55,956,803 | 32,664,366 | 2.1 x | 21.1% |
| **Total Buyout** | | | **2,512,390,461** | **2,041,730,596** | **616,157,314** | **2,468,057,900** | **1,017,966,342** | **1.7 x** | **11.5%** |
| **Distressed Debt** | | | | | | | | | |
| Castlelake II | 2011 | $996,762,000 | 35,000,000 | 32,656,036 | 2,625,461 | 27,892,167 | 18,432,645 | 1.4 x | 6.6% |
| Castlelake III | 2014 | $1,421,000,000 | 25,000,000 | 23,149,741 | 1,864,884 | 15,237,364 | 18,355,489 | 1.5 x | 7.6% |
| Tennenbaum VI | 2010 | $530,000,000 | 40,000,000 | 38,075,687 | 21,977,358 | 40,705,313 | 14,148,058 | 1.4 x | 7.8% |
| **Total Distressed Debt** | | | **100,000,000** | **93,881,464** | **26,467,703** | **83,834,844** | **50,936,192** | **1.4 x** | **7.3%** |

## Investment Performance by Strategy

| Investment | Vintage | Fund Size | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|---|
| **Growth Equity** | | | | | | | | | |
| LLR III | 2008 | $803,000,000 | 50,000,000 | 48,504,590 | 4,357,033 | 85,370,014 | 21,854,253 | 2.2 x | 16.4% |
| LLR VI | 2021 | $1,800,000,000 | 30,000,000 | 0 | 30,000,000 | 0 | -310,871 | N/A | NMF |
| TA XI | 2010 | $4,000,100,000 | 40,000,000 | 39,400,000 | 600,000 | 98,709,654 | 42,260,450 | 3.6 x | 27.0% |
| **Total Growth Equity** | | | **120,000,000** | **87,904,590** | **34,957,033** | **184,079,668** | **63,803,832** | **2.8 x** | **20.8%** |
| **Hard Assets** | | | | | | | | | |
| EnCap IX | 2013 | $5,154,639,175 | 25,000,000 | 28,607,862 | 1,149,676 | 22,395,686 | 9,639,032 | 1.1 x | 4.3% |
| EnCap VIII | 2010 | $3,608,247,422 | 47,500,000 | 54,117,730 | 0 | 31,031,849 | 12,544,732 | 0.8 x | -6.5% |
| EnCap X | 2015 | $6,701,030,928 | 30,000,000 | 28,974,763 | 3,033,471 | 9,541,700 | 22,170,705 | 1.1 x | 3.1% |
| EnCap XI | 2017 | $6,961,190,722 | 35,000,000 | 12,713,653 | 22,286,347 | 0 | 8,817,694 | 0.7 x | -19.3% |
| GTLA Holdings | 2018 | $20,000,000 | 20,000,000 | 20,000,000 | 0 | 0 | 40,000,000 | 2.0 x | 30.7% |
| Highland Contingent Note | 2018 | $152,244,727 | 152,244,727 | 152,244,727 | 0 | 15,000,000 | 157,154,554 | 1.1 x | 14.5% |
| Highland Equity | 2016 | $66,000,000 | 66,000,000 | 81,870,000 | 0 | 16,674,525 | 127,583,665 | 1.8 x | 20.6% |
| Lime Rock Resources III | 2014 | $762,000,000 | 25,000,000 | 25,538,560 | 358,060 | 4,687,078 | 12,292,261 | 0.7 x | -7.5% |
| NGP IX | 2007 | $4,000,000,000 | 50,000,000 | 54,215,131 | 201,825 | 76,326,171 | 1,630,705 | 1.4 x | 10.9% |
| NGP X | 2012 | $3,586,000,000 | 35,000,000 | 36,173,293 | 520,437 | 29,503,108 | 4,569,794 | 0.9 x | -1.9% |
| NGP XI | 2014 | $5,325,000,000 | 30,000,000 | 29,970,134 | 1,507,952 | 9,695,583 | 22,183,109 | 1.1 x | 2.0% |
| NGP XII | 2017 | $4,304,081,633 | 30,000,000 | 16,880,556 | 13,119,444 | 150,442 | 16,739,416 | 1.0 x | 0.0% |
| **Total Hard Assets** | | | **545,744,727** | **541,306,410** | **42,177,211** | **215,006,143** | **435,325,667** | **1.2 x** | **7.1%** |
| **Infrastructure** | | | | | | | | | |
| Big River - Equity | 2014 | $151,090,000 | 151,090,000 | 151,090,000 | 0 | 296,427,836 | 767,161 | 2.0 x | 14.9% |
| Big River - Funding * | 2017 | $3,750,000 | 3,750,000 | 3,750,000 | 0 | 3,812,795 | 0 | 1.0 x | 4.3% |
| Big River - Holdings Note * | 2017 | $12,000,000 | 12,000,000 | 12,000,000 | 0 | 13,343,726 | 0 | 1.1 x | 11.0% |
| Big River - Holdings Note 2023 | 2018 | $12,000,000 | 12,000,000 | 12,000,000 | 0 | 0 | 13,965,867 | 1.2 x | 5.1% |
| Big River - Holdings Note 2023-2 | 2018 | $5,150,000 | 5,150,000 | 5,150,000 | 0 | 62,323 | 5,899,275 | 1.2 x | 6.0% |
| Big River - Preferred Equity * | 2017 | $41,980,449 | 41,980,449 | 41,980,449 | 0 | 51,702,368 | 0 | 1.2 x | 12.5% |
| Big River - Sr Secured Debt * | 2015 | $26,910,000 | 26,910,000 | 26,966,221 | 0 | 35,699,565 | 0 | 1.3 x | 14.7% |
| Blue Oak Arkansas * | 2014 | $18,000,000 | 18,000,000 | 19,740,000 | 0 | 5,385,136 | 0 | 0.3 x | -34.8% |
| **Total Infrastructure** | | | **270,880,449** | **272,676,670** | **0** | **406,433,749** | **20,632,303** | **1.6 x** | **12.3%** |

| Investment | Vintage | Fund Size | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|---|
| **Mezzanine** | | | | | | | | | |
| Audax Mezzanine III | 2011 | $1,002,250,000 | 25,000,000 | 24,688,653 | 6,675,000 | 29,059,972 | 3,416,140 | 1.3 x | 9.5% |
| Big River - Mezzanine * | 2014 | $5,000,000 | 5,000,000 | 5,003,686 | 0 | 8,225,290 | 0 | 1.6 x | 17.3% |
| Blackstone Mezzanine I * | 1999 | $1,141,000,000 | 100,000,000 | 73,353,517 | 0 | 96,729,026 | 0 | 1.3 x | 10.2% |
| DLJ Investment II * | 1999 | $1,600,000,000 | 80,000,000 | 43,611,022 | 0 | 60,468,989 | 0 | 1.4 x | 10.4% |
| Greyrock IV | 2017 | $275,000,000 | 30,000,000 | 27,781,132 | 3,354,854 | 7,694,910 | 25,486,181 | 1.2 x | 8.8% |
| Greyrock V | 2020 | $280,000,000 | 35,000,000 | 2,857,067 | 32,142,933 | 0 | 2,375,477 | 0.8 x | NMF |
| Insight Mezzanine I | 2009 | $94,678,011 | 10,000,000 | 9,971,470 | 479,507 | 11,860,178 | 1,724,128 | 1.4 x | 6.6% |
| **Total Mezzanine** | | | **285,000,000** | **187,266,547** | **42,652,294** | **214,038,365** | **33,001,926** | **1.3 x** | **10.1%** |
| **Multi-Strategy** | | | | | | | | | |
| ATRS-FP PE | 2012 | $265,516,382 | 263,823,718 | 267,849,817 | 175,022,736 | 211,369,488 | 249,439,601 | 1.7 x | 18.4% |
| CSFB-ATRS 2005-1 Series | 2005 | $252,525,253 | 250,000,000 | 277,750,644 | 10,730,002 | 395,435,144 | 54,314,978 | 1.6 x | 8.1% |
| CSFB-ATRS 2006-1 Series | 2006 | $406,331,658 | 404,300,000 | 410,280,901 | 54,298,755 | 595,026,330 | 73,393,053 | 1.6 x | 10.0% |
| DH Tech I | 2000 | $236,700,000 | 50,000,000 | 61,471,034 | 0 | 20,543,107 | 422,096 | 0.3 x | -21.4% |
| Diamond State * | 1999 | $46,000,000 | 2,000,000 | 2,000,000 | 0 | 3,097,200 | 0 | 1.5 x | 5.5% |
| Diamond State II | 2007 | $25,361,350 | 4,000,000 | 3,517,000 | 483,000 | 5,017,000 | 3,742,228 | 2.5 x | 10.2% |
| **Total Multi-Strategy** | | | **974,123,718** | **1,022,869,396** | **240,534,493** | **1,230,488,268** | **381,311,956** | **1.6 x** | **8.5%** |
| **Special Assets** | | | | | | | | | |
| WNG II | 2019 | $438,350,000 | 30,000,000 | 8,497,598 | 21,502,402 | 3,195 | 6,587,838 | 0.8 x | -16.2% |
| **Total Special Assets** | | | **30,000,000** | **8,497,598** | **21,502,402** | **3,195** | **6,587,838** | **0.8 x** | **-16.2%** |
| **Structured Capital** | | | | | | | | | |
| Bison V | 2017 | $384,132,653 | 35,000,000 | 29,928,044 | 10,951,182 | 7,768,804 | 30,786,557 | 1.3 x | 15.5% |
| Levine Leichtman V | 2013 | $1,644,081,633 | 20,000,000 | 27,381,092 | 2,239,548 | 18,680,943 | 26,197,186 | 1.6 x | 15.5% |
| PineBridge Structured III | 2016 | $600,000,000 | 30,000,000 | 25,628,013 | 10,830,332 | 15,100,072 | 6,183,152 | 0.8 x | -8.1% |
| **Total Structured Capital** | | | **85,000,000** | **82,937,149** | **24,021,062** | **41,549,819** | **63,166,895** | **1.3 x** | **10.0%** |

## Investment Performance by Strategy

FRANKLIN PARK

| Investment | Vintage | Fund Size | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|---|
| **Turnaround** | | | | | | | | | |
| Atlas Capital II | 2014 | $900,000,000 | 15,000,000 | 19,178,876 | 6,189,650 | 15,147,363 | 13,075,044 | 1.5 x | 18.1% |
| Insight Equity II | 2009 | $429,735,291 | 30,000,000 | 30,897,834 | 1,014,821 | 32,746,073 | 19,200,954 | 1.7 x | 9.8% |
| KPS III Supplemental | 2009 | $816,326,531 | 40,000,000 | 37,777,254 | 16,117,982 | 80,212,144 | 188,338 | 2.1 x | 22.8% |
| KPS IV | 2014 | $3,571,428,571 | 25,000,000 | 21,772,162 | 2,831,285 | 5,509,461 | 26,374,373 | 1.5 x | 19.0% |
| KPS Mid-Market I | 2019 | $1,020,408,163 | 20,000,000 | 4,294,989 | 15,705,011 | 0 | 4,384,928 | 1.0 x | 2.0% |
| KPS V | 2020 | $6,122,448,980 | 30,000,000 | 5,679,607 | 24,320,393 | 0 | 5,661,845 | 1.0 x | NMF |
| Sycamore Partners II | 2014 | $2,700,000,000 | 25,000,000 | 22,118,786 | 4,007,956 | 12,926,472 | 11,484,794 | 1.1 x | 3.4% |
| Sycamore Partners III | 2018 | $4,870,000,000 | 25,000,000 | 8,131,136 | 16,868,864 | 0 | 7,297,912 | 0.9 x | -9.1% |
| **Total Turnaround** | | | **210,000,000** | **149,850,645** | **87,055,962** | **146,541,514** | **87,668,188** | **1.6 x** | **15.1%** |
| **Venture Capital** | | | | | | | | | |
| FP Venture 2008 | 2008 | $102,000,000 | 30,000,000 | 30,000,000 | 179,799 | 48,022,916 | 39,134,276 | 2.9 x | 18.1% |
| FP Venture 2009 | 2009 | $58,000,000 | 25,000,000 | 24,471,983 | 746,899 | 48,849,702 | 21,306,757 | 2.9 x | 19.1% |
| FP Venture 2010 | 2010 | $80,000,000 | 25,000,000 | 16,000,000 | 1,641,989 | 17,028,930 | 37,240,976 | 3.4 x | 19.8% |
| FP Venture 2011 | 2011 | $70,000,000 | 25,000,000 | 24,125,000 | 1,079,470 | 76,807,659 | 209,421,913 | 11.9 x | 47.4% |
| FP Venture 2012 | 2012 | $80,000,000 | 25,000,000 | 22,125,000 | 3,027,925 | 24,555,311 | 55,678,813 | 3.6 x | 26.0% |
| FP Venture 2013 | 2013 | $87,000,000 | 20,000,000 | 17,988,506 | 2,111,098 | 19,490,504 | 38,483,410 | 3.2 x | 28.7% |
| FP Venture 2014 | 2014 | $93,000,000 | 25,000,000 | 23,682,796 | 1,425,985 | 10,670,461 | 62,345,817 | 3.1 x | 27.2% |
| FP Venture 2015 | 2015 | $113,000,000 | 25,000,000 | 23,683,629 | 1,420,108 | 2,794,451 | 51,795,057 | 2.3 x | 27.3% |
| FP Venture 2016 | 2016 | $82,000,000 | 25,000,000 | 19,359,756 | 5,761,291 | 3,938,745 | 32,601,865 | 1.9 x | 27.9% |
| FP Venture 2017 | 2017 | $113,000,000 | 25,000,000 | 14,601,770 | 10,475,529 | 1,985,561 | 23,128,285 | 1.7 x | 41.3% |
| FP Venture 2018 | 2018 | $80,500,000 | 25,000,000 | 15,527,950 | 9,579,509 | 217 | 20,862,358 | 1.3 x | 28.1% |
| FP Venture 2019 | 2019 | $80,500,000 | 30,000,000 | 11,366,459 | 18,722,357 | 23,600 | 14,237,282 | 1.3 x | 29.4% |
| FP Venture XIII | 2020 | $162,000,000 | 60,000,000 | 6,791,952 | 53,328,286 | 39,604 | 6,572,073 | 1.0 x | NMF |
| **Total Venture Capital** | | | **365,000,000** | **249,724,801** | **109,500,245** | **254,207,661** | **612,808,882** | **3.5 x** | **27.2%** |
| **Total Portfolio** | | | **5,498,139,355** | **4,738,645,866** | **1,245,025,719** | **5,244,241,126** | **2,773,210,021** | **1.7 x** | **11.6%** |

- Remaining Value is defined as the investor's value as reported by the fund's manager.
- TVPI is the ratio of Distributed Capital plus Remaining Value to Contributed Capital.
- Net IRR is defined as the annualized, compound rate of return using daily draws, distributions and Remaining Value as of the Report Date, net of fees and expenses, including late closing interest.
- An asterisk indicates an investment that is fully liquidated, if applicable.
- Commitments made in a foreign currency have been converted into U.S. dollars using an exchange rate as of the Report Date, if applicable.
- Returns calculated for funds in the early years of their lives are particularly not meaningful given the J-curve effect. During these early years, due to illiquidity, stagnant valuations, fees and expenses, fund performance tends to be negative (the bottom of the "J").

| Investment | Strategy | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|
| **1996** | | | | | | | | |
| HMTF III * | Buyout | 76,743,018 | 76,799,039 | 0 | 87,834,289 | 0 | 1.1 x | 1.8% |
| **Total 1996** | | **76,743,018** | **76,799,039** | **0** | **87,834,289** | **0** | **1.1 x** | **1.8%** |
| **1997** | | | | | | | | |
| Doughty Hanson III * | Buyout | 100,000,000 | 99,374,207 | 0 | 197,482,184 | 0 | 2.0 x | 13.5% |
| **Total 1997** | | **100,000,000** | **99,374,207** | **0** | **197,482,184** | **0** | **2.0 x** | **13.5%** |
| **1998** | | | | | | | | |
| HMTF IV * | Buyout | 100,000,000 | 98,010,015 | 0 | 67,130,479 | 0 | 0.7 x | -6.1% |
| Second Cinven * | Buyout | 65,281,010 | 65,281,010 | 0 | 104,700,661 | 0 | 1.6 x | 9.3% |
| **Total 1998** | | **165,281,010** | **163,291,025** | **0** | **171,831,140** | **0** | **1.1 x** | **0.9%** |
| **1999** | | | | | | | | |
| Blackstone Mezzanine I * | Mezzanine | 100,000,000 | 73,353,517 | 0 | 96,729,026 | 0 | 1.3 x | 10.2% |
| Cypress MBP II * | Buyout | 50,000,000 | 52,304,562 | 0 | 50,840,220 | 0 | 1.0 x | -0.5% |
| Diamond State * | Multi-Strategy | 2,000,000 | 2,000,000 | 0 | 3,097,200 | 0 | 1.5 x | 5.5% |
| DLJ Investment II * | Mezzanine | 80,000,000 | 43,611,022 | 0 | 60,468,989 | 0 | 1.4 x | 10.4% |
| Oak Hill I * | Buyout | 50,000,000 | 50,786,497 | 0 | 91,264,962 | 0 | 1.8 x | 10.6% |
| **Total 1999** | | **282,000,000** | **222,055,598** | **0** | **302,400,397** | **0** | **1.4 x** | **7.7%** |
| **2000** | | | | | | | | |
| 21st Century Group I * | Buyout | 25,000,000 | 27,141,173 | 0 | 22,841,928 | 0 | 0.8 x | -3.8% |
| DH Tech I | Multi-Strategy | 50,000,000 | 61,471,034 | 0 | 20,543,107 | 422,096 | 0.3 x | -21.4% |
| DLJ MBP III * | Buyout | 200,000,000 | 215,345,711 | 0 | 458,746,671 | 0 | 2.1 x | 19.4% |
| HMTF V * | Buyout | 207,366,433 | 205,198,451 | 0 | 378,102,491 | 0 | 1.8 x | 17.6% |
| **Total 2000** | | **482,366,433** | **509,156,369** | **0** | **880,234,197** | **422,096** | **1.7 x** | **14.8%** |
| **2005** | | | | | | | | |
| CSFB-ATRS 2005-1 Series | Multi-Strategy | 250,000,000 | 277,750,644 | 10,730,002 | 395,435,144 | 54,314,978 | 1.6 x | 8.1% |
| **Total 2005** | | **250,000,000** | **277,750,644** | **10,730,002** | **395,435,144** | **54,314,978** | **1.6 x** | **8.1%** |

FRANKLIN PARK

| Investment | Strategy | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|
| **2006** | | | | | | | | |
| Boston Ventures VII | Buyout | 50,000,000 | 43,016,769 | 8,258,947 | 44,748,285 | 5,451,448 | 1.2 x | 2.8% |
| CSFB-ATRS 2006-1 Series | Multi-Strategy | 404,300,000 | 410,280,901 | 54,298,755 | 595,026,330 | 73,393,053 | 1.6 x | 10.0% |
| **Total 2006** | | **454,300,000** | **453,297,670** | **62,557,702** | **639,774,615** | **78,844,501** | **1.6 x** | **9.3%** |
| **2007** | | | | | | | | |
| Diamond State II | Multi-Strategy | 4,000,000 | 3,517,000 | 483,000 | 5,017,000 | 3,742,228 | 2.5 x | 10.2% |
| NGP IX | Hard Assets | 50,000,000 | 54,215,131 | 201,825 | 76,326,171 | 1,630,705 | 1.4 x | 10.9% |
| Vista Equity III | Buyout | 50,000,000 | 54,336,098 | 3,894,584 | 127,483,122 | 4,147,272 | 2.4 x | 28.5% |
| **Total 2007** | | **104,000,000** | **112,068,229** | **4,579,409** | **208,826,293** | **9,520,205** | **1.9 x** | **20.4%** |
| **2008** | | | | | | | | |
| Advent GPE VI-A | Buyout | 40,000,000 | 40,167,228 | 0 | 79,351,051 | 5,130,288 | 2.1 x | 16.7% |
| FP Venture 2008 | Venture Capital | 30,000,000 | 30,000,000 | 179,799 | 48,022,916 | 39,134,276 | 2.9 x | 18.1% |
| LLR III | Growth Equity | 50,000,000 | 48,504,590 | 4,357,033 | 85,370,014 | 21,854,253 | 2.2 x | 16.4% |
| **Total 2008** | | **120,000,000** | **118,671,818** | **4,536,832** | **212,743,981** | **66,118,817** | **2.3 x** | **16.9%** |
| **2009** | | | | | | | | |
| FP Venture 2009 | Venture Capital | 25,000,000 | 24,471,983 | 746,899 | 48,849,702 | 21,306,757 | 2.9 x | 19.1% |
| Insight Equity II | Turnaround | 30,000,000 | 30,897,834 | 1,014,821 | 32,746,073 | 19,200,954 | 1.7 x | 9.8% |
| Insight Mezzanine I | Mezzanine | 10,000,000 | 9,971,470 | 479,507 | 11,860,178 | 1,724,128 | 1.4 x | 6.6% |
| KPS III Supplemental | Turnaround | 40,000,000 | 37,777,254 | 16,117,982 | 80,212,144 | 188,338 | 2.1 x | 22.8% |
| Riverside IV | Buyout | 40,000,000 | 31,433,665 | 0 | 74,584,420 | 235,836 | 2.4 x | 21.3% |
| **Total 2009** | | **145,000,000** | **134,552,206** | **18,359,209** | **248,252,517** | **42,656,013** | **2.2 x** | **17.7%** |
| **2010** | | | | | | | | |
| Altus Capital II | Buyout | 20,000,000 | 18,555,037 | 4,381,151 | 21,881,638 | 7,237,209 | 1.6 x | 11.8% |
| EnCap VIII | Hard Assets | 47,500,000 | 54,117,730 | 0 | 31,031,849 | 12,544,732 | 0.8 x | -6.5% |
| FP Venture 2010 | Venture Capital | 25,000,000 | 16,000,000 | 1,641,989 | 17,028,930 | 37,240,976 | 3.4 x | 19.8% |
| Mason Wells III | Buyout | 30,000,000 | 28,553,580 | 1,446,420 | 74,837,372 | 10,058,418 | 3.0 x | 20.5% |
| TA XI | Growth Equity | 40,000,000 | 39,400,000 | 600,000 | 98,709,654 | 42,260,450 | 3.6 x | 27.0% |
| Tennenbaum VI | Distressed Debt | 40,000,000 | 38,075,687 | 21,977,358 | 40,705,313 | 14,148,058 | 1.4 x | 7.8% |
| **Total 2010** | | **202,500,000** | **194,702,034** | **30,046,918** | **284,194,757** | **123,489,843** | **2.1 x** | **15.8%** |

## Investment Performance by Vintage Year

FRANKLIN PARK

| Investment | Strategy | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|
| **2011** | | | | | | | | |
| Audax Mezzanine III | Mezzanine | 25,000,000 | 24,688,653 | 6,675,000 | 29,059,972 | 3,416,140 | 1.3 x | 9.5% |
| Castlelake II | Distressed Debt | 35,000,000 | 32,656,036 | 2,625,461 | 27,892,167 | 18,432,645 | 1.4 x | 6.6% |
| FP Intnl 2011 | Buyout | 25,000,000 | 23,001,840 | 2,344,354 | 20,384,864 | 14,920,873 | 1.5 x | 8.8% |
| FP Venture 2011 | Venture Capital | 25,000,000 | 24,125,000 | 1,079,470 | 76,807,659 | 209,421,913 | 11.9 x | 47.4% |
| JF Lehman III | Buyout | 39,000,000 | 44,012,406 | 5,309,096 | 51,266,292 | 15,879,554 | 1.5 x | 10.8% |
| Wellspring V | Buyout | 40,000,000 | 45,877,620 | 14,387,533 | 62,177,579 | 13,095,319 | 1.6 x | 16.4% |
| Wicks IV | Buyout | 40,000,000 | 42,305,501 | 4,502,175 | 55,956,803 | 32,664,366 | 2.1 x | 21.1% |
| **Total 2011** | | **229,000,000** | **236,667,057** | **36,923,089** | **323,545,335** | **307,830,810** | **2.7 x** | **21.7%** |
| **2012** | | | | | | | | |
| ATRS-FP PE | Multi-Strategy | 263,823,718 | 267,849,817 | 175,022,736 | 211,369,488 | 249,439,601 | 1.7 x | 18.4% |
| BV VIII | Buyout | 30,000,000 | 27,215,697 | 3,065,489 | 38,027,943 | 21,749,702 | 2.2 x | 50.9% |
| Court Square III | Buyout | 40,000,000 | 43,522,955 | 2,698,272 | 36,226,344 | 38,135,064 | 1.7 x | 18.1% |
| DW Healthcare III | Buyout | 40,000,000 | 37,138,408 | 2,861,592 | 56,029,790 | 14,632,932 | 1.9 x | 18.4% |
| FP Intnl 2012 | Buyout | 25,000,000 | 16,785,714 | 8,425,598 | 10,772,743 | 12,891,268 | 1.4 x | 8.9% |
| FP Venture 2012 | Venture Capital | 25,000,000 | 22,125,000 | 3,027,925 | 24,555,311 | 55,678,813 | 3.6 x | 26.0% |
| NGP X | Hard Assets | 35,000,000 | 36,173,293 | 520,437 | 29,503,108 | 4,569,794 | 0.9 x | -1.9% |
| **Total 2012** | | **458,823,718** | **450,810,884** | **195,622,049** | **406,484,727** | **397,097,174** | **1.8 x** | **18.2%** |
| **2013** | | | | | | | | |
| EnCap IX | Hard Assets | 25,000,000 | 28,607,862 | 1,149,676 | 22,395,686 | 9,639,032 | 1.1 x | 4.3% |
| FP Intnl 2013 | Buyout | 20,000,000 | 13,814,433 | 6,331,784 | 3,075,158 | 19,201,851 | 1.6 x | 11.3% |
| FP Venture 2013 | Venture Capital | 20,000,000 | 17,988,506 | 2,111,098 | 19,490,504 | 38,483,410 | 3.2 x | 28.7% |
| Levine Leichtman V | Structured Capital | 20,000,000 | 27,381,092 | 2,239,548 | 18,680,943 | 26,197,186 | 1.6 x | 15.5% |
| Riverside V | Buyout | 35,000,000 | 35,877,470 | 916,947 | 24,247,705 | 25,585,915 | 1.4 x | 8.6% |
| Vista Foundation II | Buyout | 15,000,000 | 15,663,619 | 7,471,017 | 13,755,963 | 15,149,807 | 1.8 x | 15.1% |
| **Total 2013** | | **135,000,000** | **139,332,982** | **20,220,070** | **101,645,960** | **134,257,201** | **1.7 x** | **14.3%** |

| Investment | Strategy | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|
| **2014** | | | | | | | | |
| Atlas Capital II | Turnaround | 15,000,000 | 19,178,876 | 6,189,650 | 15,147,363 | 13,075,044 | 1.5 x | 18.1% |
| Big River - Equity | Infrastructure | 151,090,000 | 151,090,000 | 0 | 296,427,836 | 767,161 | 2.0 x | 14.9% |
| Big River - Mezzanine * | Mezzanine | 5,000,000 | 5,003,686 | 0 | 8,225,290 | 0 | 1.6 x | 17.3% |
| Blue Oak Arkansas * | Infrastructure | 18,000,000 | 19,740,000 | 0 | 5,385,136 | 0 | 0.3 x | -34.8% |
| Castlelake III | Distressed Debt | 25,000,000 | 23,149,741 | 1,864,884 | 15,237,364 | 18,355,489 | 1.5 x | 7.6% |
| FP Intnl 2014 | Buyout | 25,000,000 | 16,005,155 | 9,128,207 | 8,055,913 | 17,359,261 | 1.6 x | 15.1% |
| FP Venture 2014 | Venture Capital | 25,000,000 | 23,682,796 | 1,425,985 | 10,670,461 | 62,345,817 | 3.1 x | 27.2% |
| KPS IV | Turnaround | 25,000,000 | 21,772,162 | 2,831,285 | 5,509,461 | 26,374,373 | 1.5 x | 19.0% |
| Lime Rock Resources III | Hard Assets | 25,000,000 | 25,538,560 | 358,060 | 4,687,078 | 12,292,261 | 0.7 x | -7.5% |
| NGP XI | Hard Assets | 30,000,000 | 29,970,134 | 1,507,952 | 9,695,583 | 22,183,109 | 1.1 x | 2.0% |
| Sycamore Partners II | Turnaround | 25,000,000 | 22,118,786 | 4,007,956 | 12,926,472 | 11,484,794 | 1.1 x | 3.4% |
| Thoma Bravo XI | Buyout | 20,000,000 | 20,785,558 | 2,135,646 | 40,382,363 | 34,074,649 | 3.6 x | 31.7% |
| **Total 2014** | | **389,090,000** | **378,035,454** | **29,449,625** | **432,350,321** | **218,311,958** | **1.7 x** | **13.4%** |
| **2015** | | | | | | | | |
| Big River - Sr Secured Debt * | Infrastructure | 26,910,000 | 26,966,221 | 0 | 35,699,565 | 0 | 1.3 x | 14.7% |
| EnCap X | Hard Assets | 30,000,000 | 28,974,763 | 3,033,471 | 9,541,700 | 22,170,705 | 1.1 x | 3.1% |
| FP Intnl 2015 | Buyout | 25,000,000 | 17,035,398 | 8,069,774 | 3,723,257 | 20,785,539 | 1.4 x | 13.4% |
| FP Venture 2015 | Venture Capital | 25,000,000 | 23,683,629 | 1,420,108 | 2,794,451 | 51,795,057 | 2.3 x | 27.3% |
| Siris III | Buyout | 25,000,000 | 30,847,080 | 4,137,215 | 18,308,892 | 23,580,587 | 1.4 x | 13.9% |
| **Total 2015** | | **131,910,000** | **127,507,091** | **16,660,568** | **70,067,865** | **118,331,888** | **1.5 x** | **15.2%** |
| **2016** | | | | | | | | |
| American Industrial VI | Buyout | 20,000,000 | 22,514,755 | 3,602,011 | 9,827,796 | 22,862,321 | 1.5 x | 13.9% |
| Arlington IV | Buyout | 23,000,000 | 22,485,147 | 2,556,517 | 10,436,233 | 32,891,787 | 1.9 x | 28.3% |
| DW Healthcare IV | Buyout | 30,000,000 | 29,106,500 | 2,422,466 | 13,506,581 | 35,690,862 | 1.7 x | 26.8% |
| FP Intnl 2016 | Buyout | 25,000,000 | 15,902,062 | 9,221,257 | 2,479,253 | 18,670,318 | 1.3 x | 11.1% |
| FP Venture 2016 | Venture Capital | 25,000,000 | 19,359,756 | 5,761,291 | 3,938,745 | 32,601,865 | 1.9 x | 27.9% |
| Highland Equity | Hard Assets | 66,000,000 | 81,870,000 | 0 | 16,674,525 | 127,583,665 | 1.8 x | 20.6% |
| JF Lehman IV | Buyout | 30,000,000 | 28,223,001 | 1,776,999 | 25,463,138 | 39,771,937 | 2.3 x | 35.3% |
| PineBridge Structured III | Structured Capital | 30,000,000 | 25,628,013 | 10,830,332 | 15,100,072 | 6,183,152 | 0.8 x | -8.1% |
| Thoma Bravo Discover | Buyout | 10,000,000 | 11,350,409 | 1,767,370 | 10,030,161 | 21,355,979 | 2.8 x | 39.1% |
| Thoma Bravo XII | Buyout | 30,000,000 | 32,615,034 | 5,286,569 | 7,903,757 | 47,514,953 | 1.7 x | 18.3% |
| Vista Foundation III | Buyout | 30,000,000 | 29,299,003 | 12,141,630 | 23,268,647 | 30,706,013 | 1.8 x | 28.1% |
| **Total 2016** | | **319,000,000** | **318,353,680** | **55,366,442** | **138,628,907** | **415,832,851** | **1.7 x** | **22.3%** |

# Investment Performance by Vintage Year

FRANKLIN PARK

| Investment | Strategy | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|
| **2017** | | | | | | | | |
| Altaris Constellation | Buyout | 20,000,000 | 16,263,116 | 5,543,214 | 2,199,308 | 32,108,762 | 2.1 x | 25.0% |
| Big River - Funding * | Infrastructure | 3,750,000 | 3,750,000 | 0 | 3,812,795 | 0 | 1.0 x | 4.3% |
| Big River - Holdings Note * | Infrastructure | 12,000,000 | 12,000,000 | 0 | 13,343,726 | 0 | 1.1 x | 11.0% |
| Big River - Preferred Equity * | Infrastructure | 41,980,449 | 41,980,449 | 0 | 51,702,368 | 0 | 1.2 x | 12.5% |
| Bison V | Structured Capital | 35,000,000 | 29,928,044 | 10,951,182 | 7,768,804 | 30,786,557 | 1.3 x | 15.5% |
| BV IX | Buyout | 30,000,000 | 24,992,716 | 10,071,249 | 5,063,574 | 33,124,975 | 1.5 x | 31.0% |
| EnCap XI | Hard Assets | 35,000,000 | 12,713,653 | 22,286,347 | 0 | 8,817,694 | 0.7 x | -19.3% |
| FP Intnl 2017 | Buyout | 25,000,000 | 14,923,469 | 10,204,534 | 2,179,745 | 25,456,089 | 1.9 x | 36.2% |
| FP Venture 2017 | Venture Capital | 25,000,000 | 14,601,770 | 10,475,529 | 1,985,561 | 23,128,285 | 1.7 x | 41.3% |
| Greyrock IV | Mezzanine | 30,000,000 | 27,781,132 | 3,354,854 | 7,694,910 | 25,486,181 | 1.2 x | 8.8% |
| NGP XII | Hard Assets | 30,000,000 | 16,880,556 | 13,119,444 | 150,442 | 16,739,416 | 1.0 x | 0.0% |
| One Rock II | Buyout | 30,000,000 | 26,377,212 | 5,741,192 | 3,906,746 | 35,761,254 | 1.5 x | 20.7% |
| **Total 2017** | | **317,730,449** | **242,192,117** | **91,747,545** | **99,807,979** | **231,409,213** | **1.4 x** | **17.3%** |
| **2018** | | | | | | | | |
| Altaris IV | Buyout | 24,000,000 | 16,043,685 | 7,956,315 | 0 | 21,526,398 | 1.3 x | 16.8% |
| Big River - Holdings Note 2023 | Infrastructure | 12,000,000 | 12,000,000 | 0 | 0 | 13,965,867 | 1.2 x | 5.1% |
| Big River - Holdings Note 2023-2 | Infrastructure | 5,150,000 | 5,150,000 | 0 | 62,323 | 5,899,275 | 1.2 x | 6.0% |
| Clearlake V | Buyout | 30,000,000 | 27,627,305 | 6,573,707 | 8,435,222 | 53,984,562 | 2.3 x | 56.1% |
| FP Intnl 2018 | Buyout | 25,000,000 | 16,984,733 | 8,187,903 | 0 | 23,051,945 | 1.4 x | 33.4% |
| FP Venture 2018 | Venture Capital | 25,000,000 | 15,527,950 | 9,579,509 | 217 | 20,862,358 | 1.3 x | 28.1% |
| GTLA Holdings | Hard Assets | 20,000,000 | 20,000,000 | 0 | 0 | 40,000,000 | 2.0 x | 30.7% |
| Highland Contingent Note | Hard Assets | 152,244,727 | 152,244,727 | 0 | 15,000,000 | 157,154,554 | 1.1 x | 14.5% |
| SK Capital V | Buyout | 30,000,000 | 19,177,198 | 10,822,802 | 10,490 | 22,092,845 | 1.2 x | 15.2% |
| Sycamore Partners III | Turnaround | 25,000,000 | 8,131,136 | 16,868,864 | 0 | 7,297,912 | 0.9 x | -9.1% |
| Thoma Bravo Discover II | Buyout | 17,000,000 | 13,548,801 | 3,673,210 | 222,011 | 23,003,713 | 1.7 x | 44.6% |
| **Total 2018** | | **365,394,727** | **306,435,535** | **63,662,310** | **23,730,263** | **388,839,429** | **1.3 x** | **24.6%** |

# Investment Performance by Vintage Year

| Investment | Strategy | Committed Capital ($) | Contributed Capital ($) | Unfunded Commitment ($) | Distributed Capital ($) | Remaining Value ($) | TVPI | Net IRR |
|---|---|---|---|---|---|---|---|---|
| **2019** | | | | | | | | |
| American Industrial VII | Buyout | 30,000,000 | 10,454,190 | 20,269,071 | 723,261 | 9,955,608 | 1.0 x | 8.0% |
| Arlington V | Buyout | 25,000,000 | 4,991,866 | 20,008,134 | 0 | 6,528,880 | 1.3 x | 42.8% |
| DW Healthcare V | Buyout | 30,000,000 | 9,826,274 | 20,173,726 | 0 | 8,309,522 | 0.8 x | -15.8% |
| FP Intnl 2019 | Buyout | 30,000,000 | 7,234,042 | 22,948,673 | 0 | 9,376,642 | 1.3 x | 46.3% |
| FP Venture 2019 | Venture Capital | 30,000,000 | 11,366,459 | 18,722,357 | 23,600 | 14,237,282 | 1.3 x | 29.4% |
| KPS Mid-Market I | Turnaround | 20,000,000 | 4,294,989 | 15,705,011 | 0 | 4,384,928 | 1.0 x | 2.0% |
| Riverside VI | Buyout | 30,000,000 | 13,996,370 | 16,003,630 | 0 | 12,695,068 | 0.9 x | -9.5% |
| Siris IV | Buyout | 30,000,000 | 16,809,292 | 14,977,399 | 2,481,341 | 17,212,712 | 1.2 x | 11.2% |
| Thoma Bravo XIII | Buyout | 30,000,000 | 29,644,074 | 9,400,965 | 15,449,096 | 35,808,677 | 1.7 x | 62.9% |
| WNG II | Special Assets | 30,000,000 | 8,497,598 | 21,502,402 | 3,195 | 6,587,838 | 0.8 x | -16.2% |
| **Total 2019** | | **285,000,000** | **117,115,154** | **179,711,368** | **18,680,493** | **125,097,157** | **1.2 x** | **22.3%** |
| **2020** | | | | | | | | |
| BV X | Buyout | 30,000,000 | 544,210 | 29,455,790 | 0 | -91,256 | -0.2 x | NMF |
| Clearlake VI | Buyout | 30,000,000 | 14,556,094 | 15,531,378 | 250,159 | 16,224,297 | 1.1 x | NMF |
| FP CF Access | Buyout | 90,000,000 | 16,847,534 | 73,260,061 | 0 | 16,950,880 | 1.0 x | NMF |
| FP Venture XIII | Venture Capital | 60,000,000 | 6,791,952 | 53,328,286 | 39,604 | 6,572,073 | 1.0 x | NMF |
| Greyrock V | Mezzanine | 35,000,000 | 2,857,067 | 32,142,933 | 0 | 2,375,477 | 0.8 x | NMF |
| JF Lehman V | Buyout | 30,000,000 | 8,084,103 | 21,915,898 | 0 | 7,267,545 | 0.9 x | NMF |
| KPS V | Turnaround | 30,000,000 | 5,679,607 | 24,320,393 | 0 | 5,661,845 | 1.0 x | NMF |
| Thoma Bravo Explore I | Buyout | 20,000,000 | 3,821,541 | 16,178,459 | 0 | 4,955,398 | 1.3 x | NMF |
| **Total 2020** | | **325,000,000** | **59,182,108** | **266,133,198** | **289,763** | **59,916,259** | **1.0 x** | **NMF** |
| **2021** | | | | | | | | |
| FP Intnl X | Buyout | 60,000,000 | 1,294,964 | 58,719,384 | 0 | 1,255,378 | 1.0 x | NMF |
| Greenbriar V | Buyout | 30,000,000 | 0 | 30,000,000 | 0 | -129,435 | N/A | NMF |
| LLR VI | Growth Equity | 30,000,000 | 0 | 30,000,000 | 0 | -310,871 | N/A | NMF |
| Thoma Bravo Discover III | Buyout | 20,000,000 | 0 | 20,000,000 | 0 | 127,501 | N/A | NMF |
| Thoma Bravo XIV | Buyout | 20,000,000 | 0 | 20,000,000 | 0 | -22,945 | N/A | NMF |
| **Total 2021** | | **160,000,000** | **1,294,964** | **158,719,384** | **0** | **919,629** | **0.7 x** | **NMF** |
| **Total Portfolio** | | **5,498,139,355** | **4,738,645,866** | **1,245,025,719** | **5,244,241,126** | **2,773,210,021** | **1.7 x** | **11.6%** |

- Remaining Value is defined as the investor's value as reported by the fund's manager.
- TVPI is the ratio of Distributed Capital plus Remaining Value to Contributed Capital.
- Net IRR is defined as the annualized, compound rate of return using daily draws, distributions and Remaining Value as of the Report Date, net of fees and expenses, including late closing interest.
- An asterisk indicates an investment that is fully liquidated, if applicable.
- Commitments made in a foreign currency have been converted into U.S. dollars using an exchange rate as of the Report Date, if applicable.
- Returns calculated for funds in the early years of their lives are particularly not meaningful given the J-curve effect. During these early years, due to illiquidity, stagnant valuations, fees and expenses, fund performance tends to be negative (the bottom of the "J").

| | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|
| 1st | | ○ Doughty Hanson III 13.5% | | |
| 2nd | | | ○ Second Cinven 9.3% | ○ Oak Hill I 10.6%<br>○ Diamond State 5.5% |
| 3rd | ○ HMTF III 1.8% | | | |
| 4th | | | ○ HMTF IV -6.1% | ○ Cypress MBP II -0.5% |

● Venture ○ Non-venture

BOLD = Realized

| | 2000 | 2005 | 2006 | 2007 |
|---|---|---|---|---|
| 1st | | | | ○ Vista Equity III 28.5% |
| 2nd | ○ **DLJ MBP III 19.4%**<br>○ **HMTF V 17.6%** | ○ CSFB-ATRS 2005-1 Series 8.1% | ○ CSFB-ATRS 2006-1 Series 10.0% | ○ NGP IX 10.9% |
| 3rd | | | | ○ Diamond State II 10.2% |
| 4th | ○ **21st Century Group I -3.8%**<br>○ DH Tech I -21.4% | | ○ Boston Ventures VII 2.8% | |

● **Venture** ○ **Non-venture**

**BOLD = Realized**

# Performance by Vintage Year and Quartile Group

| | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|
| 1st | | | ○ TA XI 27.0% | ● FP Venture 2011 47.4% |
| 2nd | ● FP Venture 2008 18.1%<br>○ Advent GPE VI-A 16.7%<br>○ LLR III 16.4% | ○ KPS III Supplemental 22.8%<br>○ Riverside IV 21.3%<br>● FP Venture 2009 19.1% | ○ Mason Wells III 20.5%<br>● FP Venture 2010 19.8% | ○ Wicks IV 21.1% |
| 3rd | | | ○ Altus Capital II 11.8%<br>○ EnCap VIII -6.5% | ○ Wellspring V 16.4% |
| 4th | | ○ Insight Equity II 9.8% | | ○ JF Lehman III 10.8%<br>○ FP Intnl 2011 8.8% |

● Venture ○ Non-venture

BOLD = Realized

# Performance by Vintage Year and Quartile Group

| | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|
| 1st | ○ BV VIII 50.9%<br>● FP Venture 2012 26.0% | ● FP Venture 2013 28.7% | ○ Thoma Bravo XI 31.7% | ● FP Venture 2015 27.3% |
| 2nd | ○ ATRS-FP PE 18.4%<br>○ DW Healthcare III 18.4%<br>○ Court Square III 18.1% | ○ Vista Foundation II 15.1%<br>○ EnCap IX 4.3% | ● FP Venture 2014 27.2% | ○ EnCap X 3.1% |
| 3rd | ○ NGP X -1.9% | ○ FP Intnl 2013 11.3% | ○ KPS IV 19.0%<br>○ Atlas Capital II 18.1%<br>○ FP Intnl 2014 15.1%<br>○ NGP XI 2.0% | ○ Siris III 13.9%<br>○ FP Intnl 2015 13.4% |
| 4th | ○ FP Intnl 2012 8.9% | ○ Riverside V 8.6% | ○ Sycamore Partners II 3.4%<br>○ Lime Rock Resources III -7.5% | |

● **Venture** ○ **Non-venture**

**BOLD = Realized**

# Performance by Vintage Year and Quartile Group

FRANKLIN PARK

| | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|
| 1st | ○ Thoma Bravo Discover 39.1%<br>○ JF Lehman IV 35.3% | ● FP Venture 2017 41.3% | ○ Clearlake V 56.1%<br>○ Thoma Bravo Discover II 44.6%<br>○ FP Intnl 2018 33.4% | ○ Thoma Bravo XIII 62.9%<br>○ FP Intnl 2019 46.3%<br>○ Arlington V 42.8% |
| 2nd | ○ Arlington IV 28.3%<br>○ Vista Foundation III 28.1%<br>● FP Venture 2016 27.9%<br>○ DW Healthcare IV 26.8% | ○ FP Intnl 2017 36.2%<br>○ BV IX 31.0% | ● FP Venture 2018 28.1%<br>○ Altaris IV 16.8% | ● FP Venture 2019 29.4% |
| 3rd | ○ Thoma Bravo XII 18.3%<br>○ American Industrial VI 13.9% | ○ Altaris Constellation 25.0%<br>○ One Rock II 20.7%<br>○ NGP XII 0.0% | ○ SK Capital V 15.2% | ○ Siris IV 11.2%<br>○ American Industrial VII 8.0%<br>○ KPS Mid-Market I 2.0% |
| 4th | ○ FP Intnl 2016 11.1% | ○ EnCap XI -19.3% | ○ Sycamore Partners III -9.1% | ○ Riverside VI -9.5%<br>○ DW Healthcare V -15.8% |

● **Venture** ○ **Non-venture**

**BOLD = Realized**

- The analysis compares each fund's Net IRR versus its respective peer group by vintage year and strategy. Funds with a corporate finance strategy, excluding private debt, are compared to Cambridge Associates, U.S. Buyout. Funds with a venture capital strategy are compared to Cambridge Associates, U.S. Venture Capital. Multi-strategy funds are compared to data compiled by Cambridge Associates for funds across multiple strategies including U.S. Buyout, Growth Equity, Venture Capital, Mezzanine, Distressed, Fund-of-Funds, and Secondary Funds. Funds with a hard assets strategy are compared to Cambridge Associates, U.S. Private Equity Energy. Funds with a real estate strategy are compared to Cambridge Associates, U.S. Real Estate. Benchmark data is not available for funds with a private debt strategy.
- The analysis excludes the two most recent vintage years, as fund performance is deemed not yet meaningful (NMF).
- Net IRR is defined as the annualized, compound rate of return using daily draws, distributions and Remaining Value as of the Report Date, net of fees and expenses, including late closing interest.
- Benchmark data was compiled from Cambridge Associates as of December 31, 2020. Hard Assets benchmark data for Vintage Years prior to 2005 is not available.

## Diversification Analysis

## Exposure By Vintage Year

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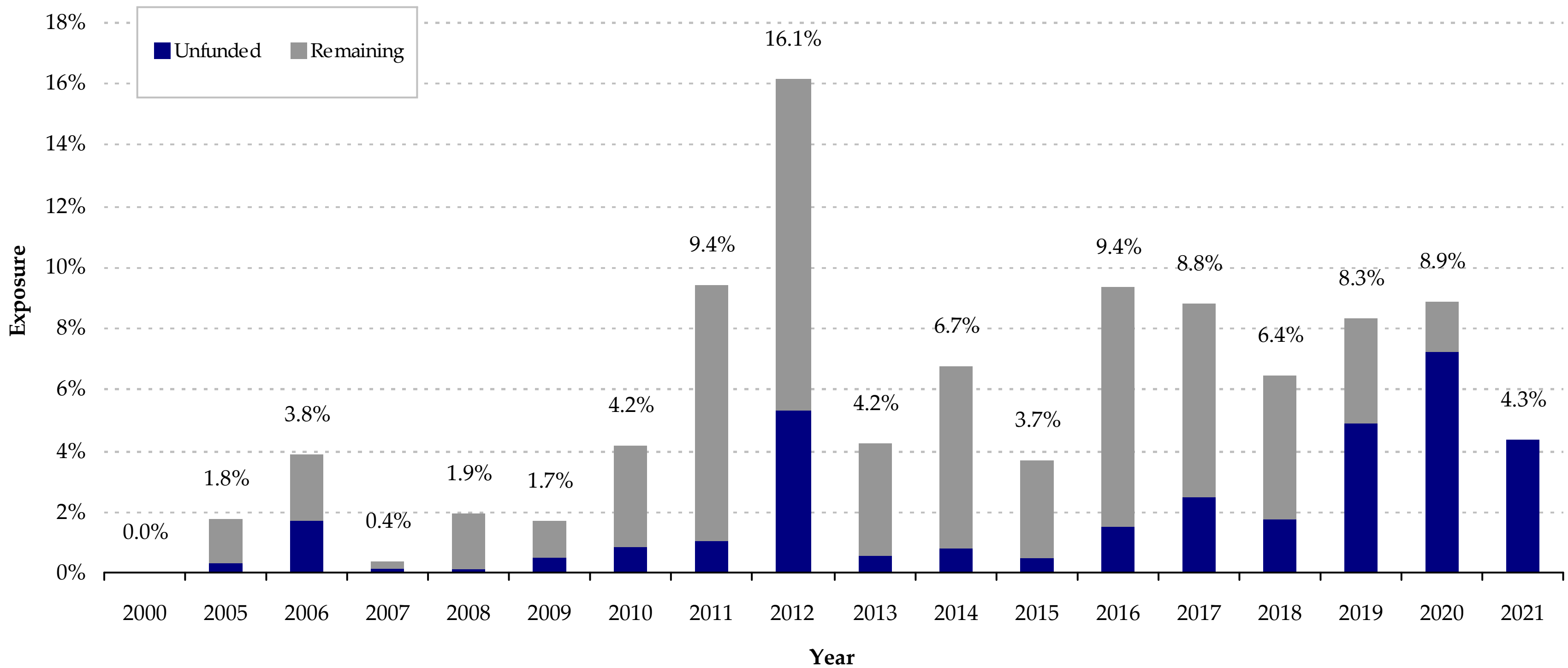


- Exposure is defined as the sum of the investor's Remaining Value plus Unfunded Commitment.
- Data includes commitments through the Report Date.

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## Exposure By Strategy and Type

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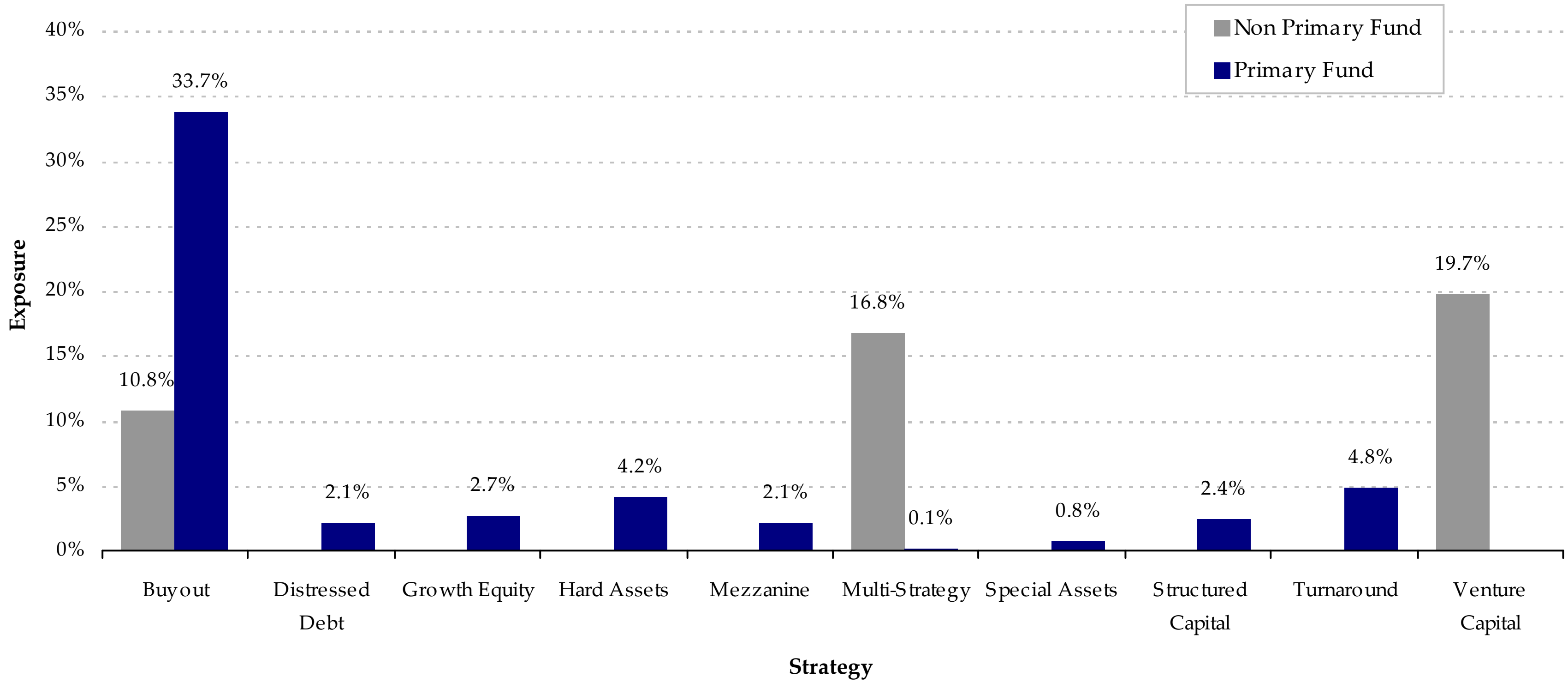
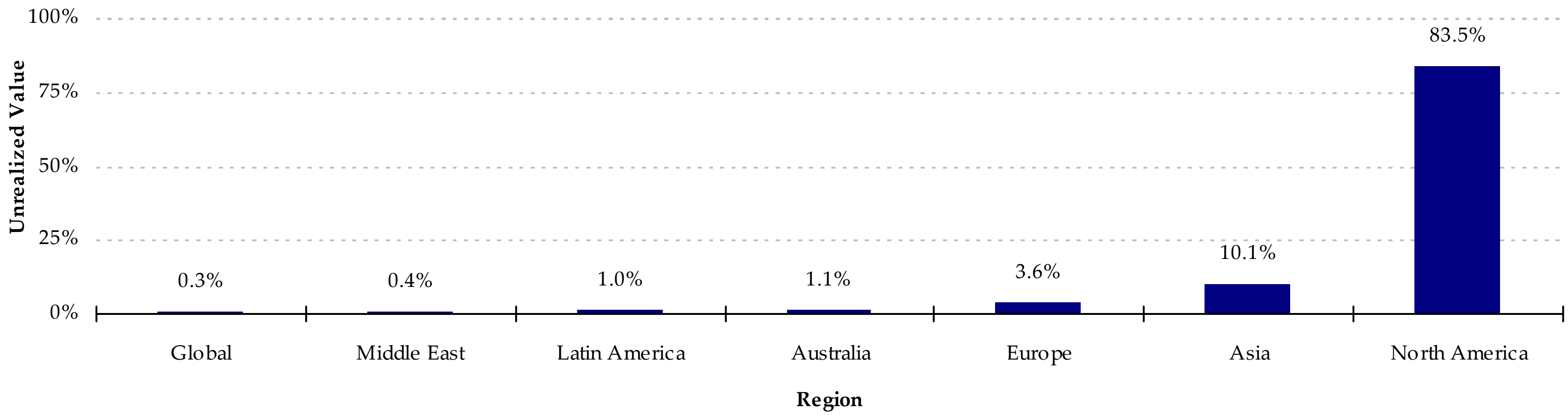


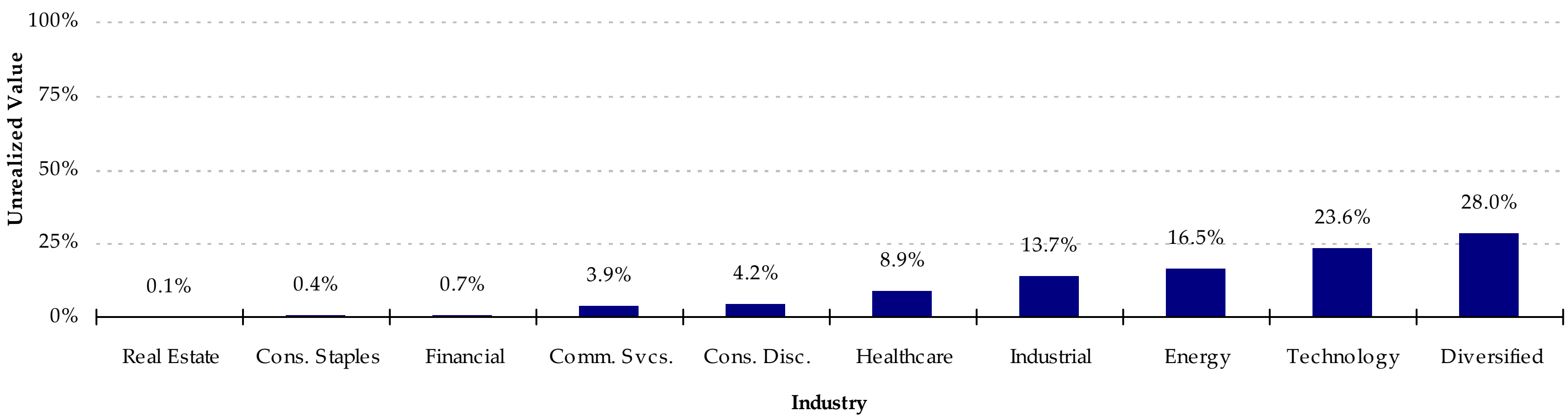

- Exposure is defined as the sum of the investor's Remaining Value plus Unfunded Commitment.
- Primary Fund represents interests in private equity funds acquired directly from the seller (i.e. fund manager). Non Primary Fund represents interests in private equity funds acquired through a commitment to a fund-of-funds or secondary fund-of-funds.

# Holdings by Region and Industry

## Region



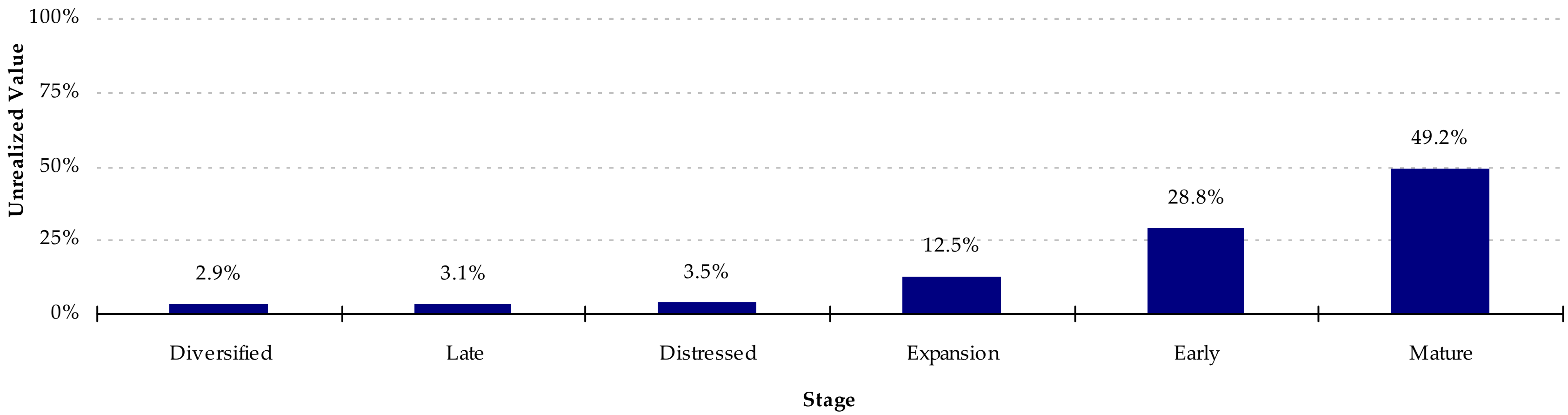

## Industry



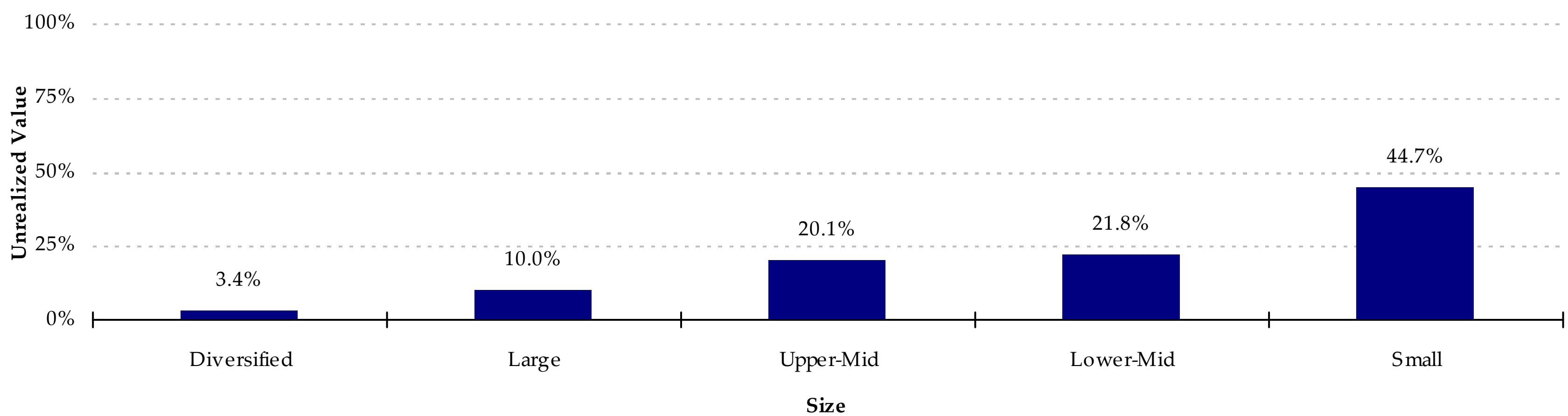

- Unrealized Value represents the value of portfolio holdings as reported by fund managers.
- Values are estimated based on the investor's percent interest in each fund's portfolio holdings.
- Values are converted to the investor's currency, when applicable, as of the Report Date.

# Holdings by Stage and Size

## Stage




## Size




- Unrealized Value is the value of portfolio holdings as reported by the fund manager.
- Values are estimated based on the investor's percent interest in each fund's portfolio holdings.
- Values converted to the investor's currency, when applicable, as of the Report Date.

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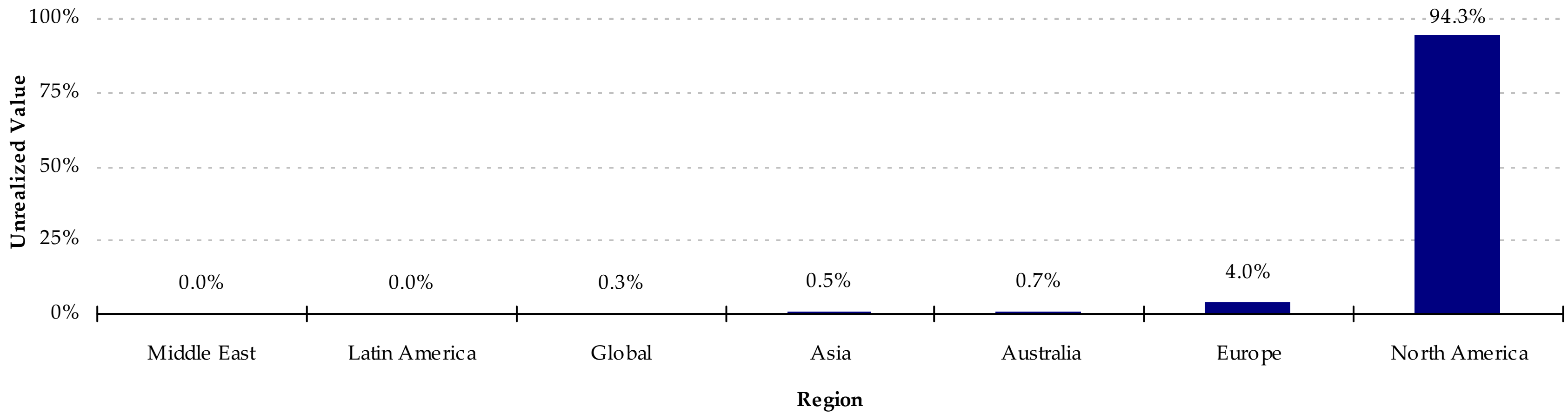
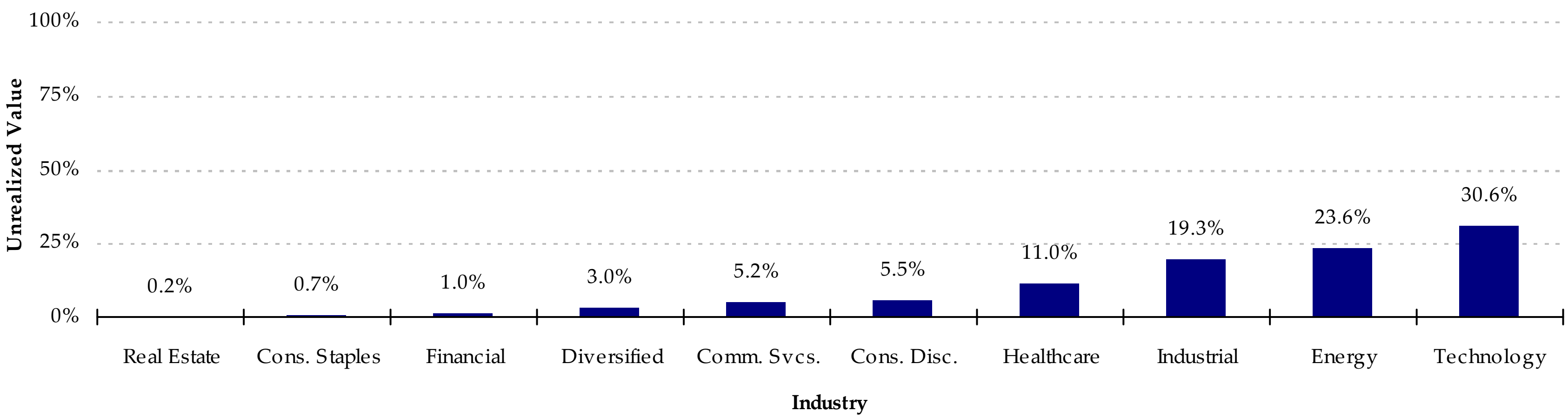
### Region

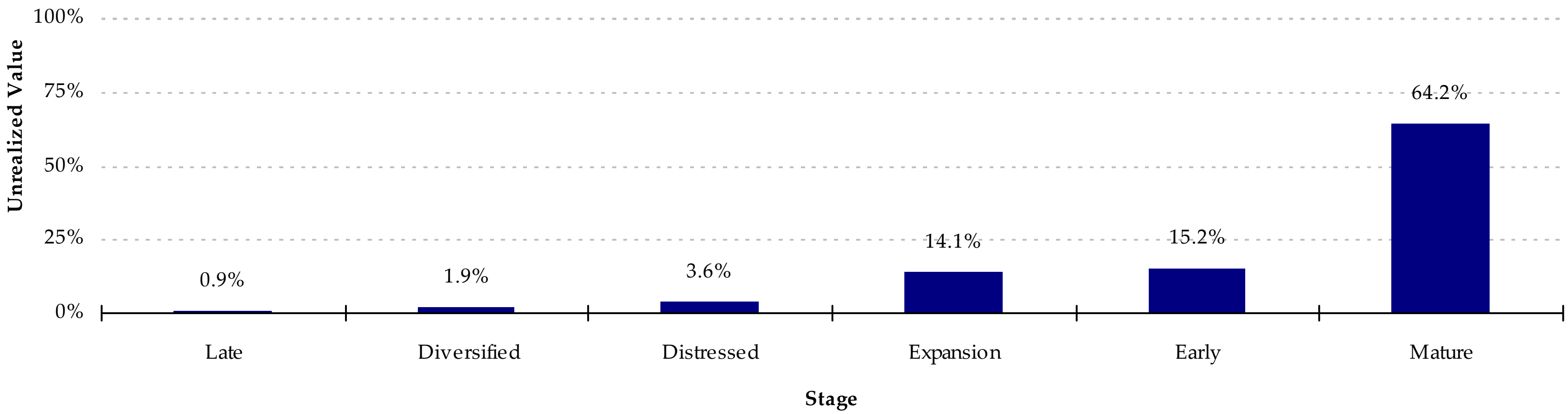



### Industry

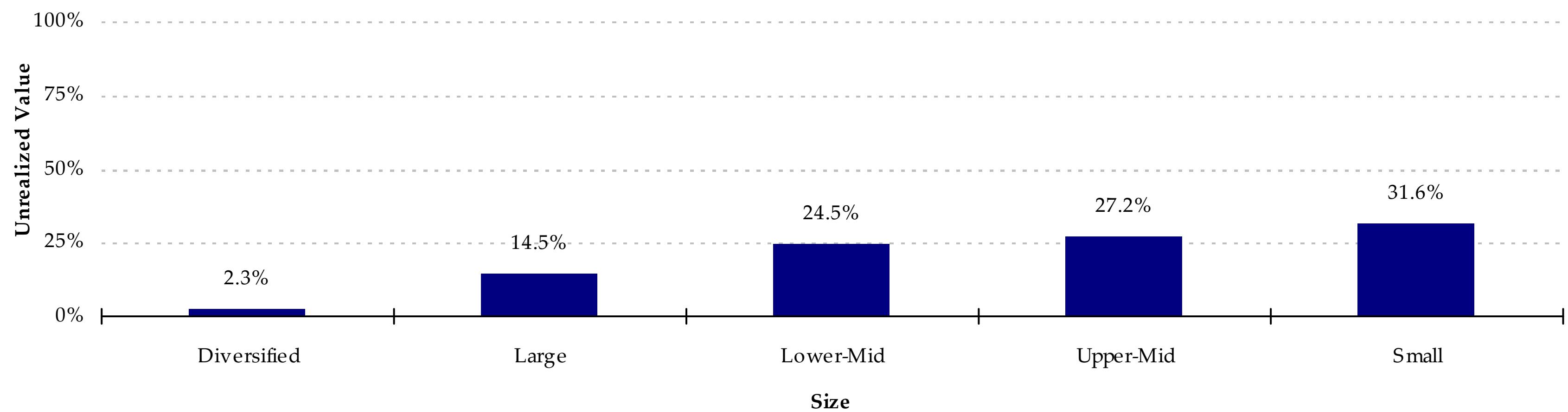



- Fund investments in other funds were excluded from this analysis.
- Unrealized Value represents the value of portfolio holdings as reported by fund managers.
- Values are estimated based on the investor's percent interest in each fund's portfolio holdings.
- Values are converted to the investor's currency, when applicable, as of the Report Date.

## Stage

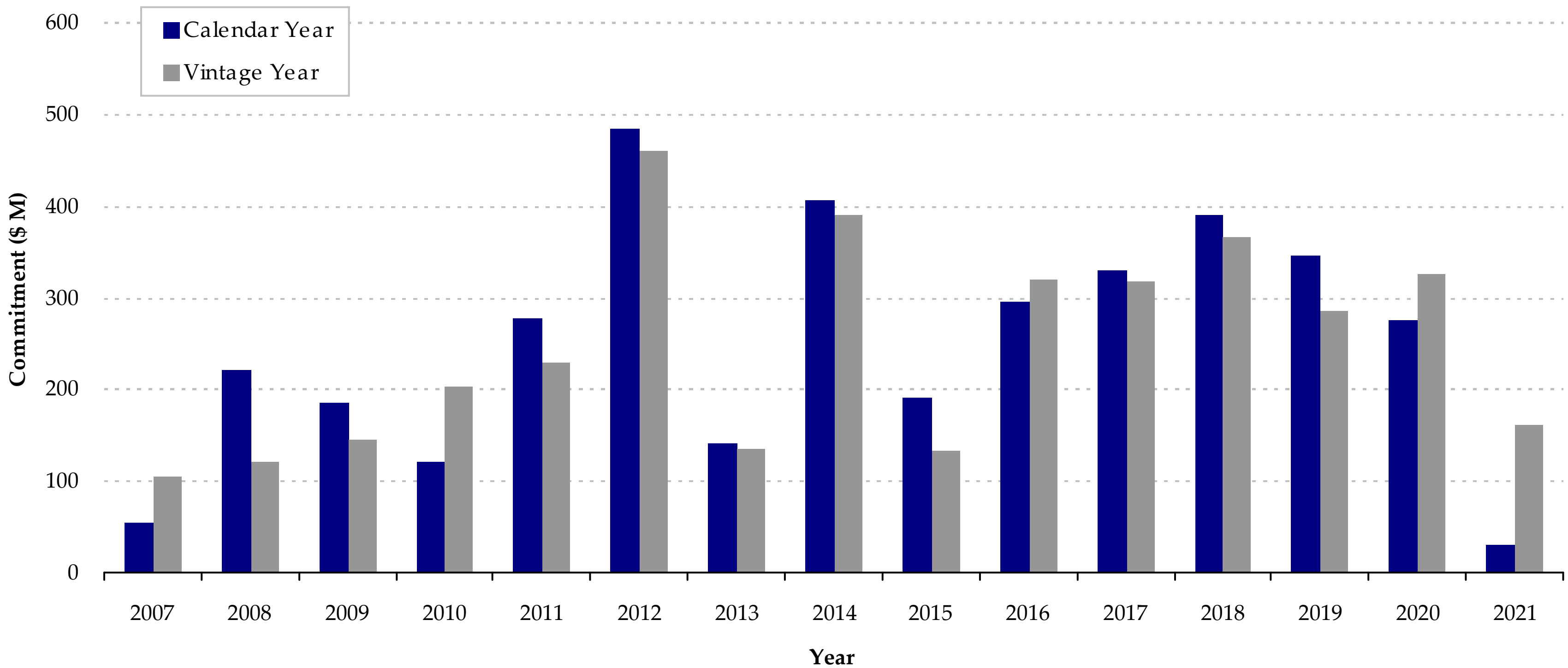



## Size




- Fund investments in other funds were excluded from this analysis.
- Unrealized Value represents the value of portfolio holdings as reported by fund managers.
- Values are estimated based on the investor’s percent interest in each fund’s portfolio holdings.
- Values are converted to the investor's currency, when applicable, as of the Report Date.

## Recent Activity




- Vintage Year represents the year in which investors first contribute capital to a fund.
- Calendar Year represents the year in which a commitment to a fund formally closed.
- Commitments made in a foreign currency have been converted into U.S. dollars using an exchange rate as of the Report Date, if applicable.
- Commitments were compiled through the Report Date.

# Glossary

| Term | Definition |
|---|---|
| Barclays US Corporate High Yield Index | The Barclays US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Barclays EM country definition, are excluded. |
| Bridge Financing | Temporary funding that will eventually be replaced by permanent capital from equity investors or debt lenders |
| Buyout | Fund whose strategy is to acquire controlling interests in companies |
| Co/Direct Investment | Investment made directly into a company, rather than indirectly through a fund |
| Committed Capital | Total dollar amount of capital pledged to a fund |
| Contributed Capital | Total capital contributed to a fund for investments, fees and expenses, including late closing interest paid, less returns of excess capital called |
| Cost Basis | Remaining amount of invested capital |
| Debt | Security type that signifies a repayment obligation by a company (e.g. senior debt, subordinated debt, bridge loan etc.) |
| Distressed | A company's final Stage of development. Company is generally experiencing operational or financial distress |
| Distressed Debt | • Distressed Trading – Fund whose strategy is to invest and trade debt of financially stressed companies<br>• Distressed Restructuring – Fund whose strategy is to acquire and restructure debt of financially stressed companies<br>• Opportunistic Credit – Fund whose strategy is to flexibly invest in debt securities and income-producing assets of any kind, where the issuer or holder is financially stressed<br>• Structured Capital – Fund whose strategy is to issue hybrid debt and equity securities to mature companies |
| Distributed Capital | Capital distributed to the limited partners, including late closing interest earned |
| Dow Jones US Total Stock Market Total Return Index | The Dow Jones US Total Stock Market Total Return Index measures all U.S. equity securities with readily available prices. It is a free float-adjusted market capitalization weighted index and is calculated with dividend reinvestment. |
| DPI | Ratio of Distributed Capital to Contributed Capital |
| Early Stage | A company's first Stage of development. Company is generally generating modest or no revenues |
| Equity | Security type that signifies ownership of a company (e.g. common stock, preferred stock, warrants, etc.) |
| Expansion Stage | A company's third Stage of development. Company is generally experiencing high growth and nearing profitability |
| Exposure | Sum of Remaining Value plus Unfunded Commitment |
| Fund-of-Funds | Fund whose strategy is to make investments in other funds |
| Geographic Region | Market location of a company: North America, Western Europe, Africa/Middle East, Latin America, Asia/Pacific Rim |
| Growth Equity | Fund whose strategy is to invest in companies to expand or restructure operations, enter new markets or finance an acquisition without a change of control of the business |
| Hard Assets | Fund whose strategy is to invest in natural resources or infrastructure |
| Infrastructure | Fund whose strategy is to acquire interests in physical structures and networks that provide the essential services for society's economic and social needs (e.g. roads, tunnels, communication networks, etc.) |
| Internal Rate of Return (IRR) | The discount rate that results in a net present value of zero of a series of cash flows. The IRR considers both cash flow timing and amount and is the preferred performance measure for private market funds |
| Invested Capital | Capital invested by a fund in portfolio holdings |
| Investment Type | Classification of an investment vehicle: Primary Fund, Secondary Fund, Fund-of-Funds |

| Term | Definition |
|---|---|
| J-Curve | Refers to the shape of the curve illustrating a fund's performance over time. During the initial years of a fund's life, as a result of illiquidity, stagnant valuations, fees and expenses, a fund's performance tends to be negative (the bottom of the "J"). Eventually, as portfolio companies are realized or increase in value and fees become a smaller percentage of overall contributions, performance improves and investors' returns move up the "J" shaped curve |
| Large | Company with a Size greater than $1 billion |
| Late Stage | A company's second Stage of development. Company is generally generating high revenue growth and high losses |
| Lower-Mid | Company with a Size greater than $100 million, but less than $250 million |
| Mature | A company's fourth Stage of development. Company is generally generating modest to no growth and operating profitably |
| Mezzanine | • Sponsored Mezzanine – Fund whose strategy is to issue subordinated loans to companies owned by private equity fund sponsors<br>• Non-Sponsored Mezzanine – Fund whose strategy is to issue subordinated loans to companies not owned by private equity fund sponsors |
| MSCI ACWI Index - Total Return | The MSCI ACWI Total Return is a reflection of the performance of the MSCI ACWI Index, including dividend reinvestment, as calculated by Bloomberg. The MSCI ACWI Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The MSCI ACWI consists of 45 country indices comprising 24 developed and 21 emerging market country indices. |
| Natural Resources | Fund whose strategy is to acquire interests in naturally-occurring, economically valuable raw materials and all physical facilities and capabilities required for the extraction, refinement, and delivery to end users (e.g. oil and gas properties, timberland, etc.) |
| NCREIF Property Index | The NCREIF Property Index is a quarterly, unleveraged composite total return for private commercial real estate properties held for investment purposes only. |

| Term | Definition |
|---|---|
| Net IRR | Annualized effective compound rate of return using daily contributions, distributions and Remaining Value as of the Report Date, net of all fees and expenses, including late closing interest |
| Percent Interest | Represents an investor's economic interest in a fund based upon the investor's commitment divided by total fund commitments |
| Primary Investment | An interest in a private equity fund acquired directly from the fund manager during the fundraising period |
| Public Market Equivalent (PME) | A private equity benchmark that represents the performance of a public market index expressed in terms of an IRR, using the same cash flows and timing as the investor's investment activity in private equity. The PME serves as a proxy for the return the investor could have achieved by investing in the public market. The PME benchmark return assumes cash flows are invested at the end of each day |
| Publication Date | Refers to the date this report was created as reflected in the Executive Summary |
| Real Assets | Fund whose strategy is to invest in assets that are tangible or physical in nature such as land, machinery, and livestock |
| Real Estate | Fund whose strategy is to acquire interests in real estate property |
| Realized Capital | Capital distributed to a fund from portfolio holdings |
| Recallable / Recyclable Capital | Capital that has been previously distributed by a fund to investors but may be called again for investment purposes. It is generally associated with realizations that have occurred in the early years of a fund or refers to uninvested capital that has been temporarily returned (i.e. returns of excess capital) |
| Recapitalization | The reorganization of a company's capital structure |
| Remaining Value | Capital account balance as reported by the General Partner, generally on a fair value basis |
| Report Date | Refers to the end date of the reporting period as reflected on the cover page |
| Return on Investment (ROI) | Ratio of Realized Capital plus Unrealized Value to Invested Capital |

| Term | Definition |
| --- | --- |
| Russell 1000® Total Return Index | The Russell 1000® Total Return Index measures the performance, including dividend reinvestment, of the large-cap segment of the U.S. equity universe. It is a subset of the Russell 3000® Index and includes approximately 1000 of the largest securities based on a combination of their market cap and current index membership. The Russell 1000 represents approximately 92% of the U.S. market. |
| Russell 3000® Total Return Index | The Russell 3000® Total Return Index measures the performance, including dividend reinvestment, of the largest 3000 U.S. companies representing approximately 98% of the investable U.S. equity market. |
| S&P 500 Price Index | The S&P 500 Price Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. |
| S&P 500 Total Return Index | The S&P 500 Total Return Index is a reflection of the performance of the S&P 500 Index, including dividend reinvestment. All regular cash dividends are assumed to be reinvested in the S&P 500 Index on the ex-date. Special cash dividends trigger a price adjustment in the price return index. |
| Secondary Investment | Investments that involve the purchase of private equity fund interests or portfolios of direct investments in privately held companies from existing institutional investors |
| Sector | Industry in which the company operates: technology, telecommunications, healthcare, financial services, diversified, industrial, consumer, energy, etc. |
| Senior Debt | • Direct Lending – Fund whose strategy is to issue senior loans to mature companies<br>• Unitranche – Fund whose strategy is to issue hybrid senior and subordinated loans to mature companies<br>• Venture Debt – Fund whose strategy is to issue loans to venture stage companies<br>• Asset Based Lending – Fund whose strategy is to issue loans to companies where the amount of allowable borrowing outstanding is based on asset collateral value<br>• Rescue Financing – Fund whose strategy is to issue loans to financially stressed companies |

| Term | Definition |
| --- | --- |
| Size | Capitalization size of a company: Large, Upper-Mid, Lower-Mid, Small |
| Small | Company with a Size of less than $100 million |
| Small Business Investment Company (SBIC) | Lending and investment firms that are licensed and regulated by the Small Business Administration (SBA). The licensing enables them to borrow from the federal government to supplement the private funds of their investors |
| Small Buyout | Fund whose strategy is to acquire or recapitalize Small businesses |
| Special Assets | • Healthcare Royalties – Fund whose strategy is to acquire royalty or revenue interests, or issue loans, backed by approved life science products<br>• Music Royalties – Fund whose strategy is to acquire royalty or revenue interests, or issue loans, backed by music copyright assets<br>• Aircraft Leasing – Fund whose strategy is to acquire and lease commercial aircraft<br>• Life Settlement - Fund whose strategy is to acquire life insurance policies<br>• Shipping – Fund whose strategy is to acquire and charter commercial shipping vessels<br>• Asset Backed Securities – Fund whose strategy is to acquire or structure securities that are backed by income-producing assets |
| Stage | The course of development through which a company passes from its inception to its termination: Early, Late, Expansion, Mature, Distressed |
| Sub-Asset Class | Private equity investments are generally classified as Buyout, Venture Capital, Mezzanine, Distressed/Turnaround, and Fund-of-Funds |
| TVPI | Ratio of Distributed Capital plus Remaining Value to Contributed Capital |
| Unfunded Commitment | Amount of capital that remains to be contributed to a fund as defined in a fund's limited partnership agreement |
| Unrealized Value | Holding value of a portfolio company assigned by the General Partner, which generally represents fair value |
| Upper-Mid | Company with a Size greater than $250 million but less than $1 billion |
| Venture Capital | Fund whose strategy is to make investments in Early Stage and/or Late Stage companies |

| Term | Definition |
| --- | --- |
| Vintage Year | The calendar year in which an investor first contributes capital to a fund |

# End Notes

The information contained in this report is confidential and may contain proprietary information and trade secret information. The information contained herein is prepared by Franklin Park and is not reviewed or approved by the general partners or affiliates of underlying portfolio fund investments and is strictly for the use of Arkansas Teacher Retirement System and, subject to applicable law, may not be reproduced, transmitted or used in whole or in part for any other purpose without the expressed written consent of Franklin Park. Franklin Park requests that investors maintain this information in confidence and that this report is not disclosed to any person other than affiliates, advisers, and accountants, who agree to maintain this information in similar confidence, without the prior written consent of Franklin Park.

Information regarding the Arkansas Teacher Retirement System portfolio, trends and performance returns are based on or derived from information and data provided by third-party sources, including Arkansas Teacher Retirement System's historical records. Franklin Park assumes that such information is accurate and that the sources from which it has been obtained are reliable. For example, the performance figures contained within this report are calculated by Franklin Park based on information provided by the managers of Arkansas Teacher Retirement System's private equity fund investments (General Partners). The General Partners have not verified the performance figures presented by Franklin Park and such figures may differ from those calculated by General Partners or other investors.

Franklin Park presents Net IRR performance as recommended by the CFA Institute. The IRR calculation is a dollar-weighted return measurement, which considers both cash flow timing and amount, and is net of fees, expenses and carried interest. The total portfolio Net IRR presented herein is net of fees, expenses and carried interest paid by underlying private equity fund investments, but is gross of fees and expenses paid to Franklin Park. The IRR is most commonly used for measuring the performance of private equity funds. Until a fund is liquidated, typically over 10 to 12 years, the IRR is only an interim estimated return. An IRR is particularly not meaningful in the first two years of a fund's life given the J-curve effect (see footnote). The actual IRR of any private equity fund investment is not known until final liquidation.

▫ The J-curve refers to the shape of the curve that illustrates a private equity fund’s performance over time. During the initial years of a fund's life, due to fees and expenses, a fund’s performance tends to be negative (the bottom of the “J”). Eventually, as portfolio company investments increase in value, fund performance improves and returns move up the “J” shaped curve.

# Arkansas Teacher Retirement System
# Emerging Manager Update

**July 2021**

# Franklin Park's Manager Coverage

## Broad coverage of the private equity and private debt manager universe

| | |
|---|---|
| **Emerging Manager Coverage** | • Franklin Park maintains dialogue with the universe of minority-owned/led private equity and private debt managers and has done so since inception<br>• Franklin Park actively pursues due diligence on top minority-owned/led managers |
| **Emerging Manager Database** | • Franklin Park's database includes information on 261 funds[1] raised by minority-owned/led private equity and private debt managers |

[1] Data as of July 2021

# Manager Reviews

Due diligence activity from July 1, 2020 to June 30, 2021

## 55 minority-owned/led managers were reviewed by Franklin Park during the period

- Offering documents were analyzed by our team
- Each opportunity was discussed during our weekly internal Investment Committee meeting
- Many of these firms have been tracked by our team for numerous years

## The minority-owned/led managers reviewed during the period are listed below

- 5th Century Fund I
- Aldrich Capital II
- Arkam Ventures I
- Ascend Partners I
- Auldbrass Secondary Opps III
- Avance I
- Avenue Growth Partners I
- B Capital III
- Base Venture III
- Bergamot Music IP Fund I
- BlackIvy Endeavors
- Clearhaven I
- Clearlake Opportunity III
- Clearlake VII
- Cold Bore Capital Fund II
- Crescent Cove Opportunity
- Croatan All-Weather
- Data Focus Fund
- Decibel Partners I
- Divergent Capital I
- E2JDJ I
- East Beach Credit Opps I
- Ethos I
- Footwork I
- FPA WhiteHawk Strategy
- Full In Partners II
- Future Perfect III
- Fvlcrum I
- Grain Comm Opps III
- HPH II
- Innovate Capital Growth I
- Jumpstart Nova I
- Kah Capital I
- Lafayette Square BDCs
- Legalist III
- LFX Ventures I
- Mastry I
- Mill Point II
- NCV Search I
- NMS IV
- OzoneX Fund I
- Parliament Credit Opps I
- Pharos Capital IV
- Plexo Capital II
- Powerhouse Fund One
- Prysm I
- Red Arts Capital Opportunity I
- Staley 2020 Fund
- Sustainable Innovation
- Tanglin II
- Turning Rock Partners II
- Vanterra Accelerator I
- VC Include
- Wavecrest II
- Zeal Fund I

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# Manager Meetings

Due diligence activity from July 1, 2020 to June 30, 2021

## Meetings/calls were held with 39 of the 55 minority-owned/ led managers reviewed during the period

- Meetings/calls were held with senior professionals of each manager
- Following the meeting/call, a memo was written and discussed during our weekly internal Investment Committee meeting

## The minority-owned/led managers that Franklin Park met with during the period are listed below

- 5th Century Fund I
- Aldrich Capital II
- Ardent Venture I
- Ascend Partners I
- Auldbrass Secondary Opps III
- Avance I
- Avenue Growth Partners I
- B Capital III
- Base Venture III
- Clearhaven I
- Clearlake Opportunity III
- Clearlake VII
- Crescent Cove Opportunity
- Data Focus Fund
- Decibel Partners I
- Digital Alpha II
- East Beach Credit Opps I
- Ethos I
- Footwork I
- FPA WhiteHawk Strategy
- Full In Partners II
- Fvlcrum I
- Grain Comm Opps III
- HPH II
- Innovate Capital Growth I
- Invictus Growth I
- Jumpstart Nova I
- Kah Capital I
- Lightsmith Resilience I
- Mastry I
- Mill Point II
- Motive Partners II
- NCV Search I
- Parliament Credit Opps I
- Pharos Capital IV
- Plexo Capital II
- Tanglin II
- Turning Rock Partners II
- Wavecrest II

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# Manager Analysis

## Due diligence activity from July 1, 2020 to June 30, 2021

### Detailed analysis was conducted on 11 of the 39 minority-owned/led managers reviewed during the period

- Due diligence included one or more of the following: track record analysis, reference calls, site visits, and operational and legal reviews
- Following this analysis, a memo was written and discussed during our weekly internal Investment Committee meeting

### The minority-owned/led managers that Franklin Park analyzed during the period are listed below

- Aldrich Capital II
- Ascend Partners I
- Avance I
- Clearhaven I
- Clearlake Opportunity III
- Clearlake VII
- FPA WhiteHawk Strategy
- Full In Partners II
- Grain Comm Opps III
- Mill Point II
- Wavecrest II

# Manager Commitments

Due diligence activity from July 1, 2020 to June 30, 2021

## A minority-owned/led manager in ATRS' existing portfolio is currently in process and two other commitments were made to minority-owned/led managers in Franklin Park Corporate Finance Access Fund, L.P.

- Clearlake Capital VII is currently in process and will likely be considered at the September 2021 board meeting
- Franklin Park Corporate Finance Access Fund, L.P. (in which ATRS is an investor) recently committed to Ascend Partners I, L.P. and Clearhaven I, L.P.
- Franklin Park continues to seek to review minority-owned/led managers for consideration for the ATRS portfolio

## Minority-owned/led managers that ATRS has committed to since 2013 are listed below

- Vista Foundation II ($15m, 2013)
- Lime Rock Resources III ($25m, 2014)
- Sycamore Partners II ($25m, 2014)
- Vista Foundation III ($30m, 2016)
- One Rock Capital Partners II ($30m, 2017)
- BV IX ($30m, 2017)
- Sycamore Partners III ($25m, 2017)
- Clearlake Capital V ($30m, 2018)
- Clearlake Capital VI ($30m, 2019)

## Franklin Park Associates, LLC

251 St. Asaphs Road
Three Bala Plaza, Suite 500 West
Bala Cynwyd, PA 19004

For more information, please contact us at info@franklinparkllc.com


Franklin Park Associates, LLC is an SEC registered investment advisor pursuant to the Investment Advisors Act of 1940

Arkansas Teacher Retirement System

# Executive Summary
# Bison Capital Partners VI, L.P.

FRANKLIN PARK

## Executive Summary

**Fund** Bison Capital Partners VI L.P. (the "Fund")

**General Partner** Bison Capital Asset Management (the "General Partner" or "Bison")

**Report Date** September 2021

**Fundraising** The General Partner is targeting capital commitments of $500 million. The General Partner is targeting a first closing in late 2021 and a final closing in Q2 2022.

**Source** Franklin Park sourced the fund offering directly from the General Partner.

**Investment Strategy** The Fund is being formed to make structured capital investments in small and lower middle market non-sponsored companies based in the United States. The Fund will invest in hybrid structures consisting of both debt and equity features. Debt investments will typically include upside through convertibility or participating features. Equity investments will typically have liquidation preference over common equity, and positive and negative controls that are similar to debt investments. The Fund's investments will typically sit behind only moderate senior leverage and will be supported by a significant common equity cushion.

The General Partner generally targets investments with the following characteristics:

- Entrepreneurs who want to minimize dilution and/or avoid giving up control
- Businesses that can't access or choose not to use traditional debt solutions
- High growth or scalable businesses with actionable path to value creation
- Use of proceeds including capital for growth and acquisitions
- Alignment of interest with founders/management (average 53% of founder/management equity ownership)
- Tech-enabled business services, healthcare services, and logistics and distribution sectors
- Revenues of $10-$250 million and EBITDA of >$5 million

Post-investment, the General Partner seeks to add value by assisting management with strategic planning, financial structuring issues, introduction of new business contacts, asset divestitures, new acquisition opportunities, follow-on financings, hiring additional managerial talent, new business and product line introductions, and positioning the company for exit.

**Management Team** Based in Los Angeles, CA and New York, NY, the General Partner was founded in 2001 and is led by five senior investment professionals (the "Principals") who are supported by four investment professionals, a business development professional and a CFO. The Principals' backgrounds are summarized in the table below.

| Principals | Office | Yrs. GP | Yrs. PE | Background |
|---|---|---|---|---|
| Doug Trussler | LA | 20 | 26 | Levine Leichtman, Windward Capital, CSFB |
| Lou Caballero | LA | 16 | 16 | Roth Capital, Catellus Development |
| Peter MacDonald | NY | 12 | 25 | BlackRock Kelso, Windward Capital, CSFB |
| Andreas Hildebrand | NY | 8 | 27 | Goldman, GE Asset Management |
| Kurt Pilecki | LA | 12 | 15 | CIBC |

## Track Record

The General Partner has raised five prior funds. The following chart summarizes the performance of the prior funds, as of December 31, 2020 ($ 000).

**Aggregate Performance Summary**[1] (USD 000)

| Fund (Vintage) | Rlzd Deals / # Deals | Invested | Realized | Unrealized | Gross ROI | Gross IRR |
|---|---|---|---|---|---|---|
| Fund I (2003) | 4 / 5 | 91,691 | 128,429 | 6,000 | 1.5x | 11.5% |
| Fund II / Fund III (2006) | 6 / 7 | 140,507 | 304,618 | 712 | 2.2x | 15.4% |
| Fund IV (2012) | 6 / 14 | 229,982 | 196,367 | 216,000 | 1.8x | 17.1% |
| Fund V (2017) | 1 / 11 | 290,938 | 88,047 | 333,332 | 1.4x | 20.5% |
| Total | 17 / 37 | 753,118 | 717,461 | 556,044 | 1.7x | 15.1% |

Notes:
(1) Gross of fees and carried interest expenses. The unrealized investments were valued by the General Partner. Fund III was an extension fund for Fund II that invested in one deal.

## Investment Evaluation

1. **The Fund's strategy should generate attractive risk-adjusted returns.** The Fund will invest in a combination of debt and equity securities. The benefit to the Fund is current income and downside protection, with return upside through equity participation. The General Partner's transactions are typically structured with low financial leverage, which also serves to mitigate downside risk. A majority of the Fund's investments will have a substantial contractual rate of return, typically ranging from 8% to 13%, in the form of a coupon or dividend. In most cases, the contractual return will be paid in the form of cash or PIK. These coupons lessen the J-curve of a traditional private equity fund.

2. **The Principals have significant experience.** The Principals average over 21 years of investment experience and have been investing together at the General Partner for an average of over 13 years. Each of the Principals has been involved in six or more prior investments at the General Partner.

3. **The General Partner has generated an attractive risk-adjusted track record. In particular,**
   - **Funds II/III, IV and V have generated solid aggregate returns.** Funds II, IV and V have each produced a double digit net IRR. Fund V has experienced no losses or impairments to date.
   - **The General Partner's realized transactions have produced attractive returns.** The General Partner's 17 realizations have produced a 2.0x ROI and 20.5% gross IRR in aggregate.

   **However,**
   - **Fund I generated lackluster returns, including an 8.6% net IRR.** However, the fund had a greater emphasis on current yield with a lower equity participation and is not as relevant to the current strategy.
   - **Fund IV's performance has been volatile.** There are three realized losses and two impairments among Fund IV's 14 investments.

## Recommendation

Franklin Park recommends a commitment of up to $30 million to the Fund, subject to the completion of operational due diligence and satisfactory negotiation of final documentation, based on the following:

- The Fund's strategy should generate attractive risk-adjusted returns;
- The Principals have significant experience; and
- The General Partner has generated an attractive risk-adjusted track record.

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
## No. 2021-48

## Approving Investment in Bison Capital Partners VI, L.P.

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its private equity consultant, Franklin Park Associates, LLC, along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Bison Capital Partners VI, L.P.**, a private equity debt and equity fund that will focus on hybrid debt and equity investments in small to middle market companies.

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$30 million dollars ($30,000,000.00)** in **Bison Capital Partners VI, L.P.** The total investment amount is to be determined by the private equity consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED***, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 27th day of September 2021.**

________________________________

**Mr. Danny Knight, *Chair***
**Arkansas Teacher Retirement System**

Arkansas Teacher Retirement System

# Executive Summary
# Clearlake Capital Partners VII, L.P.

FRANKLIN PARK

## Executive Summary

**Fund** Clearlake Capital Partners VII, L.P. (the "Fund")

**General Partner** Clearlake Capital Group (the "General Partner" or "Clearlake")

**Report Date** August 2021

**Fundraising** The General Partner is targeting capital commitments of $10 billion with an expected cap of $12+ billion, including the General Partner's commitment of up to $200 million. The General Partner will hold a first close on September 29th. The Fund's available capital is expected to be fully allocated by the first close, but rolling closes are likely through early 2022.

**Source** Franklin Park sourced the offering directly from the General Partner.

**Investment Strategy** The General Partner invests in special situations, distressed and private equity investments in the middle and large markets. The General Partner opportunistically pursues distressed debt, rescue financing, growth capital, buyout, and turnaround investments. Target companies will often require financial, operational or structural change where market inefficiencies and mispricing of assets can be exploited. The General Partner invests for control or significant influence to affect change post-investment. The Fund is expected to primarily focus on the software, technology-enabled services, and industrials sectors.

The General Partner's approach is flexible, investing across the capital structure in debt or equity securities, targeting private market and capital market transactions where Clearlake can obtain control or has significant influence. In private investments, potential securities and instruments used may include a combination of common equity, preferred equity, unsecured debt, secured debt, DIP loans and bilateral credit facilities and specific investments may make use of features such as convertibility, earn-outs, warrants and make-whole premiums. In capital markets investments, the Fund will concentrate on acquiring material stakes in debt instruments or claims, including control or blocking positions in certain classes of debt or other claims.

**Management Team** Headquartered in Santa Monica, California, the General Partner was established in December 2006 by Steve Chang, José Feliciano and Behdad Eghbali, with sponsorship from Reservoir Capital ("Reservoir"). In 2017, the General Partner partnered with Landmark Partners ("Landmark") to acquire Reservoir's ownership stake. In 2018, the General Partner completed another transaction in which a minority stake is now held by Landmark, Dyal Capital ("Dyal") and Goldman Sachs.

The Fund will be managed by Messrs. Feliciano and Eghbali as well as Prashant Mehrota, Colin Leonard, and James Pade (collectively, the Partners"), whose backgrounds are summarized below.

| Professional | Years GP | Years PE | Relevant Experience |
|---|---|---|---|
| José Feliciano | 15 | 25 | Tennenbaum, govWorks, Goldman Sachs |
| Behdad Eghbali | 15 | 23 | TPG, Venus Capital |
| Prashant Mehrotra | 11 | 19 | Silver Lake, Tennenbaum |
| Colin Leonard | 14 | 17 | HBK Investments |
| James Pade | 8 | 13 | TowerBrook Capital |

**Track Record**

The General Partner has raised six prior funds ("CCP I-VI" or "Funds I-VI") with $182 million, $415 million, $789 million, $1.4 billion, $3.6 billion, and $7.1 billion in respective capital commitments. The following chart summarizes the performance of Funds II-VI, as of March 31, 2021 ($000).

| Fund (Vintage) | Rlzd Deals / # Deals | Invested | Realized | Unrealized | Gross ROI | Gross IRR |
|---|---|---|---|---|---|---|
| CCP II (2009) | 14 / 15 | 580,387 | 1,026,470 | 28,888 | 1.8x | 22.0% |
| CCP III (2012) | 15 / 20 | 1,196,456 | 3,301,818 | 445,318 | 3.1x | 47.4% |
| CCP IV (2015) | 12 / 24 | 1,953,400 | 1,924,987 | 2,579,979 | 2.3x | 38.8% |
| CCP V (2017) | 4 / 21 | 3,923,262 | 1,638,505 | 7,787,985 | 2.4x | 64.5% |
| CCP VI (2020) | 0 / 9 | 4,428,975 | 308,209 | 4,833,885 | 1.2x | 45.6% |
| Total | 45 / 89 | 12,082,479 | 8,199,988 | 15,676,055 | 2.0x | 40.8% |

*Gross of fees and carried interest expenses. The unrealized investments were valued by the General Partner.*

The General Partner also manages two non-control debt and structured equity funds, Clearlake Opportunity Partners I and II (the "Opportunity Funds"), formed in 2015 and 2019, with respective capital commitments of $543 million and $1.4 billion of capital commitments. As of March 31, 2021, Clearlake Opportunity Partners I (2015) and II (2019) have generated net returns of 13.7% and 33.0%, respectively.

**Investment Evaluation**

1. **The Fund's strategy is compelling.** The General Partner's opportunistic investment strategy and flexible approach allow the Fund to capitalize on unique buyout, growth capital, and distressed investment opportunities. The General Partner generally invests in companies that are undergoing complex financial, operational or structural change, and/or are in underserved markets. These transactions often involve bankruptcies, restructurings, turnarounds and carve-outs. Such transactions are often overlooked and less competitive relative to traditional buyouts. Further, the broad transaction types and flexible approach allow the General Partner to select investments across a variety of market conditions.

2. **The General Partner has a highly experienced and deep team.**
   - The team has complementary skills to pursue special situations investments, bringing a balance of distressed restructuring, buyout and capital markets expertise, along with sector knowledge in technology and industrial end markets.
   - The Partners average 17 years of relevant experience, including tenures with other private equity firms. Four of the five Partners have been working together for more than a decade.
   - In the last several years, the General Partner's team has doubled in size. The General Partner has added significant resources to support the senior partners in areas such as deal origination, firm management and portfolio support.
   - The General Partner continues to promote from within, and the number of capable lead deal professionals has grown to a dozen today.

3. **The General Partner has a strong track record.**
   - Since 2009, the prior funds have invested more than $12 billion and generated an aggregate gross IRR of 40%.
   - Over the last three years, 19 realizations produced an aggregate ROI of 4.8x including six in the last six months that returned an aggregate ROI of 7.0x.
   - Each of Funds III, IV and V have generated net IRRs in excess of 30% and rank in the top quartile relative to U.S. buyout peers.
   - The financial and operating performance of the portfolio companies has been compelling.

4. **The General Partner's fund sizes and capital under management have grown substantially in recent years.** The Fund size at a potential cap in excess of $12 billion represents more than a threefold increase from CCP V raised just four years ago. Further, recent funds have been invested relatively quickly. Fund V in particular was largely invested in one year.

   The larger fund size may encourage the General Partner to pursue larger transactions, which tends to be a more competitive market segment. However, the General Partner indicated that it will continue to predominantly focus on middle market businesses. Further, the pace of Fund VI was partially driven by significant deployment in the early days of the pandemic to exploit dislocation seen in the secondary markets. The General Partner has been investing $2-$3 billion annually over the last few years and would expect the Fund to have a more typical 2.5-3 year investment period.

5. **Third parties will share in the Fund's carried interest, which could impact team stability.** External investors (Dyal Capital Partners, Goldman Sachs, and Landmark Partners) own minority interests in the management company and, through their ownership, will be entitled to a share of the Fund's carry. While the outside investors carry no governance rights, the ownership raises concerns around team stability and alignment of interests. However, the General Partner has had third party participation since inception of the firm, which helps to mitigate this concern.

**Recommendation** Franklin Park recommends a commitment of up to $30 million to the Fund, subject to satisfactory negotiation of final documentation, based on the following:

- The General Partner's strategy is compelling; and
- The General Partner has a highly experienced and deep team; and
- The General Partner has an attractive track record.

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# RESOLUTION
**No. 2021-49**

## Approving Investment in Clearlake Capital Partners VII, L.P.

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its private equity consultant, Franklin Park Associates, LLC, along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Clearlake Capital Partners VII, L.P.**, a private equity fund that will make opportunistic debt and equity investments in middle market companies undergoing change and/or are in underserved industries or markets in North America.

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$30 million dollars ($30,000,000.00)** in **Clearlake Capital Partners VII, L.P.** The total investment amount is to be determined by the private equity consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED***, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 27th day of September 2021.**

___________________________________
**Mr. Danny Knight, *Chair***
**Arkansas Teacher Retirement System**

# Arkansas Teacher Retirement System

# Franklin Park Venture Capital Fund XIV, L.P.

September 2021

# Disclaimer

This Presentation (this “Presentation”) has been prepared by Franklin Park Associates, LLC (“Franklin Park”) solely for informational purposes for the exclusive use of the party to whom Franklin Park delivers this Presentation (the “Recipient”). This Presentation is not to be construed as a solicitation, invitation or an offer by Franklin Park or any of its members, officers, employees or agents to buy or sell any securities or related financial instruments. This Presentation is furnished on a confidential and limited basis for the sole and exclusive purpose of providing general and background information concerning Franklin Park Venture Capital Fund XIV, L.P. (the “Fund”) as well as Franklin Park and its activities. This Presentation is not an offer or sale of, or a solicitation to any person to buy, any security or investment product or investment advice. Any such offer, sale or solicitation of interests in the Fund will be made only pursuant to the Fund’s definitive documents, and will be subject to the terms and conditions contained in such documents. This Presentation is qualified in its entirety by reference to the Fund’s definitive documents.

The information in this Presentation has been obtained from Franklin Park’s proprietary research and other publicly available sources and has not been independently verified by Franklin Park or any of its members, officers, employees, agents, representatives or advisers or any other person. Any valuations, projections, estimates, forecasts, targets, prospects, returns and/or opinions contained herein involve elements of subjective judgment and analysis. Any opinions expressed in this material are subject to change without notice. This Presentation may contain forward-looking statements. Any estimates or projections as to events that may occur in the future are based upon the reasonable expectation of Franklin Park. No obligation is undertaken by Franklin Park or any other person to provide the Recipient with additional information or to update, revise or reaffirm the information contained in this Presentation or to correct any inaccuracies therein which may become apparent.

Past or projected performance information contained in this Presentation is not necessarily indicative of future results. There can be no assurance that the Fund will ultimately achieve comparable performance results.

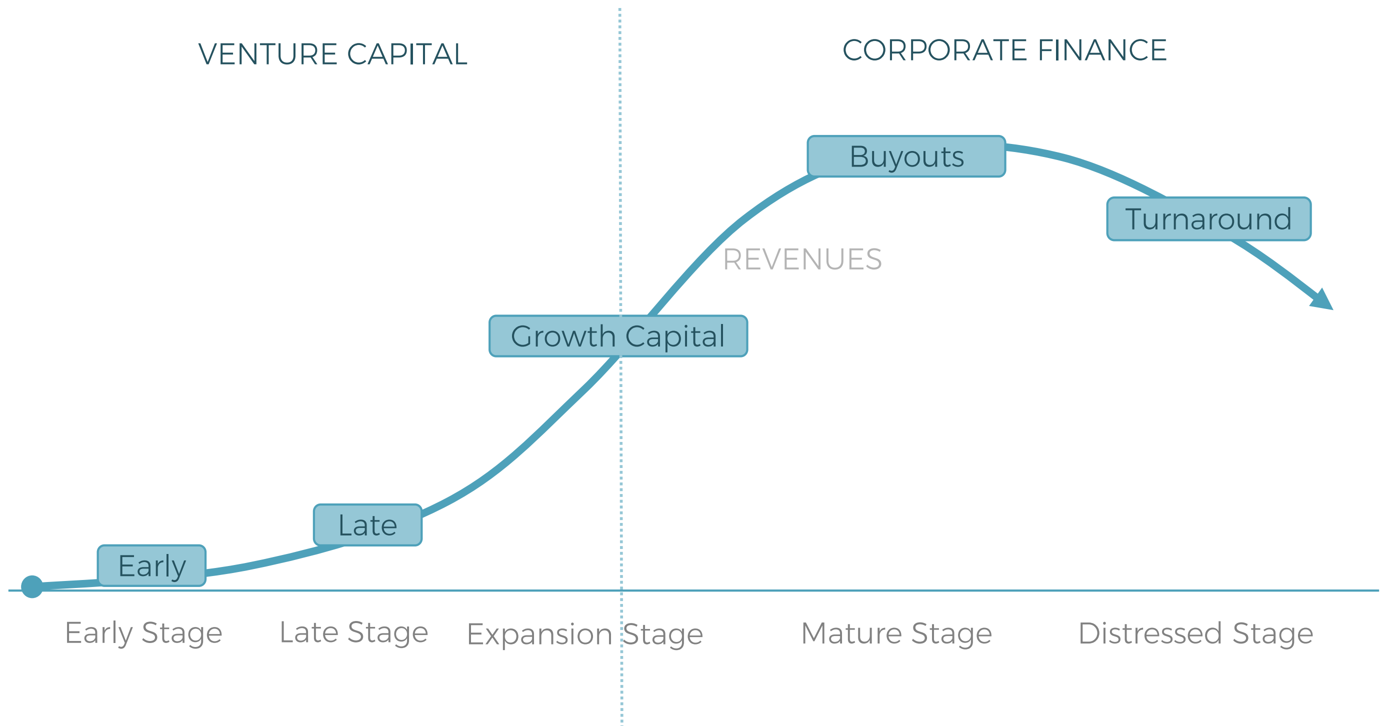
This Presentation is not intended to be relied upon as legal, tax, accounting or investment advice or a recommendation and is not, and should not be assumed to be, complete. The Recipient agrees that Franklin Park and its affiliates, members, partners, stockholders, managers, directors, officers, employees and agents shall have no liability for any misstatement or omission of fact or any opinion expressed herein. The contents herein are not to be construed as legal, business or tax advice, and the Recipient should consult its own attorney, business advisor and tax advisor as to legal, business and tax advice. Recipient is expected to rely on its own due diligence if it wishes to proceed further.

The Recipient further agrees that it will (i) not copy, reproduce or distribute the Presentation, in whole or in part, to any person or party without the prior written consent of Franklin Park, (ii) keep permanently confidential all information contained herein not already public and (iii) use the Presentation solely for the purpose set forth in the first paragraph above.

By accepting this Presentation the Recipient agrees to be bound by the foregoing obligations and limitations.

## Venture Capital Overview

The expected return and risk level for venture capital is high and access to the best funds is challenging

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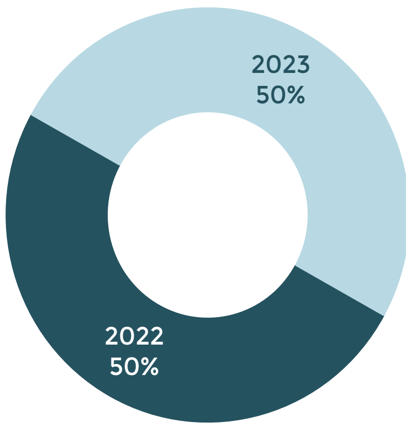
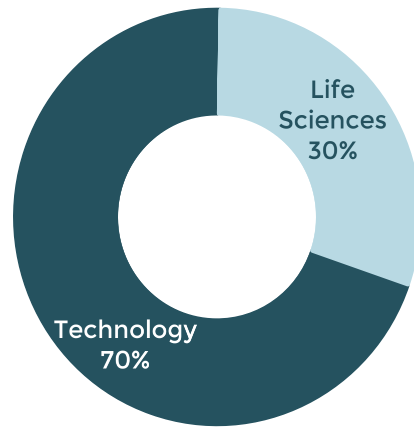
# Portfolio Composition

The portfolio is expected to be diversified by vintage, sector, stage and geography

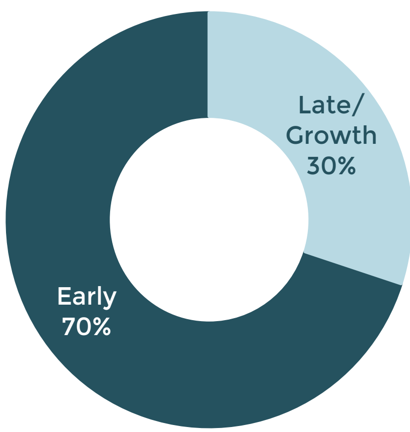
**Diversification By Vintage**



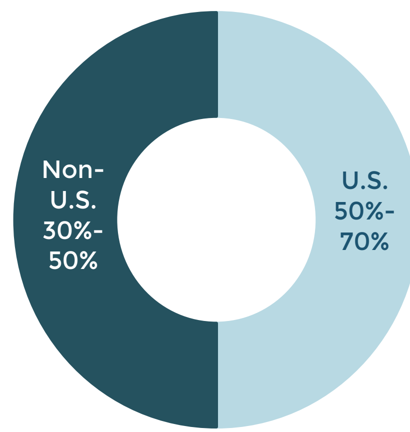

**Diversification By Sector**




**Diversification By Stage**




**Diversification By Geography**




*For illustrative purposes only. There can be no assurance that the Fund can achieve the expected diversification. The Fund's actual investment allocation may vary.*

# Venture Capital Deal Flow (2020)

Broad market coverage with highly selective decision making


Proactive sourcing, including frequent meetings, market research, and long-term approach to building relationships

~30% of funds reviewed pass initial screening for strategy and relevant experience

~10% of funds reviewed pass initial interview for attractiveness of strategy, attribution analysis, and potential to achieve target returns

Fund commitments
(4-5% of total funds reviewed)

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# Historical Performance

ATRS has committed $365 million to 13 prior Franklin Park venture capital vehicles raised since 2008

| VEHICLE | ATRS COMMITMENT | CONTRIBUTED | DISTRIBUTED | REMAINING | TVPI | NET IRR |
|---|---|---|---|---|---|---|
| FPV 2008 | $30.0 | $30.0 | $48.0 | $39.1 | 2.9x | 18.1% |
| FPV 2009 | 25.0 | 24.5 | 48.8 | 21.3 | 2.9x | 19.1% |
| FPV 2010 | 25.0 | 16.0 | 17.0 | 37.2 | 3.4x | 19.8% |
| FPV 2011 | 25.0 | 24.1 | 76.8 | 209.4 | 11.9x | 47.4% |
| FPV 2012 | 25.0 | 22.1 | 24.6 | 55.7 | 3.6x | 26.0% |
| FPV 2013 | 20.0 | 18.0 | 19.5 | 38.5 | 3.2x | 28.7% |
| FPV 2014 | 25.0 | 23.7 | 10.7 | 62.3 | 3.1x | 27.2% |
| FPV 2015 | 25.0 | 23.7 | 2.8 | 51.8 | 2.3x | 27.3% |
| FPV 2016 | 25.0 | 19.4 | 3.9 | 32.6 | 1.9x | 27.9% |
| FPV 2017 | 25.0 | 14.6 | 2.0 | 23.1 | 1.7x | 41.3% |
| FPV 2018 | 25.0 | 15.5 | 0.0 | 20.9 | 1.3x | 28.1% |
| FPV 2019 | 30.0 | 11.4 | 0.0 | 14.2 | 1.3x | 29.4% |
| FPV XIII | 60.0 | 6.8 | 0.0 | 6.6 | 1.0x | NMF |
| **Total** | **$365.0** | **$249.7** | **$254.2** | **$612.8** | **3.5x** | **27.2%** |

*Data in the table is as of March 31, 2021 and represents only ATRS's interests in each vehicle; $ in millions. The returns presented are net of underlying private fund manager fees, transaction expenses and carried interest charges, as well as expenses incurred by the Franklin Park Venture Capital Fund vehicles. Past results are not necessarily indicative of future performance. There can be no assurance that investments recommended by Franklin Park will realize the rates of return indicated in this presentation. Wherever there is potential for profit, there is also potential for loss. See additional information in the Footnotes.*

## Proposal

**Consider making an initial $30 million commitment to Franklin Park Venture Capital Fund XIV, L.P. – another $30 million commitment is expected to be considered in 2022**

Proposed Terms:

1. Management Fees:
   - No management fee for existing Franklin Park clients (including ATRS)
   - 0.9% of commitment during investment period (for all other investors)

2. Carried Interest:
   - 5% carried interest once 8% preferred return is achieved
   - 4% carried interest for investors committing at least $60 million (including ATRS)

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*Represents proposed terms only, which are subject to change. The Fund's governing documents will prevail.*

# Historical Performance (including 4% carried interest)

## Including the proposed carried interest incentive, ATRS generates a net IRR of 26.7% and a TVPI of 3.4x cost

| VEHICLE | ATRS COMMITMENT | CONTRIBUTED | TVPI | TVPI (new terms) | NET IRR | NET IRR (new terms) |
|---|---|---|---|---|---|---|
| FPV 2008 | $30.0 | $30.0 | 2.9x | 2.8x | 18.1% | 17.8% |
| FPV 2009 | 25.0 | 24.5 | 2.9x | 2.8x | 19.1% | 18.7% |
| FPV 2010 | 25.0 | 16.0 | 3.4x | 3.3x | 19.8% | 19.4% |
| FPV 2011 | 25.0 | 24.1 | 11.9x | 11.4x | 47.4% | 46.7% |
| FPV 2012 | 25.0 | 22.1 | 3.6x | 3.5x | 26.0% | 25.5% |
| FPV 2013 | 20.0 | 18.0 | 3.2x | 3.1x | 28.7% | 28.1% |
| FPV 2014 | 25.0 | 23.7 | 3.1x | 3.0x | 27.2% | 26.6% |
| FPV 2015 | 25.0 | 23.7 | 2.3x | 2.3x | 27.3% | 26.5% |
| FPV 2016 | 25.0 | 19.4 | 1.9x | 1.9x | 27.9% | 27.0% |
| FPV 2017 | 25.0 | 14.6 | 1.7x | 1.7x | 41.3% | 40.0% |
| FPV 2018 | 25.0 | 15.5 | 1.3x | 1.3x | 28.1% | 27.1% |
| FPV 2019 | 30.0 | 11.4 | 1.3x | 1.2x | 29.4% | 27.9% |
| FPV XIII | 60.0 | 6.8 | 1.0x | 1.0x | NMF | NMF |
| **Total** | **$365.0** | **$249.7** | **3.5x** | **3.4x** | **27.2%** | **26.7%** |

*$ in millions. Data in the table represents ATRS's interests in each vehicle adjusted on a hypothetical basis as if the Franklin Park Venture Capital Fund Series 2008-2019 and Franklin Park Venture Capital Fund XIII, L.P. vehicles had similar terms as those of the Fund, as of March 31, 2021. For illustrative purposes only. See additional information in the Footnotes.*

*Past results are not necessarily indicative of future performance. There can be no assurance that investments recommended by Franklin Park will realize the rates of return indicated in this presentation. Wherever there is potential for profit, there is also potential for loss.*

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# Footnotes

Historical Performance:
The returns represent the performance of each Franklin Park Venture Fund Series 2008-2019 vehicle and Franklin Park Venture Capital Fund XIII, L.P. based upon ATRS' cash flows and capital account balances. The performance results are measured in U.S. dollars from the inception date of each vehicle's activities through March 31, 2021.

The returns presented are net of underlying private equity fund manager fees, transaction expenses and carried interest charges, as well as expenses incurred by the Franklin Park Venture vehicles. No investment advisory fees or carried interest are charged by the Franklin Park Venture Fund Series 2008-2019 vehicles and Franklin Park Venture Capital Fund XIII, L.P. (the "FPV vehicles")to any investor; provided that, the calculations exclude investment fees and expenses paid through other Franklin Park accounts and vehicles, including amounts paid to Franklin Park and its affiliates under a separate investment management agreement. If the performance results had been adjusted to reflect the Partnership's expense structure, net returns would be lower.

Historical Performance (including 4% carried interest) on page 8 of this presentation provides a hypothetical analysis of the application of the proposed terms of the Fund to the FPV vehicles for illustrative purposes only. The returns presented are calculated based on ATRS's actual since-inception cash flows and capital account balance as of March 31, 2021, adjusted for hypothetical carried interest for each FPV vehicle.

Vintage represents the year in which each Franklin Park Venture vehicle first called capital.

DPI represents the ratio of distributed capital to contributed capital.

TVPI represents the ratio of distributed capital plus remaining value (the capital account balance) to contributed capital.

Net IRR is the discount rate that results in a net present value of zero of a series of cash flows, and considers both cash flow timing and amount.

Performance for FP Venture Capital Fund XIII, L.P. is deemed not yet meaningful ("NMF") due to the young age of the underlying investment portfolio, and are therefore not presented.

Risk of Loss; Past Performance is Not a Guarantee: Prospective investors must be aware that investments in private equity funds such as the Fund are speculative and involve a substantial risk of loss. No assurance can be given that the Fund will achieve its investment objectives or avoid substantial losses. Information about other investments made by Franklin Park, including the past performance of other Franklin Park vehicles and investments, is provided solely to illustrate Franklin Park's investment experience, and processes and strategies used by Franklin Park in the past with respect to other Franklin Park vehicles and investments. The performance information relating to Franklin Park's previous investments is not intended to be indicative of the Fund's future results. Past performance is not necessarily indicative, or a guarantee, of future results. There can be no assurance that the Fund will achieve comparable results as those presented or that investors in the Fund will not lose any of their invested capital.

Potential Future Returns: There can be no assurance that investments with an unrealized value will be realized at the valuations shown, as actual realized returns will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs, and the timing and manner of sale, all of which may differ from the assumptions on which the valuations contained herein are based. Accordingly, the actual realized return of these unrealized investments may differ materially from the returns indicated herein.

No Investment Advice: References to the portfolio funds in this Presentation should not be considered a recommendation or solicitation for the portfolio funds mentioned, nor should individual portfolio fund performance be considered representative of portfolio funds held, or to be held, by the Fund.

Franklin Park Associates, LLC

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Bala Cynwyd, PA 19004

For more information, please contact us at info@franklinparkllc.com

Franklin Park Associates, LLC is an SEC registered investment advisor pursuant to the Investment Advisors Act of 1940

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**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

**RESOLUTION**
**No. 2021-50**

**Approving Investment in Franklin Park Venture Fund XIV, L.P.**

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its private equity consultant, Franklin Park Associates, LLC, along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Franklin Park Venture Fund XIV, L.P.**, a fund of funds managed by Franklin Park investing in venture capital private equity funds.

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$30 million dollars ($30,000,000.00)** in **Franklin Park Venture Fund XIV, L.P.** The total investment amount is to be determined by the private equity consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED***, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 27th day of September 2021.**

______________________________
**Mr. Danny Knight, *Chair***
**Arkansas Teacher Retirement System**

# Arkansas Teacher Retirement System

# Franklin Park Corporate Finance Access II, L.P.

September 2021

# Disclaimer

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# Strategy Overview

Focused on commitments to U.S. buyout, growth and turnaround managers raising $1 billion or less

## Less Efficient Market

- Small and lower mid market funds (≤$1B) pursuing growth capital, buyouts or turnarounds where incentives are aligned
- Smaller companies (typically <$250M in value) where a financial partner can drive performance
- Conservative entry multiples and use of leverage

## Experience & Aligned Teams

- Experienced private equity investors, including spin-outs, first institutional capital, re-starts
- In the "sweet spot" of their investing careers

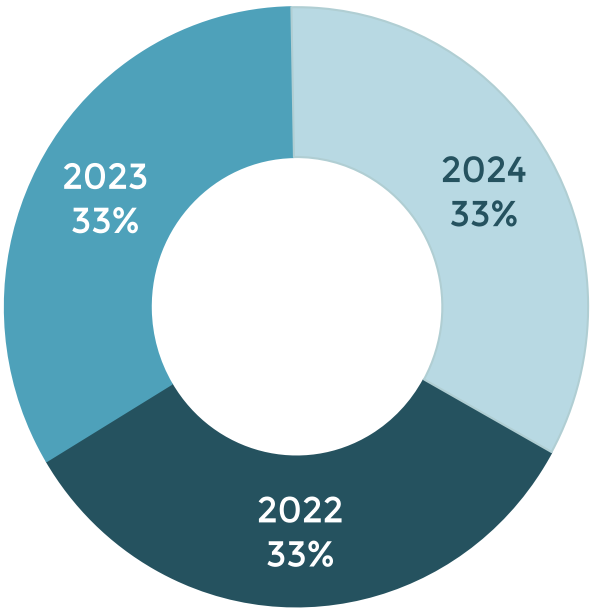
## Competitive Advantages

- Sector-focused with competitively advantaged domain knowledge and relationships
- Deep value with operationally intensive value add approach
- Small buyout with differentiated deal sourcing and growth strategy

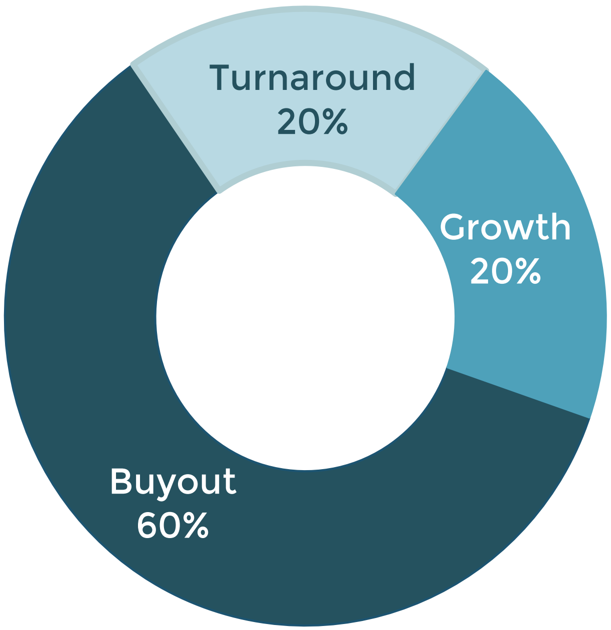
## Portfolio Composition

The vehicle is expected to commit $8-12 million in 14-16 underlying funds

### Diversification By Vintage




### Diversification By Stage

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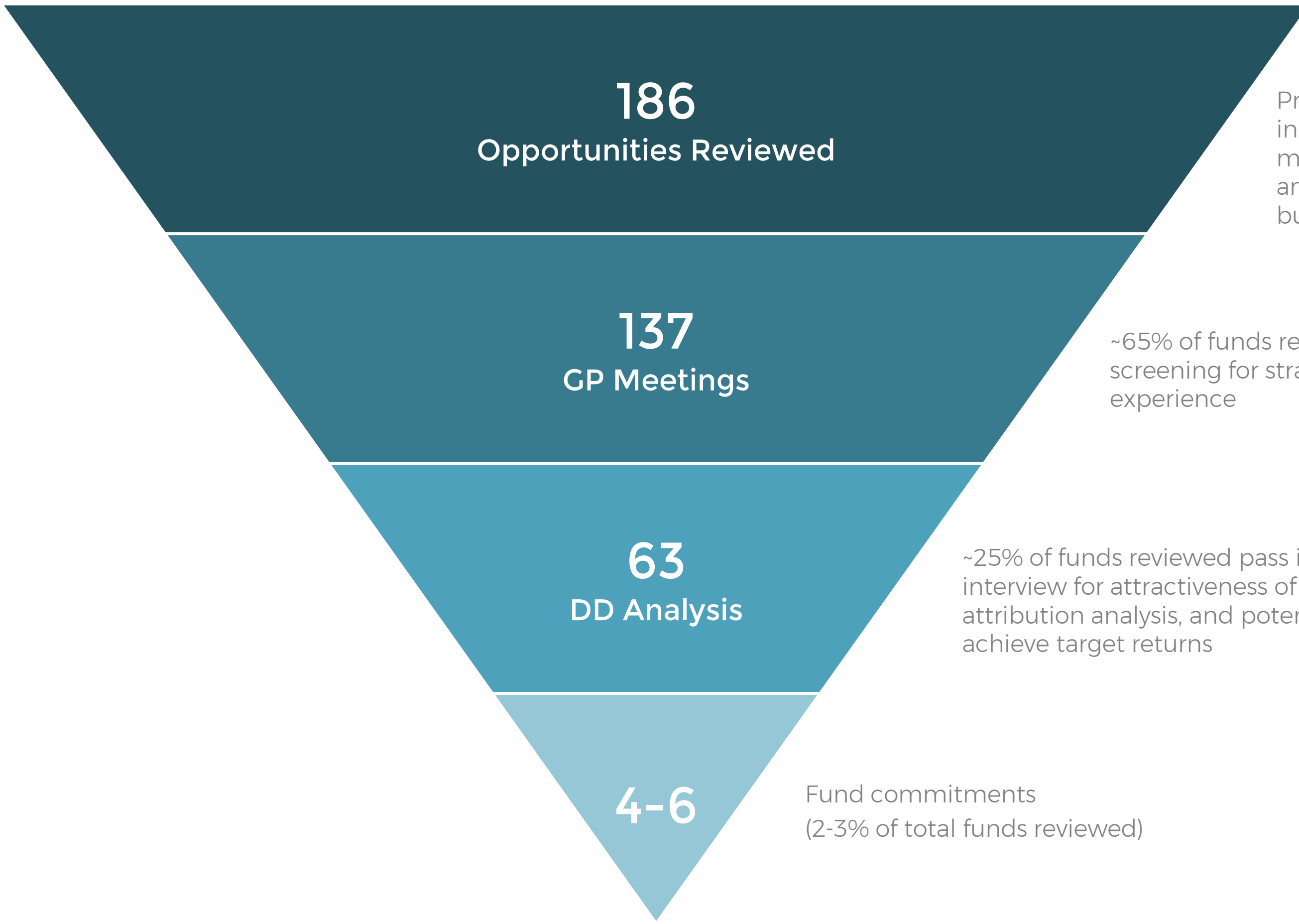
*For illustrative purposes only. There can be no assurance that the Fund can achieve the expected diversification. The Fund's actual investment allocation may vary.*

# Targeted Managers Deal Flow (2020)

Broad market coverage with highly selective decision making




Proactive sourcing, including frequent meetings, market research, and long-term approach to building relationships

~65% of funds reviewed pass initial screening for strategy and relevant experience

~25% of funds reviewed pass initial interview for attractiveness of strategy, attribution analysis, and potential to achieve target returns

Fund commitments
(2-3% of total funds reviewed)

# Track Record

Franklin Park's discretionary record for U.S. focused corporate finance funds $1.0 billion and below

| VINTAGE YEAR | COMMITTED | DPI | TVPI | NET IRR |
|---|---|---|---|---|
| 2010 | $49.0 | 1.9 | 2.3 | 17.7% |
| 2011 | 168.0 | 1.1 | 1.8 | 15.6% |
| 2012 | 49.0 | 1.5 | 2.0 | 26.0% |
| 2013 | 68.0 | 1.1 | 2.0 | 21.4% |
| 2014 | 118.0 | 0.5 | 2.0 | 19.3% |
| 2015 | 5.0 | 0.3 | 1.3 | 10.1% |
| 2016 | 199.0 | 0.6 | 2.0 | 29.5% |
| 2017 | 108.0 | 0.2 | 1.4 | 16.4% |
| 2018 | 105.0 | 0.1 | 1.3 | 15.0% |
| 2019 | 100.0 | 0.0 | 1.1 | 14.1% |
| 2020 | 130.0 | 0.0 | 0.9 | NMF |
| 2021 | 134.0 | NMF | NMF | NMF |
| **Total** | **$1,233.0** | **0.6** | **1.7** | **19.1%** |

*Data in the table is as of March 31, 2021; $ in millions. Excludes investments made in Franklin Park Corporate Finance Access Fund I, L.P. Past results are not necessarily indicative of future performance. There can be no assurance that investments recommended by Franklin Park will realize the rates of return indicated in this presentation. Wherever there is potential for profit, there is also potential for loss. See additional important information in the Footnotes section in the Appendix.*

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# Proposal

Consider making an initial $30 million commitment to Franklin Park Corporate Finance Access Fund II, L.P – another $60 million commitment is expected to be considered in 2022/2023

Proposed Terms:

1. Management Fees:
   - No management fee for existing Franklin Park clients (including ATRS)
   - 0.9% of commitment during investment period (for all other investors)

2. Carried Interest:
   - 5% carried interest once 8% preferred return is achieved
   - 4% carried interest for investors committing at least $60 million (including ATRS)

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*Represents proposed terms only, which are subject to change. The Fund's governing documents will prevail.*

# Footnotes

Track Record:
Based in Bala Cynwyd, Pennsylvania, Franklin Park was formed in April 2003. Franklin Park is an independent, registered investment adviser with the U.S. Securities and Exchange Commission. Franklin Park assists its clients in building and managing customized investment portfolios of private market investments.

Performance results are presented for a portfolio of predominantly U.S. domestic private equity fund commitments made on behalf of Franklin Park's discretionary client accounts (excluding Franklin Park Corporate Finance Access Fund, L.P.), with fund sizes of $1.0 billion or less across various corporate finance strategies (including private debt) with vintage years 2010-2021.

The returns aggregate the performance for Franklin Park's discretionary client accounts based upon client cash flows and capital account balances as reported by the underlying private fund managers. The performance results are measured in U.S. dollars on a since-inception basis in aggregate and for each vintage year composite through March 31, 2021. Where more than one client account is invested in a fund, to mitigate the effect of clients' commitment size on performance results, returns are calculated on an equal-weighted basis whereby each underlying private fund is modeled to have received the same U.S. dollar commitment. No individual investor received the returns.

The returns presented are net of underlying private fund manager fees, transaction expenses and carried interest charges, but exclusive of Franklin Park's investment advisory fees and fund-of-one vehicle expenses. The returns will be reduced by Franklin Park's investment advisory fees. As described in Part II of Form ADV, Franklin Park's fees are negotiable and are based on either a fixed fee arrangement or as a percentage of assets under management. As a representative example, a fixed fee of $800,000 annually, compounded over 10 years, may reduce a portfolio IRR of 17.3% by 20 basis points. Franklin Park may charge performance fees to specific funds it manages if specified performance conditions, as detailed in the fund documents, are met. Fees, including performance fees, and expenses charged may result in a greater reduction to performance depending on the terms and conditions specific to the fee arrangement or fund terms. If the performance results had been adjusted to reflect the Partnership's expense structure, net returns would be lower.

Certain client accounts may have differing cash flow timing, incur additional fund expenses or have other variances for a commitment to the same private fund or fund complex as other client accounts, which may impact the aggregated returns.

The Net IRR calculations represent the discount rate that results in a net present value of zero of a series of cash flows, and considers both cash flow timing and amount.

Vintage year is defined as year in which each underlying fund first called capital.

Performance for private funds with vintage years 2020 and 2021 is deemed not yet meaningful ("NMF") due to the young age of the underlying investment portfolios, and is therefore not presented. However, performance for private funds with vintage years 2020 and 2021 is included in the calculation of Total DPI, TVPI and Net IRR.

Committed represents the aggregate client account commitments to underlying funds in each vintage year composite, and are not equal weighted where more than one client account is invested in a fund.

DPI equals the ratio of distributed capital to contributed capital.

TVPI represents the ratio of distributed capital plus remaining value (the capital account balance) to contributed capital.

Risk of Loss;
Past Performance is Not a Guarantee: Prospective investors must be aware that investments in private equity funds such as the Fund are speculative and involve a substantial risk of loss. No assurance can be given that the Fund will achieve its investment objectives or avoid substantial losses. Information about other investments made by Franklin Park, including the past performance of other Franklin Park vehicles and investments, is provided solely to illustrate Franklin Park's investment experience, and processes and strategies used by Franklin Park in the past with respect to other Franklin Park vehicles and investments. The performance information relating to Franklin Park's previous investments is not intended to be indicative of the Fund's future results. Past performance is not necessarily indicative, or a guarantee, of future results. There can be no assurance that the Fund will achieve comparable results as those presented or that investors in the Fund will not lose any of their invested capital.

Potential Future Returns:
There can be no assurance that investments with an unrealized value will be realized based on the valuations used to calculate the returns shown, as actual realized returns will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs, and the timing and manner of sale, all of which may differ from the assumptions on which the valuations contained herein are based. Accordingly, the actual realized return of these unrealized investments may differ materially from the returns indicated herein.

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For more information, please contact us at info@franklinparkllc.com

Franklin Park Associates, LLC is an SEC registered investment advisor pursuant to the Investment Advisors Act of 1940

**ARKANSAS TEACHER RETIREMENT SYSTEM**
**1400 West Third Street**
**Little Rock, Arkansas 72201**

# R E S O L U T I O N
**No. 2021-51**

## Approving Investment in Franklin Park Corporate Finance Access Fund II, L.P.

***WHEREAS,*** the Board of Trustees (Board) of the Arkansas Teacher Retirement System (ATRS) is authorized to invest and manage trust assets for the benefits of its plan participants; and

***WHEREAS***, the ATRS Board has reviewed the recommendation of its private equity consultant, Franklin Park Associates, LLC, along with the recommendation of the Investment Committee and ATRS staff regarding a potential investment in **Franklin Park Corporate Finance Access Fund II, L.P.**, a fund of funds managed by Franklin Park investing in smaller buyout, growth and turnaround private equity funds.

***THEREFORE, BE IT RESOLVED,*** that the ATRS Board approves an investment of up to **$30 million dollars ($30,000,000.00)** in **Franklin Park Corporate Finance Access Fund II, L.P.** The total investment amount is to be determined by the private equity consultant and ATRS staff based upon the allocation available to ATRS and the overall investment objectives set by the ATRS Board; and

***FURTHER, BE IT RESOLVED***, that the ATRS staff is hereby authorized to take all necessary and proper steps to implement this investment, if acceptable terms are reached.

**Adopted this 27th day of September 2021.**

________________________________

**Mr. Danny Knight, *Chair***
**Arkansas Teacher Retirement System**

ATRS Board Policy 1
BOARD GOVERNANCE
A.C.A. § 24-7-301 et seq., A.C.A. § 24-7-401 et seq.,
and A.C.A. § 25-16-901 et seq.

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**I. Board Plan Administration**

A. The authority and responsibility for the administration, management, and control of the Retirement System, and for the construing and carrying out the provisions of the plan is vested in the Board of Trustees (hereinafter the “Board”). The Board is responsible for the governance of ATRS. It is accountable for establishing policies and for supervising the implementation of those policies in compliance with all applicable legal mandates.

B. The function of the Board is to make certain contributions that lead the Retirement System toward the desired performance and ensure that it occurs. The Board’s specific contributions are unique to its trusteeship role and necessary for appropriate governance and management. Board decisions are to be based on facts and expert opinions.

C. The Board will approach its task with a style that emphasizes outward vision rather than an internal preoccupation; encouragement of diversity of viewpoints; strategic leadership more than administrative detail; clear distinction of Board and staff roles; future rather than past or present; and proactive rather than reactive.

D. Consequently, the contributions of the Board shall be:

1. The link between the Retirement System and its members.[1]

2. Written governing policies that, at the broadest levels, address:

a. Governance Process

Specification of how the Board conceives, carries out, and monitors its own task.

b. Board-Staff Relationship

How authority is delegated and its appropriate use is monitored.

c. Ends

Retirement system products, impacts, benefits, and outcomes (what good for which needs at what cost).

d. Limitations

Constraints on executive authority that establish the prudence and ethics boundaries within which executive activity, decisions, and organizational matters shall be carried out.

3. The assurance of Executive Director performance against Ends and Limitations policies above.

## II. Board Guiding Principles

A. The Board of Trustees is dedicated to the proposition that its paramount purpose is that of providing an adequate and equitable retirement plan for the members of the teaching profession, to protect this group in the event total and permanent disability causes them to be unable to continue employment in their profession, and to provide in part for their dependents in case of death.

B. The Board is responsible for the prudent investment of System funds. The two paramount considerations in fund investment are safety and yield, with yield being of first importance, provided such investments comply with legally mandated safeguards.

C. The Board should be fully informed of its financial liabilities, not only to the ~~retirants~~ retirees and beneficiaries, but also to active members of the teaching profession, and to make those liabilities known to members of the state legislature, to other state officials, and to education-related organizations.

D. The Board should provide all interested citizens with information regarding ATRS's procedures for investing system funds, as well as the budgeting, control, and disbursement of those funds.

E. The Board will actively promote the enactment of state and federal legislation that may improve the economic welfare of ATRS members.

F. The Board endorses programs of counseling and information designed to assist members who are approaching retirement.

G. The Board should be knowledgeable of the most current information regarding effective, efficient governance and operation of state retirement systems that could augment prudent decisions for the benefit of members. To this end, Board members are encouraged to participate actively in regional and national retirement organization programs that offer such information and training.

## III. Board Code Of Conduct

The Board expects of itself and its members ethical and business-like conduct.

A. Board members, as fiduciaries, shall discharge their duties solely in the best interest of ATRS members for the exclusive purpose of providing optimum benefits.

B. Board members must avoid any conflict of interest with respect to their fiduciary responsibility. Board members must not use their positions to obtain favorable treatment for themselves, family members, or close employees.

C. Board members who desire specific information from firms employed by ATRS should make the request through the Executive Director.

D. Board members shall not, directly or indirectly, solicit or accept any gift of value as defined by the Arkansas Ethics Commission.

E. Board members shall decline any offer and shall not have any contact with anyone associated with a firm that the Board is considering employing after requests for proposals (RFP's) or requests for qualifications (RFQ's) have been sent.

F. Board members shall not attempt to exercise individual authority over the operation of the retirement system or staff members except as explicitly set forth in Board policies. Board members' interaction with the staff, public, press, or other entities must recognize the inability of any Board member or Board members to speak for the Board.

G. Board members shall report violations of any of these policies of conduct in writing to the Board Chair.

**IV. Board Member Development**

The Board is responsible for its own readiness for Board work and the performance of that work.

A. The Board determines appropriate issues for Board work and appropriate issues to be addressed, as well as the education and data required to address those issues wisely.

B. The Board determines the need and mechanisms for Board development.

1. Among the mechanisms will be membership in the National Council on Teacher Retirement, Board-approved consultants, and seminars provided by employees of ATRS.

2. The Board's annual plan will include expected outcomes, costs, and scheduling of the Board development effort.

3. The Board will set forth the educational experiences it determines appropriate for a new Board member.

C. The Board may enlist assistance from the Executive Director in any phase of its own development.

**V. Board Meetings**

The Board shall hold regular meetings at least quarterly. Additional meetings may be called by the Chair or scheduled by action of the Board in a regular meeting. The Board shall adopt its own rules of procedure, which shall be subject to the following:

A. The Board shall elect a Chair and Vice Chair from its own membership. The election will be in the odd numbered years at the first regular meeting after the beginning of the fiscal year. The Chair and Vice Chair shall be elected for a term of two years and may be reelected for two additional two-year terms. The Chair and Vice Chair shall be either an active member or ~~retirant~~ retiree trustee. A Board member must have served at least one full year as a member of the Board to be eligible for election to the position of Chair or Vice Chair.

B. In the event a vacancy of the Chair or Vice Chair occurs for any reason other than completion of a term, the Board shall fill said vacancy by election from the existing Board members for the remainder of the unexpired term at its next regular meeting. A trustee elected to fill an unexpired term of the Chair or Vice Chair shall be eligible for two additional two-year terms.

C. Quorum: Eight trustees shall constitute a quorum at any meeting of the Board.

D. Each trustee shall be entitled to one vote on each question before the Board, and at least eight affirmative votes shall be required for a decision by the Board at any meeting.

E. *Robert's Rules of Order* shall be followed in the conduct of all meetings except when a departure from Robert's is authorized by action of the Board.

F. Agenda

The Board shall adopt an agenda at the beginning of each meeting. By a majority vote of the Board, items may be added to the agenda before it is adopted.

1. The Executive Director shall prepare a tentative agenda and submit it to all trustees at least ten (10) days prior to a regularly scheduled meeting. The meeting agenda and materials will be submitted to trustees no later than three (3) days before the regularly scheduled meeting.

2. Trustees who want item(s) to be considered for the agenda should notify the Executive Director no later than seven (7) days prior to a regularly scheduled meeting.

3. Members or individuals who wish to have an item placed on the agenda at a regularly scheduled Board meeting should submit their request in writing to the Executive Director no later than twenty (20) days prior to the meeting.

4. Members or individuals who wish to make comments during a regularly scheduled Board meeting should indicate on forms provided the subject on which they intend to speak.

5. A time limit of five (5) minutes will be allowed members and individuals for presentation, unless extended by majority vote of the Board.

G. Minutes

The Board shall keep an official record of the proceedings of each meeting, the final draft of which must be approved by the Board and signed by the Chair and the Executive Director. The Board minutes are to contain only the action of the Board, information required by case law, and the vote thereon.

H. Public Meetings

All meetings of the Board shall be public and in compliance with the Freedom of Information Act. Representatives of the Little Rock news media shall be notified of each meeting.

**VI. Duties Of Chair And Vice Chair**

A. Duties of the Chair

The duty of the Chair is to ensure the integrity of the Board's process and to represent the Board to outside parties.

1. The Chair will see that the Board operates consistent with its own rules and those legitimately imposed on it from outside ATRS.

a. Meeting discussion content will be only those issues that, according to Board policy, clearly belong to the Board to decide.

b. Deliberation will be timely, fair, orderly, and thorough, but also efficient, limited in time, and kept to the point.

2. The authority of the Chair consists only in making decisions on behalf of the Board that fall within and are consistent with Board policies.

a. The Chair is empowered to chair Board meetings with all the commonly accepted power of that position (e.g., ruling, recognizing, etc.).

b. The Chair may also:

i. Convene meetings of the Board, or committees thereof, as prescribed by law.

ii. Certify actions taken by the Board.

iii. Serve as the official spokesperson for the Board.

iv. ~~Name~~ Appoint Board members to committees.

v. Perform other duties specifically requested by the Board that are deemed necessary and appropriate for the Board to fulfill its duties and responsibilities under law.

B. Duties of the Vice Chair

The duties of the Vice Chair are to act as temporary chair in the absence of the regular chair.

**VII. Reimbursement Of Expenses**

A. The Board, by majority vote of the total membership cast at the first regularly scheduled meeting of each calendar year, may authorize expense reimbursement for each trustee for performing official Board duties. Official Board duties are defined as follows:

1. Attending regular and called Board meetings.

2. Attending committee meetings of the Board or any specially appointed committee comprised in whole or in part of Board members.

3. Attending conferences approved by the Board of Trustees.

4. Attending legislative committee meetings when acting as spokesperson for the Board.

5. Attending legislative sessions at the request of the Board or Executive Director.

B. Board members are subject to the same reimbursable expenses as state employees.

C. Board officers are authorized payment for personal expenses, not otherwise reimbursed, incurred in the performance of their ATRS related duties. Such reimbursement is to cover (1) any losses in salary or compensation that would otherwise result from their attendance at Board or committee meetings, and will be paid to the officer's employer; and (2) the costs of communication (long-distance telephone calls, postage, etc.) with other trustees or staff members.

**VIII. Procurement of Services**

A. ATRS shall utilize an equitable and open system of awarding contracts to providers of all contractual, management, and consultant services, including, but not limited to: (1) construction architects, engineers, and contractors; (2) building mangers; (3) real estate, legal, and investment consultants; and (4) actuaries and auditors.

B. The system of awarding contracts will assure that all bona fide providers of such services will have equal opportunity to submit competitive bids or competitive proposals for consideration.

1. Consistent with the Prudent Investor Rule and pursuant to A.C.A. § 24-2-618, ATRS has a statutory goal to recruit and hire emerging managers and emerging investment funds.

2. For purposes of this Rule, "emerging managers" and "emerging investment funds" means a managing group or fund that is predominately owned by black or African American, Hispanic American, American Indian or Native American, Asian, or Pacific Islander.

3. Each investment consultant retained by ATRS to recommend investment managers or investment funds shall submit an annual report to ATRS consistent with the requirements in A.C.A. § 24-2-618 that addresses the goal of ATRS to recruit and hire emerging managers and emerging investment funds.

C. The Executive Director shall develop procurement procedures and a plan for implementing the process of awarding contracts.

D. The Board of Trustees shall approve all procedures and contracts related to the procurement of services.

**IX. Board Self-Evaluation**

The Board will regularly evaluate its own performance, taking whatever action is necessary to govern with excellence. The Board will review these policies of conduct at least annually and discuss the degree to which it complies.

**X. Board Committee Principles**

The Board may establish committees to help carry out its responsibilities.

A. Board committees may not speak or act for the Board except when formally given such authority.

B. Committees ordinarily will assist the Board by preparing policy alternatives and implications for Board deliberation.

C. Board committees may not exercise authority over staff.

D. All members of the Board shall be notified as to the time and place of all committee meetings. A Board member may attend any committee meeting, but only committee members may vote on committee matters.

E. Appointments to committees shall be ~~for four-year terms unless otherwise noted. Initial appointments for less than four years may be reappointed to one full four-year term.~~ made before the next regular meeting after the Board elects the Board Chair.

F. A quorum of each committee and the number of affirmative votes needed for a motion to carry shall be a majority of the designated size of the committee.

G. Board committees shall elect their own Chair and Vice Chair unless otherwise indicated by Board policy.

H. The Executive Director shall serve as secretary and ex officio nonvoting member of Board committees or shall delegate another member of the staff to serve in this capacity.

I. Committees shall report to the Board following each of their meetings.

**XI. Investment Committee Charter**

A. There shall be an Investment Committee composed of eight members. The Board Chair shall appoint five members from the Board, and the Board Chair shall serve as an ex officio voting member. The remaining two members shall be the State Treasurer and the State Bank Commissioner upon their acceptance of the position.

B. The committee shall meet on call by the committee chair and/or the Executive Director, but not less than on a quarterly basis.

C. The purposes of the committee shall be:

1. To consider investment policies and procedures for recommendation to the Board for adoption.

2. To consider asset allocations for recommendation to the Board for adoption.

3. To consider all investment proposals for approval or rejection, unless the Board assigns the proposals to other committees.

4. To monitor all phases of the investment program and to recommend any changes that need to be made to the full Board.

D. The agenda will be set by the committee chair after conferring with the Executive Director and will be furnished in advance when practical.

E. The committee may act by majority consent of all the committee members.

F. The actions taken by the committee shall be reported at the next regularly scheduled meeting of the Board.

G. All public Board disclosures and the Code of Ethics are applicable to all members of this committee.

**XII. Operations Committee Charter**

A. There shall be an Operations Committee composed of up to eight members. The Board Chair shall appoint five members from the Board, and the Board Chair shall serve as an ex officio voting member. The remaining two members shall be the State Auditor and the Commissioner of Education upon their acceptance of the position.

B. The committee shall meet on call by the committee chair and/or the Executive Director.

C. The purposes of the committee shall be:

1. To receive and consider proposals for the adoption of new or revised policy to recommend to the Board for adoption.

2. To receive and consider legislative proposals to recommend to the Board for adoption.

3. To suggest and develop legislative proposals for the benefit of ATRS and its members to recommend to the Board for adoption.

4. To make recommendations to the Board for initiating, supporting, or opposing legislation.

5. To recommend and oversee the Board and Executive Director evaluation process.

6. To recommend and oversee the Board's training and conference schedules.

D. All matters that are not within the jurisdiction/purposes of the Investment or Audit Committees shall be within the jurisdiction/purposes of the Operations Committee.

E. The agenda will be set by the committee chair after conferring with the Executive Director and will be furnished in advance when practical.

F. The committee may act by majority consent of all the committee members.

G. The actions taken by the committee shall be reported at the next regularly scheduled meeting of the Board.

H. All public Board disclosures and the Code of Ethics are applicable to all members of this committee.

**XIII. Audit Committee Charter**

A. There shall be an Audit Committee composed of three members of the ATRS Board of Trustees appointed by the Board Chair and two at-large members from the public with extensive auditing experience approved by the Board. The at-large members must be independent and have no affiliation with ATRS.

B. At-large members may serve two (2) four-year terms. If the initial term of an at-large member is for less than four (4) years they may serve two (2) more four-year terms.

C. The committee shall meet as needed on call by either the committee chair or the ATRS Internal Auditor. Actions taken by the committee shall be reported to the ATRS Board of Trustees.

~~C.~~ D. The committee has authority to conduct or authorize investigations into any matters within its scope of responsibility and to seek any information it requires from employees, all of who are directed to cooperate with the committee's request. In the event the committee has difficulty obtaining the necessary information from an employee or employees, the committee may seek assistance from the Executive Director or the Board of Trustees as the circumstances dictate.

~~D.~~ E. The committee may invite members of management, auditors, employees, or others to attend meetings and provide pertinent information as necessary.

~~E.~~ F. The committee will assist the Board of Trustees in fulfilling the Board's oversight responsibility relating to:

1. The financial reporting processes

2. The system of internal controls

3. The internal audit process

4. ATRS's compliance with laws and regulatory requirements and ethics policies

~~F.~~ G. Meeting agendas will be prepared and provided in advance to committee members , along with appropriate briefing material when practical.

~~G.~~ H. The committee may act by majority consent of all the members of the committee.

~~H.~~ I. Minutes of the meeting will be prepared and presented at the next scheduled Audit Committee meeting for review and approval.

~~I.~~ J. The committee will carry out the following responsibilities:

1. Financial Statements

a. Review with management and auditors the results of audits which have significant findings and recommendations, together with management's responses to findings and follow up on corrective actions.

2. Internal Control

a. Review the risk assessment to consider the effectiveness of ATRS's internal controls.

b. Review with management and auditors any significant findings and recommendations on internal controls over financial reporting, together with management's responses.

3. Internal Audit

a. Review with management and the Internal Auditor the charter, activities, staffing, and organizational structure of the internal audit function.

b. Review and approve the audit plan and all major changes to the plan.

c. Review Internal Audit's reports and follow up on findings and recommendations.

4. Compliance

a. Review the findings of any examinations by regulatory agencies, and any auditor observations.

5. Reporting Responsibilities

a. Regularly report to the Board of Trustees on the committee's activities and issues that arise with respect to the quality or integrity of ATRS's financial statement, compliance with legal or regulatory requirements, and the performance of the internal audit function.

6. Other Responsibilities

a. Perform other activities related to this charter or the audit functions as requested by the Board of Trustees.

b. Resolve any disagreements between management and the Internal Auditor regarding financial reporting.

c. Review and assess the adequacy of the committee charter, and propose recommended changes as needed, and request Board of Trustees approval for recommended changes.

d. Approve administrative decisions regarding the appointment and removal of the Internal Auditor. Approval of appointment or termination of the Internal Auditor by the Audit Committee is not final until confirmed by the Board of Trustees.

e. Perform an annual employee evaluation of the Internal Auditor of ATRS. The audit committee shall:

i. Meet in executive session, with or without the Internal Auditor, for the purpose of conducting, reviewing, and discussing an employee evaluation of the internal auditor;

ii. Gather information as it deems necessary, including input from the Executive director or other persons with direct knowledge of the Internal Auditor's performance, for the purpose of conducting a fair and thorough annual employee evaluation of the Internal Auditor;

iii. Report to the Board of Trustees when the Committee has completed the annual evaluation that the evaluation has been completed. If a Trustee requests by motion and second to learn the specific results of the Internal Auditor evaluation, and the majority of the Board votes in favor of such motion, the Board of Trustees may meet in executive session to hear the Committee's findings and recommendation on the employee evaluation.

~~J.~~ K. The committee may periodically evaluate itself and report the results to the Board of Trustees. The effective date for the start of any evaluation process and frequency of evaluations may be determined by the committee.

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1 "Members" as used in the Board policies means plan participants of the Arkansas Teacher Retirement System.

# ATRS ~~Rule~~ RULE 4
# ELECTION OF BOARD OF TRUSTEES

~~A.C.A.~~ Arkansas Code §§ 24-7-301, 24-7-302, 24-7-305

## I. Definitions[1]

A. "Active member" for the purposes of eligibility for an active member trustee position and voting for an active member trustee position means:

1. An active member as defined in Arkansas Code § 24-7-202; or

2. A member who:

a. Participates in the Teacher Deferred Retirement Option Plan (T-DROP);

b. Is employed by a covered employer; and

c. Receives T-DROP plan deposits.

B. "Administrator" for the purposes of eligibility for an administrator trustee position and voting for an administrator trustee position means a person who:

1. Has a current administrator's license; and

2. Is either:

a. An employee of a covered employer who is employed in one (1) of the following positions:

i. Public school superintendent, assistant superintendent, principal, or vice-principal;

ii. Higher education president, chancellor, or director; or

iii. Director, president, or vice president of a community college, vocational or technical school, or educational cooperative; or

b. A classified or unclassified employee who is:

i. An employee of an education-related agency that participates in ATRS; and

ii. Employed in a GS13 grade position, its equivalent, or above.

C. "Licensure" for the purposes of eligibility for a licensed trustee position or

[1] A term that is not defined in these ATRS Rules shall have the same meaning as provided in Arkansas Code § 24-7-202.

voting for a licensed trustee position means a person who is:

1. Not an administrator; and

2. Either employed in:

   a. A position requiring state teaching licensure; or

   b. An education institution GS09-GS12 grade position or its equivalent.

D. "Nonlicensed" for the purposes of eligibility for a nonlicensed trustee position and voting for a nonlicensed trustee position means a person who is:

1. Employed in a position with a covered employer that does not require state teaching licensure;

2. Employed in a position with an education-related agency in a position that:

   a. Does not require state teaching licensure; and

   b. Is no higher than a GS08 grade position or its equivalent; and

3. Not an administrator as that that term is defined in Arkansas Code § 24-7-202 and this ATRS Rule 4.

## II. Board of Trustees of the Arkansas Teacher Retirement System

A. The general administration and proper operation of ~~ATRS~~ the Arkansas Teacher Retirement System (ATRS) is vested in the ~~Board of Trustees~~ Board of Trustees of the Arkansas Teacher Retirement System (Board).

B. ~~that consists~~ The Board shall consist of eleven (11) elected members and four (4) ex officio members.

C. Pursuant to ~~A.C.A.~~ Arkansas Code § 24-7-301, the Board shall adopt rules and regulations regarding the election of ~~trustees and trustee vacancies~~ a trustee and a vacancy on the Board.

~~**I. General Rules for Candidacy and Voting in Trustee Elections**~~

## III. Candidacy and Voting in Trustee Elections — Generally

~~A. For purposes of eligibility for an active member trustee position and voting, "active members" shall mean active members as defined in A.C.A. § 24-7-202 and members participating in T-DROP, if employed by a participating employer and receiving T-DROP plan deposits.~~

~~B.~~A. Candidates

1. If a candidate for a trustee position on the Board is employed in more than one (1) position with a ~~participating employer(s)~~ covered

employer, the candidate's eligibility shall be determined based on ~~their~~ the candidate's primary position for which ~~they receive~~ the candidate receives the greater percentage of covered salary.

~~C. For purposes of eligibility for an administrator trustee position or voting for that position, "administrator" shall mean a public school superintendent, assistant superintendent, principal, or vice-principal; a higher education president, chancellor or director; or a community college, vocational/technical or educational cooperative director, president, or vice president, who is employed by a participating employer; OR any employee of an education related agency participating in ATRS that is employed in a position grade GS13 or above or its equivalent, including unclassified employees.~~

~~D. For purposes of eligibility for a licensed trustee position or voting for that position, "licensure" shall mean a person employed in a position requiring state teaching licensure or an education institution grade GS09-GS12 or its equivalent and who is not an administrator.~~

~~E. For purposes of eligibility for a nonlicensed trustee position and voting for that position, "nonlicensed" shall mean a member employed in a position with a participating employer that does not require state licensure including employment in an educationally related agency in a position grade GS08 or below or its equivalent. Nonlicensed shall not include any position that is defined as an administrator or that requires licensure.~~

~~F.~~B. Eligibility to Vote

1. Only members ~~are authorized to~~ of ATRS shall vote in a trustee election.

2. Guardians, attorneys-in-fact, or others ~~may~~ shall not vote on behalf of a member.

~~G. Terms not defined in these rules shall have the meaning set forth in A.C.A. § 24-7-202 et. seq.~~

~~H.~~3. An employee working for ATRS is ~~not eligible~~ ineligible to be:

a. ~~elected~~ Elected to the ~~board~~ Board~~,~~;

b. ~~appointed~~ Appointed to the ~~board~~ Board~~,~~ ; or

c. ~~be a candidate to be elected or appointed to the board~~ A candidate for election or appointment to the Board.

## ~~II.~~**IV.** Qualifications and Voter Eligibility for Elected Trustee Positions

~~There shall be four (4) active member trustees each of whom will represent one of the four congressional districts in Arkansas.~~

A. ~~**Active Member Trustee Position Nos. 1-4 - Congressional Districts**~~ Active Member Trustee Positions 1-4 — Congressional Districts

1. Generally

a. There shall be fourt (4) active member trustees.

b. Each active member trustee shall represent one (1) of the four (4) congressional districts in Arkansas.

~~1.~~2. Qualifications for Candidacy~~:~~

a. A person is qualified to become a candidate for active member trustee positions 1-4 if he or she is:

i. ~~a. Active~~ An active member with a minimum of five (5) years of actual service~~.~~;

ii. ~~b.~~ Employed by a ~~participating~~ covered employer located in the congressional district for which ~~he/she~~ he or she is seeking election~~.~~; and

iii. ~~c.~~ Employed in a position requiring state teaching licensure or the equivalent under ~~these rules~~ this ATRS Rule 4.

~~2.~~3. ~~Eligible Voters for Trustee Position Nos. 1-4~~ Eligibility to Vote

a. A member is eligible to vote in an election for active member trustee positions 1-4 if he or she is:

i. ~~Active members~~ An active member, regardless of credited service~~,~~;

ii. ~~employed~~ Employed by ~~covered employers~~ a covered employer located in the respective congressional districts; and

iii. ~~who are otherwise~~ Otherwise eligible to be a candidate under this ~~subsection~~ ATRS Rule 4.

B. ~~**Active Administrator Trustee Position Nos. 5-6**~~ Active Administrator Trustee Positions 5-6

~~There shall be two (2) active member trustees each of whom must be employed as an administrator as defined in these rules.~~

1. Generally

a. There shall be two (2) active member trustee each of whom shall be employed as an administrator as defined in this ATRS Rule 4.

~~1.~~2. Qualifications for Candidacy~~:~~

a. A person is qualified to become a candidate for active member trustee positions 5-6 if he or she is:

i. ~~a.~~ ~~Active~~ An active member with a minimum of five (5) years of actual service~~.~~ ;

ii. ~~b.~~ Licensed administrator employed by a covered employer as a school superintendent or an educational cooperative director.

A. ~~As provided in A.C.A. § 24-7-301, at least~~ Pursuant to Arkansas § 24-7-301, at least one (1) of the administrators serving as an active administrator trustee ~~must~~ shall be employed by a ~~participating~~ covered employer as ~~an Arkansas~~ a school superintendent or an educational cooperative director~~.~~;

B. ~~c. If an election is being held for either position and the other administrator position is not held by a superintendent or educational cooperative director, candidates for the open position must be a superintendent or educational cooperative director and the notice of election shall so state that requirement.~~ If there is an open administrator active member trustee position and the other administrator active member trustee position is held by a person who is not a superintendent or an educational cooperative director, a candidate for the open administrator active member trustee position shall be a superintendent or an educational cooperative director and the notice of election shall state that a candidate for the open administrator active member trustee position is required to be a superintendent or an educational cooperative director; and

~~d. Candidates for Position No. 5 and Position No. 6 shall be licensed administrators employed by a participating employer.~~

~~2.~~3. ~~Eligible Voters for Trustee Position Nos. 5-6~~ Eligibility to Vote

a. ~~Eligible voters for Position Nos. 5 and 6 shall be active members, regardless of credited service, employed as licensed administrators active members employed in positions requiring an administrator's license.~~ A member is eligible to vote in an election for administrator active member trustee positions 5-6 if he or she is:

i. An active member, regardless of credited service; and

ii. Employed as a licensed administrator in a position requiring an administrator's license

C. ~~**Nonlicensed Trustee Position No. 7**~~ Nonlicensed Trustee Position 7

1. Qualifications for Candidacy~~:~~

a. A person is qualified to become a candidate for nonlicensed trustee position 7 if he or she is:

i. ~~a.~~ ~~Active~~ An active member with a minimum of five (5) years of actual service~~.~~; and

ii. ~~b.~~ Employed in a position not requiring state licensure.

2. ~~Eligible Voters for Trustee Position No. 7~~ Eligibility to Vote

~~Eligible voters for Position No. 7 shall be all active members, regardless of credited service, who are employed by participating employers in nonlicensed positions as defined these rules.~~

a. A member is eligible to vote in an election for nonlicensed trustee position 7 if he or she is:

i. An active member, regardless of credited service; and

ii. Employed by a covered employer in a nonlicensed position.

D. ~~**Minority Trustee Position No. 8**~~ Minority Trustee Position 8

1. Generally

a. There shall be one (1) member trustee of a minority racial ethnic group.

~~1.~~2. Qualifications for Candidacy~~:~~

a. A person is qualified to become a candidate for minority trustee position 8 if he or she is:

i. ~~a.~~ An active or retiree member ~~of ATRS~~ with a minimum of five (5) years of actual service; and

ii. ~~b.~~ ~~Member~~ A member of a minority racial or ethnic group.

~~2.~~3 ~~Eligible Voters for Trustee Position No. 8~~ Eligibility to Vote

a. A member is eligible to vote in an election for minority trustee position 8 if he or she is:

a. ~~All active members~~ An active member, regardless of credited service; or

b. ~~Retiree members~~ Retiree.

E. ~~**Retired Member Trustees (At-Large) - Position Nos. 9-11**~~ Retired Member Trustee (At-Large) Positions 9-11

1. Generally

a. There shall be three (3) retired member trustees who shall be ~~"retirees" or "retirant"~~ retirees as defined under ~~A.C.A.~~ Arkansas Code § 24-7-202.

~~1.~~2. Qualifications for Candidacy~~:~~

a. A person is qualified to become a candidate for retired member trustee positions 9-11 if he or she is a:

i. ~~a.~~ Retiree ~~member of ATRS~~; and

ii. ~~b.~~ Resident of the State of Arkansas.

~~2.~~3. ~~Eligible Voters for Trustee Position Nos. 9-11~~ Eligibility to Vote

a. ~~All retirees of ATRS, regardless of present employment status or residency.~~ A retiree, regardless of present employment status or residency is eligible to vote in an election for retired member trustee positions 9-11.

## ~~III.~~V. Rules on Elected Trustee Nominations

A. Scheduling and Notice of Regular Election

1. ATRS may publish electronically a public notice required by this ATRS Rule 4.

2. During December in a year in which an elected trustee position is subject to election or ~~to fill a vacancy in a special election~~ a special election is required to fill a vacancy, ATRS shall publish public notice of an upcoming trustee position election in a statewide newspaper for at least five (5) consecutive days.

3. The notice ~~will also~~ shall be sent to ~~such persons or groups that have requested a~~ each person of group that requests notice of ~~Trustee vacancies~~ a trustee vacancy.

4. The notice shall ~~also~~ be posted on ~~the ATRS~~ ATRS' website from December until the closing of the nomination period.

B. Candidate Petitions and Verification of Member Signatures

1. For all elected positions, a candidate ~~must~~ shall submit a petition signed legibly by at least twenty-five (25) ATRS members who are eligible to vote for the trustee position for which the ~~member~~ candidate is seeking nomination.

2. The petition ~~must~~ shall include the last four (4) digits of each signatory's Social Security number for verification of the member's eligibility to vote for the position.

~~C.~~

3. The original petitions for nomination ~~must~~ shall be submitted to the ATRS Executive Director no later than January 10.

4. Actual delivery ~~must~~ of the original petitions for nomination shall be made by January 10, regardless of postmark date or other methods to attempt delivery.

~~D.~~

5. Upon receipt of a petition, ATRS ~~will~~ shall confirm ~~its~~ receipt of the petition and shall verify the eligibility of the candidate for the trustee position under ~~A.C.A.~~ Arkansas Code § 24-7-301.

6. ATRS ~~will~~ shall verify ~~the member's signatures signing the petition as eligible voters~~ each signature of each member who signs the petition as an eligible voter.

~~E. The candidates submitting a petition for nomination will receive notice by ATRS if the petition is accepted and will receive a list of other members who were certified to participate in the election for the trustee position for which they seek nomination.~~

7. ATRS shall:

   a. Notify each candidate who submits a petition for nomination if his or her petition is accepted; and

   b. Provide the candidate with a list of other members who were certified to participate in the election for the trustee position for which the nomination is sought.

~~F.~~C. Ballots

1. ~~Prior to ballots being mailed, ATRS or its designee will conduct a random drawing for ballot position.~~ ATRS or its designee shall conduct a random drawing for a ballot position before ballots are mailed.

2. At least two (2) independent witnesses shall be present to certify the drawing of the ballot position.

3. ~~Candidates will be notified of the order in which they will be listed on the ballot.~~ ATRS shall notify each candidate of the order in which the candidate will be listed on the ballot.

~~G.~~D. Campaign Materials

1. Upon the request of a candidate, ATRS ~~will~~ shall provide a list of the mailing addresses of each eligible ~~voters~~ voter for the distribution of ~~a~~ the candidate's campaign materials.

2. The candidate's message shall not contain information that would constitute defamation of another candidate.

3. Campaign materials ~~will~~ shall be mailed by the election vendor from ~~its~~ the election vendor's place of business.

4. All postage for ~~such~~ campaign materials shall be ~~the candidate's sole expense~~ paid for by the candidate distributing the campaign materials.

## ~~IV.~~VI Rules on Trustee Elections

A. Election Vendor

1. ATRS shall employ an independent election vendor to conduct the trustee elections.

~~B. If any position receives only one nomination and the position is not contested, the Board at its next regular or special meeting may certify the nomination and declare the candidate duly elected as a trustee prior to the commencement of the trustee's term.~~

B. Ballots

1. ~~C. ATRS shall publish ballots that shall be submitted to the election vendor for mailing on March 15 to the member's address of record.~~ ATRS shall publish ballots and submit the published ballots to the election vendor by March 15 for mailing to the address of record for each member who is eligible to vote in the election.

2. ~~D. Completed ballots must be received by the election vendor on or before April 15 to be counted.~~ A completed ballot shall be counted if it is received by the election vendor on or before April 15.

3. The election vendor shall ~~only count such~~ count only ballots that are correctly completed.

C. Uncontested Elections

1. If any position receives only one (1) nomination and the position is uncontested, the Board at its next regular or special meeting may certify the nomination and declare the candidate duly elected as a trustee before the trustee's term begins.

~~E.~~D. Run-off Elections

1. ~~Results for positions not subject to a run-off election shall be certified to ATRS by April 20.~~ The election vendor shall certify to ATRS, by April 20, the election results for a position that is not subject to a run-off election.

~~F. If upon certification of the outcome of a trustee election by the vendor, if no candidate receives at least 50% of the votes cast by eligible voters, a~~

~~runoff election will be held between the two (2) candidates receiving the highest number of votes for the position. The run-off ballots will be mailed by the election vendor to eligible voters on or before May 1.~~

2. A run-off election shall be held between the two (2) candidates who receive the highest number of votes for a trustee position if:

   a. The election vendor certifies the outcome of the trustee election; and

   b. A single candidate does not receive at least fifty percent (50%) of the votes cast by eligible voters.

3. The election vendor shall mail run-off ballots to each member who is eligible to vote in the election on or before May 1.

4. G. ~~Completed ballots for a run-off election must be received by the election vendor on or before June 1 to be counted.~~ Completed ballots for a run-off election that are received by the election vendor after June 1 shall not be counted.

5. H. ~~Upon the completion of the run-off election, results shall be certified by the election vendor to ATRS by June 5.~~ The election vendor shall certify the results of a run-off election to ATRS by June 5

~~I.~~ E. Election Result Challenge

1. ~~Any candidate included on the ballot may submit a challenge to the election vendor's certified results for an elected trustee position by submitting a written challenge to the ATRS Executive Director.~~ A candidate who is included on the ballot may challenge the election vendor's certified results for an elected trustee position by submitting a written challenge to the ATRS Executive Director within five (5) calendar days of the date on which the election results are certified by the election vendor.

2. ~~A challenge must be received within five (5) calendar days of the certification of the elections results for the position at issue.~~ A written challenge to the election vendor's certified results for an election shall not be considered if it is submitted more than (5) calendar days after the date on which the election results are certified by the election vendor.

3. If a candidate challenges the election results, the election process ~~will~~ shall be suspended for the same number of days that the resolution of the challenge requires, and the remaining election schedule ~~will~~ shall be adjusted accordingly.

~~J.~~4. ~~Upon receipt of a challenge, the ATRS Board will hold a special~~

~~meeting to consider the challenge.~~ After a written challenge to a certified election result is received by ATRS, the Board shall hold a special meeting to consider the challenge.

5. The ATRS Executive Director ~~will~~ shall issue an ATRS recommendation to the Board along with the administrative record relating to the certified election results of the position being challenged.

F. Election Schedule — Official Dates

1. ~~K.~~ For any fixed date in the election schedule that falls on a holiday or a weekend, the official date shall become the next business day.

G. Beginning of Elected Trustee Terms

1. ~~L.~~ Upon completion of an election, all elected trustee terms, except for special elections, shall begin on July 1 following the election.

## ~~V.~~VII. Board Procedures to Fill Unexpired Terms for Elected Trustees

A. Notice

ATRS staff shall notify the Board of ~~all resignations and vacancies by other causes in any Trustee~~ a resignation or vacancy by other cause in a trustee position as soon as possible after ATRS staff has knowledge of the resignation or vacancy by other cause.

B. Board Action Upon Receiving Vacancy Notice

1. The Board shall take appropriate action authorized by law to fill the vacancy.

2. The ~~Board may by majority vote appoint~~ Board, by majority vote, may appoint a trustee until the next ATRS election.

C. Scheduling and Notice of Special Election

1. ~~In the event the Board by majority vote determines that the vacancy should be filled by a special election, then a special election shall be scheduled as follows:~~ A special election to fill a trustee position caused by resignation or vacancy by other cause shall be scheduled and held if the Board, by majority vote, determines that the vacancy should be filled by a special election.

2. If an elected trustee position is declared vacant by the Board and ~~is to be~~ the Board determines that the vacancy should be filled by a special election ~~then, in accordance with this rule~~, ATRS shall:

   a. ~~publish~~ Publish notice ~~as set out in Section III.A.~~ that a special election ~~will~~ shall be held; and

   b. ~~will announce~~ Announce the schedule for the special election~~,~~.

3. ~~which will include the~~ The schedule for the special election shall include the following:

~~1)~~a. ~~the~~ The date the vacancy occurred and position being vacated;

~~2)~~b. ~~the~~ The time period for circulating petitions for nominating signatures;

~~3)~~c. ~~the~~ The deadline for filing petitions with ATRS;

~~4)~~d. ~~the~~ The date ATRS will verify the validity of petitions;

~~5)~~e. ~~the~~ The date ballots will be sent to eligible voters;

~~6)~~f. ~~the~~ The election date; and

~~7)~~g. ~~the~~ The date the term shall begin.

4. ATRS may follow or use as a guideline the rules concerning the publishing of public notice in this ATRS Rule 4 V for publishing notice during a special election.

**~~VI.~~VIII. Term of Elected Trustee Office and Vacancies**

A. Duration of Term

1. The term of office of each elected trustee shall be six (6) years unless the trustee is elected in a special election.

2. A trustee who is elected in a special election shall serve for the remainder of the six (6) year term of the vacating trustee.

3. A trustee who is appointed to the Board shall serve until the next system election that is held to fill the trustee position to which the trustee was appointed.

4. ~~B.~~ Each trustee shall continue to serve as trustee until ~~their~~ his or her term expires unless ~~they resign~~ he or she resigns or is otherwise ineligible under ~~these rules~~ this ATRS Rule 4.

5. ~~C.~~ In a year in which a six (6) year term of a trustee expires, the position shall be filled under the regular election schedule in this rule.

~~D. A trustee elected to fill an unexpired term in a special election will serve for the remainder of the six (6) year term of the vacating trustee.~~

**~~VII.~~IX. Rules on Elected Trustee Vacancies**

A. Ineligibility of Active Member Trustee

1. An active member trustee shall be ineligible to serve after becoming inactive or retiring.

~~B.~~2. An active member trustee shall be ineligible to serve if the:

a. ~~he or she~~ Active member trustee changes his or her employment category during his or her term of office; and

b. ~~the employment~~ Employment category is a requirement of the trustee position~~, i.e., an administrator becomes a classroom teacher~~.

C. Ineligibility of Retiree Member Trustee

1. A retiree member trustee shall be ineligible to serve after becoming an active member.

D. Trustee Absence from Board Meetings

1. A trustee vacancy ~~can~~ may occur if ~~the~~ a trustee is absent from meetings.

~~1.~~2. The Board ~~of Trustees~~ or its designee ~~will~~ shall notify the ~~Board member~~ trustee after the trustee's second consecutive absence.

~~2.~~3. A vacancy ~~will~~ shall occur if the Board votes to declare a position vacant due to one (1) or more of the following:

a. A trustee is absent for three (3) consecutive regular Board meetings and the absences are ~~not excused~~ unexcused by the Board.

i. An absence that is excused by a majority of ~~the members of~~ the Board shall not be counted towards a vacancy.

ii. Attendance on either day of a two-day Board meeting is sufficient to meet the attendance requirement for that meeting;

b. A trustee is ineligible due to a change in status under ~~A.C.A.~~ Arkansas Code § 24-7-302 resulting in three (3) consecutive absences at regular Board meetings ~~prior to~~ before the expiration of the trustee's term; or

c. Resignation or death of a trustee ~~which will create~~ creating three (3) or more consecutive absences at regular Board meetings ~~prior to~~ before the expiration of the trustee's term.

4. If the Board declares a vacancy by resolution ~~under the section above~~ as provided under this ATRS Rule 4 IX, the Board may vote to hold a special election to fill an unexpired term ~~under~~ using the ~~Board~~ Board's procedures to fill unexpired terms for elected trustees.

5. If the Board does not certify a vacancy under this ~~section~~ ATRS Rule 4 IX, the vacancy ~~will~~ shall be filled, using approved election procedures for the position, during the next annual ATRS election held ~~upon~~ after the expiration of an the elected trustee's term~~, utilizing approved election procedures for that position~~.

**HISTORY**

| | | |
|---|---|---|
| Approved: | May 10, 2000 | 4-2 |
| Amended: | April 26, 2007 | 4-1 |
| | February 11, 2008 | 4-1, 4-2 |
| | December 18, 2009 | 4-1, 4-2 |
| | July 1, 2011 | 4-2 (Emergency) |
| Adopted: | August 8, 2011 | 4-2 |
| Effective: | November 11, 2011 | 4-2 |
| Approved by Board: | October 5, 2015 | 4-1 |
| Amended: | February 1, 2016 | 4-1 |
| Effective: | February 10, 2016 | 4-1 |
| Effective: | August 5, 2019 | |

~~ATRS Rule 6~~
~~MEMBERSHIP RULES~~ **ATRS RULE 6**
**MEMBERSHIP**
~~A.C.A.~~ Arkansas Code §§ 24-2-202, 24-2-401 — 24-2-408, 24-7-202, 24-7-406, 24-7-501, 24-7-502, 24-7-1601 — 24-7-1607

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**I. Definitions**

A. "Administrator" ~~shall mean a public school superintendent, assistant superintendent, principal, or vice-principal; a higher education president, chancellor or director; or a community college, vocational/technical or educational cooperative director, president, or vice president, who is employed by a participating employer; OR any employee of an education related agency participating in ATRS that is an active member employed in a position grade GS13 or above or its equivalent.~~ means:

1. An employee of a covered employer in one (1) of the following positions:

   a. Public school superintendent, assistant superintendent, principal, or vice principal;

   b. A higher education president, chancellor, or director;

   c. A community college, vocational or technical school, or educational cooperative director, president, or vice president; or

2. An employee of an education-related agency participating in the Arkansas Teacher Retirement System (ATRS) who is an active member employed in a GS13 grade position, its equivalent, or above.

~~B. "Alternate Retirement Plans" refers to the retirement plan(s) of a public college or university, or the Division of Higher Education provided for under A.C.A. § 24-7-801 *et seq*., or for a vocational-technical school or the Department of Career Education (formerly the Division of Vocational and Technical Education) provided for under A.C.A. § 24-7-901 *et seq*.~~

~~C.~~B. "Contributory service" ~~is~~ means service on which a member makes or made member contributions to ATRS.

~~D.~~C. ~~A "contributory election" is a written election by a member to make member contributions to ATRS. To be valid, an election must be on an election form provided by ATRS and signed by both the member and the employer.~~ “Contributory election” means a member’s written election to make member contributions to ATRS.

~~E.~~D. "Noncontributory service" ~~is~~ means service on which a member does not make member contributions to ~~the~~ ATRS and for which the member accepts a reduced retirement annuity for the member’s years of noncontributory service ~~for which the member does not contribute~~.

~~F.~~E. "Nonteacher" means ~~any~~ a member ~~that~~ who is not a teacher or administrator.

~~G.~~F. "Organization" means: ~~(i) any private entity providing services for a public school district and whose employees were formerly employed by the school district and had been members of ATRS, and (ii) any educational nonprofit corporation licensed and regulated by the Division of Developmental Disabilities Services of the Department of Human Services.~~

1. A private entity that:
   a. Provides services for a public school district; and
   b. Has employees who were previously employed by the public school district and members of ATRS; or
2. An educational nonprofit corporation licensed and regulated by the Division of Developmental Disabilities Services of the Department of Human Services.

~~H.~~G. "Preceding System" ~~is~~ means a previous reciprocal retirement system of record ~~as defined below~~.

~~I.~~H. “PSHE plan” means a plan establishing the right of a new employee of a post-secondary or higher education employer to participate in ATRS on or after July 1, 2011.

I. "Reciprocal System" means:

1. ATRS operations as of June 30, 1957, and continued by statutes;
2. ~~the~~ The Arkansas State Highway Employees’ Retirement System (ASHERS), established by ~~A.C.A.~~ Arkansas Code § 24-5-103;
3. ~~the~~ The Arkansas Public Employees’ Retirement System (APERS) established by ~~A.C.A.~~ Arkansas Code § 24-4-103;
4. ~~the~~ The Arkansas State Police Retirement System (ASPRS) established by ~~A.C.A.~~ Arkansas Code § 24-6-203;
5. ~~the~~ The Arkansas Judicial Retirement System (AJRS) established by ~~A.C.A.~~ Arkansas Code § 24-8-201;
6. ~~the~~ The Arkansas District Judge Retirement System (ADJRS) established by ~~A.C.A.~~ Arkansas Code §§ 24-8-801 – 824;
7. ~~the~~ The Arkansas Local Police and Fire Retirement System (ALOPFI) provided for under ~~A.C.A.~~ Arkansas Code § 24-10-101; or
8. ~~or an~~ An alternate retirement plan for:
   a. ~~a~~ A public college or university, or the Arkansas Division of Higher Education provided for under ~~A.C.A.~~ Arkansas Code § 24-7-801 *et seq*.~~,~~;
   b. ~~or for a~~ A vocational-technical school or the Department of Career

Education (formerly the Division of Vocational and Technical Education) provided for under ~~A.C.A.~~ § 24-7-901 *et seq*.; or

c. ~~and agencies~~ An agency that may be assigned the duties under ~~the agencies listed above~~ one (1) or more of the agencies listed in this ATRS Rule 6 I.I.1–8 through a state reorganization or transformation plan.

J. "State Employer" means:

1. ~~the~~ A public employer whose employees are covered under the:

a. ATRS~~,~~;

b. ~~the Arkansas State Highway Employees' Retirement System~~ ASHERS (~~A.C.A.~~ Arkansas Code § 24-5-103)~~,~~;

c. ~~the Arkansas Public Employees' Retirement System~~ APERS (~~A.C.A.~~ Arkansas Code § 24-4-103)~~,~~;

d. ~~the Arkansas State Police Retirement System~~ ASPRS (~~A.C.A.~~ Arkansas Code § 24-6-203)~~,~~;

e. ~~the Arkansas Judicial Retirement System~~ AJRS (~~A.C.A.~~ Arkansas Code § 24-8-201)~~,~~; or

f. ~~or the Arkansas District Judge Retirement System~~ ADJRS (~~A.C.A.~~ Arkansas Code §§ 24-8-801—824); or

2. ~~"State employer" also includes a~~ A public employer that is:

a. ~~a~~ A college, university, or the Arkansas Division of Higher Education (~~A.C.A.~~ Arkansas Code § 24-7-801 *et seq*.)~~,~~;

b. ~~or a~~ A vocational-technical school or the Department of Career Education (formerly the Division of Vocational and Technical Education (~~A.C.A.~~ Arkansas Code § 24-7-901 *et seq*.); ~~and~~ or

c. ~~agencies~~ An agency that may be assigned the duties ~~under the agencies listed above~~ of one (1) or more of the agencies listed in this ATRS Rule 6 I.I.1. and 2. through a state reorganization or transformation plan.

K. "Succeeding System" ~~is~~ means the current reciprocal retirement system of record~~, following membership in a retirement system covered above~~ that follows a person's membership in a preceding retirement system.

L. "Teacher" means ~~any~~ a person employed by a school for the purpose of giving ~~instructions~~ instruction and whose employment requires state teaching licensure.

**II. Membership Rules**

~~A. Effective July 1, 2001, those employees whose nonteaching service began before July 1, 1989, and whose nonteaching service is covered or coverable by the Arkansas Public Employees Retirement System may~~

~~elect to be covered by ATRS. The elections shall be made prior to May 31 on a form provided by ATRS and shall be effective the following July 1 as provided by A.C.A. § 24-7-501(a)(2)(C).~~

~~B.~~A. Membership in Another State Retirement System

~~Employees who are eligible for membership in ATRS are ineligible for membership in another state retirement system while employed in a position covered by ATRS, excluding service in the Arkansas General Assembly.~~ Excluding service as a member of the General Assembly, an employee who is eligible for membership in ATRS is ineligible for membership in another state retirement system while he or she is employed in a position covered by ATRS.

~~C.~~B. Erroneous Membership

1. Erroneous Enrollment Before January 1, 1979 – Employees
   a. An employee who was erroneously enrolled in ATRS before January 1, 1979, shall continue to be a member of ATRS if the employee's contributions were not refunded before July 1, 1979.
   b. The employee shall:
      i. Receive service credit for all paid membership service in ATRS and any free service creditable under Acts 1973, No. 427 as amended; and
      ii. Be entitled to reciprocal service credit as provided by Arkansas Code § 24-7-401 — 408.
2. Erroneous Enrollment On or After January 1, 1979 – Employees
   a. An employee who is erroneously enrolled in a state retirement system on or after January 1, 1979, may:
      i. Elect to remain a member of the system of record; or
      ii. Become a member of the eligible retirement system.
3. Correction of Erroneous Enrollment Occurring Before January 1, 1979 – ATRS Obligations
   a. Effective July 1, 1979, ATRS shall not:
      i. Be required to correct the state retirement system membership of an employee who was erroneously enrolled in another state retirement system before January 1, 1979; and
      ii. Accept an employee who was erroneously enrolled in another state retirement system before January 1, 1979, as a member of ATRS unless the employee's contributions were refunded before July 1, 1979.
4. Correction of Erroneous Enrollment Occurring On or After January 1, 1979 – ATRS Obligations

a. If ATRS discovers that an employee is erroneously enrolled in a state retirement system on or after January 1, 1979, ATRS shall notify both the covered employer and employee that the:

i. Employee is erroneously enrolled in the state retirement system; and

ii. Error may be corrected as provided by Acts 1991, No. 13 or Arkansas Code § 24-2-302 et seq.

C. Employer Participation in ATRS — Generally

1. The ATRS Executive Director shall monitor~~, from time to time,~~ employers that participate in ATRS to ensure that only employers ~~that meet~~ meeting both the federal and state requirements for participation and continued participation remain employers in ATRS.

2. If the ATRS Executive Director determines that an employer no longer meets the requirements for continued participation in ATRS, the ATRS Executive Director shall notify the Board of Trustees of the Arkansas Teachers Retirement System (Board) to allow appropriate review and action by the Board.

D. Membership Eligibility — School Janitors, Bus Drivers, and Cafeteria

Workers Employed Before July 1, 1989

a. An employee shall continue to be a member of APERS if the employee:

i. Was employed before July 1, 1989, as a school janitor, bus driver, or cafeteria worker;

ii. Was enrolled in APERS under the provision of Acts 1965, No. 63;

iii. Was promoted to a position of school maintenance worker or supervisor, bus mechanic or transportation supervisor, or cafeteria manager, respectively; and

iv. Remains employed in the position to which he or she was promoted.

E. Membership Eligibility – Nonteaching Service Employees

1. Effective July 1, 2001, an employee whose nonteaching service began before July 1, 1989, and is covered or coverable by APERS may elect to be covered by ATRS.

2. An employee shall submit his or her election to be covered by ATRS before May 31 on a form provided by ATRS.

3. An employee’s timely submitted election to be covered by ATRS shall be effective on July 1 of the following year. (Arkansas Code § 24-7-501(a)(2)(C))

F. Membership Eligibility – College Plans

1. Nonmandatory Employer

   a. A member of ATRS who was employed by a nonmandatory employer before July 1, 2011, may continue to participate in ATRS instead of an alternative program offered by the nonmandatory employer if the member continues providing consistent service to the nonmandatory employer.

   b. A nonmandatory employer shall become a post-secondary or higher education employer (PSHE employer) when the nonmandatory employer enrolls a new eligible member with ATRS on or after July 1, 2011.

   c. If an eligible nonmandatory employer college elects to offer ATRS participation to its employees, the nonmandatory employer shall report information regularly to ATRS, on forms approved by ATRS, as required or permitted by the law applicable to ATRS.

2. PSHE Employers

   a. A PSHE employer may elect to offer ATRS participation to its employees by fulfilling the requirements of Arkansas Code § 24-7-1605.

   b. In addition to standard ATRS reporting forms, a PSHE Employer shall provide supplemental reports on any form required, approved, and adopted by the Board.

3. PSHE Employees Hired After July 1, 2011

   a. The participation of new employees hired by a PSHE employer after July 1, 2011, is governed by Arkansas Code § 24-7-1601 et seq.

   b. An employee of a PSHE employer who is hired after July 1, 2011, may participate in a PSHE plan if the employee:

      i. Is benefits-eligible as determined by the PSHE employer;

      ii. Is a vested member of ATRS at the time of initial employment;

      iii. Is not a vested member of ATRS, but meets the requirements of a less restrictive PSHE plan adopted by the specific PSHE employer; and

      iv. Signs an irrevocable PSHE plan participation form provided by ATRS

   c. A PSHE plan employee shall remain a member of ATRS as long as he or she is employed by a PSHE employer.

   d. A PSHE plan employee's election to participate in ATRS is irrevocable unless the PSHE plan employee obtains a termination refund from ATRS after his or her election to participate.

G. Membership Eligibility — Privatized Employers and Nonprofit Corporations

1. A privatized employer or nonprofit corporation that would prefer to participate in and have its employees become members of ATRS may submit a written application to the ATRS Executive Director.

2. The application shall:

   a. Specify a proposed effective date for participation in ATRS; and

   b. Include the following information and materials:

      i. A certified copy of the Articles of Incorporation, Bylaws, and other organizational documents of the privatized employer or nonprofit corporation;

      ii. A copy of the privatized employer's or nonprofit corporation's:

         A. Most recent three (3) years' annual financial statements, including balance sheet, financial statements, and statement of cash flows; or

         B. If the privatized employer or nonprofit corporation does not have audited financial statements, the year-end compilation reports or internal balance sheet and income statements for the privatized employer or nonprofit corporation;

      iii. A copy of the privatized employer's or nonprofit corporation's most recent three (3) years' federal and state income tax returns;

      iv. A description of the privatized employer's or nonprofit corporation's sources of funding, including the percentage of the funds that is provided by federal or state government and the type of government funding provided;

      v. A description of how the privatized employer's or nonprofit corporation's board of directors or board of trustees is selected and whether any governmental agency has input in the selection of the board members;

      vi. A description of the types of services provided by the privatized employer or nonprofit corporation; and

      vii. A description of each government agency that would be responsible for providing the types of services provided by the privatized employer or nonprofit cooperation if the privatized employer or nonprofit corporation did not provide the services.

3. After ATRS reviews the privatized employer's or nonprofit corporation's

application and accompanying information and materials, ATRS shall:

a. Determine whether an Internal Revenue Service ruling (IRS Ruling) should be requested concerning whether or not the participation of the employees of the privatized employer or nonprofit corporation jeopardizes ATRS' status as a governmental plan; and

b. Request any necessary additional information and statements from the privatized employer or nonprofit corporation if ATRS determines that an IRS Ruling should be requested.

4. The privatized employer or nonprofit corporation shall provide ATRS with any additional information and statements requested by ATRS in relation to the IRS Ruling.

5. The privatized employer or nonprofit organization shall pay ATRS three thousand dollars ($3,000) or the actual cost for fees and costs associated with obtaining the IRS Ruling if ATRS determines that an IRS Ruling should be requested.

H. Membership Eligibility — Private Provider Employees

1. Pursuant to Arkansas Code § 24-7-202(18)(E), effective July 1, 1997, if a public school district privatizes any of its services, an individual who is or was employed by the public school district in one (1) or more of the privatized services and who is or has been a member of ATRS may elect to remain a member of ATRS if the:

a. Board determines, pursuant to rules adopted by the Board, that the participation of employees described in this ATRS Rule 6.II.H.1. will not:

i. Impair ATRS' legal status, including:

A. ATRS' tax-qualified and governmental plan status under the Internal Revenue Code; and

B. ATRS' governmental plan status under the Employee Retirement Income Security Act of 1974;

ii. Subject ATRS to additional federal requirements;

iii. Have a substantial adverse impact on ATRS' actuarial soundness; and

b. Private provider assumes responsibility for:

i. Required employer contributions; and

ii. Fees for obtaining IRS Rulings or Employee Retirement Income Security Act of 1974 opinions.

I. Membership Eligibility — Nonprofit Corporation Employees

1. Pursuant to Arkansas Code § 24-7-202(18)(F), effective July 1, 1997, an individual who meets the following requirements may be eligible to

become a member of ATRS:

a. The individual is employed in a position with an educational nonprofit corporation that is licensed and regulated by the Division of Developmental Disabilities Services of the Department of Human Services;

b. The individual's employment is related to:

i. Training public school employees or school board members;

ii. Teaching public school students; or

iii. Adult education programs; and

c. The individual's employment is unrelated to private schools.

2. A member described in this ATRS Rule 6.II.I.1 may become a member of ATRS if the:

a. Board determines, pursuant to rules adopted by the Board, that the participation of employees employed by the educational nonprofit corporation will not:

i. Impair ATRS' legal status, including:

A. ATRS' tax-qualified and governmental plan status under the Internal Revenue Code; and

B. ATRS' governmental plan status under the Employee Retirement Income Security Act of 1974;

ii. Subject ATRS to additional federal requirements;

iii. Have a substantial adverse impact on ATRS' actuarial soundness; and

b. Nonprofit corporation:

i. Elects to participate in ATRS;

ii. Assumes responsibility for employer contributions;

iii. Assumes responsibility for fees for obtaining IRS Rulings or Employee Retirement Income Security Act of 1974 opinions; and

iv. Is approved as a covered employer by the Board according to rules adopted by the Board.

**III. ~~Contributory/Noncontributory Service Rules~~ Contributory Election** A. Contributory Election — Generally

~~A contributory member may not elect to become a non-contributory member.~~

1. The year in which a person becomes a member of ATRS shall determine whether or not the person is considered a contributory or noncontributory member of ATRS.

2. A member's contributory status shall be irrevocable once the member becomes a contributory member of ATRS.

3. All service rendered before July 1, 1986, is contributory service.

4. A contributory member shall not elect to become a noncontributory member.

5. A contributory election shall be considered valid if the contributory election is:

   a. Made on an election form provided by ATRS; and

   b. Signed by both the member and the covered employer.

6. If a member makes a contributory election before the preparation of his or her first salary payment in the fiscal year, the contributory election shall be effective immediately.

7. If a member makes a contributory election after the preparation of his or her first salary payment in the fiscal year, the contributory election shall be effective July 1 of the next fiscal year.

~~B. Whether or not a member is considered contributory or non-contributory depends upon the year the member entered the system.~~

~~C All service rendered before July 1, 1986, is contributory service.~~

~~D. All new members under contract for 181 or more days will make member contributions to ATRS.~~

~~E. New members under contract for 180 days or less:~~

~~1. Until June 30, 2007, all new members under contract for 180 days or less will have one (1) year from their hire date to make an irrevocable election to make member contributions.~~

~~2. Effective July 1, 2007, all new members under contract for 180 days or less may elect to become contributory members.~~

B. Contributory Election — Member Contracts

1. Members Not Under Contract

   a. A new member who is not under contract may make a contributory election.

2. Members Under Contract

   a. A member under contract for one hundred eighty-five (185) days or more shall make contributions to ATRS.

   b. A member under contract for one hundred eighty-four (184) days or less may make a contributory election.

3. Contributory Elections Based on Status Change from Nonteacher to Teacher or Administrator Under Contract

a. Effective July 1, 2005, regardless of a member's earlier noncontributory election, an active member whose status changes from nonteacher to teacher or administrator under contract for one hundred eighty-five days (185) or more shall make member contributions to ATRS.

b. An active member's change from noncontributory status to contributory status due to the status change described in this ATRS Rule III.B.3.a shall be effective on the first day of the next fiscal year if the active member:

i. Changes status from nonteacher to teacher or administrator during a year in which the active member's service has already been reported as noncontributory; and

ii. Is under contract for one hundred eighty-five (185) days or more.

~~F. Change from nonteacher to teacher under contract for 181 days or more:~~

~~1. Effective July 1, 2005, any active member whose status later changes from nonteacher status to teacher status under contract for 181 days or more shall make the member contributions regardless of an earlier election to be noncontributory.~~

~~2. If the change of status from nonteacher to teacher occurs during a year in which service has already been reported as noncontributory, and the member is under contract for 181 days or more, the change to contributory will occur beginning with the next fiscal year.~~

~~G. New members not under contract:~~

~~1. Until June 30, 2007, new members who are not under contract will not make member contributions.~~

~~2. Effective July 1, 2007, all new members who are not under contract may elect to become contributory members.~~

~~H. Contributory member election:~~

~~1. Until June 30, 2007, active members who have previously elected to be noncontributory may make an irrevocable election to become contributory members.~~

~~2. Effective July 1, 2007, any noncontributory member may elect to become a contributory member.~~

C. Contributory Election - Noncontributory Members

1. A noncontributory member may make a contributory election.

~~a.~~2. ~~If the election is made~~ If a noncontributory member makes a contributory election before the preparation of the first salary payment to the noncontributory member in the fiscal year, the contributory election ~~will become~~ shall be effective immediately.

3. If ~~the election is~~ a noncontributory member makes a contributory election after the preparation of the first payroll containing the first salary payment to the noncontributory member in the fiscal year, the contributory election shall ~~become~~ be effective July 1 of the next fiscal year.

~~b.~~4. ~~Any member's election to become contributory is irrevocable. All service rendered after the election is filed with ATRS shall be contributory.~~ All service rendered after a contributory election is filed with ATRS shall be contributory.

5. A noncontributory member's contributory election that is filed with ATRS is irrevocable.

~~c. All active members, as of July 1, 1999, were required to make an irrevocable election to be contributory or noncontributory on or before June 30, 2000. An election to become contributory remains in effect for the remainder of the member's career. If no election was made by June 30, 2000, the member remained in the plan he/she was in as of that date.~~

~~I. Noncontributory inactive members or noncontributory rescinding retirees who reenter ATRS after June 30, 2007, may elect to become contributory members. If no election is made, the member will be enrolled in the plan that he/she was in prior to reentry.~~

D. Contributory Election – Noncontributory Inactive Members and Rescinding Retirees

1. Previously Contributory Inactive Members

    a. An inactive member shall make contributions on his or her full salary if the inactive member:

        i. Was contributory and earned a maximum salary of seven thousand eight hundred dollars ($7,800); and

        ii. Returns to work on or after July 1, 1995.

2. Previously Noncontributory Inactive Members and Retirees

    a. An inactive member or rescinding retiree may make a contributory election if the inactive member or rescinding retiree:

        i. Was noncontributory; and

        ii. Reenters ATRS after June 30, 2007.

    b. If the inactive member or rescinding retiree does not make a contributory election, the inactive member or rescinding retiree shall be enrolled in the plan that he or she was enrolled in before reentering ATRS.

~~J. Employees of state agencies:~~

~~1. Full-time employees of state agencies covered by ATRS shall be contributory.~~

~~2. Part-time employees of state agencies covered by ATRS shall be noncontributory. Effective July 1, 2007, part-time employees of state agencies covered by ATRS may elect to become contributory.~~

~~K. Inactive members who had been contributory on a maximum salary of $7,800.00, return to work on or after July 1, 1995, and elect to become contributory will make contributions on their full salary.~~

E. Contributory Election – State Agency Employees

1. Full-time Employees

   a. A full-time employee of a state agency covered by ATRS shall be contributory.

2. Part-time Employees

   a. A part-time employee of a state agency covered by ATRS shall be noncontributory.

   b. A part-time employee of a state agency covered by ATRS may make a contributory election.

~~L. If a member enters ATRS and is reported incorrectly by the employer for the first year as a noncontributory member, ATRS will accept the member the first year as a noncontributory member. ATRS shall notify the employer of the member's contributory status. Effective the next July 1, the member shall make member contributions to ATRS.~~

~~M. If an inactive member returns to covered employment as an active member after July 1, 1999, and is reported incorrectly by the employer as a noncontributory member for the first year, ATRS will accept the member the first year as a noncontributory member. ATRS shall notify the employer of the member's contributory status. Effective the next July 1, the member shall make member contributions to ATRS.~~

F. Contributory Election – Employer Reporting Errors

1. Inactive Members

   a. ATRS shall consider a member as noncontributory if the member:

      i. Was an inactive member who returned to covered employment as an active member after July 1, 1999;

      ii. Is reported incorrectly as noncontributory by his or her covered employer for his or her first year of service with the covered employer.

   b. ATRS shall notify the covered employer of the member's contributory status.

   c. Effective July 1, the member shall make contributions to ATRS.

2. New Members

    a. ATRS shall consider a member as noncontributory for his or her first year of service with a covered employer if the member is a new member of ATRS and incorrectly reported as noncontributory by his or her covered employer for the first year.

    b. ATRS shall notify the covered employer of the member's contributory status.

    c. Effective July 1, the member shall make contributions to ATRS and the covered employer shall correctly report the member as contributory.

**~~IV. Erroneous Membership Rules~~**

~~A. Employees erroneously enrolled in a state retirement system on or after January 1, 1979, may elect to remain a member of the system of record or may become a member of the eligible retirement system.~~

~~B. After July 1, 1979, ATRS will make no further effort to correct the retirement system membership of persons who were erroneously enrolled in another state retirement system before January 1, 1979. ATRS will not accept as members persons who were erroneously enrolled in another state retirement system before January 1, 1979, unless that person's contributions were refunded prior to July 1, 1979.~~

~~C. If an employee was erroneously enrolled in ATRS before January 1, 1979, and if his/her contributions were not refunded prior to July 1, 1979, the employee shall continue to be a member of ATRS. The member shall receive service credit for all paid membership service in ATRS and any free service creditable under Act 427 of 1973 as amended. He shall also be entitled to reciprocal service credit as provided by § 24-7-401 through 408.~~

~~D. If ATRS discovers that an employee became erroneously enrolled in a state retirement system on or after January 1, 1979, ATRS will notify both the employer and employee that the membership is erroneous and that it may be corrected as prescribed by Act 13 of 1991.~~

~~E. If a person who is employed before July 1, 1989, as a school janitor, bus driver, or cafeteria worker is enrolled in the Arkansas Public Employees Retirement System under the provision of Act 63 of 1965, and later is promoted to a position of school maintenance worker or supervisor, bus mechanic or transportation supervisor, or cafeteria manager, respectively, the employee shall continue to be a member of the Arkansas Public Employees Retirement System as long as they are employed in one of these respective capacities.~~

~~F. If ATRS discovers that an employee became erroneously enrolled in a state retirement system on and after January 1, 1979, ATRS will notify both the employer and employee that the membership is erroneous and~~

~~that it should be corrected as prescribed by A.C.A. § 24-2-302 et seq.~~

**IV. Confidentiality of Member Accounts**

A. In compliance with the ATRS Code of Ethics, ATRS shall keep each member's salary, employment history, retirement account, and other personal data or other information compiled by ATRS for purposes of establishing and maintaining the member's retirement account confidential.

B. Disclosure

1. All member information compiled by ATRS for the purpose of establishing and maintaining the member's retirement account shall not be disclosed to a third-party unless:

   a. The member provides ATRS with his or her written consent; or

   b. A valid legal process requires the disclosure of the member's information.

2. Individual member records that are kept for the purpose of compiling information for a member's retirement or social security records shall not be open to the public under Arkansas Code § 24-4-1003.

**V. ~~Summary of Reciprocal Service~~ Reciprocal Service Credit**

A. Generally

1. A member who leaves a position covered by ATRS, becomes employed by a reciprocal system, and files a reciprocal service agreement shall become an inactive member of ATRS and may be eligible for an annuity benefit according to the annuity benefit formula in effect at the time of the member's effective retirement date.

2. Minimum benefits under Acts 1965, No. 488, Arkansas Code § 24-2-402(5)(E), as amended, for reciprocal service shall not apply unless a member has five (5) or more years of credited service in ATRS.

3. If ATRS is a member's preceding system, ATRS shall not pay annuity benefits to the member under reciprocity unless the member:

   a. Attains the normal retirement age; or

   b. Leaves his or her employment with his or her state employer.

4. If ATRS is a member's preceding system, the member, after attaining the normal retirement age, shall be eligible to apply for retirement benefits without leaving his or her employment with his or her last state employer.

5. The member's annuity benefit payments shall begin after the member attains the normal age of retirement or on the first day of the month following the month in which the member's application is filed, whichever occurs last.

6. ATRS shall only consider service credited to the member and salaries earned by the member before the member's effective retirement date to calculate the member's annuity benefit.

B. Reciprocal Service Credit – Calculation of Service Credit

1. If a member of ATRS has service credited during the same fiscal year with another reciprocal system and the combined service is greater than one (1) year of service credit, ATRS shall credit service as follows:

   a. If credit by the reciprocal system is less than three (3) months, ATRS shall credit service for one (1) year;

   b. If credit by the reciprocal system is three (3) or more months but less than six (6) months, ATRS shall credit service for three-fourths (3/4) year;

   c. If credit by the reciprocal system is six (6) or more months but less than nine (9) months, ATRS shall credit service for one-half (1/2) year; and

   d. If credit by the reciprocal system is for nine (9) months but less than twelve (12) months, ATRS shall credit service for one-fourth (1/4) year.

C. Reciprocal Service Credit – Contributions and Repayments

1. While an employee participates in a reciprocal system, back contributions, additional contributions, and repayment of refund payments made to ATRS shall be made in accordance with the payment method provisions of ATRS Rule 8.

2. Employer pick-up is prohibited while the employee works for a noncovered ATRS employer.

D. Reciprocal Service Credit – Concurrent Service

1. Unless the reciprocal system is APERS or an alternate retirement plan, beginning July 1, 2013, ATRS shall allow a member who earns concurrent service in both ATRS and a reciprocal system to receive full service credit in ATRS without reduction of service credit due to the concurrent service.

2. ATRS shall not recognize concurrent service added to a member's credited service in ATRS that, for the purpose of vesting, retirement eligibility, or calculating final average salary, either:

   a. Credits the member with more than one (1) year of credited service for a fiscal year; or

   b. Combines salary earned in ATRS and a reciprocal system in a fiscal year.

3. A member may waive all or part of the concurrent service credited to

him or her in ATRS and have the concurrent service credited to him or her under a reciprocal system if:

a. The member acknowledges that the waiver is a voluntary surrender of the member's concurrent service credit in ATRS;

b. The member acknowledges that the waiver cancels his or her concurrent service credit in ATRS; and

c. The member submits an ATRS approved concurrent service credit waiver form to ATRS. (Arkansas Code § 24-7-601).

4. If a member waives all or part of the concurrent service credited to him or her in ATRS and has the concurrent service credited to him or her under a reciprocal system, ATRS shall refund the employer-accrued contributions and employee-accrued contributions.

E. Reciprocal Service Credit – Alternate Reciprocal Retirement System

1. A member of ATRS may establish reciprocal service credit from an alternate plan reciprocal retirement system if he or she submits an appropriate, approved, and completed ATRS form concerning the reciprocal service credit to ATRS.

2. Distributions from an alternate plan may prevent reciprocal service from being established if ATRS is unable to verify that the withdrawals were made without penalty under Internal Revenue Service guidelines (i.e. – rollovers to eligible plans, withdrawals not subject to early withdrawal, etc.).

F. Reciprocal Service Credit – Active Members of APERS

1. From July 1, 1991, until December 31, 1991, an active member of APERS may establish reciprocity between APERS and ATRS and purchase out-of-state service rendered before January 1, 1978, in accordance with Arkansas Code §§ 24-7-601 and 24-7-603, if the active member:

a. Was an active member of ATRS before January 1, 1978; and

b. Became a member of APERS within thirty (30) days of leaving ATRS

G. Reciprocal Service Credit – Arkansas Rehabilitation Services Employees

1. Effective July 1, 1993, for a ninety (90) day period, an employee of the Arkansas Rehabilitation Services may transfer his or her membership from APERS to ATRS under Acts 1993, No. 574.

2. An employee who transfers his or her membership from APERS to ATRS shall establish reciprocity between the two (2) systems and Acts 1977, No. 793 shall not apply to the employee.

H. Reciprocal Service Credit – Department of Human Services Employees

1. The law applicable to ATRS shall be used to determine the annuity benefits to which an employee is entitled for service provided before or after Acts 1977, No. 793 if the employee:

   a. Was an employee of the Department of Human Services and became a member of APERS under the provisions of Acts 1977, No. 793, as amended; and

   b. Left employment with the Department of Human Services and became employed in a position covered by ATRS.

2. A member meeting the description of this ATRS Rule 6 V.H.1. may establish reciprocity under Acts 1965, No. 488, as amended.

I. Reciprocal Service Credit – Member Entitlement to Deferred Annuity

1. ~~If a member leaves state employment and their position is covered by any of the retirement systems listed above and enters the employ of another state employer whose position is covered by any of these retirement systems, the member shall be entitled to a deferred annuity according to A.C.A. § 24-2-401 *et seq.*~~ Pursuant to Arkansas Code § 24-4-401 et seq., a member shall be entitled to a deferred annuity benefit if the member:

   a. Leaves his or her state employment in a position that is covered by one (1) of the reciprocal systems; and

   b. Enters subsequent state employment in a position that is covered by another of the reciprocal systems.

~~A. **Age and Service Retirement with Reciprocal Service Credit**~~

J. Reciprocal Service Credit – Age and Service Retirement

1. Annuity Benefit Payments

   a. If ATRS is ~~the~~ a member's preceding system, the member's annuity ~~begins~~ benefit payments shall begin after the member attains the normal age of retirement or on the first day of the month following the month in which the member's retirement application was filed, ~~or after attainment of age 60 years,~~ whichever is later.

   b. ~~However, should the member have~~ If the member has combined service of at least ~~25~~ twenty-five (25) years, the ~~age limitation~~ normal retirement age requirement shall not apply.

   c. ~~The deferred annuity shall not begin prior to the date of leaving the employ of the last state employer unless the member reaches age 65.~~ Deferred annuity benefit payments to the member shall not begin before the date on which the member leaves employment with his or her last state employer unless the member attains the normal retirement age. 2. Applying for Retirement Benefits Before Leaving Employment

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a. If ATRS is ~~the~~ member's preceding system, the member ~~is~~ shall be eligible to apply for retirement benefits without leaving ~~the employ of the last state employer upon reaching age 65~~ employment with his or her last state employer upon attaining the normal retirement age.

b. The member's annuity ~~will begin~~ benefit payments shall begin after the member attains the normal retirement age or on the first day of the month following the month in which the member's retirement application ~~was~~ is filed, ~~or after attainment of age 65,~~ whichever is later.

c. ~~Only service credited and salaries earned prior to the ATRS effective date of benefits will be used in the ATRS benefit calculation.~~ ATRS shall use only service credited to the member and salaries earned by the member before the member's effective retirement date to calculate the member's annuity benefit.

~~B.~~ ~~**Disability Retirement with Reciprocal Service Credit**~~

K. Reciprocal Service Credit – Disability Retirement

1. A member is eligible to apply for disability retirement benefits ~~under A.C.A. § 24-2-405~~ from each reciprocal system in which the member has credited service according to the rules for eligibility promulgated by that reciprocal system. (Arkansas Code § 24-2-405)

2. The member's ~~annuity for disability retirement~~ disability retirement benefits payable by the preceding reciprocal system shall:

   a. ~~begin~~ Begin the first day of the month following the month in which the member's disability retirement application ~~was~~ is filed with the preceding system; and

   b. ~~, but not prior to the date of leaving the employ of the last state employer~~ Not begin before the date on which the member leaves employment with his or her last state employer.

L. Reciprocal Service Credit – Survivor Annuity Benefits

1. If survivor annuity benefits are payable by more than one (1) reciprocal system to an eligible survivor of a deceased member, a survivor who receives annuity benefit payments shall not receive, as a percentage of the deceased member's final salary or as a minimum dollar amount, more than the largest amount payable by a single reciprocal system.

2. ATRS shall prorate minimum benefits payable to a survivor with other reciprocal systems that have a minimum benefit provision in their plans.

3. Each reciprocal system shall pay a proportionate share of the minimum benefit based on the ratio of the member's service in that reciprocal system to the member's total service in all the reciprocal systems.

4. If the reciprocal system is an alternate retirement plan, survivor annuity benefits shall be contingent on whether the:
    a. Alternate retirement plan provides survivor annuity benefits; and
    b. Member selected survivor annuity benefits as a benefit under the alternate retirement plan. (Arkansas Code § 24-2-402(5)).

~~**VI. Reciprocal Service Rules**~~

~~A. A member who leaves a position covered by the Teacher Retirement System, becomes employed by a reciprocal system, and files a reciprocal service agreement becomes an inactive member and may become eligible for the benefit formula in effect at the time of retirement.~~

~~B.~~

~~1. Benefits will not be paid under reciprocity from ATRS as the preceding system until the member has ceased to be in the employ of a state employer unless the member reaches age 65.~~

~~2. If ATRS is the preceding system, the member is eligible to apply for benefits without leaving the employ of the last state employer upon reaching age 65. The member's annuity will begin the first day of the month following the month the application was filed or after attainment of age 65, whichever is later. Only service credited and salaries earned prior to the ATRS effective date of benefits will be used in the ATRS benefit calculation.~~

~~C. Benefits will not be paid to a member under reciprocity from ATRS as the preceding system earlier than age 60 unless the member has 25 or more years of combined service.~~

~~D. No minimum benefits apply under Act 488 of 1965 [A.C.A. § 24-2-402(5)(E)], as amended, for reciprocal service unless the member has five (5) or more years of credited service in ATRS.~~

~~E. If survivor benefits are payable by more than one reciprocal system to eligible survivors of a deceased member, the survivors shall not receive more, as a percentage of the deceased member's final pay or as a minimum dollar amount than the largest amount payable by a single reciprocal system. ATRS will prorate minimum benefits payable with other reciprocal systems that have a minimum benefit provision in their plans. Each reciprocal system shall pay a proportionate share of the minimum amount based on the ratio of service in that system to the total service in all reciprocal systems. If the reciprocal system is an alternate retirement plan, survivor benefits shall be contingent upon provisions of that benefit having been provided by the alternate retirement plan and having been selected by the member as a benefit. [A.C.A § 24-2-402 (5)]~~

~~F. If an employee of the Department of Human Services who becomes a member of the Public Employees Retirement System under the provisions of Act 793 of 1977, as amended, leaves employment with the Department~~

~~of Human Services and becomes employed in another position covered by ATRS, the benefits for service, both before and after any service under Act 793, shall be subject to the benefit provisions of the Teacher Retirement law. Such member shall be eligible to establish reciprocity under the provisions of Act 488 of 1965 as amended.~~

~~G. If an ATRS member has service credited during the same fiscal year with another reciprocal system and the combined service is greater than one year of service credit, ATRS will credit service as follows:~~

~~1. If credit by the reciprocal system is less than three (3) months, ATRS will credit service for one (1.00) year.~~

~~2. If credit by the reciprocal system is three (3) or more months but less than six (6) months, ATRS will credit service for three-fourths (3/4) year.~~

~~3. If credit by the reciprocal system is six (6) or more months but less than nine (9) months, ATRS will credit service for one-half (1/2) year.~~

~~4. If credit by the reciprocal system is for nine (9) months but less than twelve (12) months, ATRS will credit service for one-fourth (1/4) year.~~

~~H. While participating in a reciprocal system, back contributions, additional contributions, and repayment of refund payments made to ATRS shall be made according to payment methods contained in Rule 8 - Purchase Payment Rules, except employer pick-up is prohibited while working for a noncovered ATRS employer.~~[1]

~~I. A member may elect to waive all or part of concurrent service credited to the member in ATRS and have the waived concurrent service credited under a reciprocal system by submitting their intention to ATRS on an ATRS approved form (A.C.A. § 24-7-601 (g)).~~

## ~~VII. Privatized Employers and Nonprofit Corporations Rules~~

~~A.C.A. § 24-2-202(18)(E)-(F) allows the employees of certain privatized employers performing services for public school districts and certain educational nonprofit corporations to become members of ATRS.~~

~~A. Effective July 1, 1997, under certain conditions, membership in ATRS shall include employment in an enterprise privatized by a public school district. If a public school district should privatize any of its services, any individual who is or was employed by the school district in one of those services and who is or has been a member of ATRS may elect to remain a member, provided the Board of Trustees determines by adopting rules that participation of these employees in ATRS will not in any way impair any legal status of ATRS, including, but not limited to, its status as a governmental plan, pursuant to the federal Internal Revenue Code and ERISA, or its tax-qualified status under the Internal Revenue Code; will not subject the plan to additional federal requirements and will not have a substantial adverse impact on the actuarial soundness of ATRS. In~~

~~addition, the private provider must assume all responsibility for the required employer contributions and any fees for obtaining IRS rulings or ERISA opinions.~~

~~B. Effective July 1, 1997, under certain conditions, membership in ATRS shall include employment in positions with educational nonprofit corporations licensed and regulated by the Division of Developmental Disabilities Services of the Department of Human Services, provided the nonprofit corporation has elected to participate in ATRS, and the Board of Trustees determines by adopting rules that participation of these employees in ATRS will not in any way impair any legal status of ATRS, including, but not limited to, its status as a governmental plan, pursuant to the Internal Revenue Code and the Employee Retirement Income Security Act of 1974, or its tax-qualified status under the Internal Revenue Code; will not subject the plan to additional federal requirements; and will not have a substantial adverse impact on the actuarial soundness of ATRS. Such employment shall be related to the training of public school employees or school board members, teaching public school students, or in adult education programs. The employment shall not be related in any manner to private schools. Each educational nonprofit corporation shall be approved according to rules established by the Board of Trustees to be considered an employer, and such nonprofit corporation assumes all responsibility for the required employer contributions and any fees for obtaining IRS rulings or ERISA opinions.~~

~~C. Application for Membership.~~

~~Any organization that desires its employees to become members of ATRS shall make written application to the Executive Director of ATRS, specifying the proposed effective date for such participation.~~

~~D. Information Provided to ATRS.~~

~~Each application for membership shall contain the following information and materials:~~

~~1. A certified copy of the Articles of Incorporation, Bylaws, and other organizational documents of the organization;~~

~~2. A copy of the most recent three (3) years' annual financial statements, including balance sheet, financial statements, and statement of cash flows, or if such organization does not have audited financial statements, the year-end compilation reports or internal balance sheet and income statements for the organization;~~

~~3. A copy of the most recent three (3) years' federal and state income tax returns;~~

~~4. A description of the sources of funding of the organization, including the percentage of such funds provided by federal or state government and the type of such government funds;~~

~~5. A description of how the board of directors or board of trustees is selected, and whether any governmental agency has input in the selection of board members;~~

~~6. A description of the types of persons served by the organization, and which government agency or agencies would be responsible for providing such services if the organization did not do so.~~

~~E. Tax Ruling.~~

~~After counsel for ATRS has reviewed the above information provided to ATRS, such counsel shall determine whether a ruling should be requested from the Internal Revenue Service that the participation of the employees of the organization will not jeopardize the status of ATRS as a "governmental plan." If counsel determines that such a ruling should be requested, the organization shall provide any additional information and statements requested by counsel in connection with such ruling request.~~

~~F. Fees.~~

~~If counsel for ATRS determines that a ruling should be requested, the organization shall pay to ATRS not less than the sum of $3,000.00 or the actual cost for the fees and costs associated with such ruling request.~~

## ~~VIII. Confidentiality of Member Accounts~~

~~A. In compliance with the ATRS Code of Ethics, ATRS shall keep all members' salary, employment history, retirement account, and other personal data or information compiled by ATRS for purposes of establishing and maintaining a member's retirement account confidential. Such information shall not be disclosed to any third party without the express written consent of the member or other valid legal process.~~

~~B. Individual member's records which are kept for the purpose of compiling information for the member's retirement or social security records shall not be open to the public under A.C.A. § 24-4-1003.~~

## ~~IX. College Plan Rules~~

~~A. Generally, an ATRS member who became employed by a non-mandatory employer prior to July 1, 2011, may continue to participate in ATRS instead of an alternative program offered by the non-mandatory employer if the ATRS member continues providing consistent service to the non-mandatory employer. For new employees after July 1, 2011, participation is governed by A.C.A. § 24-7-1601 et seq.~~

~~B. A post-secondary or higher education employer may elect to offer ATRS participation to its employees by fulfilling the requirements under A.C.A. § 24-7-1605.~~

~~C. If an eligible non-mandatory employer college elects to offer ATRS participation to its employees, then the employer must regularly report information to ATRS on forms developed by ATRS as allowed by ATRS law. In addition to standard ATRS reporting forms, a post-secondary or higher education employer shall provide supplemental reports on any form approved and adopted by the ATRS Board as a required form.~~

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~~1 From July 1, 1991, until December 31, 1991, an active member of the~~

~~Arkansas Public Employees Retirement System who was an active member of ATRS prior to January 1, 1978, and who became a member of the Arkansas Public Employees Retirement System within thirty (30) days of departure from ATRS may establish reciprocity between the two systems and purchase out-of-state service rendered prior to January 1, 1978, in accordance with the provisions and conditions contained in A.C.A § 24-7-601 and § 24-7-603. Effective July 1, 1993, for a ninety (90) day period, employees of the Arkansas Rehabilitation Services may transfer from the Arkansas Public Employees Retirement System to ATRS under Act 574 of 1993. Any employee making the change will establish reciprocity between the two systems, and Act 793 of 1977 shall no longer apply.~~

**~~.~~ VI. ~~Contributory/Non-Contributory~~ Contributory and Noncontributory Service Chart by Year of Entry into System**

(Elections and Re-entry may affect Individual Member Service Status)

| | | |
|---|---|---|
| | **All Members** | |
| **1937 - 1986** | All Members | Contributory |
| **1986 - 1991** | All Members | Contributory unless elect ~~Non-Contributroy~~ Noncontributory |
| **1991 - 1999** | All Members | ~~Non-Contributory~~ Noncontributory unless elect Contributory |
| | **School District Employees** | |
| **1999 - 2007** | Active | ~~One time~~ One-time election to be Contributory or ~~Non-Contributory,~~ Noncontributory, no election made by 7/1/2000, status on 6/30/2000 |
| | Inactive | ~~One time~~ One-time election to be Contributory or ~~Non-Contributory~~ Noncontributory upon reentering system, no election then ~~status~~ enrolled in the plan that he or she was enrolled in before reentering ATRS |

| | | |
|---|---|---|
| | New | Contract ~~181~~ one hundred eighty-one (181) days or more - Contributory<br>-<br>Contract ~~180~~ one hundred eighty (180) days or less - ~~Non-Contributory,~~ Noncontributory, may elect Contributory, election must be made one (1) year from hire date<br>-<br>No contract, member must be ~~non-contributory~~ noncontributory |
| **2005 - 2021** | ~~Non-teacher~~ Nonteacher to Teacher or Administrator | Contract ~~181~~ one hundred eighty-one (181) days or more - Contributory. If position change happens during the year, election is effective first of next fiscal year<br>-<br>All ~~Non-Contributory~~ Noncontributory members may elect Contributory |
| **2007 - 2021** | All Members | May elect Contributory |
| | New | Contract ~~181~~ one hundred eighty-one (181) days or more - Contributory<br>-<br>Contract 180 days or less – ~~Non-Contributory~~<br>• Noncontributory, may elect Contributory<br>• No contract — Noncontributory, may elect Contributory |
| | Inactive | May elect Contributory |
| **2021** | Nonteacher to Teacher or Administrator | Contract one hundred eighty-five (185) days or more - Contributory. If position change happens during the year, election is effective first of next fiscal year<br>-<br>All Noncontributory members may elect Contributory |
| **2021 -** | All Members | May elect Contributory |
| | New | Contract one hundred eighty-five (185) days or more - Contributory<br>-<br>Contract one hundred eighty-four (184) days or less - Noncontributory, may elect Contributory<br>-<br>No contract - Noncontributory, may elect Contributory |
| | Inactive | May elect Contributory |
| **State Agency Employees** | | |

| | | |
|---|---|---|
| **1999 - 2007** | Full-Time Employment | Must be Contributory |
| | Part-Time Employment | Must be ~~Non-Contributory~~ Noncontributory |
| **2007 -** | Full-Time Employment | Must be Contributory |
| | Part-Time Employment | ~~Non-Contributory,~~ Noncontributory, may elect to be Contributory |

~~**Once you are a contributory member of ATRS, your contributory status is irrevocable.**~~

~~If election to be contributory is made before the preparation of the first salary payment to the member in the fiscal year, the election will become effective immediately. If the election is after the preparation of the first payroll containing the first salary payment to the member in the fiscal year, the election shall become effective July 1 of the next fiscal year.~~

~~If a member enters ATRS and is reported incorrectly by an employer for the first year, ATRS will accept the election reported by the employer the first year. ATRS shall notify the employer of the member's correct status. Effective the next July 1, the member shall be reported with the correct status.~~

~~Inactive members who had been contributory on a maximum salary of $7,800.00, return to work on or after July 1, 1995, and elect to become contributory will make contributions on their full salary.~~

~~ATRS Rule 7~~

~~REPORTING AND ELIGIBILITY~~ ATRS RULE 7

**SERVICE CREDIT, CONTRIBUTIONS, REPORTING, AND FINAL AVERAGE SALARY**

~~A.C.A.~~ Arkansas Code §§ 24-7-103, 24-7-202, 24-7-401, 24-7-406, 24-7-411, 24-7-601 — 24-7-611, 24-7-705, 24-7-708, 24-7-736, 24-7-1303, 24-2-701

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~~**I. Calculation of Final Average Salary**~~

## I. Definitions

~~A. Definitions~~

~~1. "ATRS Employer" means an employer who participates in the Arkansas Teacher Retirement System whose employees are eligible for membership under A.C.A. § 24-7-501 or other applicable law.~~

A. "Actual service" means service rendered in a position covered by the Arkansas Teacher Retirement System (ATRS), not including purchased service credit, free service credit, or reciprocal service.

B. "Credited service" means service that is creditable as service by ATRS.

C. "Covered employer" as it relates to outsourcing means a public school, public educational agency, or other eligible employer participating in the Arkansas Teacher Retirement System (ATRS);

D. "Eligible employee" for the purpose of salary or compensation limitations concerning the calculation of a final average salary means a person who was a member of ATRS before the first plan year beginning after December 31, 1995.

E. "Embedded Employee" means a person who:

1. Provides an outsourced service on the premises of a covered employer; and

2. Is employed and paid by an outsource contractor;

3. Is not employed by:

a. A covered employer listed under Arkansas Code § 24-7-202; or

b. An employer that offers ATRS as optional retirement plan as of the date of outsourcing.

F. ~~2.~~ "Full service year" means employment ~~by~~ with a covered employer for one hundred sixty (160) days or more in a fiscal year.

G. ~~3.~~ "Partial service year" means ~~less than a full service year of credited service~~ employment with a covered employer for less than one hundred sixty (160) days in a fiscal year.

H. "Participating employer" means a covered employer that outsources and opts for the embedded employees of all of the covered employer's outsource contractors to become members of ATRS.

I. "Service" means employment rendered as an employee.

J. "Specialized support position" means a position requiring less than eight (8) working hours per day, including without limitation the positions of bus driver, custodial worker, and cafeteria worker.

K. "Surcharge employer" means a covered employer that outsources and pays a surcharge to ATRS in lieu of opting for the embedded employees of outsource contractors to accrue credited service in ATRS.

L. "Youth participant" means an individual:

1. Who is:

a. Enrolled in a secondary public school as a student; and

b. Employed through his or her participation in a summer work program for a period between the first day of June and the last day of August; and

2. Whose compensation is disbursed by a covered employer as part of an agreement between the covered employer and an administrator of the summer work program that designates the covered employer as a pass-through fiscal agent.

~~B. Salary Limitations~~

~~1. To calculate final average salary, ATRS will include salary received during a fiscal year from all ATRS employers.~~

~~2. Partial service years are excluded from the calculation of final average salary unless the partial service year is higher than a full service year, or if the member has less than the required numbers of years to calculate a final average salary.~~

~~3. Regardless of any provision in a State statute, rule, or regulation to the contrary, salary or other compensation paid which exceeds the limitations set forth in Section 401(a)(17) of the Internal Revenue Code shall be disregarded. The limitation on compensation for "eligible employees" shall not be less than the amount allowed under ATRS in effect on July 1, 1993. For this purpose, an "eligible employee" is an individual who was a member of ATRS before the first plan year beginning after December 31, 1995.~~

~~4. Certain remuneration paid by an ATRS employer to ATRS members shall not be treated as salary in the calculation of ATRS benefits although it would otherwise meet the definition of salary.~~

~~a. Paid or unpaid accrued, unused sick leave shall not be credited as service unless the member dies while an active member, in which case it shall be credited as service in the fiscal year of the member's death.~~

b. ~~Any remuneration or salary paid as an incentive payment, bonus, separation payment, additional salary or a special payment made in return for or in consideration of an ATRS member's agreement to separate from the ATRS employer, retire, or not renew the member's contract with the ATRS employer shall not be treated as salary by ATRS.~~

~~i. This salary limitation applies if:~~

~~1. The ATRS employer's offer applies to two (2) or more ATRS members;~~

~~2. The ATRS employer offers a voluntary early retirement incentive plan, staff reduction plan, or buyout plan to ATRS members to retire or separate employment from the ATRS employer as a condition of participating in the plan;~~

~~3. The ATRS member voluntarily participates in the program in return for the additional remuneration or salary.~~

~~ii. This salary limitation does not apply if:~~

~~1. It is payment to purchase service credit or additional salary as a part of a separation agreement and as a result of the resolution of a claim of wrongful termination; or~~

~~2. It is payment made for accumulated, unused sick leave in excess of the number of sick days that a member's employer allows them to carry forward, and that are accrued during years immediately prior to termination of covered employment.~~

c. ~~ATRS employers shall not withhold member contributions or pay employer contributions from the remuneration paid that is subject to the salary limitation established by this Rule.~~

d. ~~Any ATRS employer who offers an early retirement plan, separation plan, or contract non-renewal plan, that pays remuneration subject to the salary limitation shall notify ATRS prior to any payment under such plan.~~

e. ~~At the request of an ATRS employer, ATRS shall review any potential plan or payment that could be subject to this salary limitation and provide guidance as to whether the salary limitation would apply.~~

f. ~~Any decision by ATRS staff on a particular plan or payment may be appealed to the ATRS Board using the ATRS appeal procedure as set forth in Rule 13.~~

~~5. If a conflict exists between ATRS's calculation of final average salary~~

~~and the ATRS employer's laws or policies relating to the compensation of final average salary ATRS's laws and rules shall control.~~

~~6. Effective July 1, 2018, ATRS shall calculate final average salary using the five (5) years in which the member received the highest salary from an ATRS employer subject to the foregoing limitations.~~

~~a. For active members as of July 1, 2018 who have three (3) or more full service years, ATRS shall determine the benchmark final average salary using the highest salary from a member's three (3) separate full service years through fiscal year 2018, as if the member were retiring or entering T-DROP as of June 30, 2018.~~

~~b. If, at the time of actual retirement, a five (5) year calculation of the final average salary of a member who qualifies for the three (3) year calculation is higher, the five (5) year calculation will be used.~~

~~c. The three (3) year final average salary calculation above is a permanent benchmark for comparison to a five (5) year average salary calculation.~~

~~7. The benchmark final average salary is not provided to inactive ATRS members unless proof is provided to ATRS indicating the member was active in a reciprocal or alternative system in fiscal year 2018.~~

~~8. The final average salary for members with reciprocal service shall be the highest salary years credited by either the ATRS employer or the reciprocal system under A.C.A. § 24-2-402.~~

~~9. For members who are retiring and who are employed in agencies or other institutions that use the state 26-week payroll, employers should report to ATRS the salary, contributions, and actual days worked through the current year payroll period. Contributions should not be withheld on any salary earned after the close of the current year's payroll, nor should any salary or days of service be reported for that period.~~

~~10. For members who are retiring and who are employed by employers using a fiscal year ending June 30, employers should report to ATRS the salary contributions, and actual days worked through the current fiscal years ending June 30. Contributions should not be withheld on any salary earned after the end of the current fiscal year, nor should any salary or days of service be reported for that period.~~

~~11. For retiring members, employee contributions remitted on salary paid after the end of the current fiscal year or current year payroll period, whichever applied, will be refunded as promptly as possible.~~

**~~II. Proof of Service Credit~~**

~~A. The Board shall determine the number of years and fractions thereof for paid service credited to members of ATRS. No fewer than one hundred sixty (160) days of employee service in a fiscal year (ending June 30) shall be credited as a~~

~~full service year.~~

~~B. Members employed less than forty (40) days during a fiscal year are not eligible for credit or benefits in ATRS for that fiscal year; however, beginning in the 2011-2012 fiscal year, a contributory member's service days are carried forward from previous fiscal years until at least forty (40) days of service are earned by the member. When a contributory member obtains at least forty (40) days of service in a fiscal year, whether using regular service days or accumulated service days, or both, the member begins the next fiscal year with no days of service carried forward.~~

~~C. For members with service after July 1, 1971, actual service credited to a member's account shall be determined in accordance with the following table:~~

| ~~Number of Days Worked in a Fiscal Year~~ | ~~Service Credit Earned~~ |
|---|---|
| ~~1 –39~~ | ~~None~~ |
| ~~40-79~~ | ~~0.25 year~~ |
| ~~80-119~~ | ~~0.50 year~~ |
| ~~120-159~~ | ~~0.75 year~~ |
| ~~160 days or over~~ | ~~1.00 year~~ |

~~D.  ATRS shall utilize the days specified in a contract between an ATRS employer and member to establish days of service worked.~~

~~E. If a member is employed in a position for which a regular and typical work day includes eight (8) hours or more of work time (full-day position), then at least four (4) hours of work in a day shall be required for a "day" of service.~~

~~F. A member who is not employed in specialized support positions and who does not work four (4) hours or more a day will earn service credit by dividing by four (4) the total number of hours worked in a fiscal quarter to arrive at to be credited. the number of days~~

~~G.  ATRS employers have specialized support positions that include bus drivers, custodial workers, cafeteria workers, and similar positions that may require less than eight (8) hours of work a day. Beginning July 1, 2011, a member employed in a specialized support position that has been certified to ATRS as a specialized support position shall receive a full day of service credit if the ATRS employer reasonably determines that the member performed the regular and usual service expected of a member in that position during the service day.~~

~~H. A specialized support employee who is employed without a contract specifying the numbers of days of serviced shall be credited a full service day for each day worked, regardless whether the member works fewer than four (4) hours during the day.~~

~~I. ATRS employers shall certify proof of service on forms and with documentation required by ATRS.~~

~~J. If a member has accrued a full service year credit for a fiscal year and then retires, the member's annuity shall not begin earlier than on the July 1 of the following fiscal year.~~

~~K. The Board of Trustees has the final authority to decide the amount of service creditable to a member for any particular circumstance.~~

**~~III. Employee (Member) Contributions~~**

~~A. Each employer will remit the member contributions by employer "pick up" from the salary earned by contributory members, and those member contributions are treated as employer contributions under the applicable provisions of the Internal Revenue Code and the Arkansas Income Tax Act. The employer may pay these contributions by a reduction in the cash salary of the member, by a setoff against future salary increases, or by a combination of both.~~

~~B. The rate of member contributions is set by Board resolution.~~

~~C. Overpayments or underpayments of member contributions in an amount determined by the Board to be "de minimus" shall be pursuant to the following:~~

~~1. ATRS shall not collect an underpayment of member contributions for an amount less than twenty-five dollars ($25.00) or adjust member service credit for such amount.~~

~~2. ATRS will refund an overpayment of member contributions of less than twenty-five dollars ($25.00) if the member requests.~~

~~3. If an underpayment of member contributions occurs because the member changed status from noncontributory to contributory, the member must remit to ATRS the contributions due based on gross salary earned retroactive to the beginning of that fiscal year. Service will not be credited until the underpayment is fully paid to ATRS.~~

~~4. If an overpayment of member contributions occurs as a result of erroneous reporting, ATRS will refund the overpayment of member contributions to the employer, subject to the de minimus amount.~~

~~D. If ATRS is owed member contributions with accrued interest, the interest may be waived by the Board or its designee under ATRS Rules.~~

**~~IV. Employer Contribution Rate~~**

~~A. The Board shall annually set the employer contribution rate for the following fiscal year.~~

~~B. ATRS shall annually notify ATRS employers of the employer contribution rate set by the Board.~~

**~~V. Employee and Employer Remittances and Reports~~**

~~A. Remittances of employee and employer contributions are due monthly.~~

~~B. Employer reports required by ATRS are due on a monthly and quarterly basis.~~

~~C. The employer must remit reports and required supporting documentation to~~

~~ATRS electronically on ATRS-approved forms~~

~~D. An employer report or remittance shall not be delinquent if received by ATRS on the 15th day of the month in which it is due or postmarked by the 14th day of the month. If the 14th falls on Saturday, Sunday, or a holiday, the postmarked date is extended to the next business day.~~

~~E. A one-hundred and fifty dollar ($150) late report penalty will be assessed on any required employer report not received by its due date.~~

~~F. If an employer fails to remit employee or employer contributions by the date due above, an interest penalty shall be assessed with daily interest accrual until paid.~~

~~G. The Board or its designee may waive penalties and interest due from an employer if in its discretion it finds:~~

~~1. The delinquency was not the result of the employer's nondisclosure, fraud, or other misrepresentation; and~~

~~2. Based on the facts and circumstances, the required payment of the penalties and/or interest would be unduly penal, burdensome, or manifestly unjust.~~

~~H. The Board designates the Executive Director to waive penalties and interest from an employer in an amount not to exceed one thousand dollars ($1000) per fiscal year. The Executive Director shall report to the Board any amounts waived under this section. Any request to waive employer penalties and interest exceeding one thousand dollars ($1000) per fiscal year shall be submitted to the ATRS Board for consideration.~~

**~~VI. Reporting Employer Contributions~~**

~~A. The employer contributions to be paid each fiscal year by ATRS employers shall be the current employer contribution rate multiplied by the employees' total salaries.~~

~~B. The Department of Education shall pay from the Public School Fund, in accordance with rules established by the Board, the ATRS employer contributions due for eligible employees of certain State agencies as allowed under the Transformation and Efficiencies Act of 2019, and for eligible employees of Cooperative Education Services Areas, Vocational Centers, Arkansas Easter Seals, and the school operated by the Department of Correction. ATRS shall certify to the Department of Education at the close of each quarterly report the amount of employer contributions due. The amount will be based on the employers' reported salaries.~~

~~C. ATRS may certify to the state's Chief Fiscal Officer the names of ATRS employers who are delinquent in reporting and remitting contributions under this rule. Upon notification, the Chief Fiscal Officer may direct a transfer of funds on deposit in the State Treasurer's Office for any delinquent employer payments plus the eight percent (8%) interest penalty to ATRS. (A.C.A. § 19-5-106)~~

~~D. Supplemental salary payment reports for previous years will be accompanied~~

~~by the employer contributions due.~~

~~E. The Arkansas Teacher Retirement System shall return to ATRS employers overpaid contribution amounts due to erroneous submission of payments or incorrect reporting of Salary Option 2 (first $7,800) member salaries. If an overpayment of a contribution amount is less than $25, the refund will not be issued to the employer unless requested in writing by the employer.~~

~~F. The Arkansas Teacher Retirement System shall not collect from ATRS employers an underpayment of employer contribution amount if less than $25.~~

~~G. For members retiring and who are employed by agencies or other institutions that use the state's 26-week payroll schedule, employers should adhere to and report the salary, contributions, and actual days worked through the state's fiscal year payroll schedule and for the termination date of employment. Contributions should not be withheld on any salary earned after the close of the current year's payroll, nor should any salary or days of service be reported for that period of time.~~

~~H. A public school employer shall pay any additional employer contributions above fourteen percent (14%) from additional funds appropriated by the State for the purpose of paying ATRS employer contributions.~~

## II. Service Credit

A. Generally

1. The Board of the Arkansas Teacher Retirement System (Board) shall determine the:

   a. Number of years and corresponding fractions for service that may be credited to a member; and

   b. Amount of service to be credited to a member.

2. A member shall earn one (1) year of credited service if the member completes a full service year.

3. A member shall not earn more than one (1) year of credited service in a fiscal year.

4. ATRS shall certify proof of a member's service on forms and with documentation required by ATRS.

B. Unused Leave

1. Unless otherwise provided by law, paid or unpaid accrued, unused sick leave shall not be credited as service in ATRS.

2. If a member dies during active service on or after July 1, 2013, the member's unused catastrophic leave and unused donated leave shall not be credited as service.

C. Contract Buyouts, Settlements, Claims, Awards, and Court-Ordered Payments

1. A member shall not accumulate service credit in ATRS during the time that payments under a contract buyout agreement, settlement, claim, judgment, arbitration award, decree, or court-ordered payment are paid to the member by a covered employer unless the member continues to work on-site for the covered employer.

2. A member shall not receive service credit or additional salary from ATRS under a settlement agreement or court order unless purchased at actuarial cost.

D. Service Provided After July 1, 1971

1. Actual service credited to a member with service after July 1, 1971, shall be as follows:

| Number of Days Worked in a Fiscal Year | Service Credit Earned |
|---|---|
| 1 –39 | None |
| 40-79 | 0.25 year |
| 80-119 | 0.50 year |
| 120-159 | 0.75 year |
| 160 days or over | 1.00 year |

E. Members Employed for Less Than Forty (40) Days

1. Unless otherwise provided by the law applicable to ATRS or the ATRS Rules, a member who is employed for less than forty (40) days during a fiscal year is ineligible for credited service or retirement benefits for that fiscal year.

F. Rollover Service Days

1. Beginning in the 2011-2012 fiscal year, a contributory member's service days shall be carried forward from previous fiscal years until at least forty (40) days of service are earned by the member.

2. Service days shall not be carried forward for a contributory member if the member earns at least forty (40) days of service in a fiscal year by using regular service days, accumulated service days, or both regular service and accumulated service days.

G. Full-Time Employees

1. A member who is employed full-time or employed in a position for which a regular or typical work day includes at least eight (8) working hours shall earn one (1) day of credited service if the member works for at least four (4) hours of the eight-hour working day.

H. Employees in Specialized Support Positions

1. Employment with Less Than Eight-Hour Working Days

a. Beginning July 1, 2011, a member employed in a specialized support position shall earn one (1) day of credited service if the:

i. Specialized support position is certified as a specialized support position to ATRS; and

ii. Covered employer reasonably determines that the member performed the regular and usual service expected of an employee in that position during the work day.

2. Employment with Unspecified Contractual Work Days

a. A member who is employed in a specialized support position and does not have a contractual obligation to work a specified number of days shall earn one (1) day of credited service for each day of service provided by the member.

b. A member described in this ATRS Rule 7 II.H.2.a. shall earn one (1) day of credited service for each day of service provided by the member regardless of whether the member works for less than four (4) hours on a work day.

I. Employees in Non-Specialized Support Positions

1. The credited service earned by a member who is employed in a non-specialized support position and does not work for at least four (4) hours each working day shall be calculated by dividing the total number of hours worked by the member in a fiscal quarter by four (4).

**III. Member and Employer Contributions**

A. Contributions — Generally

1. The Board shall annually set member and employer contribution rates for the following fiscal year.

2. ATRS shall notify annually each covered employer of the contribution rates set by the Board.

3. A member's and covered employer's contributions are due monthly, regardless of the member's concurrent membership status.

B. Employee Contributions

1. Authority of the Board

a. The Board shall not set the member contribution rate at less than six percent (6%).

b. The Board may increase the member contribution rate to maintain actuarial soundness.

2. Contribution Rate

a. A contributory member shall contribute the percentage of his or her salary that is set by the Board.

b. A member's contribution is due monthly, regardless of the member's concurrent membership status.

C. Employer Contributions — Public School Employers and Covered Employers

1. Covered Employers and Public School Employers

a. A covered employer's employer contributions shall be the sum of the current employer contribution rate set by the Board for the fiscal year multiplied by the total gross salaries of all the covered employer's employees.

b. A public school employer shall pay up to fourteen percent (14%) of the employer contribution rate.

c. Up to fifteen percent (15%) of any additional employer contributions required from a public school employer shall be paid from additional funds appropriated by the State for the purpose of paying employer contributions to ATRS.

2. Employer Contributions Not Paid by the Department of Education

a. A covered employer shall pay annually, for its employees, employer contributions that are not required to be paid by the Department of Education.

b. The employer contribution rate shall be the current state contribution percent multiplied by the total covered salaries of the covered employer's employees in the fiscal year.

3. Employer Contributions Paid by the Department of Education

a. In accordance with rules established by the Board and the Department of Education's appropriations act, the Department of Education shall pay employer contributions due for eligible employees of covered employers, including without limitation the following:

i. State agencies as allowed under the Transformation and Efficiencies Act, Acts 2019, No. 910;

ii. Cooperative Education Services Areas;

iii. Vocational Centers;

iv. Arkansas Easter Seals; and

v. A school operated by the Department of Correction.

b. The Department of Education shall pay the employer contributions for eligible employees of covered employers from the Public School Fund.

c. At the close of each quarterly report, ATRS shall report the amount of employer contributions due from the Department of Education.

d. The employer contributions due from the Department of Education shall be based on the salaries of the eligible employees reported to ATRS by each covered employer.

D. Employer Contributions — Participating Employers

1. The Board shall annually notify each participating employer of the employer contribution rate established by the Board for the upcoming fiscal year.

E. Employer Contributions — Surcharge Employers

1. A surcharge employer's employer contributions shall be a monthly surcharge on the total salaries paid to all the surcharge employer's embedded employees on an aggregate basis as provided under Arkansas Code § 24-7-506(c).

## IV. Employer Reports

A. Generally

1. A covered employer shall submit:

a. A supplemental salary payment report for previous years with employer contributions that are due;

b. Reports and supporting documentation required by ATRS on a monthly and quarterly basis; and

c. Reports and supporting documentation electronically to ATRS on forms approved by ATRS.

B. Covered Employers

1. Youth Participant — Summer Work Programs

a. At the request of ATRS, a covered employer shall provide ATRS with a memorandum of understanding, partnership agreement, or another similar document related to the covered employer's actions as a pass-through fiscal agent for a youth participant in a summer work program.

b. A covered employer shall provide ATRS with all documents related to the agreement designating the covered employer as a pass-through fiscal agent before disbursing compensation to a youth participant.

c. A covered employer that acts as a pass-through fiscal agent shall not report a youth participant as an employee for ATRS purposes.

2. Twenty-Six (26) Week Payroll

a. A covered employer that uses a twenty-six-week payroll system shall report an employee's salary, contributions, and actual working days through the current fiscal year ending June 30 if the employee is a member of ATRS and retiring.

b. If an employee is a member of ATRS and retiring effective July 1, a covered employer shall not:

i. Withhold contributions on a salary earned by the member after the close of payroll for the current fiscal year; and

ii. Report any salary paid to the member or actual working days performed by the member after the close of payroll for the current fiscal year.

c. ATRS shall refund employee contributions remitted to ATRS from a salary paid to the employee after the end of the current fiscal year or payroll period for the current fiscal year.

C. Surcharge Employers and Participating Employers

1. Generally

a. A covered employer may submit a request to ATRS for a determination on whether a service or position is subject to the provisions of Arkansas Code § 24-7-506.

2. Surcharge Employers

a. A surcharge employer shall submit a surcharge report monthly to ATRS with all other reports required by ATRS.

3. Participating Employers

a. A participating employer shall submit a contribution report monthly to ATRS with all other reports required by ATRS.

D. Deadline for Submission of Reports

1. A report and supporting documentation submitted by a covered employer shall not be considered untimely if the report and supporting documentation are:

a. Received by ATRS on the tenth ($10^{th}$) day of the month in which the report and supporting documentation are due; or

b. Mailed and postmarked by the fourteenth ($14^{th}$) day of the month.

i. If the fourteenth ($14^{th}$) day of the month falls on a Saturday, Sunday, or holiday, the postmarked date shall be the next business day.

2. Failure to Submit Report or Remit Contributions and Penalties

a. Late Fee for Untimely Reports

i. A one hundred and fifty dollar ($150) late fee shall be assessed on a covered employer for each occurrence in which a report and supporting documentation is untimely submitted to ATRS.

b. Interest Penalty

i. If a covered employer does not remit member or employer contributions, including surcharge contributions, by the monthly due date, ATRS shall assess an interest penalty equal to ATRS' actuarially assumed rate of seven and one-half percent (7.5%) return on investments and daily interest accrual against the covered employer until the member or employer contributions, whichever is applicable, are paid.

ii. The Board or its designee, in its discretionary authority, may waive an interest penalty assessed against a covered employer if:

A. The delinquency is not a result of the covered employer's nondisclosure, fraud, or other misrepresentation; and

B. Based on the facts and circumstances, payment of the penalty interest would be unduly penal, burdensome, or manifestly unjust.

iii. The Board shall not instruct the ATRS Executive Director to waive one (1) or more interest penalties assessed against a covered employer if the amount will exceed one thousand dollars ($1,000) for the fiscal year.

iv. A covered employer may submit an interest penalty waiver request for one (1) or more interest penalties exceeding one thousand dollars ($1,000) for the fiscal year to the Board.

v. The ATRS Executive Director shall report each interest penalty waived under this ATRS Rule 7 IV.D.2.b. to the Board.

3. Report to Chief Fiscal Officer

a. ATRS may certify the names of each covered employer that fails to timely report and remit member or employer contributions, including surcharge contributions, to the Chief Fiscal Officer of the State (Chief Fiscal Officer).

b. After receiving the certification from ATRS, the Chief Fiscal Officer may direct a transfer of funds on deposit in the State Treasury for the payment of delinquent member or employer contributions and an assessed interest penalty. (Arkansas Code § 19-5-106)

4. Refunds

a. Service History Conflicts

i. A conflict in a member's service history due to concurrent service shall be resolved at the end of the fiscal year and

ATRS shall issue refunds as appropriate.

b. Overpayments and Underpayments

i. ATRS shall return contribution overpayments resulting from erroneous contribution submissions or incorrect reporting of Salary Option 2 member salaries (first seven thousand eight hundred dollars ($7,800)) to the appropriate covered employer.

ii. A contribution overpayment that is less than the de minimis amount of twenty-five dollars ($25) shall not be refunded to the appropriate covered employer unless the covered employer submits a written request for the refund to ATRS.

iii. ATRS shall not collect a contribution underpayment of less than the de minimis amount of twenty-five dollars ($25) from a covered employer.

## V. Final Average Salary

A. Salary Limitations

1. Authority of the Board

a. The Board may adopt rules to modify the definition of salary for the purpose of calculating ATRS retirement benefits. (Arkansas Code § 24-7-202)

2. Salary – Multiple Covered Employers

a. ATRS shall include the salary received from each of a member's covered employers when calculating the member's final average salary.

3. Internal Revenue Code § 401(a)(17)

a. Regardless of any provision in a State statute, rule, or regulation to the contrary, remuneration, salary, or other compensation that exceeds the limitations set forth provided in the Internal Revenue Code of 1986, 26 U.S.C. § 401(a)(17), as it existed on January 1, 2011, shall not be used for the purposes of calculating the final average salary on which ATRS benefits are based.

b. The limitation on remuneration, salary, or compensation for an eligible employee shall not be less than the amount that was allowed to be considered by ATRS as in effect on July 1, 1993.

4. Excluded Remuneration, Salary, or Compensation

a. ATRS shall not consider remuneration, salary, or compensation paid by a covered employer to a member as a salary earned by the member if the:

i. Remuneration, salary, or compensation is paid as an incentive payment, bonus, separation payment, additional salary, or special payment in consideration for the member's agreement to retire, terminate employment, or not renew a contract with the covered employer;

ii. Offer described in this ATRS Rule 7 IV.A.4.a.i. is extended by the covered employer to two (2) or more members;

iii. Remuneration, salary, or compensation is not offered as an additional salary or payment for the purchase of service credit that is part of a separation agreement resulting from the resolution of a claim of wrongful termination;

iv. Remuneration, salary, or compensation is not payment for accumulated, unused sick leave that:

A. Accrued in the years immediately preceding the member's termination of covered employment; and

B. Were in excess of the number of sick days that the covered employer allowed the member to carry forward;

v. Covered employer offers a voluntary early retirement incentive plan, staff reduction plan, or buyout plan that would require the member as a participant of the plan to retire or terminate his or her employment with the covered employer; and

vi. Member voluntarily participates in the plan in exchange for the renumeration, salary, or compensation offered by the covered employer.

b. A covered employer shall not withhold a member's contributions or pay employer contributions from a remuneration, salary, or compensation paid to a member if the remuneration, salary, or compensation is subject to a salary limitation as provided by this ATRS Rule 7.

c. A covered employer that offers an early retirement plan, separation, plan, or contract nonrenewal plan and intends to pay remuneration, salary, or compensation that is subject to a salary limitation as provided by this ATRS Rule 7 shall notify ATRS before making a payment under the plan.

d. At the request of a covered employer, ATRS shall:

i. Review a potential plan or payment that may be subject to a salary limitation as provided by this ATRS RULE 7; and

ii. Provide guidance to the covered employer concerning the applicability of the salary limitation to the plan or payment.

e. A covered employer may appeal ATRS' decision concerning the applicability of a salary limitation to a plan or payment to the Board using ATRS' appeal procedures provided in ATRS Rule 13.

5. Conflict of Laws

a. The law applicable to ATRS and the ATRS Rules shall be controlling if a conflict exists between ATRS' calculation of final average salary and a covered employer's laws or policies concerning the compensation of final average salary.

B. Service Years Included in Computation of Final Average Salary

1. Unused Leave

a. If a member dies during active service on or after July 1, 2013, the member's paid or unpaid accrued, unused sick leave, shall be credited as service in the fiscal year of the member's death for the purpose of determining the member's retirement eligibility, final average salary, and eligibility for other ATRS benefits.

2. Full Service and Partial Service Years

a. A partial service year shall be excluded from the calculation of a member's final average salary unless the:

i. Partial service year is higher than a full service year; or

ii. Member has less than the required number of years to calculate a final average salary.

3. Number of Service Years Used to Calculate Final Average Salary

a. The Board shall set annually the applicable number of years to be used in computing final average salary for retirement benefits at not less three (3) years and not more than five (5) years.

b. Unless otherwise provided by law applicable to ATRS or the ATRS Rules, effective July 1, 2018, ATRS shall calculate a member's final average salary using the five (5) years in which the member received the highest salary from a covered employer.

c. Members with Insufficient Credited Service or Full Service Years

i. If a member has less than the minimum number of years of credited service that would be used to calculate a final average salary, the member's final average salary shall be the total salary paid to the member for his or her years of credited service divided by the member's total credited years of service.

ii. If a member does not have full service years for the total years of service used in the calculation of final average salary, the Board may establish by rule a fair base year for a member's final average salary for purposes of comparing the member's highest salary years.

d. Active Members with Three (3) Full Service Years as of July 1, 2018

i. For an active member who has three (3) or more full service years as of July 1, 2018, ATRS shall:

A. Treat the active member as if he or she was retiring or entering the Teacher Deferred Retirement Option Plan (T-DROP) as of June 30, 2018; and

B. Determine the benchmark final average salary using the highest salary from the member's three (3) full service years through fiscal year 2018.

ii. A final average salary calculation using three (3) full service years shall be the benchmark comparison for a five-year final average salary calculation to which the active member may be entitled.

iii. ATRS shall calculate the active member's final average salary using the five (5) years in which the active member received the highest salary from a covered employer if at the time of the active member's retirement using a five-year calculation of the final average salary is higher than using a three-year calculation.

e. Inactive Members Who May Have Three (3) Full Service Years of July 1, 2018

i. ATRS shall not use a benchmark final average salary for an inactive member unless the inactive member provides ATRS with appropriate documentation showing that the inactive member was active in a reciprocal system or alternate retirement plan during the 2018 fiscal year.

f. Members with Reciprocal Service Credit

i. For a member with reciprocal service credit, ATRS shall use the highest final average salary calculated, at the time of the member's retirement, by ATRS or a reciprocal system in which the member has at least two (2) years of service credit. (Arkansas Code § 24-2-402)

~~**ATRS Rule 8**~~

~~**PURCHASES AND REFUNDS**~~ **ATRS RULE 8**

**FREE SERVICE CREDIT, PURCHASABLE SERVICE CREDIT, AND PURCHASE ACCOUNTS**

~~A.C.A~~ Arkansas Code §§ 24-7-406, 24-7-601, 24-7-602, 24-7-607, 24-7-711, 24-7-719, 24-7-735, 24-1-107

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~~**I. Definitions**~~

## I. Definitions

A. “Armed forces reserve” means one (1) of the reserve components of the United States Armed Forces.

~~"Back Contributions" means mandatory contributions payable for service and salary rendered in a covered position within the ATRS look-back period.~~

B. “Domestic federal service” means service rendered as a teacher or administrator in a school or similar institution located on a military base or installation that is administered by the United States Department of Defense.

C. “Out-of-state service” means service performed in a state other than Arkansas and in a position that would have been covered by ATRS if the service had been actual service performed in Arkansas and covered by ATRS.

D. “Overseas service” means service in:

1. An American-related overseas school that is sponsored and approved by either the United States Department of State or the United States Department of Defense; or

2. The Peace Corps or AmeriCorps VISTA, Volunteers in Service to America.

~~B.~~ E. "Private ~~School Service~~ school service" ~~as defined in A.C.A. § 24-7-607, additionally, employment under the Head Start Programs will also be considered private school service and will have the same requirements for the issuance of teaching licenses by the Arkansas State Department of Education as determined by ATRS staff.~~ means:

1. Service rendered in a private school, or agency that would have been covered by the Arkansas Teacher Retirement System (ATRS) if the:

   a. Service had been rendered in a public school; and

   b. Private school or agency:

      i. Has positions that would require the issuance of a teaching license in a public school based on a determination by ATRS; or

ii. Is recognized as a private education-related entity by resolution adopted by the Board of Trustees of the Arkansas Teacher Retirement System (Board).

F. "Uniformed Services of the United States" means service in the:

1. United States Armed Forces;

2. Army National Guard;

3. Air National Guard when engaged in active duty for training, state active duty, inactive duty training, or full-time National Guard duty;

4. United States Commissioned Corps of the Public Health Service; and

5. Any other category of persons designated by the President of the United States in time of war or emergency.

## II. Free Service Credit

A. Military Service Credit

1. Generally

a. A person may establish military service credit with ATRS at any time after becoming a member.

b. Military service credit established with ATRS shall be effective after the member completes five (5) years of actual service in ATRS, excluding military service credit.

c. ATRS shall provide a member with military service credit after the member:

i. Completes and submits Form M-1 to ATRS; and

ii. Submits official military documentation listing the entry and discharge dates of the member's first enlistment or induction into the United States Armed Forces.

d. Military service credited to a member before July 1, 1986, shall be considered contributory service.

e. Military service credited to a member shall not exceed five (5) years unless the member is entitled to service credit for service in the uniformed services of the United States. (Arkansas Code § 24-7-602(c)).

f. Military service shall be credited in order of the years that are chronologically closest to the member's service with a covered employer.

g. A member shall not receive military service credit for military service years resulting from the member's reenlistment or voluntary extension of his or her initial enlistment.

2. Federal Military Draft

a. New Members

i. A member who is first employed after serving in the United States Armed Forces during a period of time in which the military draft was in effect is eligible to receive free military service credit if the member:

ii. Completes five (5) or more years of actual service in ATRS; and

iii. Receives an honorable discharge.

b. Active Members

i. An active member who enters the United States Armed Forces during any period that a federal military draft was in effect and who becomes an active member after an honorable discharge from the United States Armed Forces may receive free military service credit regardless of whether the member has five (5) or more years of credited service at the time of his or her reemployment.

ii. An active member who enters the United States Armed Forces during a period that a federal military draft was in effect and obtains a refund of member contributions from ATRS may receive free military service credit if the member:

A. Receives an honorable discharge from the United States Armed Forces; and

B. Repays the actuarial equivalent of the member's refunded service to ATRS before retiring.

~~**II. Purchase of Service Credit/Repayment of Refunds - General**~~

## III. Purchasable Service Credit

A. Military Service Credit

1. Service in the United States Armed Forces

a. A member shall receive service credit for service in the United States Armed Forces that cannot be credited to the member under Arkansas Code § 24-7-602(a) if the member pays ATRS the actuarial equivalent for the service credit.

2. Service in the Uniformed Services of the United States

a. Effective December 12, 1994, a member shall be treated as not having incurred a break in service with a covered employer if the member:

i. Leaves employment with a school to voluntarily or involuntarily serve in the uniformed services of the United States; and

ii. Returns to employment with a school.

b. A member's absence from his or her employment with a school due to his or her service in the uniformed services of the United States shall not exceed five (5) years.

c. A member described in this ATRS Rule 8 III.A.2.a. shall accrue benefits for the time he or she served in the uniformed services of the United States if:

i. The member pays the employee contributions as provided in Arkansas Code § 24-7-406; and

ii. Employer contributions are paid for the time the member served in the uniformed services of the United States.

B. Service in National Guard and Armed Forces

1. A member may purchase up to five (5) years of service for his or her service in the National Guard or armed forces reserve.

2. A member shall receive credit for service in the National Guard or armed forces reserve if the member:

a. Submits an application for National Guard or armed forces reserve service credit to the Board;

b. Provides ATRS with satisfactory proof of his or her service in the National Guard or armed forces reserve;

c. Pays ATRS, in full, the actuarial equivalent of the member's benefits for each year of National Guard or armed forces reserve service credit being purchased; and

d. Has established at least five (5) years of actual service with ATRS, excluding National Guard or armed forces reserve service.

3. ATRS shall not credit a member with more than five (5) years of service for service in the National Guard of armed forces reserve.

C. Domestic Federal Service

1. Beginning January 1, 2003, an active member may purchase up to ten (10) years of domestic federal service that shall be credited if:

i. The member:

i. Has contributions left on deposit with another system and the domestic federal service credit being purchased is limited to service for which another system similar in purpose to ATRS, except for Social Security, could not pay a benefit;

ii. Pays ATRS, in full, the actuarial equivalent of benefits for each year of domestic federal service credit being purchased; and

iii. Has established at least five (5) years of actual service, excluding federal domestic service; and

ii. All other requirements set by rules adopted by the Board are met.

b. An active member may purchase a fraction of a year of domestic federal service that shall be credited if the:

a. Member has at least one-fourth (1/4) of a year of domestic federal service in a fiscal year; and

b. Fraction of a year of domestic federal service can be credited in accordance with Arkansas Code § 24-7-601.

D. Out-of-State Service

1. Out-of-State Service — Purchased Before July 1, 1987

a. Out-of-state service purchased before July 1, 1987, shall be credited as service in accordance with the law in effect before July 1, 1987.

2. Out-of-State Service — Purchased On and After July 1, 1987

a. An active member may purchase up to fifteen (15) years of out-of-state service.

b. Out-of-state service shall be credited if:

i. The member:

A. Has contributions left on deposit with another system and the out-of-state service credit being purchased is limited to service for which another system similar in purpose to ATRS, except for Social Security, could not pay a benefit;

B. Pays ATRS, in full, the actuarial equivalent of benefits for each year of out-of-state service credit being purchased; and

C. Has established at least five (5) years of actual service, excluding out-of-state service; and

ii. All other requirements set by rules adopted by the Board are met.

c. An active member may purchase a fraction of a year of out-of-state service that shall be credited if the:

i. Member has at least one-fourth (1/4) of a year of out-of-state service in a fiscal year; and

ii. Fraction of a year of out-of-state service can be credited in accordance with Arkansas Code § 24-7-601.

E. Overseas Service

1. A member may purchase service credit for service in an overseas school if:

a. The member:

i. Has at least five (5) years of service in a position covered by ATRS; and

ii. Performs the minimum days of service at the overseas school required for a fiscal year of service credit;

b. The overseas service credit is limited to service for which another system similar in purpose to ATRS, except Social Security, could not pay a benefit; and

c. The actuarial equivalent of the member's benefits is paid to ATRS

2. ATRS shall not credit a member with more than ten (10) years of overseas service credit.

F. Service in the General Assembly

1. A member of the Senate or House of Representatives of the General Assembly who is a member of ATRS shall receive credited service and salary in ATRS for his or her full contract salary if the:

a. School district requires the member's salary to be reduced during the member's attendance at:

i. Regular or extraordinary sessions of the General Assembly; or

ii. Interim meetings of regular or special committees of the General Assembly;

b. Member submits an application for General Assembly service credit to ATRS;

c. Member pays ATRS the necessary member contributions; and

d. Required employer contributions are paid to ATRS for the amount of the salary reduction during periods of the member's attendance at regular or extraordinary sessions of the General Assembly or sessions of legislative committees.

2. A member of the Senate or House of Representatives who currently serves in the General Assembly or has served in the legislative committees for any year that is within five (5) years of July 6, 1977, shall receive credited service and salary for his or her full contract if the:

a. Member submits an application for General Assembly service credit to ATRS and pays the employee contributions; and

b. Required employer contributions are paid from the Public School Fund to ATRS for the portion of the contractual period in which the member's salary was reduced during the member's legislative service.

3. A member of the Senate or House of Representatives of the General

Assembly who is an employee and member of ATRS shall receive credited service and salary for his or her full contract salary if:

a. Either the member or school district decides it is in the best interest of the member to take a leave of absence for up to one (1) full calendar year at a time in order for the member to attend his or her duties as a member of the General Assembly; and

b. Both the required employee and employer contributions are paid to ATRS for the amount of the member's contract salary during periods in which the member attended sessions of the General Assembly or legislative committees.

G. Advanced Degree Service

1. Beginning June 28, 1985, a member who is a public school teacher or administrator and takes a leave of absence from a school in order to obtain an advanced degree at an institution of higher learning or to fulfill the requirements of a scholarship or grant shall receive credited service for the time of the member's actual enrollment in the institution if the member:

a. Submits an application for the advanced degree service credit to ATRS; and

b. Pays the actuarial equivalent of the member's benefits to the system for each year of service credit being purchased.

H. Private School Service

1. Head Start Programs

a. Employment with a Head Start program shall be considered private school service.

2. Certified Private School Service Credit

a. An active member may purchase up to fifteen (15) years of private school service to be credited as certified service if:

i. The member:

A. Has contributions left on deposit with another system and the private school service credit being purchased is limited to service for which another system similar in purpose to ATRS, except for Social Security, could not pay a benefit;

B. Pays ATRS, in full, the actuarial equivalent of benefits for each year of private school service credit being purchased; and

C. Has established at least five (5) years of actual service, excluding private school service; and

ii. All other requirements set by rules adopted by the Board are met.

2. Noncertified Private School Service Credit

a. An active member may purchase up to five (5) years of noncertified private school service that shall be credited as noncertified service if:

i. The member:

A. Submits an application to purchase noncertified private school service to ATRS;

B. Has contributions left on deposit with another system and the noncertified service credit being purchased is limited to service for which another state-supported pension system or system similar in purpose to ATRS could not pay a benefit; and

C. Pays ATRS, in full, the actuarial equivalent of benefits for each year of service credit being purchased;

D. Has established at least five (5) years of actual service; and

ii. All other requirements set by rules adopted by the Board are met.

b. An active member may purchase a fraction of a year of private school service that shall be credited if the:

i. Member has at least one-fourth (1/4) of a year of private school service in a fiscal year; and

ii. Fraction of a year of private school service can be credited in accordance with Arkansas Code § 24-7-601.

3. Private Education-Related Entity Private School Service

a. An active member may purchase up to five (5) years of private education-related entity private school service that shall be credited as noncertified service if:

i. The member:

A. Submits an application to purchase private education-related entity private school service to ATRS;

B. Has contributions left on deposit with another system and the private education-related entity private school service credit being purchased is limited to service for which another state-supported pension system or system similar in purpose to ATRS could not pay a benefit;

C. Pays ATRS, in full, the actuarial equivalent of benefits for each year of service credit being purchased;

D. Has established at least five (5) years of actual service; and

ii. All other requirements set by rules adopted by the Board are met.

I. Federal Retirement Service

1. An active member may purchase up to ten (10) years of federal retirement service that shall be credited if the:

a. Federal retirement service being purchased is limited to service for which the federal retirement system could not pay a benefit to the member;

b. Member submits an application to purchase federal retirement service to ATRS;

c. Member provides certification of his or her federal retirement service to ATRS on a form approved by ATRS;

d. Member pays ATRS, in full, the actuarial equivalent of benefits for each year of service credit being purchased; and

e. Member has established at least five (5) years of actual service, excluding federal retirement service.

2. A member shall complete at least one hundred sixty (160) working days before the member may establish one (1) year of federal retirement service credit.

3. One (1) month of federal service shall be considered twenty (20) days of service.

4. A member may purchase a fraction of a year of federal retirement service that shall be credited if the:

a. Member has at least one-fourth (1/4) of a year of federal retirement service in a fiscal year; and

b. Fraction of a year of federal retirement service can be credited in accordance with Arkansas Code § 24-7-601.

5. Federal retirement service credit shall be considered contributory service.

6. Purchased federal retirement service shall be credited to the fiscal year in which the service was rendered.

7. If a member is not an active member before establishing federal retirement service with ATRS, the member's contribution payments and regular interest shall be refunded.

8. Purchase account payments made through employer pick-up are

subject to restrictions specified in this ATRS Rule 8, regulations, and the Internal Revenue Code.

## IV. Cost of Service and Purchase Accounts

~~A. Arkansas Code § 24-7-601 et seq. allows a member to purchase various types of service and credit that service to the member under certain circumstances.~~

A. Generally

1. A member shall purchase service using ATRS approved forms.

2. A member who purchases service shall receive credit for the purchased service if the actuarial equivalent of both the employee and employer contributions, as calculated by ATRS, are paid to ATRS.

3. The requirement for service to be purchased at the actuarial cost shall not apply to free military service credit established with ATRS.

4. A salary earned for service purchased at the actuarial cost:

    a. Shall not be used to calculate a member's final average salary; and

    b. May be used to determine repaid refunds for service that is required to be reported within the refunded service.

B. Contact Buyouts, Settlements, and Court Ordered Payments

1. A member shall only earn service credit for actual, on-site work performed for a covered employer for the period specified in a contract buyout, settlement, or court ordered payment unless the member purchases service or salary that would have been received by the member if the member had been successful in his or her legal claim.

2. A member shall purchase service or salary at the actuarial cost for service and salary that the member would have earned if the member had not been terminated.

3. If a member is on call with a covered employer and not subject to either a contract buyout, settlement, or court ordered payment, the salary paid to the member as a regular employee shall be credited to the member.

4. On call credit shall not be added to a member's salary with another covered employer.

5. ATRS shall not adjust a member' service history until the:

    a. Member or the member's covered employer provides a copy of the settlement, a file-marked court order, or a certified copy of the contract buyout to ATRS; and

    b. Actuarial cost to purchase the service has been paid in full to ATRS.

C. Actuarial Cost of Service — Purchase Formula

~~B. Actuarial cost for purchase of service does not include adjustments to salary and service that are made in order to properly reflect the member's mandatory salary and service records. In addition, the actuarial cost of service does not apply to free military service credit that is established with ATRS.~~

1. A member's highest salary shall be used as the base year when calculating the actuarial cost for service being purchased by the member.

2. A member's base year shall be the member's highest salary year unless the highest salary year is more than one hundred fifty percent (150%) greater than the next highest salary year.

3. If a member's highest salary year is more than one hundred fifty percent (150%) greater than the next highest salary year, the highest two (2) salary years shall be added together and divided by two (2) to determine the base year to be used for calculating the actuarial cost for service being purchased.

4. If a member does not have enough full service years to determine a base year for the purchase formula, a full year salary shall be used to determine the base year.

5. A full year salary shall be calculated by dividing the percentage of each of the member's partial service years by each salary earned by the member during each of the member's partial service years.

6. The actuarial cost for service to be purchased shall not include adjustments to salary and service that are made in order to properly reflect the member's mandatory salary and service record.

7. Service purchased at the actuarial cost shall be contributory.

~~C. The actuarial cost for purchase of service shall use the member's highest salary year as the formula's "base year." The base year shall always be the member's highest salary year unless the highest salary year is more than 150% greater than the next highest salary year. In that event, the best two (2) salary years shall be added together and divided by two (2) to establish the base year for the formula.~~

~~D. If a member does not have sufficient full service years to establish the base year for the purchase formula, then each partial year's service percentage shall be divided into each partial year's salary to establish a full year salary from the partial year salary to determine the base year for the formula.~~

~~E. Salaries for actuarially purchased service shall not be used in the calculation of final average salary except for repaid refunds for mandatorily reported service within the refunded service.~~

~~F. All actuarially purchased service shall be purchased as contributory.~~

~~G. Members seeking to purchase service with ATRS shall use forms developed by ATRS staff to establish the service.~~

D. Purchase Accounts

1. Purchase Account Commitment Statement

a. A purchase account established before July 1, 2011, shall have an approved Purchase Account Commitment Statement (PACS) on file with ATRS detailing the member's payment plan.

b. A PACS may be modified with the agreement of the member and ATRS.

c. A modification of a PACS may include changes to the type of payment, the duration of the service purchase agreement, and a decrease of the service purchased policy.

d. The service purchased under a PACS shall not be increased.

e. ATRS shall cancel a service purchase agreement with a member if the member fails to comply with the terms of the agreement.

f. Purchase account payments shall be applied to the member's account on the date the payment is received by ATRS.

2. Rollover Payments

a. ATRS shall accept participant rollover contributions and direct rollovers for the purchase of service credit from a qualified retirement plan.

b. A depository trustee from a qualified retirement plan shall certify to ATRS that the rollover deposit account is qualified and eligible to receive rollover distributions before a distribution of a member's account monies.

c. If the depository trustee is unable to certify the rollover deposit account as qualified and eligible to receive rollover distributions, ATRS shall accept a certification from a public accountant who has an active certified public accountant's license.

d. A public accountant shall not certify a rollover deposit account as qualified and eligible to receive rollover distributions if the public account has an interest in the rollover deposit accountant as a member, spouse, or designated beneficiary.

3. Deceased Member

a. If a member with an active purchase account dies, the member's spouse, beneficiary, or legal representative shall have up to six (6) months from the member's date of death to pay the balance of the purchase account unless the deadline is extended by ATRS for good cause.

b. If the member’s purchase account is not paid in full within six (6) months of the member’s date of death, the purchase account shall be closed and payments made towards the purchase account shall be considered as part of the member’s residual account balance.

4. Cancellation of Purchase Accounts

a. A purchase account that is paid in full after a final payment has been tendered shall not be cancelled.

b. A member’s purchase account may be cancelled if:

i. The member submits a written cancellation request to ATRS; and

ii. ATRS approves the cancellation request.

c. ATRS may approve a cancellation request and refund a member’s purchase account if the purchase account:

i. Is an account that has been paid only with after-tax contributions;

ii. Is an account that has been paid only with employer pick-up contributions and one (1) of the following applies:

A. All payments on the irrevocable payroll authorization have been completed;

B. The member terminates employment with the employer; or

C. The member retires; or

iii. Is an account that has been paid only with rollover or transfer contributions and the rollover or transfer contributions may be rolled over or transferred to another qualified plan or refunded to the member after the deduction and payment of federal taxes.

d. If a member’s cancellation request is approved by ATRS, ATRS shall refund the balance of the member’s purchase account without interest to the member.

e. ATRS shall refund interest to a member if a refund of interest is statutorily mandated.

~~H. If an active member with an active purchase account dies, the member's spouse, ATRS beneficiary, or legal representative shall have up to six (6) months to pay the balance of the purchase account. If the purchase account is not paid in full within six (6) months of the date of death, the purchase account is cancelled and any payments shall be treated as part of the member's residual account balance. ATRS may extend the six (6)~~

~~month period for good cause shown.~~

~~**III. Special Provisions for the Repayment of Refunded Member Contributions**~~

## V. Refunds

A. Purchase of Refunded Service

~~A. To be eligible to repay a refund, a person must be an active member of ATRS by completing forty (40) days or more after reemployment by an ATRS covered employer.~~

1. ~~B. A member must purchase the total credited service forfeited by the refund in order to purchase the refunded service.~~ A member shall not purchase refunded service unless he or she purchases the total credited service forfeited by a refund.

2. ~~C. If a member has received more than one refund, repayment must be made in inverse order.~~ A repayment of refunded contributions shall be made in inverse order if the member has received more than one (1) refund of contributions.

3. The most recent refund account ~~must~~ shall be paid in full before a member may purchase a previous refund account ~~can be purchased~~.

B. Refund of Member Contributions

1. Unless requested in writing by the member, ATRS shall not refund an overpayment of a member's or employer's contribution that is equal to or less than the de minimis amount of twenty-five dollars ($25).

2. The total amount reported by the covered employer shall be credited to contributions.

3. The de minimis amount shall be periodically set by the Board, by board resolution, and shall remain the same amount until adjusted by the Board.

4. For refunded contributions, the rate of regular interest compounded annually after the first year of contributions shall be credited as follows:

| Service | Regular Interest Rate |
|---|---|
| Before July 1, 1984 | 3% |
| For July 1, 1984 through June 30, 2009 | 6% |
| For July 1, 2010, through June 30, 2011 | 2% |
| For July 1, 2012, through June 30, 2017 | 1% |
| For July 1, 2017 and after | 0.08% |

5. Payable regular interest shall be computed:

a. On each member's individual account on June 30; and

b. By multiplying the balance in the member's individual account as of July 1, including contributions and regular interest credit from previous years, plus one-half (1/2) of the contributions for the year ending June 30 by the annual applicable regular interest percentage rate.

6. The Board, by board resolution, may change the regular interest rate on refunded contributions for subsequent years by stating the new regular interest rate, the date that the new regular interest rate Is effective, and any other features necessary for implementing the regular interest rate.

7. Regular interest shall not be paid on contributions made in the year in which a refund of contributions is paid to a member.

8. ATRS shall issue a refund for a member's contributions that are closed on ATRS' books after receiving the member's properly completed refund application.

9. If a second refund payment is required to complete the refund of contributions, the second payment shall be made when all quarters of service the member works are closed on ATRS' books.

10. A rollover payment shall be made in one (1) payment when all quarters of service the member works are closed on ATRS' books.

11. The effective date of a refund shall be the date on which ATRS first issues a payment of the refund.

~~**IV. Refunds of Member Contributions**~~

~~A. ATRS will not refund an overpayment of a member's or employer's contribution that is equal or less than the de minimus amount remitted to ATRS, except upon the written request from the member. The total amount reported by the employing authority shall be credited to contributions. The board shall periodically set the de minimus amount by board resolution, which shall remain until adjusted by the board.~~

~~B. On refunded contributions, the rate of interest compounded annually after the first year of contributions is credited as follows:~~

| ~~Service~~ | ~~Interest Rate~~ |
|---|---|
| ~~Before July 1, 1984~~ | ~~3%~~ |
| ~~For July 1, 1984 through June 30, 2009~~ | ~~6%~~ |
| ~~For July 1, 2010, through June 30, 2011~~ | ~~2%~~ |
| ~~For July 1, 2012, through June 30, 2017~~ | ~~1%~~ |
| ~~For July 1, 2017 and after~~ | ~~0.08%~~ |

~~C. Payable interest shall be computed on each member's individual account on June 30 each year by multiplying the balance in the member's individual account as of July 1 (including all contributions and interest credit from previous years)~~

~~plus one-half (1/2) of the contributions for the year ending on June 30 by the annual applicable interest percentage rate.~~

~~D. The Board may by board resolution change the interest rate on refunded contributions for future years by stating the new interest rate, the date that the new interest rate will become effective, and any other features of the interest rate's implementation.~~

~~E. Regular interest is not paid on contributions made in the year in which a refund is paid.~~

~~F. ATRS will issue a refund for any member contributions that have been closed on the books of ATRS upon receipt of a properly completed refund application. If a second payment is required to complete the refund, the payment will be made when all quarters of service the member worked are closed on the books of ATRS. Rollovers will be made in one payment when all quarters of service worked have been closed on the books of ATRS.~~

~~G. The effective date of a refund is the date that ATRS first issues payment of a refund.~~

**~~V. Rollover Acceptance and Distribution~~**

~~A. Accepting Rollovers for Payment on ATRS Purchase Accounts~~

~~ATRS will accept participant rollover contributions and/or direct rollovers for the purchase of service credit from qualified retirement plans as set forth in the Arkansas Code.~~

~~B. Rollover Eligibility of ATRS Distributions~~

~~The depository trustee from the qualified retirement plan shall certify to ATRS that the rollover deposit account is "qualified" and eligible to receive rollover distributions prior to a distribution of a member's account monies. If the depository trustee cannot certify the eligibility status, ATRS will accept a certification from a currently licensed certified public accountant who has an active certified public accountant's license. The certification may not be made by a certified public accountant if the certified public accountant has an interest in the account as a member, spouse, or designated beneficiary.~~

**~~VI. Purchase Payment Rules~~**

~~A. A purchase account established prior to July 1, 2011 must have an approved Purchase Account Commitment Statement on file with ATRS that details the member's payment plan. The Purchase Account Commitment Statement may be modified by agreement of ATRS and the member. A member who fails to complete the terms of the service purchase agreement authorizes ATRS to cancel the agreement. Modifications of the Purchase Account Commitment Statement may include types of payment, duration, and a decrease of the service purchased policy. The service purchased under a Purchase Account Commitment Statement cannot be increased.~~

~~B. An agreement to complete payment of purchase account shall exist upon~~

~~tender of the initial payment to ATRS.~~

**~~VII. Cancellation of Purchase Service Accounts~~**

~~A. An established purchase account may be cancelled if the request is submitted in writing by the member and approved by ATRS. The amount of payments to date will be returned to the member without interest unless the payment of interest is statutorily mandated.~~

~~B. The cancelled purchase account may be refunded under certain conditions:~~

~~1. Accounts paid only with after-tax contributions can be returned to the member.~~

~~2. Accounts paid only with employer pick-up contributions cannot be returned to the member unless the member terminates employment or retires.~~

~~3. Accounts paid only with rollover/transfer contributions may be rolled to another qualified plan or refunded to the member after deduction and payment of federal taxes.~~

~~C. Purchase account payments made through employer pick-up (Irrevocable Payroll Authorization) cannot be canceled until:~~

~~1. The number of payments on the Irrevocable Payroll Authorization is completed; or~~

~~2. The member terminates employment; or~~

~~3. The member retires.~~

~~D. A purchase account that has been paid in full upon the tender of a final payment cannot be canceled.~~

**~~VIII. Free Military Service~~**

~~A member of ATRS who entered the Armed Forces of the United States between July 1, 1937, and June 30, 1973, or during a period that a federal military draft is in effect, may establish that military active duty service as service in ATRS without cost, provided the following conditions are met:~~

~~A. Established active duty service must be based upon the service required for the initial enlistment. Reenlistment or voluntary extension of the initial enlistment is not considered compulsory and shall not be allowed as service credit.~~

~~B. Military service credit shall not exceed five (5) years, and the years to be credited shall be those chronologically closest to the ATRS-covered employer service.~~

~~C. ATRS will credit military service upon the completion of Form M-1, provided by ATRS, and official military documents listing the entry and discharge dates of the first enlistment or induction.~~

~~D. The member must have received an honorable discharge.~~

~~E. All military service credited prior to July 1, 1986, is contributory service.~~

~~F. Military service credit may be established at any time after becoming a~~

~~member of ATRS but official crediting shall be effective upon completion of five (5) years of actual service in ATRS, excluding military service credit.~~

**~~IX. Purchase of Federal Retirement Service~~**

~~A. An active member shall be eligible to purchase federal retirement service credit under the following conditions:~~

~~1. Federal retirement service eligible for credit purchase is limited to service for which no benefit is payable from the federal retirement system in which he or she had previously been a member.~~

~~2. Federal retirement service credit purchased shall be limited to ten (10) years.~~

~~B. The cost to purchase federal retirement service credit is actuarial cost determined by ATRS.~~

~~C. The federal retirement service will become credited service in ATRS when:~~

~~1. The member payments have been paid in full; and~~

~~2. The member has established five (5) or more years of actual service in ATRS exclusive of federal retirement service.~~

~~D. To be eligible to establish one (1) year of federal retirement service credit, a minimum of one hundred sixty (160) days must have been worked by the member. Fractional years of federal service may be purchased in accordance with A.C.A. §§ 24-7-601 and 24-1-107. A month of federal service shall be considered as twenty (20) days.~~

~~E. Certification of federal retirement service must be submitted to ATRS on a form provided by ATRS.~~

~~F. All federal retirement service credit shall be counted as contributory service.~~

~~G. Purchased federal retirement service shall be credited to the fiscal year in which it was rendered.~~

**~~X. Contract Buyouts, Settlements, and Court Ordered Payments~~**

~~A. Unless service or salary is purchased for service the member would have received if the member had not been terminated, a member may only accrue service credit for actual, on-site work for a covered employer for any period of time represented in a contract buyout, settlement, or court ordered payment Such purchased service or salary will be purchased at actuarial cost for service and salary the member would have earned had the member not been terminated. However, if the member is not subject to either a contract buyout, settlement, or court ordered payment, salary paid to the member as a regular employee be credited to the member if the member is on call to the employer. On call credit may not be stacked with salary at another ATRS employer.~~

~~B. ATRS shall not adjust a member's service history until the covered employer or member provides a copy of the court order or settlement, or a certified copy of the contract buyout, to ATRS, and the full cost to purchase has been received.~~

# ~~ATRS Rule 9~~ ATRS RULE 9
# RETIREMENT AND BENEFITS

~~A.C.A.~~ Arkansas Code §§ 24-7-202, 24-7-205, 24-7-502, 24-7-701 — 24-7-707, 24-7-709, 24-7-710, 24-7-727, 24-4-732, 24-7-734, ~~Act 808 of 1987~~ Acts 1987, No. 808

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## I. Definitions

A. "Act 808 Employee" means an employee of a state agency who~~,~~:

1. ~~on~~ On April 8, 1987, was an active member of the Arkansas Teacher Retirement System (ATRS);

2. ~~and qualified~~ Qulaified to retire before January 1, 1988, under the Early Retirement Incentive Law of 1987 ~~(Act 187 of 1987)~~ (Acts 1987, No. 187)~~,~~; and

3. ~~could~~ Could elect to become a member of the Arkansas Public Employees Retirement System (APERS) and have ~~their~~ his or her credited service in ATRS transferred to APERS.

B. "Annuity options" means ~~the member's election at retirement of an annuity that shall be paid throughout the retiree's lifetime in accordance with A.C.A. § 24-7-706~~ one (1) or more options that:

1. Concern how an annuity benefit shall be paid, in accordance with Arkansas Code § 24-7-706, to a member for his or her lifetime after the member's retirement; and

2. Are available for a member's election at the time of the member's retirement.

C. "Application" for the purposes of retirement eligibility means an application form and any other documents required by ATRS to establish a member's eligibility to retire.

D. "Covered employer" or "employer" means an employer who participates in ATRS and whose employees are eligible for membership under Arkansas Code §§ 24-7-202, 24-7-501, or other applicable law.

E. "Dependent child" means a child of a member or retiree who:

1. Is a minor;

2. Is between eighteen (18) and twenty-three (23) years of age and continuously enrolled as a full-time student at an accredited secondary school, college, or university; or

3. Has been adjudged physically or mentally incapacitated by a court of

competent jurisdiction.

~~C~~F. "~~Effective Retirement Date~~ Effective retirement date" means, for purposes of ~~ATRS~~ ATRS' retirement benefits, the ~~1st~~ first day of the month in which ~~the~~ a member requests to receive retirement benefits and for which the member ~~has submitted~~ submits a timely retirement application.

~~D~~G. "Incapacitated child" means a child who has been adjudged physically or mentally incapacitated by a court of competent jurisdiction.

H. "Marriage dissolution" means a final decree of divorce, separate maintenance, or annulment ~~duly~~ executed by a court of competent jurisdiction and filed of record in the Office of the Ex Officio Recorder.

~~E~~I. "Medical committee" means the committee of three (3) physicians appointed by the Board of Trustees of the Arkansas Teacher Retirement System (Board) under ~~A.C.A.~~ Arkansas Code § 24-7-303 for the purpose of evaluating disability retirement applications.

~~F~~J. "Option beneficiary" means a ~~person(s) nominated by the member, in writing at retirement, who, if eligible, will receive annuity payments under the annuity option selected by the member after the member's death~~ person who:

1. A member nominates by written designation, before or after the member's retirement, to receive annuity payments after the member's death in accordance with the annuity option selected by the member; and

2. If eligible, shall receive annuity payments after the member's death in accordance with the annuity option selected by the member.

~~G~~K. "Person" for purposes of this ATRS Rule 9 means ~~an individual, corporation, partnership or other legal entity~~ an individual, trust, estate, corporation, partnership, or other legal entity.

~~H. "Participating employer" means an employer who participates in ATRS whose employees are eligible for membership under A.C.A. § 24-7-501, A.C.A. § 24-7-202, or other applicable law.~~

~~I~~L. "Residue" means ~~the~~ a member's accumulated contributions, including regular interest standing in the member's credit at the time of ~~his/her~~ his or her retirement.

~~J~~M. "Residue beneficiary" means a ~~person(s) nominated by the member~~ person who a member nominates by written designation to receive the member's residue, if any, under ~~A.C.A.~~ Arkansas Code § 24-7-709.

~~K~~N. "Receivable" means monies due to ATRS from a member, former member, ~~participating~~ covered employer, contributor, retiree, beneficiary, or alternate payee under a qualified domestic relations order (QDRO) as a result of an overpayment of any payment or benefit by ATRS.

~~L~~O. "Retiree" means a retired member who ~~is receiving~~ receives an annuity from ATRS.

## II. Age ~~And~~ and Service Retirement Eligibility

A. If eligible, an active or inactive member who attains age sixty (60) and has five (5) or more years of actual and reciprocal service credit may voluntarily retire ~~upon written application filed with ATRS~~ by filing a written application with ATRS.

B. If eligible, an active or inactive member who has not reached age sixty (60) and has twenty-five (25) or more years of actual and reciprocal service credit, including purchased or free credited service, may voluntarily retire ~~upon written application filed with ATRS~~ by filing a written application with ATRS.

C. ~~In order to be eligible~~ To be eligible for retirement, a member ~~must~~ shall ~~comply with the following requirements~~:

1. Satisfy the credited service requirements under one of ATRS' retirement statutes, ~~A.C.A.~~ Arkansas Code §§ 24-7-701—707;
2. Be credited with all required covered employer and member contributions in the member's deposit account, with no amounts owed to ATRS;
3. Pay all amounts owed to ATRS for underpayments or purchase service accounts; and
4. Terminate employment with ~~all participating employers,~~ each of his or her covered employers or ~~have reached age sixty-five or older~~ reach the normal retirement age.

## III. Benefits

A. Benefits Formula

1. The retirement benefits payable to a retiree shall be the total number of contributory years of credited service, multiplied by a factor between 1.75% and 2.15% of the final average salary as set by the ~~board~~ Board, plus the total number of noncontributory years of credited service multiplied by a factor between ~~0.5%~~ 0.5% and 1.39% of the final average salary, as set by the ~~board~~ Board.

2. The ~~board~~ Board shall modify the factor for credited service as necessary to maintain actuarial soundness. (~~A.C.A.~~ Arkansas Code § 24-7-705).

B. Effective Date of Retirement ~~Benefits~~ (~~A.C.A.~~ Arkansas Code § 24-7-701)

1. If a member meets all eligibility requirements for retirement and is approved for retirement, annuity benefits shall be effective on the month proposed ~~by the member in their application~~ in the member's application.

2. If the member does not file an application at least one (1) calendar month ~~prior to~~ before the proposed effective retirement date, then ~~that~~ the proposed retirement effective date ~~cannot~~ in the member's application shall not be used, and the member's effective retirement date shall be the following month.

3. If a member has signed an employment contract for the fiscal year and has been paid in full without providing service for the full period of the employment contract, the member's ~~retirement~~ effective retirement date shall not be ~~prior to~~ before July 1 of the subsequent fiscal year.

~~2.~~4. If a member has accrued a full year of service credit equal or greater to one hundred and sixty (160) days in a fiscal year, the member's retirement date shall not begin earlier than July 1 of the subsequent fiscal ~~year.~~ year unless the member:

a. Has attained the normal retirement age and is not separating from employment; or

b. Is not licensed or otherwise certified as a classroom teacher and vacating a classroom.

C. Normal Retirement Age

1. A member who attains the normal retirement age may:

a. Apply for retirement benefits without terminating employment; and

b. Begin drawing retirement benefits.

2. The retirement benefits of a member who attains the normal retirement age shall not be affected if the member applies for and draws retirement benefits.

D. Compound Cost of Living Adjustment (~~A.C.A.~~ Arkansas Code § 24-7-727)

1. The Board ~~by resolution~~ may, by resolution, reverse a compound cost of living adjustment as needed to maintain the actuarial soundness of ATRS.

2. A reversal may be phased in as the Board determines appropriate.

~~D. Last Benefit Payment Upon Death~~

~~Benefits are payable through the month in which the retiree's death~~

~~occurs.~~

E. Change of Marital Status (Arkansas Code § 24-7-706)

1. If the ~~marriage~~ marital status of ~~the~~ a retiree ~~member legally ends for any reason~~ changes due to the death of the retiree's spouse or a marriage dissolution, the ~~member~~ retiree may choose to ~~cancel the designation of the former spouse as the designated beneficiary.~~:

a. Cancel his or her designation of the former spouse as a beneficiary; or

b. Designate a dependent child as a replacement beneficiary if the:

i. Retiree previously designated the former spouse as his or her Option A or Option B beneficiary; and

ii. Former spouse predeceases the retiree.

2. If the ~~member so~~ retiree chooses to cancel the designation of his or her former spouse as his or her Option A or Option B beneficiary or chooses to designate a dependent child as a replacement Option A or Option B beneficiary, the ~~member must~~ retiree shall file with ATRS a change of option beneficiary on an ATRS approved form, and any change in the benefit amount shall become effective the month after ~~receipt by~~ ATRS ~~of~~ receives the approved form.

F. Alternative Residue Beneficiary Designation

1. If a member designates one (1) or more alternative residual beneficiaries in lieu of his or her spouse, the member shall submit the names of each alternative residue beneficiary on ATRS approved form to ATRS.

2. If a member designates one (1) or more alternative residue beneficiaries in lieu of his or her spouse, each alternative residue beneficiary shall receive an appropriate lump-sum payment of either:

a. The member's residue from the Teacher Deferred Retirement Option Plan (T-DROP);

b. The member's contributions; or

c. Both the member's contributions and residue from the T-DROP.

G. Final Benefit Payments and Lost Payees (Arkansas Code § 24-7-734)

1. Benefits are payable through the month in which the retiree's death occurs.

2. If a final benefit payment is not delivered in the normal course of business, the benefit payment shall be sent in the following order until

delivered:

a. To the member's residue beneficiary, if any;

b. To the member's lump-sum death beneficiary, if any;

c. To the member's estate' if any; or

d. To the trust assets of ATRS.

3. The Board shall direct a benefit payment amount forfeited to the trust assets of ATRS if the:

a. Benefit payment cannot be made five (5) years after the benefit payment is due because the location of the member or the identity and location of the member's beneficiary or personal representative cannot be ascertained by mailing the benefit payment to the last known address of the member, beneficiary, or personal representative in ATRS' records; and

b. Neither the member, beneficiary, or personal representative submitted ATRS-approved paperwork or forms updating his or her location or last known address to ATRS before the expiration of five (5) years from when the benefit payment is due.

**~~IV.~~**

~~A member age 65 or older may apply for retirement benefits without terminating employment and may begin drawing benefits with no effect on the member's retirement benefit.~~

**~~V.~~IV Retirement Application and Other Documents**

A. Generally

1. A copy of the ATRS retirement application may be downloaded from the ATRS website or requested from ATRS.

2. For a member who is inactive, vested, and immediately eligible to retire, retirement benefits shall be payable the month after ATRS receives the member's retirement application.

B. Time Period for Filing Retirement Application

1. In order for a retirement application to be timely filed, there is a three (3) month "window" to apply for retirement benefits.

2. An active member who is currently employed by a covered employer shall file his or her retirement application:

a. No sooner than four (4) months before the active member's effective retirement date; and

b. No later than one (1) month before the active member's effective retirement date.

3. Procedure for Handling Received Retirement Applications

a. ATRS' procedure for handling a retirement application received by ATRS shall be as follows:

i. If a retirement application is received by ATRS before the three (3) month window begins for the member's anticipated effective retirement date, ATRS shall:

A. Consider the retirement application untimely;

B. Reject the retirement application;

C. Notify the member of one (1) or more dates on which the member may timely file a retirement application; and

D. Notify the member of the procedure to use in order to timely file a retirement application.

ii. If a retirement application is received after the three (3) month window ends for the member's anticipated effective retirement date, ATRS shall:

A. Consider the retirement application untimely; and

B. Provide the member with a new effective retirement date that begins on the first day of the month following the member's previously anticipated effective retirement date.

4. This ATRS Rule 9 IV.B. does not apply to a disability retirement application or an application for survivor benefits.

5. The following table shows examples of the windows for filing a retirement application:

| EXAMPLE OF RETIREMENT FILING DATES | | | |
|---|---|---|---|
| Effective Date of Retirement | Retirement Application Must be Filed In: | Last Date of Employment | First Retirement Check |
| January 1 | September, October or November | December 31 | End of January |
| February 1 | October, November or December | January 31 | End of February |

| | | | |
|---|---|---|---|
| March 1 | November, December or January | Feb 28/29 (Leap year) | End of March |
| April 1 | December, January or February | March 31 | End of April |
| May 1 | January, February or March | April 30 | End of May |
| June 1 | February, March or April | May 31 | End of June |
| July 1 | March, April or May | June 30 | End of July |
| August 1 | April, May or June | July 31 | End of August |
| September 1 | May, June or July | August 31 | End of September |
| October 1 | June, July or August | September 30 | End of October |
| November 1 | July, August or September | October 31 | End of November |
| December 1 | August, September or October | November 30 | End of December |

6. The following table is the only "window" for filing a T-DROP application:

| Effective Date of Retirement | Retirement Application Must be Filed In: |
|---|---|
| July 1 | March, April, or May |

C. Retirement Application and Other Documents Required by ATRS

1. In addition to a complete retirement application, the following documents ~~are mandatory documents and~~ required by ATRS in order to begin making benefit payments shall be submitted to ATRS within six (6) months of the effective date of retirement unless an extension is granted by ATRS:

a. ~~A.~~ Member elects a straight life annuity:

i. ~~1.~~ Proof of member's birthdate from a birth certificate or other authenticating documents~~.~~; and

ii. ~~2.~~ Proof of member's taxpayer identification number from a Social Security card or other authenticating documents.

b. ~~B.~~ Member elects Option A or Option B benefit with Spouse as the beneficiary:

i. ~~1.~~ Proof of the member's birthdate from a birth certificate or other authenticating documents~~.~~;

ii. ~~2.~~ Proof of the member's taxpayer identification number from a Social Security card or other authenticating documents~~.~~;

iii. 3 Proof of the spouse's birthdate from a birth certificate or other authenticating documents~~.~~;

iv. ~~4.~~ Proof of the spouse's taxpayer identification number from a Social Security card or other authenticating documents~~.~~; and

v. ~~5.~~ Proof of the marriage between the member and spouse from a marriage license or equivalent, marriage license recording document, or other legally acceptable proof of the existence of the marriage.

c. ~~C.~~ Member elects Option A or Option B benefit with ~~incompetent~~ a dependent child as the beneficiary:

i. ~~1.~~ Proof of the member's birthdate from a birth certificate or other authenticating documents~~.~~;

ii. ~~2.~~ Proof of the member's taxpayer identification number from a Social Security card or other authenticating documents~~.~~;

iii. ~~3.~~ Proof of Guardianship

A. Adequate proof of the existence of a guardianship due to the incapacity of the member's dependent child that preexists the member's official retirement date.

B. Authenticating documents may include the order appointing guardianship of the person, letters of guardianship, or other adequate proof of the existence of the guardianship~~.~~;

iv. ~~4.~~ Proof of the dependent child's birthdate from a birth certificate or other authenticating documents; and

v. Proof of the dependent child's taxpayer identification number from a Social Security card or other authenticating documents.

d. ~~D.~~ Member elects Option C annuity:

i. ~~1.~~ Proof of the member's birthdate from a birth certificate or other authenticating documents~~.~~; and

ii. ~~2.~~ Proof of the member's taxpayer identification number from a Social Security card or other authenticating documents.

~~E.~~B. Submission Deadlines

1. All retirement applications, including without limitation early retirement applications, disability retirement applications, and age and service retirement applications shall be submitted within a six-month period from the member's effective retirement date unless an extension is granted by ATRS.

2. In addition to the retirement application, all additional documents required by ATRS in order to begin making benefit payments shall be submitted within a six-month period from the member's effective retirement date unless an extension is granted by ATRS.

3. If a member fails to submit, within a six-month period from the member's effective retirement date plus any extension granted by ATRS, a complete retirement application and any additional documents required by ATRS in order to begin making benefit payments, the member's retirement application shall be void and without effect.

~~If the member elects an alternative residual beneficiary or beneficiaries in lieu of their~~ spouse, the member shall submit the names of ~~the~~ alternative ~~residual~~ beneficiary ~~or beneficiaries along with the alternative residual beneficiary's or beneficiaries' birthdate from a birth certificate or other authenticating document approved by ATRS, on a form provided and approved by ATRS~~. ~~The selection of an alternative residual beneficiary or beneficiaries allows the member's residue from T-DROP and/or the member's contributions to be paid in a lump sum to the alternative residual beneficiary or beneficiaries and a monthly retirement annuity shall not be paid.~~

~~F. The failure to submit~~ a complete retirement application and any ~~mandatory~~ documents within a six-month period from the member's effective retirement date plus any extension granted by ATRS ~~shall result in the retirement application being voided and the application shall have no effect~~. ~~This rule on required documents applies to all retirement applications including retirement based upon age retirement, service retirement, early retirement, and disability retirement.~~

## ~~VI.~~V. State Employee Transfers to APERS (Act 808) Rules

A. ~~The~~ An Act 808 employee ~~will~~ shall make the election to transfer to APERS on ~~a form furnished by ATRS~~ an ATRS-approved form.

B. The transfer from ATRS to APERS ~~will become~~ shall be effective on the employee's effective date of retirement.

C. ATRS ~~will~~ shall certify to APERS a record of the Act 808 employee's service credit in ATRS.

D. ~~At the time of retirement, if the Act 808 employee is a non-contributory member of ATRS, he will~~ If an Act 808 employee is a non-contributory member of ATRS at the time of his or her retirement, the Act 808 employee shall retire under the non-contributory provisions of ~~Act 187 of 1987~~ Acts 1987, No. 187 and shall be entitled to a refund of his or her Act 808 employee contributions made since January 1, 1978, to ATRS.

E. ~~At the time of retirement, if the Act 808 employee was a contributory member of ATRS, he will~~ If an Act 808 employee was a contributory member of ATRS at the time of his or her retirement, the Act 808 employee shall retire under the contributory provisions of ~~Act 187 of 1987~~ Acts1987, No. 187.

F. ~~For any Act 808 employee who elects to transfer to APERS, APERS will pay the monthly benefits.~~ APERS shall pay the monthly benefits of an Act 808 employee who elects to transfer to APERS.

G. APERS ~~will~~ shall certify monthly to ATRS the amount of monthly benefits paid and ATRS ~~will~~ shall transfer ~~it's~~ its pro-rata portion to APERS.

H. Upon receipt of a death certificate from APERS for a retiree who chose straight life annuity and has a balance remaining in his or her account, ATRS ~~will~~ shall transfer the remaining balance in the retiree's account to APERS for refunding to ~~the designated beneficiary or beneficiaries~~ the retiree's designated beneficiary.

## ~~VII.~~VI. Disability Retirement Rules

A. Commencement of Disability Retirement Benefit Payments

1. ~~If the member is eligible under A.C.A. § 24-7-704 and these Rules, and the Medical Committee medical committee determines a disability exists for the member, then disability retirement benefits shall commence the month the member files a written application with ATRS if at the time the member files the application the member is no longer employed by an ATRS covered employer.~~ Disability retirement benefits shall begin on the month in which a member files a disability retirement application with ATRS if the:

    a. Member is eligible for disability retirement under Arkansas Code § 24-7-704 and the ATRS Rules;

    b. Member is no longer employed by a covered employer at the time he or she files the disability retirement application; and

    c. Medical committee determines that the member has a disability.

2. If the member is still employed by ~~an ATRS~~ a covered employer at the

time the member files the disability retirement application ~~for disability retirement~~, then, once approved by ATRS, the disability retirement ~~will~~ shall ~~commence~~ begin on the month following the last day of the member's covered employment.

B. Effective Retirement Date and Employment After Disability Retirement

1. Effective Retirement Date

a. ~~Termination of active membership for disability retirement benefits shall be the last date of any employer payment to the member due to the end of the employee/employer relationship.~~ A member's disability retirement is effective from the date the member files a disability retirement application with ATRS and terminates employment with each of his or her covered employers.

2. Leave

a. ~~The~~ A member is considered active if ~~they are~~ the member is using earned sick leave, Family Medical Leave Act (FMLA) leave, annual leave, and catastrophic leave.

b. Worker's compensation, which may or may not include the use of leave granted by ~~the~~ an employer, ~~is~~ shall not:

i. Be considered leave by which a member is considered active~~, nor does it~~; and

ii. ~~extend~~ Extend the date of active membership.

3. Direct or Indirect Employment

a. A member shall not receive disability retirement benefit payments if the member indirectly performs work for an ATRS covered employer as described in Arkansas Code § 24-7-704(a)(4)(B).

b. If a member is approved for disability retirement and continues to work either directly or indirectly for a covered employer, the member shall:

i. Terminate employment with the covered employer or indirect covered employer by the proposed disability effective retirement date; or

ii. If the member is finalizing work for the covered employer, terminate employment no later than two (2) full calendar months after the medical committee meets.

c. If the member does not terminate employment under the ATRS Rules and the termination requirement under Arkansas Code § 24-7-502, the member's disability retirement application shall be considered rescinded and the member may reapply.

4. Continued Employment Under Age Sixty (60)

a. A member under the age of sixty (60) may be employed by an ATRS covered employer and also receive ATRS disability retirement benefit payments if the member performs less than eighty (80) days of actual service during a fiscal year.

5. Return to Employment

a. After receiving ~~an~~ ATRS approval for disability retirement a member may choose to return to covered employment with an ATRS covered employer and relinquish his or her disability retirement.

b. If a member chooses to return to covered employment, the member shall:

i. Not receive disability retirement benefit payments;

ii. Be considered an active member; and

iii. Comply with Arkansas Code § 24-7-738 (Acts 2017, No. 549).

C. Social Security Determination Letter

1. Deadlines — Generally

a. ~~The following criteria and deadlines, applied to the individual member circumstances, affect eligibility for continued disability payments for a member who has been approved by ATRS for disability retirement, based upon the date of the first ATRS disability retirement check. The deadlines may be extended under the provisions of this Rule and A.C.A.~~ A deadline imposed by this ATRS Rule 9 VI may be extended as provided by this ATRS Rule 9 and Arkansas Code § 24-7-704.

2. Thirty-Six-Month Deadline

a. ~~If the first disability retirement check to the member is dated before July 1, 2015, and the member is under fifty-seven (57) years before July 1, 2015, the member shall submit to ATRS a Social Security Administration (SSA) determination letter dated before July 1, 2018, that finds that the member is disabled. In the absence of a SSA determination letter, the member's disability retirement payments will cease on June 30, 2018.~~ A member or retiree shall submit to ATRS a Social Security Administration (SSA) determination letter that finds the member or retiree disabled within thirty-six (36) months from:

i. July 1, 2015, if the member's or retiree's effective retirement date is on or after July 1, 2015; or

ii. The member's or retiree's effective retirement date if the effective date of retirement is on or after July 1, 2015.

b. A member or a retiree may apply for an extension of the thirty-six-month deadline to submit the SSA determination letter to ATRS if:

i. The member or retiree demonstrates through an administrative or judicial confirmation of an active SSA claim that the claim is:

A. Still under review; and

B. Part of a continuous claim without voluntary dismissal or withdrawal; and

iii. The SSA disability claim was filed and remained active for at least twenty-four (24) months before the thirty-six-month deadline.

3. Suspension of Disability Retirement Benefit Payments

a. ATRS shall suspend disability retirement benefit payments to a member or retiree if the member or retiree does not:

i. Provide ATRS with a SSA determination letter finding the member or retiree disabled within the thirty-six-month deadline;

ii. Receive an extension of the thirty-six-month deadline to provide ATRS with a SSA determination letter finding the member or retiree disabled; or

iii. Apply to the medical committee for a review within three (3) months of ATRS suspending disability retirement benefit payments to the member or retiree due to the member or retiree's failure to provide ATRS with a SSA determination letter finding the member or retiree disabled.

~~b. If the first disability retirement check to the member is dated July 1, 2015, or after, and the member is under fifty-seven (57) years on the date of the first disability retirement check, member shall submit to ATRS a Social Security Administration (SSA) determination letter dated within thirty-six (36) months from the date of the first disability retirement check that finds that the member is disabled. In the absence of a SSA determination letter, the member's disability retirement payments will cease thirty-six (36) months from the date of the first disability retirement check. For example:~~

~~- Date of 1st ATRS disability retirement check: January 2017, then~~

~~- Social Security Administration determination letter finding dated by: December 2019; or~~

~~- Date of last disability retirement check if no SSA determination letter: December 2019~~

~~2. ATRS will grant an extension to the above deadlines if the member can provide documentation to ATRS that:~~

~~a. The SSA disability claim was properly filed and remained active for at least twenty-four (24) months prior to the deadline above; and~~

~~b. An active SSA disability claim is still under review by the SSA with no voluntary dismissal or withdrawal.~~

~~3.~~4. Inability to Obtain SSA Determination Letter — Medical Committee Review

a. A member or retiree who attempts and is unable to receive a SSA determination letter finding the member or retiree disabled may apply for a review by the medical committee.

b. A member or retiree may apply for a review by the medical committee:

i. No earlier than three (3) months before the date on which the member's or retiree's disability retirement benefit payment would otherwise be suspended; and

ii. No later than three (3) months after disability retirement benefit payments to the member or retiree is suspended.

b. A review performed by the medical committee shall follow the standards and procedures in Arkansas Code § 244-7-704(a)(1)(D).

5. SSA Determination Letter No Longer Required

a. Once the member who is receiving disability retirement benefit payments reaches sixty (60) years of age, the member ~~thereafter will receive~~ shall begin receiving regular retirement benefits as if the member voluntarily retired under ~~A.C.A.~~ Arkansas Code § 24-7-701 and ~~no Social Security Administration~~ a SSA determination letter ~~is~~ shall not be required.

~~4. A member may apply for an additional review of a disability claim within three (3) months of disability benefits ceasing due to a denial letter and finding by the Social Security Administration that the member is not disabled. The member's disability claim review will follow the procedure set forth in A.C.A. § 24-7-704.~~

D. Denial of Disability Retirement

1. If a member's application for disability retirement is denied and the member elects and qualifies for voluntary retirement, the member's effective retirement date shall be determined by the date the member's disability retirement application is filed.
2. If a member's disability retirement application is denied, the member may request a second review if the member submits additional medical documentation within six (6) months from the date on which the medical committee finds that the member is not qualified to receive disability benefits.
3. A member may only request a second review one (1) time.
4. If a member's disability retirement application is denied after the second review, the member may file a new disability retirement application and submit additional information for consideration as long as the member remains active.
5. After a disability review is held due to the SSA finding that a member is not disabled, the medical committee's recommendations shall be submitted to the Board for a final order.
6. If a member is denied further disability benefits after a disability review by the medical committee, the member may:
    a. Offer additional medical information within thirty (30) days of the date of the disability review; and
    b. Request that the Board send return the matter to the medical committee for reconsideration.

~~D.~~

~~1. A member under the age of sixty (60) may be employed by an ATRS covered employer and also receive ATRS disability retirement if the member performs less than eighty (80) days of actual service during a fiscal year.~~

~~2. A member shall not receive disability retirement if the member indirectly performs work for an ATRS covered employer as described in A.C.A. § 24-7-704(a)(4)(B).~~

~~3. If a member is approved for disability retirement but continues to work either directly or indirectly for the covered employer, the member shall terminate employment with the covered employer or indirect employer by the proposed disability retirement effective date, or, if the member is finalizing work for the employer, then the employee may terminate employment up to two (2) full calendar months after the Medical Committee meets.~~

~~4. If the member does not terminate employment under these Rules and the termination requirement under A.C.A. § 24-7-502, the application is rescinded and the member can reapply.~~

~~5. After receiving an ATRS disability retirement a member may choose to return to regular employment with an ATRS covered employer and relinquish their disability retirement. In this instance, the member would no longer receive disability retirement and would be an active member and shall comply with A.C.A. § 24-7-738 (Act 549 of 2017).~~

~~E. If the application for disability retirement benefits is denied and the member elects and otherwise qualifies for voluntary retirement, the effective date for retirement shall be determined by the date the disability retirement application is filed.~~

~~F.~~E. Member Death Before Determination on Disability Retirement Application

1. If the member dies after the disability application is received by ATRS, but before his or her disability retirement application is approved, then the:

a. ~~ATRS shall consider the member to have~~ Member shall be considered as having died in "active" service; and

b. ~~survivor~~ Survivor benefits under ~~A.C.A.~~ Arkansas Code § 24-7-710 shall be paid~~,~~ unless the member ~~has~~ designated ~~an~~ one (1) or more alternative residual ~~beneficiary or~~ beneficiaries.

~~G.~~F. Disability Retirement Benefit Formula

1. The annuity formula for computing disability retirement benefits ~~is~~ shall be the same ~~as for~~ annuity formula used to compute voluntary age and service retirement benefits.

~~H.~~G. Beneficiary Designation After Approval of Disability Retirement

1. ~~For all disability retirement applications~~ If a disability retirement application is approved by the ~~Medical Committee~~ medical committee after May 31, 2011, the Board shall allow ~~a disability retiree at the time of retirement~~ the member to designate an Option A or Option B beneficiary at the time of retirement.

2. ~~Option C beneficiaries shall not be available to disability retirees~~ An Option C beneficiary shall not be designated by a member who applies for disability retirement or a disability retiree. ~~A.C.A. § 24-7-706(a)(3),~~ (Arkansas Code § 24-7-706(a)(3))

~~2.~~3. ~~If a disability retiree designates an Option A or Option B spouse beneficiary, and the disability retiree dies before reaching age sixty~~

~~(60), then the same rules that apply to active member option beneficiaries shall apply to the disability Option A and Option B beneficiaries under A.C.A. § 24-7-710(b).~~ The same rules that apply to an active member's surviving spouse under Arkansas Code § 24-7-710(b) shall apply to a disability retiree's surviving spouse if the disability retiree:

a. Designates his or her spouse as Option A or Option B beneficiary at the time of retirement; and

b. Dies before reaching sixty (60) years of age.

4. The same rules that apply to a surviving spouse of an active member under Arkansas Code § 24-7-710(b) shall apply to the surviving spouse of a disability retiree if the disability retiree:

a. Dies after disability retirement benefit payments to the disability retiree begin;

b. Does not designate his or her spouse as an Option A or Option B beneficiary; and

c. Does not designate a residue beneficiary.

5. The same rules that apply to a surviving spouse of an active member under Arkansas Code § 24-7-710(b)(1)(B) shall apply to the surviving spouse of a disability retiree if the disability retiree:

a. Dies after disability retirement benefit payments to the disability retiree began;

b. Does not designate his or her spouse as an Option A or Option B beneficiary; and

c. Designates his or her spouse as a residue beneficiary.

~~3.~~6. If a disability retiree designates his or her dependent child as an Option A or Option B ~~incapacitated child~~ beneficiary, and the disability retiree dies before reaching age sixty (60), then:

a. ~~the~~ The same rules that apply under Arkansas Code § 24-7-710(c) to an ~~active member~~ active member's surviving child shall apply to the disability retiree's Option A or Option B dependent child beneficiary ~~under A.C.A. § 24-7-710(c)~~ until the date on which the disability retiree would have turned ~~age~~ sixty (60) years of age~~,~~; and

b. On the date on which the disability retiree would have turned sixty (60) years of age, ~~then~~ the Option A or Option B ~~incapacitated~~ dependent child beneficiary shall receive the greater of the surviving child annuity under ~~A.C.A.~~ Arkansas Code § 24-7-710(c) or the Option A spouse annuity under ~~A.C.A. § 24-7-710(a)~~

Arkansas Code § 24-7-710(b).

~~I. Disability retirees who are disapproved for further disability annuities due to a medical examination reviewed by the Medical Committee shall be removed from ATRS' retiree payroll the earlier of six months following the review date or the first of the month following the return to covered employment.~~

~~J. If a member applies for disability retirement and is disapproved, he/she has the right to file a new disability application submitting additional information for review as long as the member remains active.~~

## ~~VIII.~~VII. Annuity Options and Disposition of Residue After Retirement Rules

A. Option Annuity Election

1. Before the date the first benefit payment of an annuity becomes due, a member retiring with age or service may elect ~~an option to receive an annuity payable as provided in one of the following. (Disability retirement option rights are set forth in Rule 9.VII.H. above)~~ one (1) of the following annuity options:

a. ~~A.~~ **Option 1**~~:~~ — Straight Life Annuity

i. A straight life annuity payable monthly for the life of the retiree. ~~Upon the retiree's death, if the retiree has not received payments equal to the residue amount, the residue remaining, if any, shall be paid to the residue beneficiary. If no residue beneficiaries survive the retiree, the residue will be paid to the retiree's estate.~~

b. Option 2 — Reduced Straight Life Annuity with Option Beneficiaries

i. A retiree shall receive the actuarial equivalent of the retiree's straight life annuity in a reduced annuity payable throughout the retiree's life.

ii. A member may designate a beneficiary to receive one (1) of the following annuity options:

A. Option A — 100% Survivor Annuity

1. Upon the death of the retiree, the retiree's reduced annuity shall be continued and paid throughout the life of the retiree's designated beneficiary.

2. A member may designate one (1) beneficiary under Option A.

B. Option B — 50% Survivor Annuity

1. Upon the death of the retiree, one-half (1/2) of the

retiree's reduced annuity shall be continued and paid throughout the life of the retiree's designated beneficiary.

2. A member may designate one (1) beneficiary under Option B.

C. Option C — Annuity for Ten (10) Years Certain and Life Thereafter

1. The retiree shall receive a reduced annuity payable throughout the retiree's life.

2. If the retiree dies before receiving one hundred twenty (120) monthly annuity payments, the payments shall be continued for the remainder of the period of one hundred twenty (120) months and paid to one (1) or more of the retiree's designated beneficiaries in equal shares.

3. A member may designate one (1) or more beneficiaries under Option C.

B. **Effect of Option 1 Retiree's Death within the First Year of Retirement**

1. If an Option 1 retiree dies within one (1) year of retirement~~,~~ and his or her spouse qualifies for Option A benefits, the spouse may elect to cancel the Option 1 annuity in effect and elect Option A (100% survivor annuity) at that time.

2. The election ~~shall become~~ shall be effective the first day of the month following receipt of the election form by ATRS.

3. If the spouse elects Option A, the residue, if any, ~~will~~ shall not be paid until the Option A beneficiary's death.

C. **Persons Eligible as Option A or Option B Beneficiaries at the Time of Retirement**

1. ~~In order to be nominated as an Option A or B beneficiary, the person must be one of the following:~~ The following persons are eligible to be nominated by written designation as an Option A or Option B beneficiary:

~~1.~~a. The retiree's spouse ~~(if the retiree has been married to the spouse for at least one (1) year prior to the first annuity payment being paid to the retiree)~~ if the retiree and his or her spouse have been married to each other for at least one (1) year before the first annuity benefit payment to the retiree;

~~2.~~b. A retiree's dependent child ~~(regardless of age)~~ who has been

~~ruled~~ adjudged physically or mentally incapacitated by a court of competent jurisdiction, regardless of the age of the dependent child.

D. **Eligibility of a Spouse to Become an Option A or Option B Beneficiary after a Member's Retirement**

1. ~~If a member was married to his or her spouse for less than one (1) year upon his or her effective retirement date or the member marries after his or her effective retirement date, then the member may elect to cover the spouse after being married for one (1) year.~~ After his or her retirement, a retiree may designate his or her spouse as an Option A or Option B beneficiary if the retiree:

   a. Has been married to his or her spouse for one (1) year; and

   b. Either:

      i. Was married to his or her spouse for less than one (1) year upon his or her effective retirement date; or

      ii. Marries his or her spouse after his or her effective retirement date.

2. Upon meeting the ~~one (1) year~~ one-year marriage requirement, the ~~member~~ retiree shall have six (6) months to ~~file an election to cover his or her~~ file a written nomination designating his or her spouse ~~under~~ as either an Option A or Option B beneficiary.

3. The ~~written election must~~ designation shall be filed on a form approved by ATRS.

E. **Eligibility of a Dependent Child to Become an Option A or Option B Beneficiary after a Member's Retirement**

1. After a retiree's effective retirement date, the retiree may designate an Option A or Option B dependent child beneficiary if the:

   a. Retiree previously designated his or her spouse as the Option A or Option B beneficiary;

   b. Spouse designated as the retiree's Option A or Option B beneficiary predeceases the retiree; and

   c. Dependent child has been adjudged physically or mentally incapacitated by a court of competent jurisdiction.

F. **Emancipation of Incapacitated Child Option Beneficiary**

~~If an incapacitated child, who has been adjudged physically or mentally incapacitated by a court of competent jurisdiction, is nominated as an Option A or Option B beneficiary, and a court has determined that the incapacity issue no longer indicates incapacitation, or the incapacitated~~

~~person is emancipated through marriage or dies, then the member may request ATRS to remove the incapacitated child from the member's account. Proof of the court's decision shall be by a copy of the court order, proof of emancipation shall be by a copy of the child's marriage license, or proof of death shall be by the death certificate.~~

1. A member may request that ATRS remove an incapacitated child as his or her Option A or Option B beneficiary if:
   a. The member designated the incapacitated child as his or her Option A or Option B dependent child beneficiary; and
   b. One (1) of the following applies:
      i. A court finds that the incapacitated child is no longer incapacitated;
      ii. The incapacitated child is emancipated through marriage; or
      iii. The incapacitated child dies.
2. The following forms of proof shall be submitted, as appropriate, with the member's request to remove an incapacitated child as his or her Option A or Option B:
   a. A file-marked copy of the court's order finding that the incapacitated child is no longer incapacitated;
   b. A copy of the incapacitated child's marriage license or equivalent, marriage license recording document, or other legally acceptable proof of the existence of the marriage; or
   c. A copy of the incapacitated child's death certificate.

3. ~~Once proof is provided, the member may elect to return to Option 1 at that time, or if the member is married, the member shall have six months to designate the member's spouse as the member's option beneficiary. The election shall become effective the first day of the month following receipt of the election form by ATRS.~~ Once the proof required to remove an incapacitated child as the member's Option A or Option B beneficiary is submitted to ATRS, the member may:

   a. Elect to return to an Option 1; or
   b. If the member is married, designate his or her spouse as the Option A or Option B beneficiary within six (6) months of the date on which ATRS receives the proof required under this ATRS Rule 9 VII.F.2.
   b. The member's election shall be effective on the first day of the month following the date on which ATRS receives the election form.

~~F.~~G. **Residue Paid Upon Death of Option Annuitant**

1. A member may designate any person as a residue beneficiary.

2. ~~If after a retiree dies, an option annuity becomes payable, but the option beneficiary dies prior to the retiree and the option beneficiary receiving annuity payments equal to the residue amount, the residue, if any, shall be paid to member's residue beneficiary.~~ A retiree's residue, if any, shall be paid to the retiree's residue beneficiary if the:

   a. Retiree dies before receiving annuity benefit payments equal to the residue amount; and

   b. Option beneficiary dies before receiving annuity benefit payments equal to the residue amount.

3. If ~~no residue~~ a residue beneficiary is not nominated or ~~survives upon~~ does not survive the death of the option beneficiary, the residue remaining, if any, shall be paid to the ~~last surviving option beneficiary's~~ retiree's estate.

**~~G.~~H. Final Benefit Check**

1. Benefits are payable through the month in which the last option beneficiary's death occurs.

2. If the option beneficiary dies ~~prior to~~ before receiving the last check, ATRS ~~will~~ shall pay the final check in the normal manner paid ~~prior to~~ before death.

3. If payment of the final check in the normal course becomes impossible, the final option beneficiary's annuity check ~~will~~ shall be returned to ATRS.

~~H. **Eligible Residue Beneficiaries**~~

~~Any "person" as defined in this policy is eligible to be designated by the member to receive the residue, if any, payable upon the member's death including individuals, trusts, estates, corporations, and other legally recognized entities.~~

## ~~IX.~~VIII. Error Corrections and Collection of Overpayments Rules

A. Payment Errors

1. If a change or error in ATRS' records discovered during the ~~ATRS look back~~ look-back period results in either an overpayment or underpayment to ATRS, the Board ~~authorizes~~ may authorize ATRS to:

   a. ~~correct~~ Correct the error in the records;

   b. ~~and to adjust any~~ Adjust a benefit or ~~adjust~~ any other amount payable to the corrected amount; and

c. ~~take~~ Take all necessary and appropriate action ~~as the circumstances may require~~, including the options allowed under ~~A.C.A.~~ Arkansas Code § 24-7-205(b).

2. The Board or its designee may adjust the records of ATRS, a covered employer, and a member beyond the look-back period if the Board determines that the time limitation imposed by the look-back period will result in a manifest injustice in a specific case.[1]

B. Benefit Participant Under QDRO

1. If a benefit participant under a ~~qualified domestic relations order~~ QDRO pursuant to ~~A.C.A.~~ Arkansas Code §§ 9-18-101—103, is paid any benefit or payment by ATRS to which the benefit participant is not entitled, and it is discovered during the ~~ATRS look back~~ look-back period, then a receivable is created and the Board or its ~~designee(s)~~ designee, may collect the amount due to ATRS as ~~set forth in A.C.A.~~ provided by Arkansas Code § 24-7-205.

C. Notice of Benefit Adjustment

1. Before making an adjustment of benefits or pursuing any other collection action, ~~a notice shall be provided~~ ATRS shall provide notice to the person who is the subject of the adjustment.

2. The notice ~~will~~ shall:

a. ~~state~~ State the amount determined to be a receivable;

b. ~~and~~ State the reasons underlying the determination; and

c. ~~The notice shall also suggest~~ Suggest alternate methods for payment of the receivable.

D. Dispute and Appeal of Collections

1. Appeals to dispute collections shall be made according to the procedures and requirements of ATRS Rule 13.

2. During the appeal process, retirement benefits may continue to be paid.

E. Correction and Adjustment Limitations

1. Actions that affect ~~rights on benefits cannot~~ benefit rights shall not be corrected or adjusted further than a ~~5 year "look back"~~ five-year look-back period unless a manifest injustice has occurred or an exception exists under ~~A.C.A.~~ Arkansas Code § 24-7-205.

2. A determination by ATRS of a manifest injustice in a particular instance

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[1] See ATRS Rule 17 – Manifest Injustice.

due to a technical error or error in judgment is discretionary and goverened by Arkansas Code § 24-7-205.

~~F. The board or its designee may also make adjustments to the employer, member, and ATRS records beyond the look-back period if the board determines that the time limitation imposed by the lookback period will result in a manifest injustice in a specific case. See Rule 17 – Manifest Injustice.~~

~~G.~~F. Waiver of Interest on Contributions

1. The Board authorizes the ATRS Executive Director to waive interest on required contributions in an amount not to exceed $5,000.

2. ~~Any~~ A request to excuse an interest amount exceeding $5,000 shall be submitted to the ~~ATRS~~ Board for review.

3. The ATRS Executive Director shall report ~~to the Board~~ any amounts excused under this section to the Board.

~~H.~~G. Uncollectible or Waived Receivables

~~1.~~ If required, a receivable under this ~~section~~ this ATRS Rule 9 VIII that is found by the Board or its designee to be uncollectible or for which adjustment or payment has been waived ~~will~~ shall be submitted to the Chief Fiscal Officer of the state for abatement pursuant to ~~A.C.A.~~ Arkansas Code §§ 19-2-301--307.

~~I. A determination by ATRS of a manifest injustice in a particular instance due to a technical error or error in judgment is always discretionary and governed by the provisions in A.C.A. § 24-7-205.~~

~~**X. Retirement Application Rules**~~

~~A. A copy of the ATRS retirement application can be downloaded from the ATRS website or requested from ATRS.~~

~~B. In order for a retirement application to be timely filed, there is a three (3) month "window" to apply for retirement benefits.~~
~~For active members currently employed, the window for filing your retirement application is:~~

~~1. No sooner than four (4) months prior to your Effective Retirement Date; and,~~

~~2. No later than one (1) month before your Effective Retirement Date.~~

~~C. For an inactive, vested, immediately eligible-to-retire member, retirement benefits are payable the month after the retirement application is received.~~

~~D. The procedure for handling received retirement applications is as follows:~~

1. ~~If a retirement application is received by ATRS before the three (3) month window begins for the member's anticipated Effective Retirement Date, the application is not timely filed, and ATRS will reject the application and notify the member of the dates that their retirement application can be filed timely and the procedure to do so.~~

2. ~~If a retirement application is received after the three (3) month window ends for the member's anticipated Effective Retirement Date, the retirement application is not timely filed and the member will receive a new Effective Retirement Date beginning on the 1st day of the next month.~~

E. ~~This Rule does not apply to an application for disability retirement or survivor benefits.~~

~~The following table shows examples of the "windows" for filing a retirement application:~~

| ~~EXAMPLE OF RETIREMENT FILING DATES~~ | | | |
|---|---|---|---|
| ~~Effective Date of Retirement~~ | ~~Retirement Application Must be Filed In:~~ | ~~Last Date of Employment~~ | ~~First Retirement Check~~ |
| ~~January 1~~ | ~~September, October or November~~ | ~~December 31~~ | ~~End of January~~ |
| ~~February 1~~ | ~~October, November or December~~ | ~~January 31~~ | ~~End of February~~ |
| ~~March 1~~ | ~~November, December or January~~ | ~~Feb 28/29 (Leap year)~~ | ~~End of March~~ |
| ~~April 1~~ | ~~December, January or February~~ | ~~March 31~~ | ~~End of April~~ |
| ~~May 1~~ | ~~January, February or March~~ | ~~April 30~~ | ~~End of May~~ |
| ~~June 1~~ | ~~February, March or April~~ | ~~May 31~~ | ~~End of June~~ |
| ~~July 1~~ | ~~March, April or May~~ | ~~June 30~~ | ~~End of July~~ |
| ~~August 1~~ | ~~April, May or June~~ | ~~July 31~~ | ~~End of August~~ |
| ~~September 1~~ | ~~May, June or July~~ | ~~August 31~~ | ~~End of September~~ |
| ~~October 1~~ | ~~June, July or August~~ | ~~September 30~~ | ~~End of October~~ |
| ~~November 1~~ | ~~July, August or September~~ | ~~October 31~~ | ~~End of November~~ |
| ~~December 1~~ | ~~August, September or October~~ | ~~November 30~~ | ~~End of December~~ |

~~The following table is the only "window" for filing a T-DROP application:~~

| ~~Effective Date of Retirement~~ | ~~Retirement Application Must be Filed In:~~ |
|---|---|
| ~~July 1~~ | ~~March, April or May~~ |

**HISTORY**

| | | |
|---|---|---|
| Effective: | July 2, 2002 | 9-3 |
| Amended: | June 15, 2004 | 9-2, 9-4, 9-7 |
| Amended: | July 18, 2005 | 9-4, 9-8 |
| Amended: | February 7, 2006 | 9-2, 9-7 |
| Amended: | April 26, 2007 | 9-2, 9-7 |
| Amended: | June 19, 2007 | 9-4 |
| Amended: | June 16, 2009 | (Emergency) 9-2 |
| Amended: | October 5, 2009 | (Permanent) 9-2 |
| Adopted: | December 18, 2009 | 9-1, 9-4, 9-8 |
| Amended: | July 1, 2011 | (Emergency) 9-1, (Emergency) 9-2, 9-4, (Emergency) 9-7, (Emergency) 9-8 |
| Adopted: | August 8, 2011 | 9-1, 9-2, 9-4, 9-7, 9-8 |
| Effective: | November 11, 2011 | 9-1, 9-2, 9-4, 9-7, 9-8 |
| Approved by Board: | February 6, 2012 | 9-4, 9-7 |
| Amended: | April 18, 2012 | 9-4, 9-7 |
| Effective: | May 29, 2012 | 9-4, 9-7 |
| Approved by Board: | July 26, 2013 | 9-2, 9-4, 9-8 |
| Amended: | October 9, 2013 | 9-2, 9-4, 9-8 |
| Effective: | November 8, 2013 | 9-2, 9-4, 9-8 |
| Approved by Board: | October 5, 2015 | 9-2, 9-4 |
| Amended: | February 1, 2016 | 9-2, 9-4 |
| Effective: | February 10, 2016 | 9-2, 9-4 |
| Approved by Board: | February 5, 2018 | 9-2, 9-4, 9-8, 9-9 |
| Effective: | February 16, 2018 | 9-2, 9-4, 9-8, 9-9 |
| Effective: | May 28, 2020 | Rule 9 |

~~T-DROP AND RETURN TO SERVICE~~ **ATRS RULE 10**

**RETURN TO SERVICE AND TEACHER DEFERRED RETIREMENT OPTION PLAN**

~~A.C.A.~~ Arkansas Code §§ 24-7-502, 24-7-708, 24-7-1301 et seq.

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~~**I. Definitions**~~

## I. Definitions

~~A. "DROP" means a deferred retirement option plan enacted by the General Assembly and administered under ATRS or a reciprocal system.~~

~~B. "Early participant" means a member who has at least twenty-eight (28) years but less than thirty (30) years of credited service in ATRS including combined service with a reciprocal system, and is authorized by the Board for early participation in the plan.~~

~~C.~~A. "Fiscal year" means the operating year for the State of Arkansas that begins on July 1 of each calendar year and ends on June 30 of the next calendar year.

~~D.~~B. ~~"Participant"~~ "Plan participant" means a member who elects to participate in ~~T-DROP~~ the Teacher Deferred Retirement Option Plan (T-DROP) under ~~A.C.A.~~ Arkansas Code § 24-7-1301 et seq.

~~E. "ATRS Employer" means an employer who participates in the Arkansas Teacher Retirement System whose employees are eligible for membership under A.C.A. § 24-7-501 or other applicable law.~~

~~F.~~C. ~~"Plan deposits"~~ "Plan deposit" means ~~the deposits~~ a deposit made to each plan participant's T-DROP account pursuant to ~~A.C.A.~~ Arkansas Code § 24-7-1306.

~~G.~~D. "Plan interest" means ~~the rate per annum, as the Board shall set prior to the beginning of the fiscal year and applies to subsequent years unless modified by the Board, that is credited in each participant's T-DROP account. The Board shall determine the plan interest rate based upon A.C.A. § 24-7-1307(c). All T-DROP participants that have not retired shall receive plan interest at the end of each fiscal year.~~ one (1) or more interest rates per annum that are adopted by the Board of Trustees of the Arkansas Teacher Retirement System (Board) by the end of the first quarter of the fiscal year in which the interest rate shall apply in order for the appropriate interest to be credited to each plan participant's T-DROP account in subsequent years following the Board's adoption of the interest rate.

~~H.~~E. "Post 10-year T-DROP interest" means ~~the rate per annum, compounded annually, as the Board shall set and adopt at the end of each fiscal year, credited on June 30 to the balance of the T-DROP participant's account that meets the following criteria:~~

~~1. The member participated in T-DROP for ten (10) years by receiving deposits, interest, or both; and~~

~~2. The member has not retired.~~ a rate per annum that is compounded annually and adopted by the Board by the end of the first quarter of the fiscal year in which the interest rate shall apply in order for the interest to be credited on June 30 to the T-DROP account of a plan participant who has not retired and whose participation in T-DROP has ended.

~~I.~~F. "Quarter" means one-fourth (1/4) of a fiscal year~~. The four (4) quarters applicable in this rule are:~~ as follows:

1. 1st Quarter: July 1 through September 30

2. 2nd Quarter: October 1 through December 31

3. 3rd Quarter January 1 through March 31

4. 4th Quarter: April 1 through June 30

~~J.~~G. "Retiree" means a member receiving ~~an ATRS~~ a retirement annuity from the Arkansas Teacher Retirement System (ATRS).

~~K.~~H. "Salary" ~~is defined by~~ means the same as defined in ~~A.C.A.~~ Arkansas Code § 24-7-202~~, provided that~~ and does not include nonmandatory compensation that is taxable by the IRS ~~is not salary for ATRS purposes~~.

~~L.~~I. "T-DROP Cash Balance Account" means ~~the~~ a financial account ~~set up~~ established for a plan participant who elects to defer distribution of his or her T-DROP account balance at ~~a~~ the time that he or she is eligible to receive a lump-sum distribution of the T-DROP account balance.

~~M.~~J "T-DROP Cash Balance Account interest" means the interest rate per annum applicable to a plan participant's T-DROP Cash Balance Account~~,~~ and compounded monthly into a plan participant's T-DROP Cash Balance Account. ~~The interest rates payable on the T-DROP Cash Balance Accounts are set forth in this Rule.~~

~~N. "T-DROP Service Credit" shall be determined using the same rules that apply for service credit for an active member with the exception that "on call" availability shall not be used for T-DROP service credit requirements.~~

K. "Uniformed Services of the United States" means service in the:

1. United States Armed Forces;

2. Army National Guard;

3. Air National Guard when engaged in active duty for training, state active duty, inactive duty training, or full-time National Guard duty;

4. United States Commissioned Corps of the Public Health Service; and

5. Any other category of persons designated by the President of the United States in time of war or emergency.

~~**II. Employment of an ATRS Retiree by an ATRS Employer**~~

**II. Return to Service[1]**

A. ~~Upon acceptance of employment with an ATRS employer, the retiree and the ATRS employer must report to ATRS the retiree's employment on the forms and reports as required by ATRS.~~ Unless otherwise provided by OPM Policy 65, effective July 1, 2009, a retiree who terminates employment under Arkansas Code § 24-7-502 or reaches the normal retirement age may:

1. Accept employment with a covered employer; and

2. Continue to receive a monthly retirement annuity without a limitation of his or her retirement annuity.

B. ~~ATRS employers will regularly report all employed retirees on retirement reports as required by ATRS.~~ A retiree who returns to service with a covered employer and a covered employer who employs a retiree shall report the retiree's employment to ATRS using forms and reports required by ATRS.

C. ~~Effective July 1, 2009, no earnings limitation shall apply to retirees employed with ATRS employers.~~ A retiree who receives monthly retirement benefits and is employed by a covered employer shall not:

1. Pay member contributions;

2. Be responsible for employer contributions; or

3. Accrue additional service credit.

D. ~~A retiree employed by an ATRS employer shall not accrue additional service credit, and no member contributions shall be withheld or paid to ATRS. Employer contributions, however, shall be paid to ATRS on the salary earned by a retiree who returns to work for an ATRS employer.~~ A covered employer that employs a retiree shall pay employer contributions on the salary paid to the retiree in an amount equal to the employer contribution rate applicable to an active member.

~~E For the return-to-work rules applicable to disability retirees receiving benefits under A.C.A. § 24-7-704, see Rule 9.VII (Disability Retirement).~~

~~**III.** The ATRS Board of Trustees has the authority under A.C.A. § 24-7-1301 to promulgate rules, including the adoption of an interest rate, by resolution of the Board, for the administration of a deferred retirement option plan (T-DROP) for eligible members.~~

**III. Teacher Deferred Retirement Option Plan (T-DROP)**

~~**IV. T-DROP Participation and Account Credit**~~

A. Participation — Generally

1. ~~A.~~ In lieu of terminating employment and voluntarily retiring ~~under~~

[1] Rules concerning a disability retiree's return to service are included in ATRS Rule 9.

~~A.C.A. § 24-7-701~~, an active member ~~of ATRS~~ with at least thirty (30) years of service credit may elect to participate in T-DROP and continue to work for ~~an ATR~~S a covered employer.

2. An active member with at least twenty-eight (28) years of service credit may elect to participate early in T-DROP and continue to work for a covered employer.

3. The service credit of a plan participant shall be determined using the same rules that apply for determining the service credit of an active member.

4. On call availability shall not be used for T-DROP service credit requirements.

5. ~~By continuing covered employment, the participant defers receipt of retirement benefits until a later date.~~ An active member who elects to participate in T-DROP and continues his or her covered employment defers the receipt of retirement benefits

~~B. A member shall have at least thirty (30) years of credit in ATRS to participate in T-DROP, or, to become an early participant in T-DROP, at least twenty-eight (28) years but less than thirty (30).~~

B. Participation — Reciprocal Systems

1. Service credit in ATRS, a reciprocal system, or a combination of service credit in ATRS and the reciprocal system may be counted to meet the minimum service credit requirements for participation under T-DROP and the reciprocal system's deferred retirement option plan if the reciprocal system offers members of the reciprocal system a deferred retirement option plan.

2. A retirement benefit payable by a reciprocal system shall be determined according to the law, rules, and regulations applicable to the reciprocal system.

3. The final average salary of a plan participant with reciprocal service credit shall be the highest final average salary calculated by ATRS or a reciprocal system in which the plan participant has at least two (2) years of service credit. (Arkansas Code § 24-2-402)

4. Each reciprocal system shall calculate final average salary in accordance with the law applicable to the reciprocal system.

5. A salary earned as a member of the Arkansas Judicial Retirement System or an alternate retirement plan shall not be used to calculate final average salary.

6. A reciprocal system shall credit a deferred retirement option plan account with plan deposits and plan interest according to the deferred retirement option program applicable to the reciprocal system.

C. Limits on Participation

1. ATRS shall not pay a monthly plan deposit into a plan participant's T-DROP account for more than ten (10) consecutive years from the date on which the plan participant enters T-DROP.

D. T-DROP Benefits

1. A plan participant shall elect an annuity option provided in Arkansas Code § 24-7-706 at the time the plan participant:

a. Separates from service; and

b. Either:

i. Applies for retirement upon reaching the normal retirement age; or

ii. Is granted a monthly retirement benefit.

2. A plan participant's T-DROP plan deposit may be reduced as provided by the ATRS Rules and Arkansas Code § 24-7-1301 et seq.

3. A plan participant's T-DROP benefit shall:

a. Be the monthly straight life annuity benefit that the plan participant would have received if he or she voluntarily retired; and

b. Not include a monthly benefit stipend otherwise provided under Arkansas Code § 24-7-713.

E. Plan Interest and Plan Deposits

1. ~~C.~~ Generally

a. During participation in T-DROP, ATRS shall credit the T-DROP account of each ~~participant's T-DROP account~~ plan participant with plan deposits and plan interest.

2. Plan Deposits

a. Determination of Plan Deposit

i. A plan participant's plan deposit shall be determined as follows:

A. If a plan participant has at least thirty (30) years of credited service in ATRS, including combined service with a reciprocal system, the plan deposit shall be the plan participant's T-DROP benefit, as calculated at the plan participant's entry into T-DROP, reduced by one percent (1%) for each year of credited service, including fractions of a year.

ii. If a plan participant enters T-DROP early, the plan participant's plan deposit shall be the plan participant's T-DROP benefit, as calculated at the plan participant's entry into T-DROP, reduced by:

A. One percent (1%) for each year of credited service, including fractions of a year; and

B. At least an additional one-half percent (.5%), but no more than one percent (1%), of the initially reduced plan deposit, for each month of credited service under thirty (30) years.

b. Crediting Plan Deposit

i. A plan participant's T-DROP account shall be credited with twelve (12) monthly plan deposits per fiscal year if the:

A. Plan participant earns at least one hundred sixty (160) days of service credit in a fiscal year and does not terminate employment, retire, or die during the fiscal year; or

B. Plan participant's covered employer does not terminate the employer-employee relationship.

ii. If a plan participant earns less than one hundred sixty (160) days of service credit in a fiscal year, the plan deposit shall be made in accordance with the part-time employment schedule as follows:

A. If a plan participant earns at least fifteen (15) days of service credit in the first or fourth quarter of the fiscal year, the plan participant's T-DROP account shall be credited with three (3) monthly plan deposits for the quarter.

B. If a plan participant earns less than fifteen (15) days of service credit in the first or fourth quarter of the fiscal year, the plan participant's T-DROP shall not be credited with a plan deposit for the three (3) months of that quarter.

C. If a plan participant earns at least twenty-five (25) days of service credit in the second or third quarter of the fiscal year, the plan participant's T-DROP account shall be credited with three (3) monthly plan deposits for the quarter.

D. If a plan participant earns less than twenty-five (25) days of service credit in the second or third quarter of the fiscal year, the plan participant's T-DROP shall not be credited with a plan deposit for the three (3) months of that quarter.

c. Cost-of-Living Increase

i. A cost-of-living increase under Arkansas Code §§ 24-7-713 or 24-7-727 shall be applied to the T-DROP benefit that is used to calculate the plan deposit.

ii. A T-DROP benefit and the cost-of-living increase may be modified as provided by this ATRS Rule 10 and law applicable to ATRS.

d. Election to Cash-Out or Annuitize

i. Upon electing to retire, if a plan participant elects to cash out or annuitize his or her T-DROP account balance, the plan participant shall not be permitted to reenroll in T-DROP after his or her T-DROP account is distributed unless the plan participant cancels his or her election under Arkansas Code § § 24-7-1302.

e. Annual Statement

i. ATRS shall provide each plan participant with an annual statement of the plan participant's T-DROP account.

ii. The statement of plan deposits and plan interest shall not be final until the annual accounting has been reconciled for part-time plan participants.

3. Interest Rates

a. Plan Interest

i. A plan participant who has not retired shall receive plan interest at the end of each fiscal year.

ii. ~~D. The plan interest rate determined by majority vote of the Board is final and binding upon ATRS and shall not be adjusted based on any revised rate of return reported after that date.~~ The plan interest rate shall be based on a:

A. Fixed interest rate that is adopted by the Board by the end of the first quarter of the fiscal year in which the interest rate shall apply; or

B. Variable interest rate formula that is based on investment returns and other factors adopted by the Board by the end of the first quarter of the fiscal year in which the interest rate shall apply.

iii. The Board shall adopt a plan interest rate by the end of the first quarter of the fiscal year in which the plan interest shall apply if a variable interest rate formula is used.

b. Post-10-Year T-DROP Interest

i. If a plan participant continues covered employment after ten (10) consecutive years from the date of his or her entry into T-

DROP, the plan participant's T-DROP account shall be credited with a post-ten-year T-DROP interest rate.

ii. ~~E. The Post 10-year T-DROP interest rate shall be set by the Board prior to the beginning of each fiscal year at the same meeting that the plan interest rate is set.~~ The Board shall set the post-10-year T-DROP interest rate:

A. By the end of the first quarter of the fiscal year in which the interest rate shall apply; and

B. At the same meeting in which the plan interest rate is set.

iii. The ~~Post 10-year T-DROP interest rate will be credited to the participant's T-DROP account~~ post-10-year T-DROP interest rate shall be credited to a plan participant's T-DROP account on June 30th of each year, or through the date of retirement, whichever occurs first.

iv. ~~F. The Post 10-year T-DROP interest rate for each year determined by majority vote of the Board is final and binding upon ATRS and shall not be adjusted based on any revised rate of return reported after that date.~~ The post-10-year T-DROP interest rate for T-DROP shall be determined by the Board and adopted by the by the end of the first quarter of the fiscal year in which the interest rate shall apply.

c. Incentive Rate

i. In addition to the interest rate for the fiscal year, the Board may adopt an incentive rate during the fiscal year if investment returns justify an incentive rate for the fiscal year.

4. Suspension or Cessation of Plan Deposits and Benefit Distributions

a. Monthly plan deposits to a plan participant's T-DROP account shall stop if the plan participant:

i. Separates from service and is granted a monthly retirement benefit from ATRS or a reciprocal plan;

ii. Reaches normal retirement age and retires without separating from covered employment;

iii. Separates from covered employment and does not apply for retirement benefits; or

iv. Dies.

b. Separation from Covered Employment without Applying for Retirement Benefits

i. If a plan participant separates from covered employment and does not apply for retirement benefits, monthly plan deposits into the plan participant's T-DROP account shall be suspended beginning on the month in which the plan participant separates from covered employment.

ii. The plan participant's T-DROP account shall not be credited with a plan deposit for the duration of the plan participant's separation from covered employment.

iii. Monthly plan deposits into a plan participant's T-DROP account shall resume if the plan participant returns to covered employment before the end of the plan period.

iv. If a plan participant applies for retirement, the retirement benefits shall be paid according to the plan participant's T-DROP account balance:

A. At the time of the plan participant's separation from covered employment; or

B. In the month before the effective date of the plan participant's retirement benefits after the plan participant reaches the normal retirement age.

v. A plan participant shall remain eligible for annual plan interest to be credited to his or her T-DROP account if the member:

A. Does not separate from covered employment; and

B. Remains on the covered employer's payroll without earning sufficient service credit for monthly plan deposits.

c. Plan Participant's in Uniformed Services of United States

i. A plan participant shall be treated as not having incurred a break in service with a covered employer if the plan participant leaves covered employment to voluntarily or involuntarily serve in the uniformed services of the United States and later returns to covered employment.

ii. A covered employer shall certify to ATRS that reemployment of the plan participant complies with the requirements of § 4312 of P.L.103-353, the Uniformed Services Employment and Reemployment Act of 1994 (USERA).

E. Compliance — § 415 of the Internal Revenue Code

1. The operation of T-DROP shall comply with § 415 and other applicable sections of the Internal Revenue Code.

2. Any provision concerning the operation of T-DROP that conflicts with § 415 and other applicable sections of the Internal Revenue Code is invalid.

F. T-DROP Account Balance — Rollover

1. A lump-sum distribution of a plan participant's T-DROP account

balance may be rolled over into the plan participant's qualifying retirement plan.

2. ATRS shall rollover the T-DROP account lump-sum balance into only one (1) qualifying plan.

G. T-DROP Cash Balance Account Program

1. Election

a. In lieu of electing a lump-sum distribution of his or her T-DROP account balance, a plan participant may elect to transfer all or a part of his or her T-DROP account balance into a Cash Balance Account (CBA).

b. If a plan participant elects to have only a part of his or her T-DROP account balance transferred into a CBA, the remaining balance of the T-DROP account shall be annuitized under ATRS or paid as a lump-sum distribution.

c. A CBA shall be credited monthly with T-DROP Cash Balance Account interest and debited monthly for withdrawals and distributions beginning on the month immediately following the establishment of the CBA.

2. T-DROP Cash Balance Account Interest Schedule

a. A CBA established on or after July 1, 2012, shall be credited with T-DROP Cash Balance Account interest as follows:

| **T-DROP Cash Balance Account Program Years of Participation** | **Interest Rate** |
|---|---|
| First fiscal year of participation | 2.5% |
| Two (2) fiscal years of participation | 2.75% |
| Three (3) fiscal years of participation | 3.00% |
| Four (4) fiscal years of participation | 3.25% |
| Five (5) fiscal years of participation | 3.50% |
| Six (6) or more fiscal years of participation | 4.00% |

b. The Board may:

i. Increase the T-DROP Cash Account Balance interest rate for future fiscal years and on an ad hoc basis;

ii. Consider current market conditions, competing financial offerings to plan participants, bank rates for certificates of deposits, the status of ATRS' return on investments, and the current state of participation in the T-DROP Cash Balance Account program when determining the T-DROP Cash Balance Account interest rate;

iii. Periodically authorize, by board resolution, a special ad hoc incentive payment for CBAs if the Board determines that payment of the special ad hoc incentive is likely to encourage continued participation and increase future participation in the T-DROP Cash Balance Account program; and

iv. Adopt, by board resolution, a new T-DROP Cash Balance Account Interest Schedule (Schedule) for future CBAs.

c. An ad hoc increase may be:

i. Set as a single amount to be applied to each CBA; or

ii. Computed as a graduated amount based on the length of time the CBA has existed.

d. The T-DROP Cash Balance Account interest rate shall remain in effect until the Board adopts a new Schedule with lower interest rates for future CBA accounts established by the end of the first quarter of the fiscal year in which the interest rate shall apply.

e. A CBA established before the effective date of a board resolution adopting a new Schedule for future CBAs shall not be subject to the provisions of the new Schedule.

f. If a plan participant dies with a CBA balance, the CBA balance shall be paid as provided under Arkansas Code § 24-7-1310.

3. Withdrawals

a. If a plan participant's CBA has a balance, a plan participant may withdraw funds from his or her CBA up to six (6) times per quarter by using forms approved by ATRS.

b. A plan participant may make more than six (6) withdrawals in a quarter with the approval of the ATRS Executive Director.

c. A plan participant may request a recurring monthly distribution of a set amount from his or her CBA until the CBA balance is depleted or the plan participant withdraws his or her request.

d. Minimum distributions made to a plan participant shall comply with Arkansas Code § 24-7-730 and the Internal Revenue Code.

~~**V. Rules**~~

~~A. T-DROP Benefit Generally~~

~~1. The participant's T-DROP benefit will be the monthly straight life annuity benefit to which the member would have been entitled had the member retired under A.C.A. § 24-7-701.~~

~~2. The participant's T-DROP benefit may be reduced as set forth in these Rules and under A.C.A. § 24-7-1301 et seq.~~

~~3. The T-DROP deposit shall not include the additional benefit, also known as the "monthly benefit stipend" provided in A.C.A. § 24-7-713.~~

~~B. Plan deposits shall be a percentage of the T-DROP benefit, as follows:~~

~~If a plan participant has at least thirty (30) years of credited service in ATRS, including combined service with a reciprocal system, the plan deposit is the participant's plan benefit as calculated at the entry into T-DROP, and then reduced by one percent (1%) for each year of credited service, including fractions of a year.~~

> ~~For early participants, the plan deposit is the early participant's plan benefit as calculated at the entry into T-DROP, and then reduced by one percent (1%) for each year of credited service, including fractions of a year, and further reduced by at least an additional one-half percent (.5%), but no more than one percent (1%), of the initially reduced plan deposit, for each month of credited service under thirty (30) years.~~

~~C. A participant shall elect an annuity option provided in A.C.A. § 24-7-706 at the time the participant separates from service and is granted a monthly retirement benefit or files for retirement upon reaching normal retirement age.~~

~~D. T-DROP Participation Limits~~

~~1. A member's participation in T-DROP shall not exceed ten (10) consecutive calendar years for accruing plan deposits; however, the Board is authorized under A.C.A. § 24-7-1307 to provide for a separate deposit, called the Post 10-year T-DROP interest.~~

~~2. If a participant continues covered employment after completing ten (10) years in T-DROP, the T-DROP account will be credited with Post 10-year T-DROP interest as set by the Board. Benefits payable at retirement will be based on the account balance the month before the participant begins drawing retirement benefits.~~

~~E. The annuity upon which plan deposits are calculated shall receive the cost-of-living increase provided for in A.C.A. § 24-7-713 or § 24-7-727. The annuity plus the cost-of-living increase is reduced or adjusted under this Rule.~~

~~F. If a participant elects to cash out or annuitize their T-DROP account balance upon election to retire, once the T-DROP account is distributed to the member, the participant shall not be allowed to reenroll in T-DROP, unless the member cancels their election under A.C.A. § 24-7-1302.~~

~~G. As soon as possible after the end of each fiscal year, ATRS shall furnish the~~

~~participant an annual statement of the participant's T-DROP account. The statement of T-DROP deposits and interest will not be final until the annual accounting has been reconciled for part-time T-DROP participants.~~

~~H. If a participant earns service credit of one hundred sixty (160) days or greater within a fiscal year and the participant does not terminate employment, retire, or die during the fiscal year, or the ATRS employer does not terminate the employer/employee relationship, then ATRS will allow crediting of twelve (12) monthly T-DROP deposits per fiscal year.~~

~~I. Part time employment while participating in the T-DROP plan:~~

~~1. In the first or fourth quarter of the fiscal year, five (5) or more days of service credit shall be required to credit the participant's account with three (3) monthly deposits for that particular quarter. If a participant receives less than five (5) days of service credit in either the first or fourth quarter of the fiscal year, then no T-DROP deposits shall be made in the three months for that particular quarter.~~

~~2. In the second or third quarters of the fiscal year, fifteen (15) or more days of service credit shall be required to credit the participant's account with three (3) monthly deposits for that particular quarter. If a participant receives less than fifteen (15) days of service credit in either the second or third quarter of the fiscal year, then no T-DROP deposits shall be made in the three months for that particular quarter.~~

**~~VI. Ceasing T-DROP and Distribution Options~~**

~~A. T-DROP monthly deposits automatically cease when:~~

~~1. The participant separates from service and is granted a monthly retirement benefit from ATRS or a reciprocal plan; or~~

~~2. The participant reaches normal retirement age and retires without separation from service, or~~

~~3. The participant separates from covered employment but does not apply for monthly retirement benefits; or~~

~~4. The participant dies.~~

~~B. Any lump-sum distribution of a participant's T-DROP account balance is eligible to be rolled over into the member's qualifying retirement plan. The ATRS shall only roll over the T-DROP lump sum balance into one qualifying plan.~~

~~C. A participant may direct that all or a part of their lump-sum distribution as set forth in Ark. Code Ann. § 24-7-1308 continue to be held by ATRS in a T-DROP Cash Balance Account described in this rule.~~

~~D. T-DROP is intended to operate in accordance with Section 415 and other applicable sections of the IRS Code. Any provision of the T-DROP that conflicts with an applicable provision of the IRS Code is invalid.~~

~~E. If a participant separates from covered employment but does not apply for monthly retirement benefits, the T-DROP monthly deposit shall cease the month~~

~~of separation from service. No deposits will be credited to the participant's account for the duration of the separation. Upon returning to covered employment, the monthly deposits will resume. Upon application for retirement, benefits will be paid according to the account balance at the time of separation from service or the month prior to the effective date of benefits after reaching normal retirement age. Provided however, if a member has not separated from covered employment and remains on an ATRS employer payroll without obtaining sufficient service credit for monthly deposits, the member shall remain eligible for annual interest.~~

~~F. Effect of Uniformed Service on T-DROP~~

~~1. If a participant leaves ATRS covered employment to serve, on a voluntary or involuntary basis, in the uniformed services of the United States and returns to ATRS covered employment, the member shall be treated as not having incurred a break in service with the ATRS employer. The ATRS employer shall certify to ATRS that reemployment was in accordance with the requirements set forth in Section 4312 of P.L.103-353, the Uniformed Services Employment and Reemployment Act (USERA) of 1994.~~

~~2. Under this subsection, uniformed services of the United States are limited to the armed forces, the Army, and the Air National Guard when engaged in active duty for training, inactive duty training, full-time National Guard duty, the commissioned corps of the Public Health Service, and any other category of persons designated by the President in time of war or emergency.~~

**VII. ~~Death of a T-DROP Participant Prior to Retirement~~**

~~A. In the event a participant dies while still in T-DROP, the benefits payable from the T-DROP account shall be determined according to A.C.A. § 24-7-710.~~

~~B. Unless otherwise directed to an alternative residual beneficiary or beneficiaries by the member, a T-DROP participant's surviving spouse may choose to receive the T-DROP benefit in a lump sum. If the spouse elects a lump-sum payment of the T-DROP balance, then the survivor annuities payable under A.C.A. § 24-7-710 shall be calculated on the service credit and salary earned by the member prior to participating in T-DROP. If an alternative residual beneficiary or beneficiaries are chosen, then the residue is paid as a lump sum, and no monthly annuity is paid.~~

~~C. For the purposes of A.C.A. § 24-7-709 related to disposition of residue, any amount received from the T-DROP account, either in the form of a lump sum or annuity payments, shall be considered to be annuity payments received by the member or his or her designated beneficiary and shall act to reduce or eliminate the disposition of residue payable under A.C.A. § 24-7-1310.~~

**~~VIII. DROP Participation Under Reciprocal Systems~~**

~~A. If a reciprocal system offers a DROP for its members, then service credit in ATRS, a reciprocal system, or the combination of service credit in the systems may be counted to meet the minimum service credit requirements for participation under each system's DROP.~~

~~B. The benefit payable by the reciprocal system shall be based on the DROP provisions of each system. The final average salary used to determine plan deposits shall be that of the reciprocal system which furnishes the highest final average salary at the time of retirement. Each reciprocal system shall use the method of computing final average salary stipulated by its law. Salaries earned in the Arkansas Judicial Retirement System and alternate retirement plans shall not be used in computing final average salary.~~

~~C. Plan deposits and plan interest credited to the DROP account will be paid under the deferred retirement option program in effect for that reciprocal system.~~

**~~IX. T-DROP Cash Balance Account (CBA)~~**

~~A. At the time that a participant may elect to receive a lump-sum distribution of all of their T-DROP account balance, the participant may instead elect to defer all or a part of their T-DROP account and direct that such amount be held in a T-DROP Cash Balance Account (CBA) for the participant. If a participant chooses to defer only part of the T-DROP distribution into a T-DROP Cash Balance Account, the remainder of the T-DROP distribution shall be annuitized with ATRS according to the distribution options set out under A.C.A. § 24-7-1308.~~

~~B. After the T-DROP Cash Balance Account has been established on the ATRS' accounting system, a participant with a T-DROP Cash Balance Account balance may withdraw funds from the account six (6) times per quarter on such forms as ATRS may issue. ATRS may allow the participant to obtain additional withdrawals in a quarter with Executive Director approval. A participant may also request a recurring monthly distribution of a set amount until the CBA balance is depleted or the request is terminated by the participant. Minimum distributions will be made sufficient to satisfy legal requirements under Ark. Code Ann. § 24-7-730 and the Internal Revenue Code.~~

~~C. A T-DROP Cash Balance Account shall be credited monthly with T-DROP Cash Balance Account interest, beginning the month after the account is established, and debited for all withdrawals and distributions.~~

~~D. T-DROP Cash Balance Account Interest Schedule~~

~~1. The initial interest rates for participants electing to enter the T-DROP Cash Balance Account program are set forth in this subsection. Members establishing a T-DROP Cash Balance Account on or after July 1, 2012, shall receive interest on their T-DROP Cash Balance Account according to the following schedule:~~

~~After establishing a T-DROP Cash Balance Account and:~~

~~For the first fiscal year of participation: 2.50% interest.~~

~~For two (2) fiscal years: 2.75% interest.~~

~~For three (3) fiscal years: 3.00% interest.~~

~~For four (4) fiscal years: 3.25% interest.~~

~~For five (5) fiscal years: 3.50% interest.~~

~~For six (6) or more fiscal years: 4.00% interest.~~

~~2. These interest rates are minimum interest rates that apply to T-DROP Cash Balance Accounts that are established while these rates are in effect. The T-DROP Cash Balance Account interest may be increased by the ATRS Board of Trustees on a forward-looking and Ad Hoc basis.~~

~~E. The T-DROP Cash Balance Account Interest rates payable on T-DROP Cash Balance Accounts established on or after July 1, 2012, shall remain in effect unless the ATRS Board of Trustees adopts a different schedule with lower interest rates to be used for future entrants to the T-DROP Cash Balance Account at least one (1) year prior to the beginning of a fiscal year in which the lower interest rates shall apply. The ATRS Board of Trustees may adopt an interest rate schedule for new entrants by Resolution, setting forth the new interest rate schedule for the T-DROP Cash Balance Account. T-DROP Cash Balance Accounts existing prior to the effective date of the Resolution shall be unaffected by the new interest rate schedule.~~

~~F. When adjusting and setting rates for interest on a T-DROP Cash Balance Account, the Board may consider the current market conditions, competing financial offerings to members, the bank rate for certificates of deposits, the status of ATRS' returns on investments, and the current state of T-DROP Cash Balance Account participation. The Board may periodically authorize by resolution a special ad hoc incentive payment for the Cash Balance Accounts if the Board determines that payment is likely to retain existing T-DROP Cash Balance Account holders and increase future participation in T-DROP Cash Balance Accounts. The ad hoc increase may be set as a single amount to be applied to all Cash Balance Accounts or may be computed as a graduated amount based upon the length of time the Cash Balance Account has been in existence.~~

~~G. If a participant dies with a T-DROP Cash Balance Account, the account balance shall be paid as provided under Ark. Code Ann. § 24-7-1310.~~

# ATRS ~~Rule~~ RULE 11
# SURVIVORS AND DOMESTIC RELATIONS ORDERS

~~A.C.A.~~ Arkansas Code §§ 24-7-710, 24-7-713, 24-7-720, 24-7-734, 9-18-101 — 9-18-103

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## I. Definitions

A. "Alternate payee" means a spouse, former spouse, child, or other dependent of a member under Arkansas law.

B. “Application” for the purposes of retirement eligibility means an application form and any other documents required by ATRS to establish a member’s eligibility to retire.

C. “Immediately eligible” for the purpose of survivor annuity benefits means a survivor of an active member who at the time of his or her death attained the normal retirement age and could have retired.

"Lump-sum death beneficiary" means ~~the person(s) or entity(s)~~ one (1) or more persons or entities designated in writing by the member to receive payment of the lump-sum death benefit under ~~A.C.A.~~ Arkansas Code § 24-7-720.

~~C.~~D. "Lump-sum death benefit" means a monetary amount set by the ~~Board~~ Board of Trustees of the Arkansas Teacher Retirement System (Board), and paid by ~~ATRS~~ the Arkansas Teacher Retirement System (ATRS) to one or more lump-sum death beneficiaries as provided for under ~~A.C.A.~~ Arkansas Code § 24-7-720.

~~D.~~E. "QDRO" means a court order that:

1. ~~meets~~ Meets the definition of a "Qualified Domestic Relations Order" under ~~A.C.A.~~ Arkansas Code § 9-18-101; or

2. Assigns a portion of a member’s retirement benefit to the member’s divorced spouse or an alternate payee upon the member’s retirement or a refund of the member’s contributions at the request of the member.

## II. ~~Survivors General~~ Survivors – Generally

A. ~~Benefits may be provided to dependents of qualifying members after the death of the member. To qualify, a member must have five (5) years of actual service and be an active member at the time of death.~~ Survivor Annuity Benefits - Active Member

1. A member shall be considered “active” for the purpose of an eligible survivor qualifying for survivor annuity benefits under Arkansas Code § 24-7-710 if:

   a. The member has at least:

      i. Ten (10) days of service credit in each prior quarter of the fiscal year from the time the fiscal year began or the member was employed by a covered employer, whichever occurs last; and

      ii. One (1) quarter with ten (10) days of service; or

   b. Either of the following apply to the member:

      i. The member has earned at least ten (10) days of service credit in the quarter of the member’s death and in each quarter before the member’s death, collectively; or

      ii. Less than ten (10) working days have elapsed in the quarter of the member’s death.

2. A member shall also be considered “active” for an additional fiscal year following the last fiscal year in which the member renders actual service to a covered employer and obtains at least one-fourth (1/4) of a year of service credit.

B. Survivor Annuity Benefits - Qualifying Member

1. For the purpose of an eligible survivor qualifying for survivor annuity benefits under Arkansas Code § 24-7-710, “qualifying member” means a member who:

   a. Is an active member as defined in Arkansas Code § 24-7-202(2);

   b. Has at least five (5) years of actual service and reciprocal service, including credited service for the year immediately preceding his or her death; and

   c. Is “active” as provided in Arkansas Code § 24-7-710(f) and this ATRS Rule 11 II.A.

C. Survivor Annuity Benefit – Applicable Law

1. The law in effect on the date of the qualifying member’s death shall determine the:

   a. Eligibility of a qualifying member’s spouse or child to receive survivor annuity benefits;

   b. Amount of the survivor annuity benefits to be received by an eligible survivor; and

c. The time at which an eligible survivor may begin receiving survivor annuity benefit payments.

D. Survivor Annuity Benefit - Eligibility - Generally

1. An eligible survivor of a qualifying member may receive survivor annuity benefits after the death of the qualifying member.

~~B. ATRS considers a member to be active for the purpose of qualifying for survivor benefits under A.C.A. § 24-7-710 if:~~

~~1. The member has at least ten (10) days of service credit in each prior quarter of the fiscal year from the time the fiscal year began or the member was employed by an ATRS employer, whichever occurs last, provided however, the member must have at least one quarter with ten (10) days of service; or~~

~~2. The member has at least ten (10) days of service in the quarter of the member's death, or, ten (10) working days have not elapsed in the quarter of the member's death.~~

**III. Spousal Benefits or Alternative Residual Beneficiaries**

A. Eligibility for Surviving Spouse Annuity

1. Unless ~~the member directs an~~ a qualifying member designates one (1) or more alternative ~~residual beneficiary or beneficiaries~~ residue beneficiaries by written form approved by ATRS, the survivor annuity benefits provided for in ~~A.C.A.~~ Arkansas Code § 24-7-710~~,~~ shall be paid to the spouse of the qualifying member if the spouse:

a. ~~survives the member~~ Survives the qualifying member; and

b. ~~was married to the member~~ Was married to the qualifying member for at least two (2) years immediately ~~prior to the member's death~~ before the qualifying member's death.

B. Waiver of ~~Spousal~~ Surviving Spouse Annuity

1. ~~If at the time of the member's death there are no dependent children eligible to receive a dependent child annuity, a surviving spouse who qualifies to receive a surviving spouse annuity may file with ATRS a waiver of any rights to the spousal annuity.~~ A surviving spouse who is eligible to receive surviving spouse annuity benefits may file a waiver of his or her right to the surviving spouse annuity benefits with ATRS if, at the time of the qualifying member's death, the qualifying member does not have children who are eligible to receive dependent child survivor annuity benefits.

2. If the surviving spouse files a waiver ~~of the spousal~~ of his or her right to receive surviving spouse annuity benefits, then the surviving spouse

may receive the ~~member's~~ qualifying member's accumulated contributions plus interest, if any, in a lump-sum distribution.

C. ~~Spousal~~ Payment of Surviving Spouse Annuity ~~Generally~~

1. ~~The~~ Pursuant to Arkansas Code § 24-7-710, ~~spousal~~ surviving spouse annuity ~~is~~ benefits are payable for the surviving spouse's lifetime, regardless of the remarriage of the surviving spouse~~, pursuant to A.C.A. § 24-7-710~~.

2. The surviving spouse may defer receipt of the surviving spouse annuity benefits, if applicable, under the deferred ~~retirements~~ retirement provisions of ~~A.C.A.~~ Arkansas Code § 24-7-707.

3. A surviving spouse shall submit the following documents to ATRS before a surviving spouse annuity benefit payment is issued to the surviving spouse:

   a. Proof of the qualifying member's death and date of death from the qualifying member's death certificate or another legally acceptable document;

   b. Proof of the surviving spouse's taxpayer identification number from a Social Security card or another authenticating document;

   c. Proof of the surviving spouse's date of birth from a birth certificate or another authenticating document; and

   d. Proof of the marriage between the qualifying member and surviving spouse from a marriage license or equivalent, marriage license recording document, or other legally acceptable proof of the existence of the marriage.

4. A surviving spouse who is immediately eligible to receive a monthly survivor annuity benefit after the death of the qualifying member shall receive monthly survivor annuity benefits:

   a. Beginning the month after the death of the qualifying member if the survivor application is filed with ATRS within three (3) months of the qualifying member's death; or

   b. Beginning the month in which the survivor application is filed with ATRS if at the time of the qualifying member's death the qualifying member:

      i. Accumulated at least twenty-five (25) years of credited service and was eligible to receive a voluntary retirement or early retirement annuity; or

      ii. Reached sixty (60) years of age and was eligible to receive a deferred retirement annuity.

5. A surviving spouse who is not immediately eligible to receive a monthly survivor annuity benefit shall receive monthly survivor annuity benefits beginning the later of either the:

   a. Month following the date on which the qualifying member would have been eligible to receive retirement benefits had the qualifying member survived; or

   b. Date on which a survivor application is filed with ATRS.

D. Alternative Residual Beneficiaries Generally

1. Generally

   a. A member may change his or her alternative residue beneficiary designation and designate his or her spouse as a residue beneficiary under Arkansas Code § 24-7-710 by documenting the change on a form provided and approved by ATRS.

2. Qualifying Member

   a. ~~A member may select one or more~~ A qualifying member may designate one (1) or more alternative beneficiaries, also known as alternative residue beneficiaries, to receive a ~~lump sum~~ lump-sum payment of the ~~member's~~ qualifying member's residue in lieu of the ~~member's~~ qualifying member's surviving spouse ~~(called "alternative residual beneficiary or beneficiaries"), documented on forms~~ by using a beneficiary form provided and approved by ATRS~~, and no spousal benefit or other monthly benefits shall be paid~~.

   b. A surviving spouse annuity benefit or any other type of monthly benefit shall not be paid to a qualifying member's surviving spouse if the qualifying member designates one (1) or more alternative beneficiaries to receive a lump-sum payment of the qualifying member's residue in lieu of the qualifying member's surviving spouse.

~~2.~~3. ~~If the member is a participant in T-DROP and chooses an alternative residual beneficiary or beneficiaries in lieu of the surviving spouse, and the member dies before retiring, then the designated alternative residual beneficiary or beneficiaries shall receive the T-DROP deposits as a lump sum and no spousal benefit or other monthly benefit shall be paid.~~ T-DROP Plan Participant

   a. A Teacher Deferred Retirement Option Plan (T-DROP) participant (plan participant) may designate one (1) or more alternative residue beneficiaries to receive a lump-sum payment of his or her T-DROP benefits in lieu of his or her surviving spouse.

   b. A T-DROP plan benefit, surviving spouse annuity benefit, or any other type of monthly benefit shall not be paid to a plan participant's surviving spouse if the plan participant designates one (1) or more alternative residue beneficiaries to receive a lump-sum payment of his or her T-DROP benefits in lieu of his or her surviving spouse.

~~E. A member may change an alternative residual beneficiary or beneficiaries designation and revert to a spousal annuity designation by documenting the change on a form provided and approved by ATRS.~~

c. A plan participant's T-DROP residue that otherwise would have been paid pursuant to Arkansas Code § 24-7-709 shall be calculated as the greater of the following:

i. The accumulated contributions and regular interest credited to the retirement reserve account as of the member's effective retirement date reduced by the total amount of regular annuities paid, further reduced by amounts received from the T-DROP account in the form of a lump-sum or annuity benefit payments; or

ii. The T-DROP account as of the member's effective retirement date reduced by amounts received from the T-DROP account in the form of a lump-sum or annuity benefit payments.

## IV. Dependent Children Benefits

A. A ~~surviving dependent~~ child of ~~the~~ a qualifying member ~~may receive an~~ is eligible to receive a survivor annuity benefit under ~~A.C.A.~~ § Arkansas Code 24-7-710 if the child qualifies as a dependent child.

B. ~~"Child of a member" as defined under A.C.A. § 24-7-202, is considered a dependent child for purposes of receiving a survivor annuity under § 24-7-710 from ATRS,~~ A child of a qualifying member qualifies as a dependent child if he or she is:

1. ~~The child is younger~~ Is younger than eighteen (18) years of age; or

2. ~~The child is younger than twenty-three (23) years of age and has been a full time student without interruption since reaching age eighteen (18) consistent with § 24-7-710(c)(2); or~~ Is between eighteen (18) years of age and twenty-three (23) years of age and continuously enrolled as a full-time student at an accredited secondary school, college, or university; or

3. ~~The child is adjudged~~ Has been adjudged physically or mentally incapacitated by a court of competent jurisdiction.

C. Dependent Child – Full-time Student

1. To be considered a full-time student, the dependent child shall:

a. ~~carry~~ Take twelve (12) semester hours or eight (8) trimester hours in college~~,~~;

b. Take four (4) hours per day in a secondary or postsecondary school~~,~~; or

c. ~~engage~~ Engage full-time in a curriculum or field of study based upon verifiable indices from an accredited institution.

2. After ~~the~~ a dependent child reaches eighteen (18) years of age, in the absence of a parent or legal guardian, the dependent child may self-report ~~their~~ his or her Certification of Attendance to ATRS~~, in the absence of a parent or legal guardian~~.

~~D. For a dependent child who is not a full-time student to continue receiving benefits after reaching eighteen (18) years of age, a doctor shall certify that the child is temporarily physically or mentally incapacitated to attend school for the current semester or term. At the beginning of the next semester or term, if the child does not reenter school full-time, the dependent child annuity will terminate.~~

3. Temporary Physical or Mental Incapacitation

a. A qualifying member's child who is between eighteen (18) years of age and twenty-three (23) years of age and not a full-time student may continue to qualify as a dependent child and receive a survivor annuity benefit if a doctor certifies that the child is temporarily physically or mentally incapacitated to attend school for the current semester or term.

b. If a doctor does not certify the child as temporarily physicalyy or mentally incapacitated to attend school for the following semester or term and the child does not attend school as a full-time student in the following semester, the child shall no longer qualify as a dependent child and shall be ineligible to receive survivor annuity benefits.

~~E. A child who is adjudged physically or mentally incapacitated by a court of competent jurisdiction and for whom a guardian has been appointed shall continue to be eligible to receive a dependent child annuity as long as the incapacity exists, regardless of age. A.C.A. § 24-7-710.~~

4. Active Military Duty or Training

a. A dependent child who qualifies under Arkansas Code § 24-7-710(c)(2)(B)(i) to receive survivor annuity benefit payments may have his or her payments suspended if he or she:

i. Is called to active military duty or active military training; and

ii. Submits a copy of his or her military orders to the ATRS.

b. Survivor annuity benefit payments to the dependent child shall be suspended for the duration of the dependent child's participation in active military duty or active military training.

c. Survivor annuity benefit payments to the dependent child shall resume if the dependent child:

i. Is between eighteen (18) and twenty-three (23) years of age;

ii. Immediately re-enrolls as a full-time student upon his or her return from active military duty or active military training; and

iii. Submits documentation of his or her re-enrollment as a full-time student to ATRS.

D. Dependent Child — Incapacitated Child

1. A qualifying member's child who qualifies as a dependent child because he or she has been adjudged physically or mentally incapacitated by a court of competent jurisdiction and for whom a guardian has been appointed shall continue to be eligible to receive a dependent child survivor annuity benefit as long as the incapacity exists, regardless of the age of the child. Arkansas Code § 24-7-710.

~~F.~~E. Dependent Child – Calculation and Payment of Survivor Annuity

1. ~~A dependent child annuity is established according to the formula set out in A.C.A. §24-7-710.~~ The amount of the survivor annuity benefit payable to a dependent child shall be the amount provided in Arkansas Code § 24-7-710.

2. The highest of the following shall be used to calculate a dependent child's survivor annuity benefit:

a. The total salary that the qualifying member would have received in the fiscal year in which the qualifying member died; or

b. The qualifying member's highest salary in another fiscal year.

3. The dependent child survivor annuity ~~remains at its~~ shall remain at the initial monthly amount, adjusted by an annual COLA increase, as may be designated by the ~~board~~ Board.

4. If more than one (1) dependent child ~~in a member's family~~ of a qualifying member receives ~~an~~ survivor annuity benefits, each dependent child's ~~annuity remains at its~~ survivor annuity benefit shall:

a. Remain at the initial monthly amount and ~~is not~~; and

b. ~~readjusted when the member's other dependent children's annuities~~

~~terminate~~ Not be readjusted if the survivor annuity benefit payments to one (1) or more of the dependent children terminates.

5. A dependent child shall receive monthly survivor annuity benefits:

a. Beginning the month after the qualifying member's death if the survivor application is filed with ATRS within three (3) months of the qualifying member's death; or

b. If a survivor application is not filed with ATRS within three (3) months of the qualifying member's death, beginning the month in which the survivor application is filed with ATRS.

6. A dependent child shall submit the following documents to ATRS before a survivor annuity benefit payment is issued to the dependent child:

a. Proof of the qualifying member's death and date of death from the qualifying member's death certificate or another legally acceptable document;

b. Proof of the dependent child's taxpayer identification number from a Social Security card or another authenticating documents;

c. Proof that the dependent child is a child of the qualifying member from the dependent child's birth certificate or another legally acceptable document;

d. Proof of the dependent child's date of birth from a birth certificate or another authenticating document;

e. If applicable, a file-marked court order finding the dependent child physically or mentally incapacitated; and

f. If applicable, proof of enrollment as a full-time student from an accredited secondary school, college, or university.

~~G.~~

7. A deposit account designated to receive a survivor annuity benefit payment for the benefit of a dependent child who is under ~~age~~ eighteen (18) years of age shall conform with:

d. ~~the Arkansas~~ The Uniform Transfers to Minors Act, Arkansas Code § 9-26-201 et seq.; or

e. ~~with a~~ A court order in a guardianship proceeding for the benefit of the ~~ward~~ dependent child.

8. Each survivor annuity benefit payment ~~is~~ shall:

a. ~~made~~ Be made as a separate payment to the eligible dependent child in the appropriate deposit account~~,~~; and

b. ~~shall not~~ Not be co-mingled with payments to other family members.

~~H. The total salary that the member would have received in the fiscal year in which the member died, or the member's highest member salary in another fiscal year, whichever is higher, will be used to calculate a dependent child survivor benefit.~~

**V. General Rules Regarding Survivor ~~Annuities~~ Annuity Benefits**

A. ~~Survivors are required to produce sufficient proof of eligibility under these provisions prior to receiving benefit payments.~~ Survivor annuity benefits shall not be paid to the survivor of a qualifying member until the survivor provides ATRS with sufficient proof of his or her eligibility to receive survivor annuity benefit payments.

B. ATRS ~~will notify survivors~~ shall send each survivor who is identified by the qualifying member to ATRS and who may be eligible for a ~~survivor's~~ survivor annuity benefit written notice of his or her potential eligibility at the survivor's last address on file ~~at~~ with ATRS.[1] ~~(See also ATRS Rule 11.VIII below).~~

C. ~~If the member dies before receipt of the first disability retirement check but after receiving final approval for disability retirement, the benefits will be paid under the disability retirement option, alternative residual beneficiary designation, or to the beneficiaries as selected by the member.~~ If a member receives final approval for disability retirement and dies before receiving the first disability retirement benefit payment, the member's disability retirement benefits shall be paid to one (1) or more option, alternative residual, or other beneficiaries designated by the member.

~~D. If the member dies after the disability application is received by ATRS but before disability retirement is approved, then ATRS shall consider the member to have died in "active" service and survivor benefits under A.C.A. § 24-7-710 may be paid if no alternative residual beneficiary or beneficiaries designation has been made by the member.~~ If a member's disability retirement application is received by ATRS and the member dies before his or her disability application is approved, the member shall be considered to have died in "active" service and survivor annuity benefits under Arkansas Code § 24-7-710 may be paid if the member has not designated an alternative residual beneficiary.

E. Payments After Death of Member

1. ~~Salary payments made after the death of a member that were earned prior to death are subject to ATRS deductions and shall be reported in~~

[1] (See also ATRS Rule 11.VIII below).

~~total salary and days of service in the employer's quarterly report.~~ A salary earned by a member before the member's death and paid after the member's death is subject to ATRS deductions and the member's covered employer shall report the member's total salary and days of service in the covered employer's quarterly report.

2. ~~Payments made by an employer after the death of an active member that are made as a mere gratuity and were not earned by the member shall not be included in the member's salary reported to ATRS and are not subject to contributions.~~ Gratuitous payments made by a covered employer to a member after the death of the member shall not be:

a. Considered the salary of the member;

b. Subject to contribution requirements; and

c. Included in the covered employer's quarterly report to ATRS

F. Survivor Annuity Benefits Payable by One (1) or More Reciprocal Systems

1. If survivor annuity benefits are payable by more than one (1) reciprocal system to ~~eligible survivors~~ one (1) or more eligible survivors of a deceased qualifying member, the survivors shall not receive, ~~more (as a percentage of the deceased member's final pay or as a minimum dollar amount)~~ as a percentage of the qualifying member's final pay or as a minimum dollar amount, more than the largest amount payable by a single, reciprocal system.

2. ATRS ~~will~~ shall prorate minimum benefits payable with any other reciprocal ~~systems that have~~ system that has a minimum benefit provision.

3. Each reciprocal system shall pay only its own proportionate share of the minimum amount based on the ratio of service in its own system to the total service in all reciprocal systems.

G. When ~~the~~ a member elects to transfer from ATRS to APERS under the provisions of ~~Act 793 of 1977,~~Acts 1977, No. 793, APERS' law ~~governs~~ shall govern the survivors' eligibility for a payment of residue or survivor annuity benefits upon the member's death.

## VI. ~~Lump Sum~~ Lump-Sum Death Benefit Rules

A. Lump-Sum Death Benefits - "Active" Member

For the purposes of eligibility for a lump-sum death benefit under Arkansas Code § 24-7-720, a member shall be considered "active" for an additional fiscal year following the last fiscal year in which the member renders actual service to a covered employer and obtains at least a quarter (1/4) of a year of service credit.

B. Lump-Sum Death Benefits - "Qualifying Member"

1. A member who is active or retired and accrues the required amount of actual service at the time of his or her death may qualify for a lump-sum death benefit.

2. For the purposes of eligibility for a lump-sum death benefit under Arkansas Code § 24-7-720, "qualifying member" means a member or retiree to whom one (1) of the following categories apply:

a. The member:

i. Is deceased;

ii. Was an active member of ATRS before July 1, 2007; and

iii. Has five (5) or more years of actual service, including actual service for the year immediately preceding his or her death;

b. The member:

i. Is deceased;

ii. Was an active member of ATRS on or after July 1, 2007; and

iii. Has ten (10) or more years of actual service before retirement;

c. The retiree:

i. Dies before July, 2007; and

ii. Has an accrued five (5) or more years of actual service for the year immediately preceding his or her death; or

d. The retiree:

i. Dies on or after July 1, 2007; and

ii. Has accrued ten (10) or more years of actual service, including actual service for the year immediately preceding his or her death.

3. A member shall be considered active for an additional fiscal year following the last fiscal year in which the member renders actual service to a covered employer and obtains at least a quarter (1/4) year of service credit.

C. Lump-Sum Death Benefit – Amount

1. The amount of the lump-sum death benefit may be set pursuant to rules adopted by the ~~board~~ Board in an amount of up to ten thousand dollars ($10,000) per member.

2. The ~~board~~ Board may adjust the amount of the lump-sum death benefit each year and, as actuarially appropriate, prorate the amount of the lump-sum benefit based on the ratio of the member's contributory and noncontributory service credit.

~~1.~~3. ~~The~~ A lump-sum death benefit ~~will~~ shall be paid as a single amount to the beneficiary designated by the ~~eligible~~ qualifying member.

4. If the ~~eligible member failed~~ qualifying member fails to designate a beneficiary or a designated beneficiary ~~did not~~ does not survive the qualifying member, the lump-sum death benefit ~~will~~ shall be paid to the qualifying member's estate.

~~2. Under Act 1323 of 2009, all lump-sum death benefit distributions made after June 30, 2009, shall be tax exempt, and no federal or state income tax shall be withheld by ATRS. After June 30, 2009, the lump-sum death benefit shall not be eligible for a direct rollover.~~

D. Lump-Sum Death Benefit – Tax Exemption

1. Pursuant to Acts 2009, No. 1323, a lump-sum death benefit distribution made after June 30, 2009, shall be tax exempt, and no federal or state income tax shall be withheld by ATRS.

2. After June 30, 2009, a lump-sum death benefit shall not be eligible for a direct rollover.

~~B. Only members who are active or retired at the time of their death qualify for the lump-sum death benefit. Inactive members shall not be entitled to a lump-sum death benefit. A member is considered active for an additional fiscal year following the last fiscal year that the member renders at least one-fourth (1/4) year of actual service to a covered employer, credited as the total days of service.~~

~~C. A member must have accrued the required amount of actual service at the time of his or her death to qualify for the lump-sum death benefit.~~

~~D.~~E. Lump-Sum Death Benefit – Beneficiary Designations and Authorized Agents

1. A member may designate ~~any natural person(s) or~~ one (1) or more natural persons, a duly formed legal entity, including a corporation, trust, partnership, or other legal entity, as his or her lump-sum death benefit beneficiary~~, including a corporation, trust, partnership, or other recognized legal entity~~.

2. A completed lump-sum death benefit beneficiary form shall not be considered effective if the form is received by ATRS after the member's death.

3. A member's most recently completed, executed, and filed lump-sum death benefit beneficiary form shall supersede all previous lump-sum death benefit beneficiary forms completed, executed, and filed by the member.

4. Authorized Agent and Guardian – Authority to Designate Beneficiary

   a. Attorney-in-Fact and Power of Attorney

      i. A lump-sum death benefit beneficiary form that is signed by a member's authorized agent, including an attorney-in-fact, agent under a power of attorney, or any other legally recognized agent, shall not be processed until the document appointing the member's authorized agent is filed with and accepted by ATRS.

      ii. Only a document that appoints and authorizes the member's authorized agent to transact retirement plan business on behalf of the member shall be effective for ATRS purposes.

      iii. Only a document that specifically authorizes a member's authorized agent to change the member's beneficiary designations shall be effective to allow the authorized agent to change a beneficiary designation on the member's behalf with ATRS.

   b. Guardians and Court-Appointed Conservators

      i. A lump-sum death benefit beneficiary form signed by a guardian of the member's estate or another court-appointed conservator shall not be effective to allow the guardian or court-appointed conservator to change a beneficiary designation on the member's behalf with ATRS unless there is an accompanying court order specifically authorizing the guardian or court-appointed conservator to change a beneficiary designation on the member's behalf.

F. Lump-Sum Death Benefit – Distribution, Waiver, and Assignment

1. A designated beneficiary shall submit the following forms and documents to ATRS before a lump-sum death benefit payment is issued to the designated beneficiary:

   a. A written application on a form approved by ATRS; and

   b. The qualifying member's death certificate or other acceptable proof of the qualifying member's death.

2. A lump-sum death benefit payment shall be made within a reasonable time to a qualifying member's designated beneficiary after the death of

the qualifying member.

3. A designated beneficiary of a lump-sum death benefit may waive his or her right to receiving a payment of the lump-sum death benefit by submitting a waiver of his or her right to the lump-sum death benefit on a form that is acceptable to ATRS.

4. If a designated beneficiary waives his or her right to the payment of a lump-sum death benefit, ATRS shall pay all or the balance of the lump-sum death benefit, whichever is applicable, to any other remaining designated beneficiaries.

5. A designated beneficiary shall not assign his or her right to a payment of a lump-sum death benefit to another person or entity.

~~E. The completed lump-sum death beneficiary form must be received by ATRS prior to the member's death to be effective.~~

~~F. The member's most recently executed and filed lump-sum death beneficiary form supersedes all prior lump-sum death beneficiary forms that may have been filed by the member.~~

~~G. If the member is eligible for the lump-sum death benefit at their death, the lump-sum death benefit payment shall be made within a reasonable amount of time to the member's proper beneficiary upon receipt of a written application, acceptable proof of the beneficiary's identification, and proof of the member's death.~~

~~H. Lump-sum death beneficiary forms signed by a member's agent (such as an attorney-in-fact under a power of attorney) will not be processed until the document appointing the agent is filed with and accepted by ATRS. The document must authorize the agent to transact retirement plan business on behalf of the member, and specifically authorize the agent to change beneficiary designations.~~

~~I. ATRS will not accept a lump-sum death beneficiary form signed by a guardian of the member's estate or other court-appointed conservator without an accompanying court order authorizing the guardian's designation of beneficiary(s).~~

~~J. A lump-sum death beneficiary may waive his or her rights to payment of the lump-sum death benefit by submitting a waiver and relinquishment form acceptable to ATRS. Upon receipt of a valid waiver, ATRS will pay the remaining eligible beneficiary(s).~~

~~K. A lump-sum death beneficiary may not assign payment of a lump-sum death benefit to another person or entity.~~

~~L. ATRS reserves the right to deduct from the lump-sum death benefit any amounts owed to ATRS by the member under A.C.A. § 24-7-205.~~

~~M. ATRS reserves the right to collect any overpayments or other amounts owed to ATRS by the lump-sum death beneficiary(s).~~

G. Lump-Sum Death Benefit – Overpayments

1. ATRS reserves the right to deduct from a qualifying member's lump-sum death benefit any amount owed to ATRS by the qualifying member under Arkansas Code § 24-7-205.

2. ATRS reserves the right to collect any overpayment or other amount owed to ATRS by a designated beneficiary.

~~N.~~H. Lump-Sum Death Benefit – Compliance

ATRS shall comply with all applicable laws relating to the distribution of ~~the~~ a lump-sum death benefit including ~~federal and state tax laws and~~ the Uniform Transfer to Minors Act, Arkansas Code § 9-26-201 et seq.

**VII. Qualified Domestic Relations Orders (QDRO) for ATRS Members**

~~A. A QDRO is a court order that assigns a portion of a member's retirement benefit to be paid to an alternate payee (the divorced spouse) upon the member's retirement or upon a refund of the member's contributions.~~

~~B. Under A.C.A. § 9-18-103(b), ATRS adopted a model QDRO to be utilized by its members when dividing an ATRS retirement benefit. A QDRO issued by a court must substantially follow the form and content of the ATRS model QDRO.~~

A. QDRO — Adopted by ATRS

1. The model QDRO adopted by ATRS pursuant to Arkansas Code § 9-18-103(b) shall be used by a member if an ATRS retirement benefit will be divided by a court.

B. QDRO Issued by Court

~~C.~~ 1. ATRS shall accept a QDRO issued by a circuit court of the State of Arkansas or other court of competent jurisdiction regarding a member, subject to the following:

~~1.~~a. Benefits to the alternate payee shall begin when the member:

i. ~~retires~~ Retires; or

ii. ~~when the member ceases~~ Terminates employment with a covered employer and receives a refund of contributions.

~~2.~~ b. ATRS shall:

~~a.~~ i. Promptly notify the member and the alternate payee upon ~~receipt of~~ receiving a QDRO~~,~~; and

~~b.~~ ii. ~~Within a reasonable time after receipt of the QDRO, determine whether the QDRO complies with ATRS's model QDRO and ATRS laws and regulations.~~ Determine within a reasonable time after receiving the QDRO whether the QDRO complies with the ATRS' model QDRO, Arkansas Code, ATRS Rules, and other applicable laws.

~~3.~~c. A member or an alternate payee may file a QDRO with ATRS ~~prior to~~ before the member's retirement or termination of covered employment~~,~~.

d. ~~but the~~ An alternate payee's portion of a member's retirement benefits or contributions i~~s~~ shall be held in the member's account until payable under ~~paragraph VII.C.1 above~~ the provisions of this ATRS Rule 11 VII.

~~4.~~e. A QDRO shall not require ATRS to:

~~a.~~i. Provide an alternate payee with any type or form of benefit or option not otherwise available to the member;

~~b.~~ii. Provide the alternate payee actuarial benefits not available to the member; or

~~c.~~iii. Pay any benefits to an alternate payee that are required to be paid to another alternate payee under an existing QDRO.

~~5.~~e. ~~If~~ Any benefit that would be due to the alternate payee under the QDRO shall revert back to the member if the alternate payee dies ~~prior to the receipt of~~ before receiving the benefit ~~benefits under the QDRO, any amount or benefit that would be due to the alternate payee reverts to the member~~.

~~6.~~f. If the member dies ~~prior to~~ before retirement, the alternate payee shall receive the same portion of the member's contributions, if any, as was assigned by the QDRO.

g. ~~In no case shall the alternate payee~~ The alternate payee shall not receive monthly retirement annuity benefits from ATRS if the member has not received ~~his/her~~ his or her retirement annuity at the time of ~~his/her~~ his or her death.

~~7.~~h. ATRS ~~computes~~ shall compute the alternate payee's monthly retirement annuity benefit under a QDRO ~~on~~ using the benefit formula in effect at the time of the member's retirement and ~~includes~~ shall include only service credit earned by the member during the marriage.

~~8.~~i ~~If the QDRO assigns a marital portion or other part of a member's interest in his/her T-DROP plan deposits and interest, the benefits~~

~~in the T-DROP account shall be computed as a separate calculation under the provisions in the model order.~~ If a QDRO issued by the circuit court assigns a marital portion or other part of a member's interest in his or her T-DROP plan deposits and interest, the benefits in the member's T-DROP account shall be computed as a separate calculation as provided by ATRS' model QDRO.

~~9.~~j ATRS shall have the right to:

i. ~~make~~ Make any necessary correction to the monthly retirement benefit ~~amount~~ paid under ~~a~~ the QDRO; and

ii. ~~to recover from either the member or the alternate payee~~ Recover any overpayments ~~due~~ owed to ATRS from either the member or the alternate payee.

~~10.~~k. ~~If the alternate payee fails at any time to notify ATRS of a change of mailing address, ATRS shall not be required to make restitution for payments not made prior to receipt of a change of address.~~ Unless an alternate payee notifies ATRS of his or her change of address, ATRS shall not be required to make restitution for a payment that is issued to an alternate payee before ATRS receives notice of the alternate payee's change of address.

~~11.~~l. ~~Any benefit enhancements enacted by the Legislature or the Board of Trustees after entry of a QDRO shall not be assigned to the alternate payee but shall inure to the sole benefit of the member.~~ A benefit enhancement enacted by the General Assembly or the Board after entry of the QDRO shall inure to the benefit of the member and shall not be assigned to the alternate payee.

~~12.~~m. ATRS shall not accept a QDRO for a member who does not have five (5) years of actual service with ATRS at the time the QDRO is issued by a court.

~~13.~~n. ~~If ATRS determines that the alternate payee's monthly benefits are less than twenty dollars ($20.00), ATRS shall pay the member the total benefit due and the member shall be responsible for paying the alternate payee their portion under the QDRO.~~

i. ATRS shall pay a member the total retirement benefit if ATRS determines that the alternate payee's monthly retirement benefit is less than twenty dollars ($20.00).

ii. The member shall be responsible for paying the alternate payee his or her portion under the QDRO if ATRS determines that the alternate payee's monthly retirement benefit is less than twenty dollars ($20.00).

~~14.~~o. The QDRO issued by the circuit court shall not require ATRS to provide any benefit that is an actuarial cost to ATRS and is not otherwise contemplated in ~~ATRS'~~ the law and rules applicable to ATRS.

~~15.~~p. No provision in this ~~rule~~ ATRS Rule 11 or in a QDRO accepted by ATRS shall require ATRS to violate any plan qualification requirement in IRS Code § 401(a) or otherwise affect ~~the ATRS~~ ATRS' requirement to operate as a governmental plan under IRS Code § 414(d).

## VIII. Lost Payees Rules

A. ~~Each member of ATRS, as well as each beneficiary of a deceased member, is responsible for filing with ATRS in writing a current post office address and each change of post office address of the member or beneficiary.~~ A member or beneficiary of a deceased member, whichever is appropriate, is responsible for filing a current post office address and any subsequent change of address with ATRS.

B. ~~Any communication~~ Communication addressed to a member or beneficiary at the last ~~filed~~ post office address last filed with ATRS, or, if no post office address has been filed with ATRS, the last post office address indicated on the records of the employer of the member or the beneficiary shall be:

1. ~~be the~~ The official post office address for ATRS ~~communications~~ communication to the member or beneficiary~~,~~; and

2. ~~and shall be binding~~ Binding on the member or beneficiary for all ~~purposes of~~ ATRS purposes.

3. ~~Under A.C.A. § 24-7-734,~~ ATRS ~~has~~ shall have no obligation to determine the current post office address or any other address for ~~any~~ a member or beneficiary. (Arkansas Code § 24-7-734)

C.

1. Member payments in the possession of ATRS ~~are~~ shall be excluded from the definition of property ~~under the~~ as provided in the Arkansas Unclaimed Property Act (~~A.C.A.~~ Arkansas Code § 18-28-201 et seq.).

2. ~~A.C.A.~~ Arkansas Code § 24-7-734 supersedes any conflict with the Arkansas Unclaimed Property Act.

**HISTORY**

| | | |
|---|---|---|
| Adopted: | August 10, 1993 | 11-3 |

| | | |
|---|---|---|
| Amended: | March 6, 1996 | 11-3 |
| Amended: | February 10, 1998 | 11-3 |
| Amended: | May 5, 1998 | 11-3 |
| Amended: | October 7, 2003 | 11-3 |
| Amended: | June 15, 2004 | 11-1, 11-2 |
| Adopted: | July 18, 2005 | 11-5 |
| Amended: | February 7, 2006 | 11-1, 11-2 |
| Amended: | April 26, 2007 | 11-1, 11-2 |
| Amended: | October 6, 2008 | 11-3 |
| Amended: | June 16, 2009 | (Emergency) 11-2 |
| Amended: | October 5, 2009 | (Permanent) 11-2 |
| Amended: | December 18, 2009 | 11-1 |
| Amended: | July 1, 2011 | (Emergency) 11-1, ,(Emergency) 11-2 |
| Adopted: | August 8, 2011 | 11-1, 11-2 |
| Effective: | November 11, 2011 | 11-1, 11-2 |
| Approved by Board: | August 6, 2012 | 11-1 |
| Amended: | October 13, 2012 | 11-1 |
| Effective: | March 6, 2013 | 11-1 |
| Approved by Board: | July 26, 2013 | 11-1, 11-2, 11-5 |
| Amended: | October 9, 2013 | 11-1, 11-2, 11-5 |
| Effective: | November 8, 2013 | 11-1, 11-2, 11-5 |
| Approved by Board: | December 1, 2014 | 11-1 |
| Amended: | May 18, 2015 | 11-1 |
| Effective: | June 16, 2015 | 11-1 |
| Approved by Board: | February 5, 2018 | 11-1 |
| Effective: | February 16, 2018 | 11-1 |
| Effective: | May 28, 2020 | Rule 11 |

**BEFORE THE**
**ARKANSAS TEACHER RETIREMENT SYSTEM**

IN THE MATTER OF
CONTINUATION OF DISABILITY RETIREMENT BENEFITS
UNDISPUTED RECOMMENDATIONS

**PROPOSED DISABILITY REVIEW ORDER: DR-2021-09-A**

## INTRODUCTION

This matter is a review of the medical committee's recommendations that certain members' disability retirement benefits be continued under subdivision A.C.A.§24-7-704(b)(3)(D)(iii).

## FINDINGS OF FACT

1. The following members applied for disability review after having been initially approved for disability benefits: 191331; 245072; 283704; 444299; 363027.
2. After reviewing each member's records, the medical committee recommended that each member be **approved** eligibility to continue receiving ATRS disability benefits.
3. After reviewing each member's records, the medical committee recommended that each member remain eligibility to receive ATRS disability benefits.

## ANALYSIS AND RECOMMENDATION TO THE BOARD

Arkansas law provides that an ATRS member who has been approved for disability benefits must provide, within thirty-six months, a favorable determination by the Social Security Administration that the member is disabled. In the alternative A.C.A.§24-7-704(b)(3)(C) allows the member to ask for additional time to provide the SSA decision, or to apply for a review by the medical committee due to the lack of an SSA determination letter.

The medical committee considers each request for review, and makes a recommendation to the Board on the question of whether the member continues to meet "the definition of disability under subdivision (a)(1)(D)" of A.C.A.§24-7-704. The primary element of the standard of review is whether the member is able to perform their previous covered employment work duties.

In the cases noted above, the medical committee is recommending to the Board that it find that these members continue to be "disabled" within the meaning of the ATRS law and are entitled to continue to receive ATRS disability benefits.

The Executive Director recommends that the Board of Trustees accept the medical committee recommendation to approve continued disability benefits in each case.

Reviewed and approved

______________________________

Danny Knight, Chairman

September 27, 2021

**BEFORE THE**
**ARKANSAS TEACHER RETIREMENT SYSTEM**

IN THE MATTER OF
REVIEW OF DISABILITY RETIREMENT TERMINATION
OF ATRS ID#444395

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**PROPOSED DISABILITY REVIEW ORDER: I-2021-09-444395**

## INTRODUCTION

This matter is a review of the ATRS Board of Trustee ORDER dated April 5, 2021, terminating the disability retirement of Member ID#444395 and three other members under subdivision A.C.A.§24-7-704(b)(3)(D)(iii).

## FINDINGS OF FACT

1. Member's application for ATRS disability retirement became effective July 1, 2017.
2. On April 21, 2020, Member filed an Application for ATRS Disability Review along with a letter from Member's attorney notifying ATRS that the Social Security Administration's unfavorable disability finding was on appeal before the SSA Appeals Council.
3. Effective June 1, 2020, Member's disability benefits were suspended because Member had not submitted a favorable Social Security Administration Decision as required by A.C.A.§24-7-704(b)(3)(A).
4. On November 4, 2020, the medical committee reviewed Member's application for review and reported that Member was no longer disabled based on submitted medical records.
5. On April 5, 2021, the medical committee's recommendation to terminate Member's disability benefit was presented to and approved by the Board.

6. On July 7, 2021, Member called to notify ATRS that Member had been approved for Social Security Disability benefits, and a copy of the favorable determination was received on August 20, 2021.

## **ANALYSIS AND RECOMMENDATION TO THE BOARD**

Arkansas law provides that an ATRS member who has been approved for disability benefits must provide, within thirty-six months, a favorable determination by the Social Security Administration that the member is disabled. Arkansas law also allows an extension of the thirty-six-month period if the Social Security application is still active.

Here, the Member's attorney notified ATRS before the expiration of the 36-month period that the initial unfavorable finding from the Social Security Administration was on appeal and was pending before the SSA Appeals Council. Member was ultimately successful in the appeal and received a fully favorable determination for the Social Security Administration.

The Executive Director recommends that the Board of Trustees vacate its April 5, 2021, order as it relates to Member # 444395 and approve continued disability benefits retroactively to the date of the suspension of benefits.

Approved

__________________________________
Danny Knight, Chairman
September 27, 2021

**BEFORE THE**
**ARKANSAS TEACHER RETIREMENT SYSTEM**

IN THE MATTER OF
REVIEW OF DISABILITY RETIREMENT
OF ATRS ID#498094

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**PROPOSED DISABILITY REVIEW ORDER: I-2021-09-498094**

## INTRODUCTION

This matter is a review of the medical committee's reconsideration of its previous recommendation that the member's disability retirement be terminated under subdivision A.C.A.§24-7-704(b)(3)(D)(iii).

## FINDINGS OF FACT

1. Member's application for ATRS disability retirement was approved September 13, 2017, and became effective June 1, 2017.
2. Effective June 1, 2020, Member's disability benefits were suspended because Member had not submitted a Social Security Administration Decision as required by A.C.A.§24-7-704(b)(3)(A).
3. On August 31, 2020, Member filed an Application for ATRS Disability Review.
4. On September 9, 2020, the medical committee reviewed Member's application and reported that Member failed to meet the requirements of A.C.A.§24-7-704(b)(3) to avoid a termination of disability benefits.
5. ATRS notified Member of the medical committee's decision in a letter dated September 9, 2020.
6. On October 6, 2020, ATRS received a letter from Member requesting reconsideration of

the medical committee's recommendation, along with a Social Security Administration Decision dated March 28, 2019.

7. The Social Security Administrative Law Judge found that even though Member was unable to perform Member's previous work as an educator, there were other jobs Member could perform and was therefore not disabled under Social Security Disability standards.
8. On April 5, 2021, the ATRS Board of Trustees returned the matter to the medical committee with a request that it reconsider the matter in light of the additional information available in the Social Security Decision.
9. Upon reconsideration on July 7, 2021, the medical committee found that Member was disabled under the ATRS disability standards.

## **ANALYSIS AND RECOMMENDATION TO THE BOARD**

Arkansas law provides that an ATRS member who has been approved for disability benefits must provide, within thirty-six months, a favorable determination by the Social Security Administration that the member is disabled. In the alternative, Arkansas law allows the member to apply for a review by the medical committee.

Upon review, the medical committee considers whether the member is still unable to perform their previous covered employment work duties. Here, although Member received an unfavorable finding from the Social Security Administration, it found that Member could not perform the Member's previous work duties as an educator.

Upon reconsideration, the medical committee found that Member is "disabled" within the meaning of the ATRS law and recommends to the Board that it find that Member is eligible for continued disability benefits.

The Executive Director recommends that the Board of Trustees accept the medical committee recommendation to approve disability benefits, and restore benefits retroactively to the date of the suspension of benefits.

Approved

__________________________________

Danny Knight, Chairman
September 27, 2021

ARTRS
Arkansas Teacher Retirement System

SUMMARY OF DISABILITY APPLICATIONS SUBMITTED

FOR CONSIDERATION BY THE MEDICAL COMMITTEE

The Medical Committee met in executive session in the first floor conference room at 9:30 a.m. on June 2, 2021. Those members present were Dr. Eddie Phillips, Dr. Hoyte Pyle, and Dr. Jim Morse. Anne Marie Lehman Berardi of the Teacher Retirement System was also in attendance.

A total of fourteen disability applications were considered. Of the fourteen applicants, six were approved. Three applicants were denied. Five applicants had more information requested.

Respectfully Submitted,

Eddie Phillips, CMO
Medical Committee Chairman

Respectfully Submitted,

Anne Marie Lehman Berardi

Anne Marie Lehman Berardi
Retirement Benefits Counselor

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Little Rock, Arkansas 72201
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AR)TRS
Arkansas Teacher Retirement System

SUMMARY OF DISABILITY APPLICATIONS SUBMITTED

FOR CONSIDERATION BY THE MEDICAL COMMITTEE

The Medical Committee met in executive session in the first floor conference room at 9:30 a.m. on July 7, 2021. Those members present were Dr. Eddie Phillips, Dr. Hoyte Pyle, and Dr. Jim Morse. Anne Marie Lehman Berardi of the Teacher Retirement System was also in attendance.

A total of sixteen disability applications were considered. Of the sixteen applicants, twelve were approved. Three applicants were denied. One applicant had more information requested.

Respectfully Submitted,

Eddie Phillips, CMO
Medical Committee Chairman

Respectfully Submitted,

Anne Marie Lehman Berardi

Anne Marie Lehman Berardi
Retirement Benefits Counselor

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AR)TRS
Arkansas Teacher Retirement System

SUMMARY OF DISABILITY APPLICATIONS SUBMITTED

FOR CONSIDERATION BY THE MEDICAL COMMITTEE

The Medical Committee met in executive session in the first floor conference room at 9:30 a.m. on August 4, 2021. Those members present were Dr. Eddie Phillips, and Dr. Hoyte Pyle. Anne Marie Lehman Berardi of the Teacher Retirement System was also in attendance.

A total of six disability applications were considered. Of the six applicants, four were approved. One applicant was denied. One applicant had more information requested.

Respectfully Submitted,

Eddie Phillips, CMO
Medical Committee Chairman

Respectfully Submitted,

Anne Marie Lehman Berardi
Retirement Benefits Counselor

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ARTRS
Arkansas Teacher Retirement System

SUMMARY OF DISABILITY APPLICATIONS SUBMITTED

FOR CONSIDERATION BY THE MEDICAL COMMITTEE

The Medical Committee met in executive session in the first floor conference room at 9:30 a.m. on September 9, 2021. Those members present were Dr. Eddie Phillips, and Dr. Jim Morse. Anne Marie Lehman Berardi of the Teacher Retirement System was also in attendance.

A total of ten disability applications were considered. Of the ten applicants, nine were approved. One had more information requested.

Respectfully Submitted,

Eddie Phillips, CMO
Medical Committee Chairman

Respectfully Submitted,

Anne Marie Lehman Berardi
Retirement Benefits Counselor

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