



MAY MEETING MATERIALS

BOSTON RETIREMENT SYSTEM

MAY 17, 2023

Mike Manning, CFA, CAIA, Managing Partner

Will Forde, CFA, CAIA, Partner

Kiley Fischer, Sr. Consulting Analyst



PROPRIETARY & CONFIDENTIAL

TABLE OF CONTENTS

| | <u>Tab</u> |
|-------------------------------|------------|
| Executive Summary | 1 |
| Infrastructure Search | 2 |
| Q1 Performance Summary | 3 |
| April Flash Report | 4 |
| Work Plan | 5 |
| Appendix | 6 |



EXECUTIVE SUMMARY



To: Boston Retirement System

From: NEPC, LLC

Date: May 17, 2023

Subject: Investment Program Review – May 2023

This memo is intended to highlight the primary discussion points for the May Board meeting of the Boston Retirement System.

ACTION ITEMS

Infrastructure (PE) Search – The infrastructure search was issued as part of the 2022/2023 private equity search which included infrastructure, diverse fund of funds, and co-investments. The annual pacing plan recommends that the System commits \$40 million to private equity/infrastructure in 2023.

At the April meeting, NEPC presented an overview of the infrastructure market and reviewed the search respondent list. After review, thirteen respondents were chosen for further analysis. At today's meeting NEPC will provide additional information on the shortlist of candidates. The objective of today's discussion is to select finalists for the infrastructure mandate. The search information can be found under Tab 2 (iPad 5).

DISCUSSION ITEMS

Q1 2023 Performance Summary – NEPC will review the first quarter 2023 investment performance, which provides a high-level review of the program's performance through March 31, 2023. The performance summary can be found under Tab 3 (iPad 24). The full quarterly report will be provided separately.

April Flash Report – The preliminary April flash report can be found under Tab 4 (iPad 29).

Work Plan – NEPC has included an updated work plan with the meeting materials. The work plan can be found under Tab 5 (iPad 35).



INFRASTRUCTURE SEARCH

INFRASTRUCTURE SEARCH

- **The infrastructure search was issued as part of the 2022/2023 private equity search**
- **The annual pacing plan recommends that the System commits \$40 million to private equity/infrastructure in 2023**
- **At the April meeting we reviewed the full list of search respondents**
 - The list was narrowed down to 13 candidates for additional analysis
- **At today's meeting NEPC will provide additional information on the shortlist of candidates**
 - The candidate information is included on the subsequent pages

RESPONDENTS – INCLUDED IN REVIEW

| Firm | Fund | Target Final Close | Target Net IRR | Target Fund Size (M) | Geographic Focus | Industry Focus |
|-----------------------|--|--------------------|----------------|----------------------|------------------|------------------------------|
| Energy | | | | | | |
| Bridge IG | Solar Energy Development Fund | Q2 2024 | 20-22% | \$500 | U.S. | Solar Energy |
| ★ The Carlyle Group * | Renewable & Sustainable Energy Fund II | Q4 2023 | 9-14% | \$2,000 | Global | Renewable Energy |
| NGP * | NGP Natural Resources XIII | Q3 2024 | 20% | \$2,500 | N. America | Mid/Upstream Energy |
| Kayne Anderson * | Kayne Private Energy Income Fund III | TBD | 20% | \$1,500 | N. America | Upstream Energy |
| Diversified | | | | | | |
| ★ IFM Investors | IFM Global Infrastructure Fund | N/A open-end | 8-12% | N/A | Global | Diversified |
| IFM Investors | IFM Net Zero Infrastructure Fund | N/A open-end | 8% | N/A | Global | Diversified |
| ★ Macquarie | Infrastructure Partners VI | Q3 2023 | 10-12% | \$7,000 | N. America | Diversified |
| Macquarie | GIG Energy Transition Solutions SCSp | 6/30/23 | 13-15% | \$2,000 | Global | Diversified |
| Stonepeak | Stonepeak Opportunities Fund | Q3 2023 | 10-15% | \$2,500 | Global | Diversified |
| Secondaries | | | | | | |
| ★ Ares | Secondaries Infrastructure Solutions III | Q4 2023 | 11-14% | \$2,000 | Global | Secondaries |
| ★ Pantheon | Global Infrastructure Fund IV | Q3 2023 | 11-13% | \$3,000 | Global | Secondaries & Co-Investments |
| Hamilton Lane * | Infrastructure Opportunities Fund II | Q1 2024 | 12-14% | \$1,000 | Global | Secondaries |
| Transportation | | | | | | |
| EnTrust * | Blue Ocean 4Impact | 12/31/22 | 20% | \$1,500 | Global | Maritime |

* Current BRS Manager

★ NEPC FPL Manager

- Expected final close dates are subject to change



RESPONDENTS - ENERGY

| Fund | Strategy |
|--|---|
| Bridge IG Solar Energy Development Fund | <ul style="list-style-type: none"> - Renewable energy infrastructure including: <ul style="list-style-type: none"> - Solar photovoltaic generation ("Solar PV") - Electric vehicle ("EV") charging stations - Ancillary battery infrastructure - Will invest in U.S. real estate sectors, with a focus on Solar PV development on existing building roofs, carports and excess land - Expected to develop hundreds of small to medium sized projects |
| The Carlyle Group Renewable & Sustainable Energy Fund II | <ul style="list-style-type: none"> - Value-add focused Fund, investing in renewable and sustainable energy, including energy transition opportunities - The Fund will mainly focus on two sectors: <ol style="list-style-type: none"> 1. <u>Renewables</u>: Solar, wind, battery energy storage systems 2. <u>Energy Transition</u>: Electric vehicles, distributed energy resources, and industry decarbonization technology |
| Kayne Anderson Private Energy Income Fund III | <ul style="list-style-type: none"> - Sizable equity investments in a small number of private energy companies - Will invest in 4-6 high-quality management teams with experience to pursue large acquisitions - Will target oil and gas assets that have a meaningful percentage of value attributable to proved developed producing ("PDP") reserves - Assets will be in basins, where the portfolio companies can build scale over time |
| NGP Natural Resources XIII | <ul style="list-style-type: none"> - Core acquisition and development strategy in the upstream and midstream sectors - Focus on growth equity - Portfolio of 10-15 energy companies that generate strong returns with a focus on cash distributions - High-quality upstream/midstream companies located in basins across North America |

RESPONDENTS - DIVERSIFIED

| Fund | Strategy |
|---|--|
| IFM Global Infrastructure Fund | <ul style="list-style-type: none"> - Target Sectors: transportation, midstream and utilities sectors in the U.S. and Europe. - Characteristics of Target Investments: monopoly-like features, strong market positions, reliable regulatory environment, high barriers to entry, limited demand-elasticity, exposure to inflation and economic growth, and/or long lives |
| IFM Net Zero Infrastructure Fund | <ul style="list-style-type: none"> - Invest in infrastructure assets that seek to accelerate the transition to a net-zero economy, while generating attractive risk-adjusted returns - Target Sectors: renewable power, electrification, low carbon fuels, and carbon capture. |
| Macquarie Infrastructure Partners VI | <ul style="list-style-type: none"> - Will invest through equity and equity-related infrastructure investments in North America. - Target Sectors: transportation, waste management, digital, utilities & energy, and social infra - Will concentrate on stable, income producing assets with minimal J-curve or commodity exposures, and minimal correlation to economic market conditions. |
| Macquarie GIG Energy Transition Solutions | <ul style="list-style-type: none"> - Seeks to generate attractive risk-adjusted returns through equity investments in a diversified global portfolio of sustainable infrastructure and real assets - Investments in companies/assets well positioned for growth and, through their operations, contribute towards accelerating the green energy transition - Target Sectors: clean grid, clean transportation, hydrogen and renewable fuels, carbon capture, circular economy, and infrastructure-enabling technologies |
| Stonepeak Opportunities Fund | <ul style="list-style-type: none"> - Middle-market focused, diversified infrastructure strategy, investing in OCED countries - Target Sectors: digital/social infrastructure, energy transition, transportation & logistics, - Applies thematic backdrop to sector and asset targets, emphasizing downside protection and ESG. |

RESPONDENTS – SECONDARIES & TRANSPORTATION

| | Fund | Strategy |
|----------------|--|--|
| Secondaries | Ares Secondaries Infrastructure Solutions III | <ul style="list-style-type: none"> - Will invest in infrastructure and real assets secondary market transactions - Acquire interests in infrastructure funds, partnerships, and other structured investment vehicles that own infrastructure and real assets related assets - Target Sectors: utilities, transportation, communication, renewables, energy, commodities - Investing in mature funds with goal of achieving immediate cash flows and return of capital - Mature portfolios offer insight into the execution of the manager and performance of assets |
| | Pantheon Global Infrastructure Fund IV | <ul style="list-style-type: none"> - Global infrastructure investments through secondaries, GP-led secondaries, and co-investments - Diverse across sectors, geography, vintage-year and GPs - Sectors: digital, power, utilities, transportation, renewables, and social infrastructure - Geography: North America, Europe, and Asia |
| | Hamilton Lane Infrastructure Opportunities Fund II | <ul style="list-style-type: none"> - Diversified core-plus and value-add infrastructure equity and secondary positions - Will leverage the scale of the Manager's infrastructure platform to drive deal flow and gain access to opportunities |
| Transportation | EnTrust Blue Ocean 4Impact | <ul style="list-style-type: none"> - Maritime infrastructure strategy focused on reducing GHG emissions and pollutants - Invests solely in Purus Marine, a company established by EnTrust to execute the strategy - Purus Marine expects to acquire/own a fleet of 100+ maritime assets - Assets are expected to use solutions to reduce/eliminate carbon emissions (fully-electric and battery hybrid propulsion, CO2 capture devices, bio-fuel blends) - Assets are expected to be contracted mid/long-term to high quality end users |



FUND PROFILE: ARES

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | | |
|--------------------------|---------------------------|---|----------------------|---|---------------------|---|
| ★ | Fund Name | Ares Infrastructure Secondaries Solutions Fund III | Fund Strategy | Infrastructure | Target Net IRR | 11% - 14% |
| | Investment Manager | Ares Management, LLC | Industry Focus | Secondaries | Target Net Multiple | 1.65x |
| | Main Address | 2000 Avenue of the Stars Los Angeles, CA 90067, US | Geographic Focus | Global | Management Fees | 1.00% base management fee |
| | Target Fund Size/Hard Cap | \$2 billion / None stated | Target Fund Leverage | Fund-level leverage is capped at 25% of all capital commitments | | First Close Discount: 7.5bps |
| | Capital Raised | N/A | Target Deal Size | \$10 million to \$350 million | | Size Discounts: |
| | Expected Final Close | Q4 2023 | Strategy Description | ASIS III will invest in infrastructure and real assets secondary market transactions, a similar strategy to prior Funds. The Fund intends to acquire interests in infrastructure funds, partnerships, and other structured investment vehicles that own infrastructure and real assets related assets. Ares will target a broad array of sectors including utilities, transportation, communication, renewables, energy infrastructure, and commodities. Fund III aims to make investments in relatively mature funds with goal of achieving immediate cash flows and early return of investor capital. Investing in mature portfolios with less blind pool risk also offers greater insight into the execution of the underlying manager and performance of the assets | | <ul style="list-style-type: none">\$100 million: 2.5bps\$200 million: 5bps\$300 million: 7.5bps |
| | Fund Structure | Delaware Limited Partnership | | | | Preferred Return |
| | Investment Period | Four Years from final close | | | Carried Interest | 12% |
| | Term of Entity | 10 Years from final close | | | GP Commitment | 1% of total commitments |
| | Minimum Investment | \$10 million | | | | |
| | Fund Auditor | Ernst & Young | | | | |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|-------------------------------------|-------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| Landmark Real Assets Secondaries I | Secondaries | 2014 | \$454 | \$366 | \$294 | \$205 | \$500 | 1.4x | 0.6x | 9.4% |
| Landmark Infrastructure Partners II | Secondaries | 2018 | \$915 | \$271 | \$204 | \$194 | \$399 | 1.5x | 0.7x | 58% |



Track record data as of 09/30/2022 and provided by the Manager.

FUND PROFILE: BRIDGE INVESTMENT GROUP

| General Fund Information | |
|----------------------------------|--|
| Fund Name | Bridge Solar Energy Development Fund |
| Investment Manager | Bridge Investment Group |
| Main Address | 111 E Sego Lily Dr #400 Sandy, UT 84070 |
| Target Fund Size/Hard Cap | \$500 million / None stated |
| Capital Raised | N/A |
| Expected Final Close | Q2 2024 |
| Fund Structure | Delaware Limited Partnership |
| Investment Period | Four years from initial close |
| Term of Entity | 10 years from the Initial Closing, but may be extended at the discretion of the General Partner for up to two consecutive one-year periods |
| Minimum Investment | \$1 million |
| Fund Auditor | Deloitte |

| Fund Strategy | |
|-----------------------------|--|
| Fund Strategy | Infrastructure |
| Industry Focus | Renewables (Solar) |
| Geographic Focus | United States |
| Target Fund Leverage | 66% |
| Target Deal Size | \$1 million to \$3 million |
| Strategy Description | The investment strategy of the Fund is to invest in renewable energy infrastructure including solar photovoltaic generation ("Solar PV"), electric vehicle ("EV") charging stations, and ancillary battery infrastructure in conjunction with multiple real estate sectors across the U.S. real estate landscape, with a focus on Solar PV development on existing building roofs, carports and excess land. The Fund expects to develop hundreds of small to medium sized projects. |

| GP Fees, Promote and Commitment | |
|---------------------------------|---|
| Target Net IRR | 20% - 22% |
| Target Net Multiple | 2.6x - 2.8x |
| Management Fees | <p>Management Fee:</p> <p>2.0% on the first \$10 million; 1.5% on commitment amounts in excess of \$10 million, subject in each case to a .25% discount on all amounts committed prior to the first closing (up to a total of \$100 million).</p> <p>On commitments during the investment period; thereafter on invested capital.</p> |
| Preferred Return | 7% |
| Carried Interest | 20% with a 50% GP catch-up |
| GP Commitment | 2% of the total capital commitments |



Track record data was not provided.

FUND PROFILE: THE CARLYLE GROUP

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | |
|---------------------------|---|----------------------|--|---------------------------------|--|
| ★ Fund Name | Carlyle Renewable and Sustainable Energy Fund II | Fund Strategy | Infrastructure | Target Net IRR | 9% - 14% |
| Investment Manager | The Carlyle Group | Industry Focus | Renewable and Sustainable Energy | Target Net Multiple | N/A |
| Main Address | 799 9th Street, NW, Suite 200 Washington, DC 20001 | Geographic Focus | Global | Management Fees | Management Fees start at a rate of 1.50% per annum for limited partners with commitments less than \$10 million and are scaled down for larger commitments as follows: <ul style="list-style-type: none">\$10M to \$50M: 1.40%\$50M to \$100M: 1.20%Greater than \$100M: 1.00% Any limited partners that participate in the Initial Closing shall have their management fee rate reduced by 0.15% per annum. |
| Target Fund Size/Hard Cap | \$2 billion / None stated | Target Fund Leverage | No limits have been set for the minimum or maximum leverage that can be applied to a portfolio company | | |
| Capital Raised | \$530 million as of March 2023 | Target Deal Size | \$75 to \$250 million | | |
| Expected Final Close | Q4 2023 | Strategy Description | The Fund will have a value-add focus and will seek to invest in renewable and sustainable energy, including energy transition opportunities where the Fund has potential to generate outperformance through a private equity value-creation approach. The Fund will be focused target primarily on two major sectors; renewables (solar, wind, battery energy storage systems) and energy transition (Electric Vehicles, distributed energy resources, and industry decarbonization technology). | | |
| Fund Structure | Luxembourg Limited Partnership | | | | |
| Investment Period | Five years | | | | |
| Term of Entity | 12 years from Final Close date | | | | |
| Minimum Investment | \$10 million | | | Preferred Return | 8% |
| Fund Auditor | Ernst & Young, LLP | | | Carried Interest | 20% |
| | | | | GP Commitment | 1.5% of total commitments |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|---|------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| Carlyle Renewable and Sustainable Energy Fund | Value-Add | 2019 | \$708 | \$398 | \$479 | \$2 | \$576 | 1.16x | 0.0x | 15.8% |



Track record data as of 09/30/2022 and provided by the Manager.

FUND PROFILE: ENTRUST

| General Fund Information | |
|----------------------------------|--|
| Fund Name | Blue Ocean 4Impact |
| Investment Manager | EnTrust Global |
| Main Address | 375 Park Ave, 24th floor New York, NY 10152 |
| Target Fund Size/Hard Cap | \$1.5 billion / None stated |
| Capital Raised | \$887 million as of June 2022 |
| Expected Final Close | TBD; submission stated 12/31/2022 |
| Fund Structure | Cayman Islands Exempted Limited Partnership |
| Investment Period | Five years with up to two one-year extensions |
| Term of Entity | 10 years |
| Minimum Investment | \$15 million |
| Fund Auditor | PricewaterhouseCoopers |

| Fund Strategy | |
|-----------------------------|--|
| Fund Strategy | Infrastructure |
| Industry Focus | Maritime Infrastructure |
| Geographic Focus | Global |
| Target Fund Leverage | 70% |
| Target Deal Size | \$5 million to \$250 million |
| Strategy Description | BO 4Impact is an environmentally-advanced maritime infrastructure strategy focused on reducing GHG emissions and pollutants. BO 4Impact invests solely in Purus Marine, a company established by EnTrust to execute the strategy. Purus Marine expects to utilize its equity capital to acquire and own a fleet of 100+ environmentally-advanced maritime assets, diversified across the maritime sectors. The maritime assets are expected to utilize a variety of solutions to reduce or eliminate carbon emissions, including fully-electric and battery hybrid propulsion, CO2 capture devices and bio-fuel blends. These assets are expected to typically be contracted mid/long-term to high quality end users with a need for the assets. |

| GP Fees, Promote and Commitment | |
|---------------------------------|---|
| Target Net IRR | 20% + |
| Target Net Multiple | 2.0x + |
| Management Fees | 2.00% p.a. on total commitment |
| Preferred Return | 7% |
| Carried Interest | 20% with a 100% GP catch-up |
| GP Commitment | There is no target, currently \$4 million |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|------------------------------------|---------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| Blue Ocean 4Impact | Opportunistic | 2021 | \$877 | \$179 | \$175 | \$0 | \$175 | N/A | N/A | N/A |

Track record data as of 06/30/2022 and provided by the Manager.



FUND PROFILE: HAMILTON LANE

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | |
|----------------------------------|--|-----------------------------|---|---------------------------------|--|
| Fund Name | Hamilton Lane Infrastructure Opportunities Fund II | Fund Strategy | Infrastructure | Target Net IRR | 12% - 14% |
| Investment Manager | Hamilton Lane | Industry Focus | Secondaries | Target Net Multiple | 1.6x – 1.65x |
| Main Address | 110 Washington St, Conshohocken, PA 19428 | Geographic Focus | Global | Management Fees | 1% to 0.7%, depending on size of investor commitment, and will be based on net invested capital. |
| Target Fund Size/Hard Cap | \$1 billion / \$1.5 billion | Target Fund Leverage | 50% | Preferred Return | 8% |
| Capital Raised | N/A | Target Deal Size | \$30 million to \$75 million | Carried Interest | 10% |
| Expected Final Close | Q1 2024 | Strategy Description | Hamilton Lane Infrastructure Opportunities Fund II is expected to target a diversified portfolio of core-plus and value-add infrastructure equity and secondary positions alongside top-tier deal sponsors in the infrastructure space. The strategy will leverage the scale of the Manager's infrastructure platform to drive deal flow and gain access to opportunities that meet our investment criteria for the Fund. | GP Commitment | 1% of capital commitments |
| Fund Structure | Delaware Limited Partnership | | | | |
| Investment Period | Four years from Final Close | | | | |
| Term of Entity | 10 years, plus two one-year extensions | | | | |
| Minimum Investment | \$5 million | | | | |
| Fund Auditor | Ernst & Young | | | | |



Track record data was not provided.

FUND PROFILE: IFM INVESTORS

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | |
|---------------------------|--|----------------------|---|---------------------------------|--|
| ★ Fund Name | IFM Global Infrastructure Partners | Fund Strategy | Infrastructure | Target Net IRR | 8% - 10% |
| Investment Manager | IFM Investors | Industry Focus | Diversified | Target Net Multiple | N/A |
| Main Address | 114 West 47th Street, 19th Floor New York, NY 10036 | Geographic Focus | Global | Management Fees | 0.77% on NAV of less than \$300 million, management fee scales down for NAV greater than \$300 million |
| Target Fund Size/Hard Cap | \$35.7 billion as of June 2022 | Target Fund Leverage | There is no Fund-level leverage cap; underlying portfolio company leverage ranges from 30%-70% | Preferred Return | 8% |
| Capital Raised | Open-End | Target Deal Size | \$500 million to \$1 billion | Carried Interest | 10.0% with a 33.3% GP catch-up; calculated on December 31st of each year |
| Expected Final Close | Open-End | Strategy Description | The Fund will target investments in the transportation, midstream and utilities sectors in the United States and Europe. Typical characteristics of target investments include monopoly-like features, strong market positions, reliable regulatory environment, high barriers to entry, limited demand-elasticity, exposure to inflation and economic growth, and/or long lives. | GP Commitment | N/A |
| Fund Structure | Delaware Limited Partnership | | | | |
| Investment Period | Open-End | | | | |
| Term of Entity | Quarterly with 90 days written notice | | | | |
| Minimum Investment | \$10 million (GP may accept lower) | | | | |
| Fund Auditor | Deloitte | | | | |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|------------------------------------|------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| IFM Global Infrastructure Partners | Core | 2004 | \$35,781 | \$30,305 | \$44,884 | \$9,989 | \$54,872 | 1.65x | 0.4x | 11.6% |



Track record data as of 06/30/2022 and provided by the Manager.

FUND PROFILE: IFM INVESTORS

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | |
|----------------------------------|--|-----------------------------|--|---------------------------------|--|
| Fund Name | IFM Net Zero Infrastructure Fund | Fund Strategy | Infrastructure | Target Net IRR | 8% |
| Investment Manager | IFM Investors | Industry Focus | Diversified | Target Net Multiple | N/A |
| Main Address | 114 West 47th Street, 19th Floor New York, NY 10036 | Geographic Focus | Global | Management Fees | <p>There are no fees on undrawn capital. Once drawn, the Management Fee is:</p> <ul style="list-style-type: none"> • 0.77% pa based on NAV for commitments below US\$300million • 0.65% pa based on NAV for commitments equal to or exceeding US\$300 million. |
| Target Fund Size/Hard Cap | \$3 billion for first series close | Target Fund Leverage | N/A | | |
| Capital Raised | Open-End; \$1.3 billion | Target Deal Size | Up to US\$500m or 25% of NAV | | |
| Expected Final Close | Open-End | Strategy Description | <p>The Fund's investment mandate is to invest in infrastructure assets that seek to accelerate the world's transition to a net-zero economy, while generating attractive risk-adjusted returns. Target sub-sectors include renewable power, electrification, low carbon fuels, and carbon capture.</p> | Preferred Return | 6% |
| Fund Structure | Delaware Limited Partnership | | | Carried Interest | 10.0% with a 33.3% GP catch-up; calculated on December 31st of each year |
| Investment Period | Open-End | | | GP Commitment | ~\$300 million |
| Term of Entity | Quarterly with 90 days written notice | | | | |
| Minimum Investment | \$10 million (GP may accept lower) | | | | |
| Fund Auditor | Deloitte | | | | |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|------------------------------------|------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| IFM Net Zero Infrastructure Fund | Core | 2022 | \$721 | \$69 | \$71 | \$0 | \$71 | 1.02x | 0.0x | 1.9% |



Track record data as of 06/30/2022 and provided by the Manager.

FUND PROFILE: KAYNE ANDERSON

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | |
|---------------------------|--|----------------------|--|---------------------------------|--|
| Fund Name | Kayne Private Energy Income Fund III | Fund Strategy | Energy | Target Net IRR | 20% |
| Investment Manager | Kayne Anderson Capital Advisors | Industry Focus | Upstream | Target Net Multiple | 2.0x |
| Main Address | 1800 Avenue of the Star, Third Floor Los Angeles, CA 90067 | Geographic Focus | North America | Management Fees | <ul style="list-style-type: none">1.50% (per annum) of commitments during the Commitment Period1.50% (per annum) of the lower of (a) the aggregate total cost or (b) the aggregate net asset value (“NAV”) of the Fund’s investments after the expiration of the Commitment PeriodNo management fees will be charged after the tenth anniversary of the Commitment Period Commencement Date. |
| Target Fund Size/Hard Cap | \$1.5 billion / None stated | Target Fund Leverage | 40% - 60% at the investment level | | |
| Capital Raised | N/A; First close scheduled for May 2023 | Target Deal Size | \$250 million to \$500 million | | |
| Expected Final Close | TBD | Strategy Description | The Fund expects to make sizable equity investments in a small number of private energy companies. The Fund intends to invest in 4 to 6 high-quality management teams with the experience and skillset necessary to pursue large platform acquisitions. The Fund’s portfolio companies will target oil and gas assets that have a meaningful percentage of value attributable to proved developed producing (“PDP”) reserves, with the remainder allocated to low-risk development upside. These assets will be in basins where the Fund’s portfolio companies can build scale over time, which we believe is crucial to creating value across commodity price cycles. | | |
| Fund Structure | Delaware Limited Partnership | | | | |
| Investment Period | Five-year Commitment Period, plus two years for follow-on investments | | | | |
| Term of Entity | 10 years, subject to two one-year extensions with Advisory Board approval | | | | |
| Minimum Investment | \$2 million (though the General Partner may accept a lower amount at its discretion) | | | Preferred Return | 8% |
| Fund Auditor | PricewaterhouseCoopers | | | Carried Interest | 20% with an 80% GP catch-up |
| | | | | GP Commitment | 2% of capital commitments |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|-------------------------------------|------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| Kayne Private Energy Income Fund I | Energy | 2016 | \$1,550 | \$1,457 | \$2,085 | \$926 | \$2,811 | 1.93x | 0.64x | 19.1% |
| Kayne Private Energy Income Fund II | Energy | 2018 | \$1,253 | \$564 | \$781 | \$297 | \$1,000 | 1.77x | 0.53x | 36.8% |



Track record data as of 09/30/2022 and provided by the Manager.

FUND PROFILE: MACQUARIE

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | | |
|--------------------------|---------------------------|--|----------------------|--|---------------------|---|
| ★ | Fund Name | Macquarie Infrastructure Partners VI | Fund Strategy | Infrastructure | Target Net IRR | 10% - 12% |
| | Investment Manager | Macquarie Asset Management | Industry Focus | Diversified | Target Net Multiple | 1.5x - 2.0x |
| | Main Address | 50 Martin Place, Sydney, NSW 2000, Australia | Geographic Focus | North America | Management Fees | During the Investment Period: <ul style="list-style-type: none">• 0.75% per year on Uninvested• 1.50% per year on Invested• 0.75% per year on Acquisition Cost of Carbon Offset Investments |
| | Target Fund Size/Hard Cap | \$7 billion / None stated | Target Fund Leverage | Subscription facility capped at 30% of capital commitments or undrawn capital commitments | | Uninvested Capital Rebate: <ul style="list-style-type: none">• First Close: rebate of 0.375% p.a. on Uninvested |
| | Capital Raised | \$3.5 billion as of April 2023 | Target Deal Size | \$500 million to \$700 million | | Size Discounts: <ul style="list-style-type: none">• ≥US\$100m: rebate of 0.25% p.a. on Invested Capital• ≥US\$200m: rebate of 0.35% p.a. on Invested Capital• ≥US\$300m: rebate of 0.45% p.a. on Invested Capital |
| | Expected Final Close | Q3 2023 | Strategy Description | The Fund’s investment strategy will be to target investments in infrastructure sectors where it has previous experience such as transportation, waste management, digital, utilities & energy, and social infrastructure. The Fund will invest through primarily equity and equity-related investments in infrastructure in North America. The Fund will concentrate on stable, income producing assets with minimal J-curve or commodity exposures, as well as minimal correlation to overall economic market conditions. | | |
| | Fund Structure | Delaware Limited Partnership | | | | |
| | Investment Period | Four years from the Final Closing Date | | | | |
| | Term of Entity | 10 years from the Final Closing Date | | | Preferred Return | 8% |
| | Minimum Investment | \$10 million | | | Carried Interest | 20% |
| | Fund Auditor | PricewaterhouseCoopers | | | GP Commitment | Greater of \$50 million and 1% of total capital commitments |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|---------------------------------------|------------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| Macquarie Infrastructure Partners I | Core / Core-Plus | 2006 | \$4,000 | \$3,977 | - | \$7,914 | \$7,914 | 2.0x | 2.0x | 8.1% |
| Macquarie Infrastructure Partners II | Core / Core-Plus | 2008 | \$1,569 | \$1,489 | \$10 | \$2,726 | \$2,735 | 1.8x | 1.8x | 9.2% |
| Macquarie Infrastructure Partners III | Core / Core-Plus | 2013 | \$3,042 | \$2,921 | \$3,804 | \$2,692 | \$5,808 | 2.0x | 0.9x | 16.6% |
| Macquarie Infrastructure Partners IV | Core / Core-Plus | 2018 | \$5,050 | \$5,060 | \$6,576 | \$1,064 | \$7,151 | 1.4x | 0.2x | 13.5% |
| Macquarie Infrastructure Partners V | Core / Core-Plus | 2020 | \$6,916 | \$4,632 | \$5,684 | \$12 | \$5,479 | 1.2x | 0.0x | 18.7% |



Track record data as of 09/30/2022 and provided by the Manager.

FUND PROFILE: MACQUARIE

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | |
|---------------------------|--|----------------------|--|---------------------------------|---|
| Fund Name | Macquarie GIG Energy Transition Solutions | Fund Strategy | Infrastructure | Target Net IRR | 13% - 15% |
| Investment Manager | Macquarie Asset Management | Industry Focus | Diversified | Target Net Multiple | N/A |
| Main Address | 50 Martin Place, Sydney, NSW 2000, Australia | Geographic Focus | Global | Management Fees | 1.75% p.a. on uninvested commitments during the investment period |
| Target Fund Size/Hard Cap | \$2 billion / None stated | Target Fund Leverage | Approximately 50% across the portfolio, however the Fund will make an assessment on an asset-by-asset basis. | | 1.75% p.a. on invested commitments Rebates for size: <ul style="list-style-type: none">• ≥US\$100 million: 0.25% p.a. rebate (1.50% p.a. effective fee on invested commitments)• ≥US\$200 million: 0.35% p.a. rebate (1.40% p.a. effective fee on invested commitments) |
| Capital Raised | N/A | Target Deal Size | \$100 million to \$200 million | | |
| Expected Final Close | TBD | Strategy Description | The investment strategy of the Fund is to seek to generate attractive risk-adjusted returns primarily through equity and equity-like investments in a diversified global portfolio of sustainable infrastructure and real assets, along with selective investments in businesses providing infrastructure enabling technologies and services. The Fund will focus on investments in companies and assets which are well positioned for growth and, through their operations, contribute towards accelerating the green energy transition. Macquarie will target investments in clean grid, clean transportation, hydrogen and renewable fuels, carbon capture, circular economy, and infrastructure-enabling technologies. | Preferred Return | 8% |
| Fund Structure | Luxembourg Special Limited Partnership | | | Carried Interest | 20% with a 50% GP catch-up |
| Investment Period | Four years from the Final Closing Date | | | GP Commitment | Lesser of: (a) 10% of Total Commitments; and (b) \$US250 million. |
| Term of Entity | 10 years from the Final Closing Date with the ability to extend by up to two years | | | | |
| Minimum Investment | \$10 million | | | | |
| Fund Auditor | PricewaterhouseCoopers Luxembourg | | | | |



No track record data available.

FUND PROFILE: NATURAL GAS PARTNERS

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | |
|----------------------------------|---|-----------------------------|---|---------------------------------|--|
| Fund Name | NGP Natural Resources XIII | Fund Strategy | Energy | Target Net IRR | 20% |
| Investment Manager | NGP Energy Capital Management | Industry Focus | Upstream / Midstream | Target Net Multiple | 2.0x |
| Main Address | 2850 N. Harwood Street, 19th Floor Dallas, TX 75201 | Geographic Focus | United States | Management Fees | 1.5% on committed and invested capital |
| Target Fund Size/Hard Cap | \$2.5 billion / None stated | Target Fund Leverage | < 25% total capitalization / 2x debt/EBITDA | Preferred Return | 8% |
| Capital Raised | N/A | Target Deal Size | \$25 million to \$375 million | Carried Interest | 20% |
| Expected Final Close | Q3 2024 | Strategy Description | NGP13 will execute on core acquisition and development strategy in the upstream and midstream sectors, with a focus on growth equity. The Fund intends to build a portfolio of 10 to 15 energy companies that generate strong returns with a focus on cash distributions. The strategy will focus on high-quality upstream and midstream companies located in basins across North America | GP Commitment | 2% of Limited Partner Commitments |
| Fund Structure | Delaware Limited Partnership | | | | |
| Investment Period | 5 years | | | | |
| Term of Entity | 10 years with two one-year extensions and one year to liquidate | | | | |
| Minimum Investment | \$1 million | | | | |
| Fund Auditor | Ernst & Young | | | | |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|------------------------------------|------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| NGP Natural Resources IX | Energy | 2007 | \$4,000 | \$4,335 | \$18 | \$6,222 | \$6,236 | 1.4x | 1.4x | 11% |
| NGP Natural Resources X | Energy | 2012 | \$3,586 | \$3,739 | \$455 | \$3,272 | \$3,728 | 1.0x | 0.9x | (0.1%) |
| NGP Natural Resources XI | Energy | 2014 | \$5,325 | \$5,309 | \$5,344 | \$3,959 | \$6,556 | 1.6x | 0.7x | 11% |
| NGP Natural Resources XII | Energy | 2017 | \$4,304 | \$3,067 | \$3,962 | \$1,301 | \$4,844 | 1.6x | 0.4x | 16% |



Track record data as of 12/31/2022 and provided by the Manager.

FUND PROFILE: PANTHEON

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | |
|---------------------------|---|----------------------|--|---------------------------------|--|
| ★ Fund Name | Pantheon Global Infrastructure Fund IV | Fund Strategy | Infrastructure | Target Net IRR | 11% - 13% |
| Investment Manager | Pantheon Ventures | Industry Focus | Secondaries and Co-Investments | Target Net Multiple | 1.4x - 1.6x |
| Main Address | 10 Finsbury Square, 4th Floor London, UK | Geographic Focus | Global | Management Fees | 1.0% on commitments during the investment period, followed by 1.0% on the lower of NAV or paid-in capital and unfunded thereafter |
| Target Fund Size/Hard Cap | \$3 billion / \$4 billion | Target Fund Leverage | For working capital and cashflow management purposes, the Fund will use a capital call facility, which will be capped at 25% at the fund-level | | Pantheon has agreed to aggregate NEPC client commitments for fee break purposes and will offer a 0.025% discount should NEPC client commitments exceed \$50 million, and a 0.05% discount should NEPC client commitments exceed \$100 million. |
| Capital Raised | \$2.2 billion as of April 2023 | Target Deal Size | \$50 million to \$100 million | | |
| Expected Final Close | Q3 2023 | Strategy Description | Pantheon will invest in infrastructure on a global basis through traditional secondaries, GP-led secondaries, and co-investments. The Fund will provide investors with broad sector (digital, power, utilities, transportation, renewables, and social infrastructure), geographic (North America, Europe, and Asia), vintage-year and GP diversification. | Preferred Return | 8% |
| Fund Structure | Luxembourg Special Limited Partnership | | | Carried Interest | 10% subject to 100% GP catch-up |
| Investment Period | Five years from the Initial Closing Date | | | GP Commitment | At least 1% of total commitments |
| Term of Entity | Ten years from the Final Closing Date subject to extensions | | | | |
| Minimum Investment | \$5 million, subject to GP discretion | | | | |
| Fund Auditor | KPMG | | | | |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|------------------------------------|------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| PGIF I | Core Plus | 2010 | \$357 | \$311 | \$56 | \$457 | \$513 | 1.65x | 1.47x | 11.3% |
| PGIF II | Core Plus | 2013 | \$433 | \$383 | \$249 | \$341 | \$590 | 1.54x | 0.89x | 11.2% |
| PGIF III | Core Plus | 2017 | \$2,207 | \$1,657 | \$1,799 | \$318 | \$2,117 | 1.29x | 0.21x | 15.6% |



Track record data as of 06/30/2022 and provided by the Manager.

FUND PROFILE: STONEPEAK

| General Fund Information | | Fund Strategy | | GP Fees, Promote and Commitment | |
|----------------------------------|--|-----------------------------|--|---------------------------------|--|
| Fund Name | Stonepeak Opportunities Fund | Fund Strategy | Core-Plus / Value-Add Infrastructure | Target Net IRR | 10% - 15% |
| Investment Manager | Stonepeak Partners | Industry Focus | Diversified | Target Net Multiple | N/A |
| Main Address | 55 Hudson Yards, 48th Floor New York, NY 10001 | Geographic Focus | Global | Management Fees | Paid on committed capital during the investment period and invested capital thereafter: <ul style="list-style-type: none"> • Commitments of < \$50M: 1.60% • Commitments of >=\$50M but < \$150M: 1.50% • Commitments of >=\$150M but < \$250M: 1.40% • Commitments of >=\$250M: 1.35% |
| Target Fund Size/Hard Cap | \$2.5 billion / \$3 billion | Target Fund Leverage | 50% - 60% | | |
| Capital Raised | N/A | Target Deal Size | \$75 million to \$250 million | | |
| Expected Final Close | Q3 2023 | Strategy Description | Stonepeak Opportunities Fund is a middle-market focused, diversified private infrastructure strategy. The Fund will target investments within key focus sectors: digital infra, energy transition, transportation & logistics, and social infrastructure. SOF will leverage the resources of Stonepeak's infrastructure group and utilize the same process and investment approach as their flagship fund that applies a thematic backdrop to sector and asset targets, emphasizing downside protection and ESG. The Fund will target investments in OCED countries. | Preferred Return | 8% |
| Fund Structure | Delaware Limited Partnership | | | Carried Interest | 20% |
| Investment Period | 5 years from the Effective Date of the Fund. | | | GP Commitment | 1.25% of capital commitments |
| Term of Entity | 12 years, with up to three one-year extensions subject to the consent of the LPAC. | | | | |
| Minimum Investment | \$10 million | | | | |
| Fund Auditor | PricewaterhouseCoopers | | | | |

| Fund Track Record (\$ in Millions) | | | | | | | | | | |
|------------------------------------|------------|--------------|-------------------|----------------|----------------|--------------------|-------------|-------------------|------------------|------------------|
| Fund Name | Fund Style | Vintage Year | Capital Committed | Capital Funded | Reported Value | Amount Distributed | Total Value | Net TVPI Multiple | Net DPI Multiple | Net Investor IRR |
| Stonepeak Infrastructure Fund I | Core-Plus | 2012 | \$1,614 | \$1,559 | \$713 | \$1,642 | \$2,355 | 1.5x | 1.1x | 9.9% |
| Stonepeak Infrastructure Fund II | Core-Plus | 2015 | \$3,739 | \$4,424 | \$1,137 | \$5,329 | \$6,466 | 1.5x | 1.2x | 13.7% |
| Stonepeak Infrastructure Fund III | Core-Plus | 2017 | \$7,005 | \$6,857 | \$8,78 | \$1,947 | \$10,732 | 1.6x | 0.3x | 19.9% |
| Stonepeak Infrastructure Fund IV | Core-Plus | 2020 | \$7,949 | \$5,137 | \$5,397 | \$32 | \$5,430 | 1.1x | 0.0x | 8.6% |

Track record data as of 09/30/2022 and provided by the Manager.

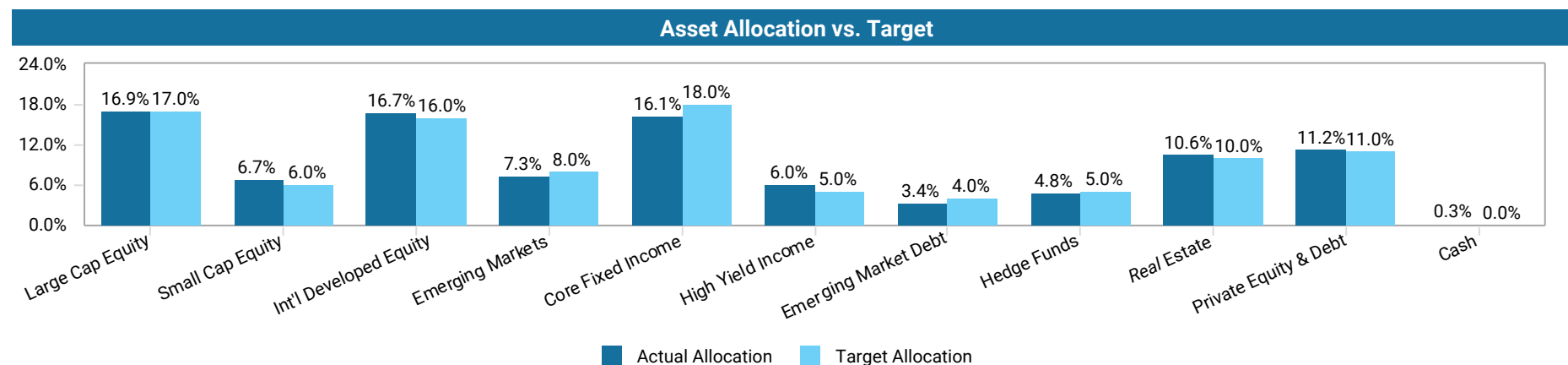


Q1 2023 PERFORMANCE SUMMARY



TOTAL FUND PERFORMANCE SUMMARY

| | Market Value (\$) | 3 Mo (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) |
|-----------------------------------|----------------------|-----------------|-----------------|------------------|-----------------|
| Total Fund | 6,286,280,732 | 3.5 (83) | -2.7 (8) | 11.3 (37) | 5.6 (70) |
| <i>Policy Index</i> | | 3.8 (73) | -3.7 (19) | 10.7 (54) | 6.1 (52) |
| <i>Allocation Index</i> | | 3.2 (90) | -4.2 (29) | 10.5 (61) | 5.5 (73) |
| <i>All Public DB Plans Median</i> | | 4.2 | -5.0 | 10.8 | 6.1 |



Note: Returns are gross of manager fees except for hedge funds and private equity which are net of fees.

TOTAL FUND PERFORMANCE DETAIL (GROSS)

| | Market Value (\$) | % of Portfolio | Policy(%) | 3 Mo (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|------------------------------|----------------------|----------------|--------------|------------|-------------|-------------|-------------|-------------|---------------|----------------|
| Total Fund | 6,286,305,410 | 100.0 | 100.0 | 3.5 | -2.7 | 11.3 | 5.6 | 6.7 | 7.6 | Aug-94 |
| Allocation Index | | | | 3.2 | -4.2 | 10.5 | 5.5 | 6.4 | - | |
| Policy Index | | | | 3.8 | -3.7 | 10.7 | 6.1 | 6.9 | - | |
| PRIT Core Fund/Teachers* | 2,136,127,999 | 34.0 | | 3.7 | -5.4 | 11.4 | 7.2 | 8.1 | 9.0 | Jul-10 |
| Total Equity | 2,992,499,688 | 47.6 | 47.0 | 6.4 | -5.9 | 16.0 | 5.6 | 8.0 | - | Dec-04 |
| MSCI AC World Index (Net) | | | | 7.3 | -7.4 | 15.4 | 6.9 | 8.1 | 6.9 | |
| Large Cap Comp | 1,063,311,154 | 16.9 | 17.0 | 6.8 | -9.3 | 18.3 | 10.9 | 12.8 | 9.8 | Dec-04 |
| Rhumblin Advisors | 276,579,993 | 4.4 | | 7.5 | -7.7 | 18.6 | 11.2 | 12.2 | 10.1 | Aug-94 |
| DE Shaw Core Enhanced | 354,557,444 | 5.6 | | 7.1 | -8.0 | 18.9 | 11.6 | 12.7 | 13.4 | Oct-09 |
| S&P 500 Index | | | | 7.5 | -7.7 | 18.6 | 11.2 | 12.2 | 12.8 | |
| Aristotle Value | 156,718,452 | 2.5 | | 3.6 | -4.8 | 19.1 | - | - | 9.7 | Nov-19 |
| Columbia Threadneedle | 183,228,331 | 2.9 | | -1.6 | -6.7 | 22.8 | 9.3 | 11.4 | 9.8 | Jan-97 |
| Russell 1000 Value Index | | | | 1.0 | -5.9 | 17.9 | 7.5 | 9.1 | 8.2 | |
| Zevenbergen Capital | 91,838,882 | 1.5 | | 32.4 | -26.9 | 6.7 | 10.1 | 14.3 | 11.6 | Aug-94 |
| Russell 1000 Growth Index | | | | 14.4 | -10.9 | 18.6 | 13.7 | 14.6 | 10.3 | |
| Small Cap Comp | 421,282,015 | 6.7 | 6.0 | 3.1 | -8.4 | 19.8 | 7.0 | 9.6 | 9.3 | Dec-04 |
| Westfield Capital Management | 124,350,754 | 2.0 | | 9.3 | -5.7 | 20.8 | 9.9 | 11.3 | 11.1 | Sep-03 |
| Russell 2000 Growth Index | | | | 6.1 | -10.6 | 13.4 | 4.3 | 8.5 | 8.4 | |
| Bernzott | 109,198,633 | 1.7 | | 0.3 | -17.6 | 15.3 | 4.3 | - | 8.0 | Nov-15 |
| Russell 2000 Value Index | | | | -0.7 | -13.0 | 21.0 | 4.5 | 7.2 | 7.3 | |
| Aristotle Small Cap | 187,461,354 | 3.0 | | 0.9 | -4.0 | 21.9 | 6.2 | - | 8.9 | Nov-15 |
| Russell 2000 Index | | | | 2.7 | -11.6 | 17.5 | 4.7 | 8.0 | 7.5 | |

Note: Returns are gross of manager fees except for hedge funds and private equity which are net of fees.

TOTAL FUND PERFORMANCE DETAIL (GROSS)

| | Market Value (\$) | % of Portfolio | Policy(%) | 3 Mo (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|--|----------------------|----------------|-------------|------------|-------------|-------------|-------------|------------|---------------|----------------|
| Total Non-US Equity | 1,507,906,520 | 24.0 | 24.0 | 7.0 | -2.6 | 12.9 | 1.4 | 4.0 | 5.8 | Aug-94 |
| International Equity | 1,051,677,706 | 16.7 | 16.0 | 7.9 | -1.3 | 13.9 | 2.4 | 4.8 | 5.2 | Dec-10 |
| Todd | 314,614,780 | 5.0 | | 4.7 | -1.7 | 16.3 | 4.1 | - | 6.6 | Apr-16 |
| MSCI ACWI ex USA | | | | 6.9 | -5.1 | 11.8 | 2.5 | 4.2 | 5.9 | |
| Panagora Asset Management | 318,018,462 | 5.1 | | 8.8 | -0.4 | 14.9 | 2.9 | 5.7 | 5.8 | Aug-94 |
| Walter Scott International Equity | 289,896,594 | 4.6 | | 12.0 | -0.4 | - | - | - | 4.1 | Oct-20 |
| MSCI EAFE (Net) | | | | 8.5 | -1.4 | 13.0 | 3.5 | 5.0 | 7.5 | |
| Segall Bryant Hamill | 128,916,277 | 2.1 | | 5.1 | -4.5 | 15.5 | -1.2 | - | -0.5 | Nov-17 |
| MSCI EAFE Small Cap (Net) | | | | 4.9 | -9.8 | 12.1 | 0.9 | 5.9 | 1.6 | |
| Emerging Markets | 456,228,814 | 7.3 | 8.0 | 4.9 | -5.3 | 10.8 | -0.8 | 2.1 | 2.3 | Dec-10 |
| ABS Emerging Markets Strategic Portfolio | 91,576,504 | 1.5 | | 3.5 | -11.1 | - | - | - | -14.8 | Nov-21 |
| Columbia Emerging Markets Equity | 95,877,470 | 1.5 | | 3.1 | -14.2 | - | - | - | -23.4 | Aug-21 |
| Polunin | 129,027,789 | 2.1 | | 5.6 | 0.2 | 16.9 | 2.4 | - | 6.2 | Oct-13 |
| MSCI Emerging Markets (Net) | | | | 4.0 | -10.7 | 7.8 | -0.9 | 2.0 | 2.4 | |
| Lazard | 139,747,052 | 2.2 | | 6.6 | 0.9 | 18.8 | 0.8 | - | 3.5 | Oct-13 |
| MSCI Emerging Markets Small Cap (Net) | | | | 3.9 | -11.0 | 20.7 | 1.8 | 3.2 | 3.8 | |
| Total Fixed Income | 1,602,488,950 | 25.5 | 27.0 | 2.5 | -3.4 | 2.6 | 2.0 | 2.5 | 3.3 | Dec-10 |
| Core Fixed Income | 1,013,915,166 | 16.1 | 18.0 | 2.7 | -3.1 | 0.8 | 2.1 | 2.3 | 4.0 | Dec-04 |
| AFL-CIO H.I.T. | 44,343,246 | 0.7 | | 3.0 | -5.1 | - | - | - | -8.3 | Dec-21 |
| BlackRock SIO | 352,790,698 | 5.6 | | 1.7 | -0.8 | 3.9 | 2.7 | - | 3.0 | Aug-15 |
| Allspring Global | 310,359,465 | 4.9 | | 3.4 | -4.5 | -1.9 | 1.4 | 1.8 | 4.0 | May-05 |
| Bmbg. U.S. Aggregate Index | | | | 3.0 | -4.8 | -2.8 | 0.9 | 1.4 | 3.1 | |
| IR&M | 306,421,757 | 4.9 | | 3.1 | -3.9 | 0.7 | 2.3 | - | 2.4 | Jul-15 |
| IR&M Custom Benchmark | | | | 3.0 | -4.0 | 0.1 | 2.0 | 1.9 | 1.9 | |

- IR&M Custom Benchmark reflects Bloomberg Agg since inception through 04/30/2017, from 05/01/2017 to 9/30/2021 reflects 40% Bloomberg Agg/60% Bloomberg US TIPS, and as of 10/1/2021 reflects 60% Bloomberg Agg/40% Bloomberg US TIPS.

Note: Returns are gross of manager fees except for hedge funds and private equity which are net of fees.

TOTAL FUND PERFORMANCE DETAIL (GROSS)

| | Market Value (\$) | % of Portfolio | Policy(%) | 3 Mo (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|--|----------------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|----------------|
| Value Added Fixed Income | 588,573,785 | 9.4 | 9.0 | 2.2 | -4.2 | 5.9 | 1.9 | 2.5 | 3.6 | Dec-10 |
| High Yield Income | 376,848,669 | 6.0 | 5.0 | 3.1 | -2.0 | 9.4 | 4.2 | 4.9 | 6.4 | Jan-06 |
| Crescent Capital | 113,848,615 | 1.8 | | 3.2 | -2.9 | 6.3 | 3.3 | - | 4.1 | May-15 |
| 50/50 S&P/LSTA Leveraged Loan/Bloomberg High Yield | | | | 3.4 | -0.3 | 7.3 | 3.5 | 4.0 | 3.8 | |
| Polen Capital | 97,033,382 | 1.5 | | 3.6 | -3.2 | 10.2 | 4.0 | - | 5.4 | May-15 |
| 75% BC HY 25% S&P Leverage Loan | | | | 3.5 | -1.8 | 6.6 | 3.3 | - | 3.8 | |
| GoldenTree Multi Sector Opp Credit | 165,092,649 | 2.6 | | 2.8 | -0.6 | 11.5 | 5.2 | - | 5.6 | Dec-16 |
| Blended Index | | | | 3.3 | 0.2 | 7.0 | 3.5 | 3.7 | 3.9 | |
| Morningstar LSTA US Leveraged Loan | | | | 3.2 | 2.5 | 8.5 | 3.6 | 3.8 | 3.9 | |
| Emerging Market Debt | 211,725,116 | 3.4 | 4.0 | 0.7 | -7.7 | 0.6 | -2.0 | -1.8 | -0.7 | Nov-11 |
| Aberdeen EMD Plus | 211,724,800 | 3.4 | | 0.7 | -7.7 | 0.6 | - | - | 0.1 | Dec-18 |
| JP Morgan EMBI Global Diversified | | | | 1.9 | -6.9 | 0.0 | -0.6 | 2.0 | 0.2 | |
| Total Alternative Assets | 1,673,319,375 | 26.6 | 26.0 | -0.3 | 3.8 | 11.5 | 9.4 | 8.4 | 8.8 | Dec-10 |
| Hedge Fund Composite | 304,271,169 | 4.8 | 5.0 | 1.3 | 1.6 | 8.0 | 4.3 | 3.3 | 3.6 | Nov-04 |
| Blackstone | 147,886,761 | 2.4 | | 0.9 | 4.7 | 8.6 | 5.8 | - | 5.6 | Feb-18 |
| Grosvenor | 155,256,400 | 2.5 | | 1.7 | 1.6 | 8.9 | 4.6 | - | 4.6 | Jul-13 |
| HFRI Fund of Funds Composite Index | | | | 0.7 | -1.9 | 7.2 | 3.1 | 3.2 | 3.3 | |
| Hedge Fund Transition Account | 757,400 | 0.0 | | | | | | | | |
| Real Estate Composite | 664,897,216 | 10.6 | 10.0 | -3.9 | 5.5 | 9.7 | 9.3 | 10.3 | 8.0 | Sep-04 |
| Private Equity & Debt | 704,150,990 | 11.2 | 11.0 | 2.8 | 3.2 | 14.7 | 12.3 | 10.4 | 9.2 | Jun-04 |
| Cash | 17,997,396 | 0.3 | | 1.1 | 1.1 | 0.6 | 0.9 | 0.4 | 1.1 | Oct-04 |

- The Blendex Index benchmark consists of 30% ML HY II/ 30% S&P LSTA/ 25% HFRI RV FI/ 15% BAML ABS
- DDJ is now Polen Capital.
- Grosvenor is estimated from manager statement as of 3/31/2023.
- Real Estate and Private Equity & Debt report on a quarterly basis and are one quarter lagged. Valuations are as of 12/31/2022.
- The Hedge Fund Transition Account is an estimation of the total values redeemed from the hedge fund portfolio and is subject to change.
- Note: Returns are gross of manager fees except for hedge funds and private equity which are net of fees.



APRIL FLASH REPORT

CALENDAR YEAR INDEX PERFORMANCE

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Apr | YTD |
|---------------------------------|--------|--------|--------|-------|-------|--------|-------|--------|-------|--------|-------|-------|
| S&P 500 | 32.4% | 13.7% | 1.4% | 12.0% | 21.8% | -4.4% | 31.5% | 18.4% | 28.7% | -18.1% | 1.6% | 9.2% |
| Russell 1000 | 33.1% | 13.2% | 0.9% | 12.1% | 21.7% | -4.8% | 31.4% | 21.0% | 26.5% | -19.1% | 1.2% | 8.8% |
| Russell 2000 | 38.8% | 4.9% | -4.4% | 21.3% | 14.6% | -11.0% | 25.5% | 20.0% | 14.8% | -20.4% | -1.8% | 0.9% |
| Russell 2500 | 36.8% | 7.1% | -2.9% | 17.6% | 16.8% | -10.0% | 27.8% | 20.0% | 18.2% | -18.4% | -1.3% | 2.0% |
| MSCI EAFE | 22.8% | -4.9% | -0.8% | 1.0% | 25.0% | -13.8% | 22.0% | 7.8% | 11.3% | -14.5% | 2.8% | 11.5% |
| MSCI EM | -2.6% | -2.2% | -14.9% | 11.2% | 37.3% | -14.6% | 18.4% | 18.3% | -2.5% | -20.1% | -1.1% | 2.8% |
| MSCI ACWI | 22.8% | 4.2% | -2.4% | 7.9% | 24.0% | -9.4% | 26.6% | 16.3% | 18.5% | -18.4% | 1.4% | 8.8% |
| Private Equity | 12.6% | 22.3% | 14.6% | 10.4% | 10.3% | 21.0% | 13.1% | 17.2% | 45.0% | -9.7% | - | -9.7% |
| BBG TIPS | -8.6% | 3.6% | -1.4% | 4.7% | 3.0% | -1.3% | 8.4% | 11.0% | 6.0% | -11.8% | 0.1% | 3.5% |
| BBG Municipal | -2.6% | 9.1% | 3.3% | 0.2% | 5.4% | 1.3% | 7.5% | 5.2% | 1.5% | -8.5% | -0.2% | 2.5% |
| BBG Muni High Yield | -5.5% | 13.8% | 1.8% | 3.0% | 9.7% | 4.8% | 10.7% | 4.9% | 7.8% | -13.1% | 0.6% | 3.3% |
| BBG US Corporate HY | 7.4% | 2.5% | -4.5% | 17.1% | 7.5% | -2.1% | 14.3% | 7.1% | 5.3% | -11.2% | 1.0% | 4.6% |
| BBG US Agg Bond | -2.0% | 6.0% | 0.5% | 2.6% | 3.5% | 0.0% | 8.7% | 7.5% | -1.5% | -13.0% | 0.6% | 3.6% |
| BBG Global Agg | -2.6% | 0.6% | -3.2% | 2.1% | 7.4% | -1.2% | 6.8% | 9.2% | -4.7% | -16.2% | 0.4% | 3.5% |
| BBG Long Treasuries | -12.7% | 25.1% | -1.2% | 1.3% | 8.5% | -1.8% | 14.8% | 17.7% | -4.6% | -29.3% | 0.5% | 6.7% |
| BBG US Long Credit | -6.6% | 16.4% | -4.6% | 10.2% | 12.2% | -6.8% | 23.4% | 13.3% | -1.2% | -25.3% | 0.9% | 6.3% |
| BBG US STRIPS 20+ Yr | -21.0% | 46.4% | -3.7% | 1.4% | 13.7% | -4.1% | 20.9% | 24.0% | -5.2% | -39.6% | 0.1% | 8.4% |
| JPM GBI-EM Global Div | -9.0% | -5.7% | -14.9% | 9.9% | 15.2% | -6.2% | 13.5% | 2.7% | -8.7% | -11.7% | 0.9% | 6.1% |
| JPM EMBI Glob Div | -5.3% | 7.4% | 1.2% | 10.2% | 10.3% | -4.3% | 15.0% | 5.3% | -1.8% | -17.8% | 0.5% | 2.4% |
| CS Hedge Fund | 9.7% | 4.1% | -0.7% | 1.2% | 7.1% | -3.2% | 9.3% | 6.4% | 8.2% | 1.1% | - | 0.2% |
| BBG Commodity | -9.5% | -17.0% | -24.7% | 11.8% | 1.7% | -11.2% | 7.7% | -3.1% | 27.1% | 16.1% | -0.8% | -6.1% |
| Alerian Midstream | - | 16.4% | -37.3% | 33.8% | -2.4% | -13.3% | 24.0% | -23.4% | 38.4% | 21.5% | 2.4% | 3.2% |
| FTSE NAREIT Equity REITs | 2.5% | 30.1% | 3.2% | 8.5% | 5.2% | -4.6% | 26.0% | -8.0% | 43.2% | -24.4% | 0.8% | 3.5% |

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag
Source: FactSet, Barclays, Thomson One



TOTAL FUND PERFORMANCE DETAIL (NET)

| | Allocation | | | Performance (%) | | | | | | | |
|------------------------------|----------------------|----------------|--------------|-----------------|------------|-------------|-------------|-------------|-------------|---------------|----------------|
| | Market Value (\$) | % of Portfolio | Policy(%) | 1 Mo (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
| Total Fund | 6,317,177,189 | 100.0 | 100.0 | 0.5 | 4.0 | 2.1 | 8.9 | 5.3 | 6.2 | 7.4 | Aug-94 |
| Allocation Index | | | | 0.8 | 3.9 | 1.1 | 8.7 | 5.5 | 6.4 | | |
| Policy Index | | | | 0.7 | 4.5 | 1.8 | 8.9 | 6.1 | 6.8 | | |
| PRIT Core Fund/Teachers* | 2,150,063,000 | 34.0 | | 0.7 | 4.3 | -1.1 | 9.5 | 6.8 | 7.5 | 8.6 | Jul-10 |
| Total Equity | 3,006,795,930 | 47.6 | 47.0 | 0.6 | 6.9 | 2.4 | 11.5 | 5.1 | 7.3 | 8.1 | Dec-10 |
| MSCI AC World Index (Net) | | | | 1.4 | 8.8 | 2.1 | 12.0 | 7.0 | 7.9 | 8.4 | |
| Large Cap Comp | 1,067,034,587 | 16.9 | 17.0 | 0.3 | 7.2 | 0.3 | 13.0 | 10.5 | 12.2 | 9.4 | Dec-04 |
| Rhumblin Advisors | 280,886,431 | 4.4 | | 1.6 | 9.2 | 2.6 | 14.5 | 11.4 | 12.1 | 6.0 | Aug-94 |
| DE Shaw Core Enhanced | 360,091,300 | 5.7 | | 1.6 | 8.8 | 2.2 | 14.4 | 11.5 | 12.4 | 13.2 | Oct-09 |
| S&P 500 Index | | | | 1.6 | 9.2 | 2.7 | 14.5 | 11.4 | 12.2 | 12.8 | |
| Aristotle Value | 155,268,136 | 2.5 | | -1.0 | 2.6 | -0.7 | 13.7 | | | 8.9 | Nov-19 |
| Columbia Threadneedle | 183,344,905 | 2.9 | | 0.1 | -1.6 | -0.5 | 17.3 | 8.7 | 11.0 | 6.8 | Jan-97 |
| Russell 1000 Value Index | | | | 1.5 | 2.5 | 1.2 | 14.4 | 7.7 | 9.1 | 8.2 | |
| Zevenbergen Capital | 87,056,320 | 1.4 | | -5.2 | 25.3 | -9.8 | -2.5 | 7.7 | 12.6 | 10.6 | Aug-94 |
| Russell 1000 Growth Index | | | | 1.0 | 15.5 | 2.3 | 13.6 | 13.8 | 14.5 | 10.3 | |
| Small Cap Comp | 410,518,147 | 6.5 | 6.0 | -2.4 | 0.5 | -2.2 | 12.1 | 5.6 | 8.7 | 8.5 | Dec-04 |
| Aristotle Small Cap | 182,736,217 | 2.9 | | -2.6 | -1.9 | 0.9 | 13.5 | 4.7 | | 7.6 | Nov-15 |
| Russell 2000 Index | | | | -1.8 | 0.9 | -3.6 | 11.9 | 4.2 | | 7.2 | |
| Westfield Capital Management | 121,563,436 | 1.9 | | -2.2 | 6.9 | 3.0 | 12.9 | 8.5 | 10.5 | 10.3 | Sep-03 |
| Russell 2000 Growth Index | | | | -1.2 | 4.8 | 0.7 | 7.8 | 4.0 | 8.4 | 8.3 | |
| Mesirow Small Cap Value | 105,946,867 | 1.7 | | | | | | | | | Apr-23 |
| Russell 2000 Value Index | | | | | | | | | | | |

Note: Returns are net of manager fees.

- PRIT Core Fund/Teacher is estimated based off the Policy Index

- PRIT Core Fund/Teacher is not included in the Total Fund value.

- Mesirow Small Cap was funded in April 2023. The first full month of performance will be May 2023.

TOTAL FUND PERFORMANCE DETAIL (NET)

| | Allocation | | | Performance (%) | | | | | | | |
|--|----------------------|----------------|-------------|-----------------|------------|-------------|-------------|-------------|------------|---------------|----------------|
| | Market Value (\$) | % of Portfolio | Policy(%) | 1 Mo (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
| Total Non-US Equity | 1,529,243,196 | 24.2 | 24.0 | 1.4 | 8.4 | 4.9 | 9.9 | 1.0 | 3.1 | 5.5 | Aug-94 |
| International Equity | 1,066,942,184 | 16.9 | 16.0 | 1.4 | 9.4 | 6.7 | 11.4 | 1.9 | 4.0 | 4.8 | Dec-10 |
| Todd | 314,115,867 | 5.0 | | -0.2 | 4.6 | 5.8 | 12.7 | 3.6 | | 6.1 | Apr-16 |
| MSCI ACWI ex USA | | | | 1.7 | 8.7 | 3.0 | 9.7 | 2.5 | | 6.0 | |
| Panagora Asset Management | 326,159,084 | 5.2 | | 2.5 | 11.5 | 8.0 | 13.1 | 2.7 | 5.2 | 5.6 | Aug-94 |
| Walter Scott International Equity | 295,643,199 | 4.7 | | 2.0 | 14.0 | 8.1 | | | | 4.1 | Oct-20 |
| MSCI EAFE (Net) | | | | 2.8 | 11.5 | 8.4 | | | | 8.4 | |
| Segall Bryant Hamill | 130,791,781 | 2.1 | | 1.5 | 6.4 | 2.4 | 11.8 | -2.1 | | -1.1 | Nov-17 |
| MSCI EAFE Small Cap (Net) | | | | 2.0 | 7.0 | -1.2 | 9.2 | 1.0 | | 2.0 | |
| Emerging Markets | 462,301,013 | 7.3 | 8.0 | 1.3 | 6.2 | 1.1 | 6.8 | -1.1 | 1.2 | 1.6 | Dec-10 |
| ABS Emerging Markets Strategic Portfolio | 91,622,300 | 1.5 | | 0.1 | 3.4 | -5.6 | | | | -14.6 | Nov-21 |
| Columbia Emerging Markets Equity | 95,996,467 | 1.5 | | 0.1 | 3.1 | -7.6 | | | | -22.7 | Aug-21 |
| Polunin | 130,930,536 | 2.1 | | 1.5 | 6.9 | 7.0 | 11.7 | 1.8 | | 5.4 | Oct-13 |
| MSCI Emerging Markets (Net) | | | | -1.1 | 2.8 | -6.5 | 4.3 | -1.0 | | 2.3 | |
| Lazard | 143,751,709 | 2.3 | | 2.9 | 9.6 | 7.4 | 14.5 | 1.2 | | 3.0 | Oct-13 |
| MSCI Emerging Markets Small Cap (Net) | | | | 0.7 | 4.6 | -5.7 | 15.8 | 2.0 | | 3.9 | |
| Total Fixed Income | 1,613,166,229 | 25.5 | 27.0 | 0.7 | 3.1 | -0.5 | 1.7 | 1.9 | 2.1 | 3.0 | Dec-10 |
| Core Fixed Income | 1,018,758,793 | 16.1 | 18.0 | 0.5 | 3.1 | -0.6 | -0.1 | 2.0 | 2.0 | 3.8 | Dec-04 |
| AFL-CIO H.I.T. | 44,612,000 | 0.7 | | 0.6 | 3.5 | -1.8 | | | | -7.7 | Dec-21 |
| BlackRock SIO | 354,152,000 | 5.6 | | 0.4 | 1.9 | -0.4 | 2.6 | 2.3 | | 2.4 | Aug-15 |
| Allspring Global | 312,213,336 | 4.9 | | 0.6 | 4.0 | -0.2 | -2.6 | 1.5 | 1.6 | 3.9 | May-05 |
| Blmbg. U.S. Aggregate Index | | | | 0.6 | 3.6 | -0.4 | -3.1 | 1.2 | 1.3 | 3.1 | |
| IR&M | 307,781,457 | 4.9 | | 0.4 | 3.5 | -1.0 | 0.0 | 2.3 | | 2.3 | Jul-15 |
| IR&M Custom Benchmark | | | | 0.4 | 3.4 | -1.0 | -0.4 | 2.1 | | 2.0 | |

- IR&M Custom Benchmark reflects Bloomberg Agg since inception through 04/30/2017, from 05/01/2017 to 9/30/2021 reflects 40% Bloomberg Agg/60% Bloomberg Intermediate TIPS and as of 10/1/2021 reflects 60% Bloomberg Agg/40% Bloomberg Intermediate TIPS.

- Wells Asset Management is now Allspring Global.

TOTAL FUND PERFORMANCE DETAIL (NET)

| | Allocation | | | Performance (%) | | | | | | | |
|--|----------------------|----------------|-------------|-----------------|-------------|-------------|-------------|-------------|-------------|---------------|----------------|
| | Market Value (\$) | % of Portfolio | Policy(%) | 1 Mo (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
| Value Added Fixed Income | 594,407,436 | 9.4 | 9.0 | 1.0 | 3.1 | -0.6 | 4.9 | 1.8 | 2.1 | 3.2 | Dec-10 |
| High Yield Income | 381,887,188 | 6.0 | 5.0 | 1.3 | 4.4 | 0.7 | 8.4 | 4.1 | 4.5 | 6.1 | Jan-06 |
| Crescent Capital | 115,738,858 | 1.8 | | 1.7 | 4.8 | 0.3 | 5.1 | 2.9 | | 3.6 | May-15 |
| 50/50 S&P/LSTA Leveraged Loan/Bloomberg High Yield | | | | 1.0 | 4.5 | 2.4 | 6.1 | 3.6 | | 3.9 | |
| Polen Capital | 98,547,100 | 1.6 | | 1.6 | 5.1 | -0.4 | 9.6 | 4.0 | | 5.1 | May-15 |
| 75% BC HY 25% S&P Leverage Loan | | | | 1.0 | 4.5 | 1.8 | 5.4 | 3.4 | | 3.9 | |
| GoldenTree Multi Sector Opp Credit | 166,727,150 | 2.6 | | 1.0 | 3.8 | 1.8 | 10.4 | 5.3 | | 5.7 | Dec-16 |
| Blended Index | | | | 1.0 | 4.3 | 2.6 | 6.1 | 3.6 | | 4.0 | |
| Morningstar LSTA US Leveraged Loan | | | | 1.1 | 4.3 | 3.4 | 7.3 | 3.8 | | 4.1 | |
| Emerging Market Debt | 212,520,248 | 3.4 | 4.0 | 0.3 | 0.9 | -2.9 | -0.4 | -1.9 | -2.5 | -1.1 | Nov-11 |
| Aberdeen EMD Plus | 212,519,931 | 3.4 | | 0.3 | 0.9 | -2.9 | -0.4 | | | -0.3 | Dec-18 |
| JP Morgan EMBI Global Diversified | | | | 0.5 | 2.4 | -0.9 | -0.6 | | | 0.3 | |
| Total Alternative Assets | 1,675,404,133 | 26.5 | 26.0 | 0.1 | -0.2 | 3.9 | 11.2 | 9.3 | 8.4 | 8.7 | Dec-10 |
| Hedge Fund Composite | 306,355,927 | 4.8 | 5.0 | 0.7 | 1.8 | 2.3 | 6.8 | 3.9 | 3.0 | 3.5 | Nov-04 |
| Blackstone | 148,922,000 | 2.4 | | 0.7 | 1.4 | 4.7 | 7.1 | 4.7 | | 4.6 | Feb-18 |
| Grosvenor | 156,305,919 | 2.5 | | 0.7 | 2.4 | 3.0 | 8.0 | 4.7 | | 4.6 | Jul-13 |
| HFRI Fund of Funds Composite Index | | | | 0.7 | 1.4 | -0.1 | 6.2 | 3.2 | | 3.4 | |
| Hedge Fund Transition Account | 757,400 | 0.0 | 0.0 | | | | | | | | |
| Real Estate Composite | 664,897,216 | 10.5 | 10.0 | 0.0 | -3.9 | 5.5 | 9.7 | 9.3 | 10.3 | 7.7 | Sep-04 |
| Private Equity & Debt | 704,150,990 | 11.1 | 11.0 | 0.0 | 2.8 | 3.2 | 14.7 | 12.3 | 10.4 | 9.2 | Jun-04 |
| Cash | 21,810,898 | 0.3 | 0.0 | 0.5 | 1.6 | 1.6 | 0.8 | 1.0 | 0.5 | 1.1 | Oct-04 |

-Real Estate and Private Equity & Debt report on a quarterly basis and are lagged one quarter. Valuations are as of 12/31/2022.

-The Hedge Fund Transition Account is an estimation of the total values redeemed from the hedge fund portfolio and is subject to change.

-The Blended Index Benchmark consists of 30% ML HY II/ 30% S&P LSTA / 25% HFRI RV FI/ 15% BAML ABS.

-DDJ is now Polen Capital

-EnTrust Peruvian Bonds is included in the Hedge Fund Transition Account value.

PRIVATE MARKETS SUMMARY

| Private Markets Summary As of December 31, 2022 | | | | | | |
|--|------------------------|----------------------------|------------------------|--------------|-------------|----------------------|
| | Committed Capital | Cumulative Distribution | Contributed Capital | QTR | 1 Year | Valuation |
| Private Equity & Debt | \$1,380,704,379 | \$830,849,256 | \$1,032,364,539 | 2.8% | 3.2% | \$704,150,990 |
| Private Equity | \$923,262,877 | \$613,856,246 | \$694,697,052 | | | \$391,837,679 |
| Private Debt | \$557,978,501 | \$216,993,010 | \$337,667,487 | | | \$312,313,311 |
| Real Estate | \$1,201,012,557 | \$933,322,222 | \$994,036,510 | -3.9% | 5.5% | \$664,897,216 |



- Private markets are reported quarterly and are lagged one quarter. Data is as of December 31, 2022.



WORK PLAN

2023 SEARCH PLANNING

| | May | June | July | August | Sept. | Oct. | Nov. | Dec. |
|--|-----------------|---------------|--------------------|-------------------------|--------------------------|--------------------|--------------------------|------|
| Private Debt | | | | | | | | |
| Private Equity Infrastructure | Search Analysis | Presentations | | | | | | |
| Real Estate | | | Review Respondents | Analysis/ Presentations | Analysis / Presentations | | | |
| Private Equity Separate Account | | Issue Search | | Review Respondents | Analysis/ Presentations | | | |
| Custodian | | | | | Issue Search | Review Respondents | Analysis / Presentations | |

* The proposed search timeline is subject to change, and dates may be modified as needed



PROPOSED WORK PLAN – 2023

| | May | June | July | August | Sept. | Oct. | Nov. | Dec. |
|----------------------------|-----------------------------------|---------------------------------|----------------------------------|-----------------------------|----------------------------|-----------------------|----------------------------|-------------|
| TOTAL PLAN | | | | | | | | |
| Asset Allocation | | | | | | | | |
| Performance | Q1 | | | Q2 | | | Q3 | |
| Education/Review | | | | | | | | |
| TRADITIONAL | | | | | | | | |
| Search/ Presentations | | | | | Issue Custody Search | Review Respondents | Analysis/ Presentations | |
| HEDGE FUNDS | | | | | | | | |
| Program Planning | | | | | | | | |
| Search/ Presentations | | | | | | | | |
| PRIVATE MARKETS | | | | | | | | |
| Program Planning | | Issue PE SA Search | | | | | | Pacing Plan |
| Search/ Presentations | Infrastructure Search Analysis | Infrastructure Presentations | | Review PE SA Respondents | PE SA Presentations | | | |
| Performance | Q4 | | | Q1 | | | Q2 | |
| REAL ESTATE | | | | | | | | |
| Program Planning | | | | | | | | Pacing Plan |
| Search/ Presentations | | | Search Review (Opp & Debt) | Analysis/ Presentations | Analysis/ Presentations | | | |
| Performance | Q4 | | | Q1 | | | Q2 | |

The proposed work plan is subject to change, and search dates may be modified as needed



HISTORICAL WORK PLAN – 2023

| | JANUARY | FEBRUARY | MARCH | APRIL |
|-------------------------|---|---|--|--|
| TOTAL PLAN | | | | |
| Asset Allocation | | AA Review New Policy Targets - Core Bonds (+2%) - Non-US Equity (-1%) - Large Cap (-1%) | | |
| Other/ Education | | NEPC Market Outlook | | |
| TRADITIONAL | | | | |
| Traditional Commitments | | Small Cap Value Hired Mesirow Terminated Bernzott | | |
| Traditional Review | Small Cap Value Search Review | | Small Cap Search Review (Core & Growth) | |
| HEDGE FUNDS | | | | |
| HF Review | | | | |
| HF Commitments | | | | |
| PRIVATE MARKETS | | | | |
| PE/PD Program Planning | | | - Search Planning - PD Search Review | Infrastructure Review |
| PE/PD Commitments | Diverse FoF Grosvenor (\$20) Muller & Monroe (\$15) Recast (\$5) | | | Direct Lending Kayne Anderson (\$35) Blue Torch (\$15) |
| REAL ESTATE | | | | |
| RE Program Planning | | | | |
| RE Commitments | | | | |

HISTORICAL WORK PLAN – REVIEW OF 2022

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEPT | OCT | NOV | DEC |
|-------------------------|--|---|--------------------|-----------|-----------------|---------------------------------|--|------------------|--|-------------------------|---------------------------|-------------------------|
| TOTAL PLAN | | | | | | | | | | | | |
| Asset Allocation | | <ul style="list-style-type: none"> • AA Review • New Targets - LC: 18% - HY: 5% | | | | | | | | | | |
| Other/ Education | <ul style="list-style-type: none"> • Market Outlook • Fee Analysis • IPS Review | Approved Updated IPS | Proxy Voting Info | RE Update | | New Actuarial Exp. Return: 6.9% | | | | | | |
| TRADITIONAL | | | | | | | | | | | | |
| Traditional Commitments | | | | | | | | | | | | |
| Traditional Review | | Issued High Yield Search | | | HY Mgr. Updates | | | | | Issued Small Cap Search | | Small Cap Search Review |
| HEDGE FUNDS | | | | | | | | | | | | |
| HF Review | | | | | | | | | | | | |
| HF Commitments | | | | | | | | | | | | |
| PRIVATE MARKETS | | | | | | | | | | | | |
| PE/PD Program Planning | | | Issued Debt Search | | | Reviewed PD Respondents | | Issued PE Search | | | Diverse FoF Presentations | Pacing Plan |
| PE/PD Commitments | | | | | | | \$20m - 400 Capital \$20m - HarbourVest | | | | | |
| REAL ESTATE | | | | | | | | | | | | |
| RE Program Planning | | | | | | RE Review Issued Search | | | | | | Pacing Plan |
| RE Commitments | | | | | | | | | \$15m - Alidade \$25m - Davis \$25m - TA | | | |





APPENDIX

RESPONDENTS – INFRASTRUCTURE

| Firm | Fund | Target Final Close | Target Net IRR | Target Fund Size (M) | Geographic Focus | Sector Focus |
|---------------------|--|--------------------|----------------|----------------------|---------------------------|--|
| AIMPERA | AIMPERA Fund III | 3/31/23 | 20% (gross) | \$600 | N. America | Infrastructure |
| ★ Arcus | European Infrastructure Fund 3 SCSp | Q2 2023 | 12% | €1,500 | Europe | Diversified |
| CIM Group | Infrastructure Fund III | 7/31/23 | 10-12% | \$1,500 | N. America | Renewable Energy, Digital, Waste Mgmt., Transportation & Social |
| EIG | EIG Fund XVIII | TBD | 11-13% | \$3,000 | Global | Energy Transition & Infra |
| Energy Capital | ECP V | Q2 2023 | 15-18% | \$4,000 | N. America | Renewables, Storage, Power Generation, Environmental, etc. |
| Grosvenor * | Customized Infrastructure Strategies III | 12/31/22 | 11-13% | \$750 | Global | Diversified |
| Goldman Sachs | West Street Infrastructure Partners IV | 3/25/23 | 10-13% | \$4,000 | Global | Digital Infra; Energy Transition & Renewables; Transport & Logistics |
| H.I.G. Capital | H.I.G. Infrastructure Partners | Q1 2023 | 15-20% | \$1,500 | N. America & Europe | Diversified |
| HarbourVest * | Infrastructure Opportunity Fund III | 2H 2024 | N/A | \$1,000 | N. America (w/ global) | Infra & 10-20% Real Assets |
| InfraRed Capital | InfraRed Infrastructure Fund VI | 3/31/22 | 11-13% | \$1,500 | Global | Diversified |
| Kendall Sustainable | Kendall Sustainable Infrastructure III | 3/31/23 | ~14% | \$200 | U.S. | Distributed Energy |
| KKR | Asia Pacific Infrastructure Investors II | Q1 2023 | 15-17% | \$6,000 | Asia Pacific | Diversified |
| NGP * | NGP ETP IV | 3/31/23 | 20% | \$750 | N. America | Energy Transition |
| North Sky | Sustainable Infrastructure Fund IV | 6/30/23 | 12% | \$500 | N. America | Diversified |
| Orchard Global | Focused Infrastructure Special Sits | 12/31/23 | 10% | \$750 | Global (N. America focus) | Diversified |
| Quantum Energy | Quantum Energy Partners VIII | 12/31/23 | 20% | \$3,500 | N. America | Energy - Upstream Production, Midstream, ET&D |
| Scout Energy | Scout Energy Partners VI | 9/30/23 | 18-22% | \$500 | U.S. | Energy - Upstream & Midstream |
| UBS | Energy Storage Investment Fund I | H2 2023 | 16-20% | \$600 | U.S. | Energy Storage |

* Current BRS Manager

★ NEPC FPL Manager

- Expected final close dates are subject to change



GOALS OF INFRASTRUCTURE ALLOCATION

Income

Stabilized assets generate predictable cash flows meaning a significant percentage of returns can be generated from cash distributions

Inflation Protection

Inflation-linked cash flows provide natural hedge to rising liabilities

Diversification

Low correlation to other asset classes

Downside Protection

Attractive total return potential with lower volatility generates attractive risk-adjusted returns and serves as downside protection

PORTFOLIO BENEFITS AND CONSIDERATIONS

| Benefits | Considerations |
|--|--|
| <ul style="list-style-type: none">▪ Infrastructure often provides a <u>correlation to inflation</u> and the opportunity for <u>enhanced yield</u> versus fixed income investments▪ Infrastructure offers <u>stable returns</u> relative to other investments, while value-add investment offers the chance for higher returns▪ Infrastructure investments typically have <u>long term</u> and <u>predictable cash flows</u>. revenue models differ by investment type, but cash flows can be government backed▪ Infrastructure offers <u>diversification</u> from other asset classes, it has been shown to have a <u>low level of correlation</u> with traditional investments | <ul style="list-style-type: none">▪ Investments are generally <u>illiquid</u>, particularly during falling markets▪ <u>Limited and imperfect benchmarks</u> exist to gauge investment performance for unlisted infrastructure performance▪ Valuations methodologies can vary with <u>limited transparency</u>, and asset appraisals can lag real-time market valuations▪ Infrastructure assets are <u>operationally intensive</u> and require <u>active asset management</u>▪ Rising interest rates can effect valuations▪ The use of leverage can amplify negative performance |

INFRASTRUCTURE LIFECYCLE

Prolonged Period
Prior to Cash Flow

Growing Income

Stable Income

Greenfield

- Assets requiring development and construction which may introduce operational complexity
- In certain cases development/construction risks can be outsourced to third parties and various structural elements can be introduced to provide a greater degree of revenue certainty



Brownfield

- Assets that are operating and generating cash flow
- Distributions will increase during growth/ramp up periods and level off as an asset matures
- Longer operating histories support more predictable cash flows



Operating

- Assets that are operating and generating cash flow
- Steady distributions from revenue generation
- Usage typically grows at approximately the rate of GDP Growth



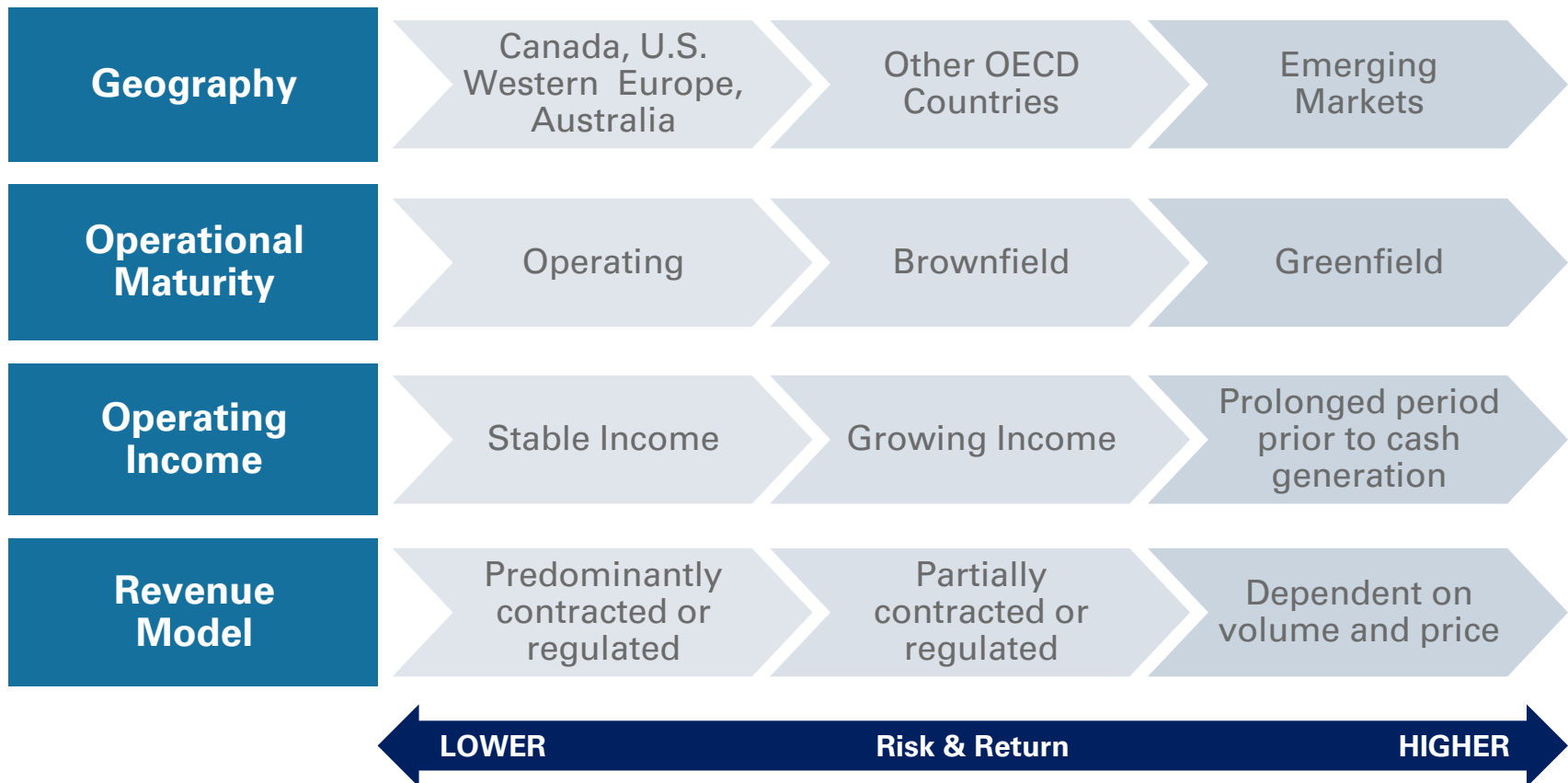
INFRASTRUCTURE SUB-SECTORS

| Sector | Asset Focus | Typical Returns | Typical Revenue Structure | GDP Sensitivity? |
|-----------------------------|---|-----------------|---------------------------|------------------|
| Transportation | <ul style="list-style-type: none"> ▪ Toll Roads ▪ Bridges ▪ Tunnels ▪ Airports ▪ Seaports ▪ Rail | 11-15% | Concession | Yes |
| Energy and Utilities | <ul style="list-style-type: none"> ▪ Renewable Power ▪ Electricity Generation ▪ Water & Waste ▪ Electricity Transmission ▪ Oil & Gas Pipelines | 8-12% | Regulated / Contracted | Somewhat |
| Communication | <ul style="list-style-type: none"> ▪ Wireless Towers ▪ Fiber Networks ▪ Data Centers | 10-14% | Contracted | No |
| Social | <ul style="list-style-type: none"> ▪ Education Facilities ▪ Healthcare Facilities ▪ Courthouses | 8-12% | Concession | No |

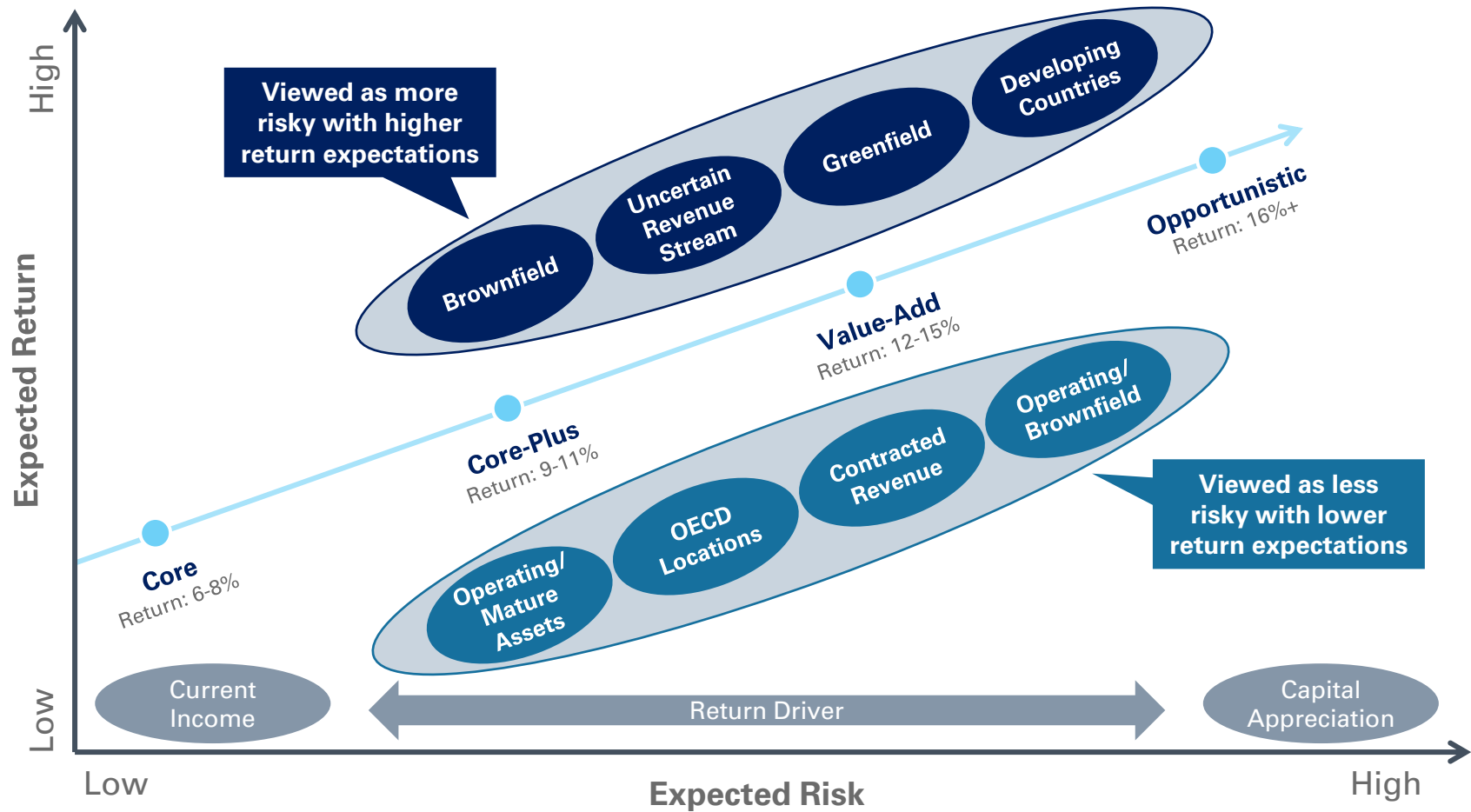
Note: "Typical returns" are illustrative examples only, actual target or realized returns may vary for all sectors.

RISK & RETURN FACTORS

- There are several factors to consider when assessing the overall risk and return of an infrastructure investment



RISK/RETURN PROFILE



Boston Retirement System

PRIVATE EQUITY - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|---|--------------|---------------------|---------------------|-------------------------------|--------------------|--------------------------|--------------------|---------------------|---------------------|-------------|-------------|----------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 1986 | | | | | | | | | | | | |
| Copley Partners 1, L.P. | 1986 | \$1,000,000 | \$0 | \$1,000,000 | \$0 | \$1,731,333 | \$0 | \$1,731,333 | \$731,333 | 1.73 | 1.73 | 8.30% |
| Copley Partners 2, L.P. | 1986 | \$1,000,000 | \$0 | \$1,000,000 | \$0 | \$1,452,172 | \$0 | \$1,452,172 | \$452,172 | 1.45 | 1.45 | 5.60% |
| Total 1986 | | \$2,000,000 | \$0 | \$2,000,000 | \$0 | \$3,183,505 | \$0 | \$3,183,505 | \$1,183,505 | 1.59 | 1.59 | 7.09% |
| 1989 | | | | | | | | | | | | |
| Thomas H. Lee Equity Partners, L.P. | 1989 | \$7,235,295 | \$0 | \$7,235,295 | \$1,280,825 | \$28,542,379 | \$0 | \$28,542,379 | \$20,026,259 | 3.35 | 3.35 | 53.80% |
| Total 1989 | | \$7,235,295 | \$0 | \$7,235,295 | \$1,280,825 | \$28,542,379 | \$0 | \$28,542,379 | \$20,026,259 | 3.35 | 3.35 | 53.80% |
| 1992 | | | | | | | | | | | | |
| New England Growth Fund I, L.P. | 1992 | \$5,000,000 | \$0 | \$5,000,000 | \$0 | \$4,825,366 | \$0 | \$4,825,366 | -\$174,634 | 0.97 | 0.97 | -0.91% |
| Total 1992 | | \$5,000,000 | \$0 | \$5,000,000 | \$0 | \$4,825,366 | \$0 | \$4,825,366 | -\$174,634 | 0.97 | 0.97 | -0.91% |
| 1996 | | | | | | | | | | | | |
| New England Growth Fund II, L.P. | 1996 | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$3,615,337 | \$0 | \$3,615,337 | -\$6,384,663 | 0.36 | 0.36 | -18.96% |
| Total 1996 | | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$3,615,337 | \$0 | \$3,615,337 | -\$6,384,663 | 0.36 | 0.36 | -18.96% |
| 1998 | | | | | | | | | | | | |
| Monitor Clipper Equity Partners, L.P. | 1998 | \$9,819,436 | \$0 | \$9,819,436 | \$11,201 | \$13,252,913 | \$0 | \$13,252,913 | \$3,422,276 | 1.35 | 1.35 | 7.93% |
| Thomas H. Lee Equity Fund IV, L.P. | 1998 | \$10,373,556 | \$0 | \$10,373,556 | \$450,433 | \$9,401,099 | \$0 | \$9,401,099 | -\$1,422,890 | 0.87 | 0.87 | -2.60% |
| Total 1998 | | \$20,192,992 | \$0 | \$20,192,992 | \$461,634 | \$22,654,011 | \$0 | \$22,654,011 | \$1,999,385 | 1.10 | 1.10 | 2.01% |
| 2000 | | | | | | | | | | | | |
| Ascent Venture Partners III, L.P. | 2000 | \$4,650,000 | \$0 | \$4,650,000 | \$0 | \$5,778,087 | \$0 | \$5,778,087 | \$1,128,087 | 1.24 | 1.24 | 3.59% |
| Boston Millennia Partners II, L.P. | 2000 | \$7,500,000 | \$0 | \$7,500,000 | \$0 | \$6,189,695 | \$151,797 | \$6,341,492 | -\$1,158,508 | 0.83 | 0.85 | -1.87% |
| Commonwealth Capital Ventures III, L.P. | 2000 | \$7,500,000 | \$0 | \$7,500,000 | \$0 | \$8,294,653 | \$0 | \$8,294,653 | \$794,653 | 1.11 | 1.11 | 1.23% |
| Crescendo IV, L.P. | 2000 | \$10,000,000 | \$0 | \$10,000,000 | \$8,237 | \$3,856,591 | \$0 | \$3,856,591 | -\$6,151,646 | 0.39 | 0.39 | -17.94% |
| European Strategic Partners - 1, L.P. | 2000 | \$8,206,529 | \$157,043 | \$8,049,486 | \$15,395 | \$14,973,607 | \$57,608 | \$15,031,215 | \$6,966,334 | 1.86 | 1.86 | 17.37% |
| SCP Private Equity Partners II, L.P. | 2000 | \$7,500,000 | \$0 | \$7,500,000 | \$108,700 | \$2,425,352 | \$597,071 | \$3,022,423 | -\$4,586,277 | 0.32 | 0.40 | -8.25% |
| Sterling Venture Partners I, L.P. | 2000 | \$7,500,000 | \$0 | \$7,500,000 | -\$8,457 | \$8,699,149 | \$16,445 | \$8,715,594 | \$1,224,051 | 1.16 | 1.16 | 2.69% |
| TH Lee Putnam Parallel Ventures, L.P. | 2000 | \$10,000,000 | \$1,227,350 | \$8,772,650 | \$495,918 | \$13,241,276 | \$205,110 | \$13,446,386 | \$4,177,818 | 1.43 | 1.45 | 6.20% |
| Vanguard Ventures VII, L.P. | 2000 | \$7,500,000 | \$0 | \$7,500,000 | \$0 | \$5,271,570 | \$0 | \$5,271,570 | -\$2,228,430 | 0.70 | 0.70 | -3.60% |
| Total 2000 | | \$70,356,529 | \$1,384,393 | \$68,972,136 | \$619,793 | \$68,729,981 | \$1,028,031 | \$69,758,011 | \$166,083 | 0.99 | 1.00 | 0.04% |
| 2001 | | | | | | | | | | | | |
| Thomas H. Lee Equity Fund V, L.P. | 2001 | \$4,767,993 | \$0 | \$4,767,993 | \$268,626 | \$8,580,522 | \$0 | \$8,580,522 | \$3,543,903 | 1.70 | 1.70 | 13.71% |
| Total 2001 | | \$4,767,993 | \$0 | \$4,767,993 | \$268,626 | \$8,580,522 | \$0 | \$8,580,522 | \$3,543,903 | 1.70 | 1.70 | 13.71% |



Boston Retirement System

PRIVATE EQUITY - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|---|--------------|---------------------|---------------------|-------------------------------|------------------|--------------------------|--------------------|---------------------|---------------------|-------------|-------------|---------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 2002 | | | | | | | | | | | | |
| Blue Point Capital Partners, L.P. | 2002 | \$6,814,973 | \$0 | \$6,814,973 | \$207,938 | \$10,426,626 | \$0 | \$10,426,626 | \$3,403,715 | 1.48 | 1.48 | 11.15% |
| Evercore Capital Partners II, L.P. | 2002 | \$10,000,000 | \$0 | \$10,000,000 | \$18,461 | \$12,932,125 | \$0 | \$12,932,125 | \$2,913,664 | 1.29 | 1.29 | 5.98% |
| J.W. Childs Equity Partners III, L.P. | 2002 | \$9,687,256 | \$0 | \$9,687,256 | \$0 | \$18,526,107 | \$0 | \$18,526,107 | \$8,838,851 | 1.91 | 1.91 | 14.30% |
| Lexington Capital Partners V, L.P. | 2002 | \$15,000,000 | \$73,034 | \$14,926,966 | -\$957 | \$25,011,709 | \$59,742 | \$25,071,451 | \$10,145,442 | 1.68 | 1.68 | 18.88% |
| MPM BioVentures III, L.P. | 2002 | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$7,654,492 | \$0 | \$7,654,492 | -\$2,345,508 | 0.77 | 0.77 | -4.48% |
| Sanderling Venture Partners V, L.P. | 2002 | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$4,610,505 | \$984,414 | \$5,594,919 | -\$4,405,081 | 0.46 | 0.56 | -4.84% |
| Sterling Partners I, L.P. | 2002 | \$7,500,000 | \$10,417 | \$7,489,583 | \$0 | \$15,436,860 | \$205,598 | \$15,642,458 | \$8,152,875 | 2.06 | 2.09 | 16.99% |
| Total 2002 | | \$69,002,229 | \$83,451 | \$68,918,778 | \$225,442 | \$94,598,424 | \$1,249,754 | \$95,848,178 | \$26,703,958 | 1.37 | 1.39 | 7.36% |
| 2003 | | | | | | | | | | | | |
| Siguler Guff Distressed Opportunities Fund, L.P. | 2003 | \$14,550,000 | \$0 | \$14,550,000 | \$55,543 | \$23,216,136 | \$0 | \$23,216,136 | \$8,610,593 | 1.59 | 1.59 | 9.71% |
| Thomas Weisel Global Secondary Fund II, L.P. | 2003 | \$4,551,403 | \$0 | \$4,551,403 | \$0 | \$4,772,010 | \$0 | \$4,772,010 | \$220,607 | 1.05 | 1.05 | 0.95% |
| Vanguard Ventures VI Annex, L.P. | 2003 | \$1,700,000 | \$0 | \$1,700,000 | \$0 | \$1,834,741 | \$0 | \$1,834,741 | \$134,741 | 1.08 | 1.08 | 1.29% |
| Total 2003 | | \$20,801,403 | \$0 | \$20,801,403 | \$55,543 | \$29,822,888 | \$0 | \$29,822,888 | \$8,965,942 | 1.43 | 1.43 | 7.47% |
| 2004 | | | | | | | | | | | | |
| Sanderling Venture Partners VI, L.P. | 2004 | \$7,500,000 | \$0 | \$7,500,000 | \$0 | \$4,807,729 | \$1,472,958 | \$6,280,687 | -\$1,219,313 | 0.64 | 0.84 | -2.03% |
| Total 2004 | | \$7,500,000 | \$0 | \$7,500,000 | \$0 | \$4,807,729 | \$1,472,958 | \$6,280,687 | -\$1,219,313 | 0.64 | 0.84 | -2.03% |
| 2005 | | | | | | | | | | | | |
| Lexington Middle Market Investors I, L.P. | 2005 | \$7,500,000 | \$68,395 | \$7,431,605 | \$12,071 | \$12,092,814 | \$79,592 | \$12,172,406 | \$4,728,730 | 1.62 | 1.64 | 11.47% |
| Siguler Guff Distressed Opportunities Fund II, L.P. | 2005 | \$10,000,000 | \$0 | \$10,000,000 | -\$29,395 | \$14,061,798 | \$0 | \$14,061,798 | \$4,091,193 | 1.41 | 1.41 | 8.32% |
| Sterling Partners II, L.P. | 2005 | \$7,500,000 | \$69,371 | \$7,430,629 | \$0 | \$7,932,590 | \$277,321 | \$8,209,911 | \$779,282 | 1.07 | 1.10 | 1.87% |
| Total 2005 | | \$25,000,000 | \$137,766 | \$24,862,234 | -\$17,324 | \$34,087,202 | \$356,913 | \$34,444,115 | \$9,599,205 | 1.37 | 1.39 | 7.24% |
| 2006 | | | | | | | | | | | | |
| Lexington Capital Partners VI-B, L.P. | 2006 | \$7,500,000 | \$122,596 | \$7,377,404 | -\$3,921 | \$10,473,679 | \$71,245 | \$10,544,924 | \$3,171,441 | 1.42 | 1.43 | 6.88% |
| Thomas H. Lee Equity Fund VI, L.P. | 2006 | \$4,761,894 | \$0 | \$4,761,894 | \$673,998 | \$8,234,843 | \$0 | \$8,234,843 | \$2,798,951 | 1.51 | 1.51 | 7.07% |
| Total 2006 | | \$12,261,894 | \$122,596 | \$12,139,298 | \$670,077 | \$18,708,522 | \$71,245 | \$18,779,767 | \$5,970,392 | 1.46 | 1.47 | 6.96% |
| 2007 | | | | | | | | | | | | |
| Blue Point Capital Partners II, L.P. | 2007 | \$5,000,000 | \$437,090 | \$4,562,910 | \$13,085 | \$12,996,252 | \$95,898 | \$13,092,150 | \$8,516,156 | 2.84 | 2.86 | 19.98% |
| European Strategic Partners 2006 B | 2007 | \$6,767,686 | \$393,469 | \$6,374,218 | \$20,440 | \$7,537,508 | \$411,635 | \$7,949,144 | \$1,554,486 | 1.18 | 1.24 | 3.50% |
| Lexington Middle Market Investors II, L.P. | 2007 | \$10,000,000 | \$226,258 | \$9,773,742 | \$2,230 | \$16,554,604 | \$2,105,739 | \$18,660,343 | \$8,884,371 | 1.69 | 1.91 | 15.28% |
| MPM BioVentures IV, L.P. | 2007 | \$5,000,000 | \$236,500 | \$4,763,500 | \$59,447 | \$6,717,431 | \$243,245 | \$6,960,676 | \$2,137,729 | 1.39 | 1.44 | 5.85% |
| Sterling Partners III, L.P. | 2007 | \$4,500,000 | \$0 | \$4,500,000 | -\$21 | \$5,367,191 | \$29,241 | \$5,396,432 | \$896,453 | 1.19 | 1.20 | 3.41% |
| Total 2007 | | \$31,267,686 | \$1,293,317 | \$29,974,370 | \$95,180 | \$49,172,987 | \$2,885,758 | \$52,058,745 | \$21,989,195 | 1.64 | 1.73 | 10.23% |



Boston Retirement System

PRIVATE EQUITY - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|--|--------------|---------------------|---------------------|-------------------------------|------------------|--------------------------|---------------------|---------------------|---------------------|-------------|-------------|---------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 2008 | | | | | | | | | | | | |
| Siguler Guff Distressed Opportunities Fund III, L.P. | 2008 | \$9,700,000 | \$0 | \$9,700,000 | -\$51,912 | \$15,732,645 | \$0 | \$15,732,645 | \$6,084,556 | 1.63 | 1.63 | 10.20% |
| W Capital Partners II, L.P. | 2008 | \$6,701,657 | \$0 | \$6,701,657 | \$90,679 | \$9,639,962 | \$0 | \$9,639,962 | \$2,847,626 | 1.42 | 1.42 | 10.19% |
| Total 2008 | | \$16,401,657 | \$0 | \$16,401,657 | \$38,768 | \$25,372,607 | \$0 | \$25,372,607 | \$8,932,182 | 1.54 | 1.54 | 10.20% |
| 2010 | | | | | | | | | | | | |
| Lexington Capital Partners VII, L.P. | 2010 | \$15,000,000 | \$2,865,724 | \$12,134,276 | -\$3,794 | \$18,912,435 | \$2,011,310 | \$20,923,745 | \$8,793,263 | 1.56 | 1.72 | 14.27% |
| Siguler Guff Distressed Opportunities Fund IV, L.P. | 2010 | \$10,000,000 | \$850,000 | \$9,150,000 | \$30,619 | \$11,793,526 | \$2,316,933 | \$14,110,459 | \$4,929,840 | 1.28 | 1.54 | 8.52% |
| Total 2010 | | \$25,000,000 | \$3,715,724 | \$21,284,276 | \$26,825 | \$30,705,961 | \$4,328,243 | \$35,034,204 | \$13,723,103 | 1.44 | 1.64 | 11.57% |
| 2011 | | | | | | | | | | | | |
| Energy Spectrum Partners VI, L.P. | 2011 | \$6,570,350 | \$105,133 | \$6,465,217 | \$0 | \$7,714,615 | \$288,601 | \$8,003,216 | \$1,537,999 | 1.19 | 1.24 | 5.94% |
| JFL Equity Investors III, L.P. | 2011 | \$7,500,000 | \$1,001,085 | \$6,498,915 | \$0 | \$8,037,157 | \$3,999,152 | \$12,036,309 | \$5,537,394 | 1.24 | 1.85 | 11.47% |
| Oaktree Power Opportunities Fund III, L.P. | 2011 | \$5,218,277 | \$375,000 | \$4,843,277 | \$0 | \$7,780,896 | \$38,398 | \$7,819,294 | \$2,976,017 | 1.61 | 1.61 | 12.82% |
| Total 2011 | | \$19,288,627 | \$1,481,218 | \$17,807,409 | \$0 | \$23,532,668 | \$4,326,151 | \$27,858,819 | \$10,051,409 | 1.32 | 1.56 | 10.33% |
| 2012 | | | | | | | | | | | | |
| Sterling Partners IV, L.P. | 2012 | \$10,586,325 | \$105,865 | \$10,480,460 | \$0 | \$4,869,851 | \$2,759,558 | \$7,629,409 | -\$2,851,051 | 0.46 | 0.73 | -7.07% |
| Total 2012 | | \$10,586,325 | \$105,865 | \$10,480,460 | \$0 | \$4,869,851 | \$2,759,558 | \$7,629,409 | -\$2,851,051 | 0.46 | 0.73 | -7.07% |
| 2013 | | | | | | | | | | | | |
| CCMP Capital Investors III, L.P. | 2013 | \$20,000,000 | \$2,275,552 | \$17,724,448 | \$95,878 | \$26,122,847 | \$4,233,631 | \$30,356,478 | \$12,536,152 | 1.47 | 1.70 | 10.73% |
| Total 2013 | | \$20,000,000 | \$2,275,552 | \$17,724,448 | \$95,878 | \$26,122,847 | \$4,233,631 | \$30,356,478 | \$12,536,152 | 1.47 | 1.70 | 10.73% |
| 2014 | | | | | | | | | | | | |
| Lexington Capital Partners VIII, L.P. | 2014 | \$20,000,000 | \$4,354,164 | \$15,645,836 | \$0 | \$15,056,721 | \$12,661,955 | \$27,718,676 | \$12,072,840 | 0.96 | 1.77 | 16.98% |
| NGP Natural Resources XI, L.P. | 2014 | \$15,000,000 | \$399,667 | \$14,600,333 | \$0 | \$10,509,097 | \$12,861,032 | \$23,370,129 | \$8,769,796 | 0.72 | 1.60 | 10.71% |
| Total 2014 | | \$35,000,000 | \$4,753,831 | \$30,246,169 | \$0 | \$25,565,818 | \$25,522,987 | \$51,088,805 | \$20,842,636 | 0.85 | 1.69 | 13.64% |
| 2015 | | | | | | | | | | | | |
| 57 Stars Global Opportunity Fund 4, L.P. | 2015 | \$20,000,000 | \$3,629,752 | \$16,370,248 | -\$43,664 | \$3,407,581 | \$26,667,438 | \$30,075,019 | \$13,748,435 | 0.21 | 1.84 | 12.89% |
| Arclight Energy Partners Fund VI, L.P. | 2015 | \$15,000,000 | \$2,101,428 | \$12,898,572 | \$0 | \$7,966,364 | \$8,383,046 | \$16,349,410 | \$3,450,838 | 0.62 | 1.27 | 4.85% |
| Ascent Venture Partners VI, L.P. | 2015 | \$10,000,000 | \$600,000 | \$9,400,000 | \$0 | \$0 | \$10,559,190 | \$10,559,190 | \$1,159,190 | 0.00 | 1.12 | 2.33% |
| Total 2015 | | \$45,000,000 | \$6,331,180 | \$38,668,820 | -\$43,664 | \$11,373,945 | \$45,609,674 | \$56,983,619 | \$18,358,463 | 0.29 | 1.48 | 8.00% |
| 2016 | | | | | | | | | | | | |
| JFL Equity Investors IV, L.P. | 2016 | \$15,000,000 | \$364,194 | \$14,635,806 | \$94,540 | \$33,979,721 | \$4,307,462 | \$38,287,183 | \$23,556,837 | 2.31 | 2.60 | 37.20% |
| Thoma Bravo Fund XII, L.P. | 2016 | \$16,000,000 | \$3,936,454 | \$12,063,546 | \$8,151 | \$12,728,011 | \$16,421,477 | \$29,149,488 | \$17,077,791 | 1.05 | 2.41 | 16.63% |
| Total 2016 | | \$31,000,000 | \$4,300,648 | \$26,699,352 | \$102,691 | \$46,707,732 | \$20,728,939 | \$67,436,671 | \$40,634,628 | 1.74 | 2.52 | 24.87% |



Boston Retirement System

PRIVATE EQUITY - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|--|--------------|----------------------|----------------------|-------------------------------|--------------------|--------------------------|----------------------|------------------------|----------------------|-------------|-------------|---------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 2017 | | | | | | | | | | | | |
| Hamilton Lane Composite | 2017 | \$320,169,136 | \$144,912,637 | \$175,256,499 | \$469,069 | \$35,073,344 | \$209,735,243 | \$244,808,587 | \$69,083,020 | 0.20 | 1.39 | 21.76% |
| Total 2017 | | \$320,169,136 | \$144,912,637 | \$175,256,499 | \$469,069 | \$35,073,344 | \$209,735,243 | \$244,808,587 | \$69,083,020 | 0.20 | 1.39 | 21.76% |
| 2018 | | | | | | | | | | | | |
| Kayne Private Energy Income Fund II, L.P. | 2018 | \$20,000,000 | \$6,295,194 | \$13,704,806 | \$110,812 | \$3,838,094 | \$16,830,353 | \$20,668,447 | \$6,852,829 | 0.28 | 1.50 | 35.21% |
| Lexington Middle Market Investors IV, L.P. | 2018 | \$10,000,000 | \$1,567,747 | \$8,432,253 | \$0 | \$2,579,394 | \$9,576,454 | \$12,155,848 | \$3,723,595 | 0.31 | 1.44 | 25.05% |
| NGP Natural Resources XII, L.P. | 2018 | \$20,000,000 | \$5,638,085 | \$14,361,915 | \$0 | \$6,042,826 | \$16,396,620 | \$22,439,446 | \$8,077,531 | 0.42 | 1.56 | 17.10% |
| Total 2018 | | \$50,000,000 | \$13,501,026 | \$36,498,974 | \$110,812 | \$12,460,314 | \$42,803,427 | \$55,263,741 | \$18,653,955 | 0.34 | 1.51 | 22.75% |
| 2019 | | | | | | | | | | | | |
| Thomas H. Lee Equity Fund VI (2019), L.P. | 2019 | \$431,111 | \$0 | \$431,111 | \$0 | \$742,308 | \$0 | \$742,308 | \$311,197 | 1.72 | 1.72 | 51.68% |
| Total 2019 | | \$431,111 | \$0 | \$431,111 | \$0 | \$742,308 | \$0 | \$742,308 | \$311,197 | 1.72 | 1.72 | 51.68% |
| 2021 | | | | | | | | | | | | |
| Barings Emerging Generation Fund, L.P. | 2021 | \$20,000,000 | \$10,912,902 | \$9,087,098 | \$92,333 | \$0 | \$11,505,709 | \$11,505,709 | \$2,326,278 | 0.00 | 1.25 | 19.83% |
| GCM Grosvenor Advance Fund, L.P. | 2021 | \$25,000,000 | \$14,253,719 | \$10,746,281 | -\$30,466 | \$0 | \$12,219,458 | \$12,219,458 | \$1,503,643 | 0.00 | 1.14 | 14.16% |
| Total 2021 | | \$45,000,000 | \$25,166,621 | \$19,833,379 | \$61,868 | \$0 | \$23,725,167 | \$23,725,167 | \$3,829,920 | 0.00 | 1.19 | 17.16% |
| 2022 | | | | | | | | | | | | |
| Hamilton Lane Secondary Fund VI-A, L.P. | 2022 | \$20,000,000 | \$19,000,000 | \$1,000,000 | \$0 | \$0 | \$1,000,000 | \$1,000,000 | \$0 | 0.00 | 1.00 | 0.00% |
| Total 2022 | | \$20,000,000 | \$19,000,000 | \$1,000,000 | \$0 | \$0 | \$1,000,000 | \$1,000,000 | \$0 | 0.00 | 1.00 | 0.00% |
| Total | | \$923,262,877 | \$228,565,824 | \$694,697,052 | \$4,522,042 | \$613,856,246 | \$391,837,679 | \$1,005,693,926 | \$306,474,832 | 0.88 | 1.44 | 8.51% |



Boston Retirement System

PRIVATE DEBT - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|--|--------------|---------------------|---------------------|-------------------------------|------------------|--------------------------|--------------------|---------------------|---------------------|-------------|-------------|---------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 2000 | | | | | | | | | | | | |
| Western Tech Venture Lending & Leasing III, L.P. | 2000 | \$4,500,000 | \$0 | \$4,500,000 | \$0 | \$5,595,215 | \$0 | \$5,595,215 | \$1,095,215 | 1.24 | 1.24 | 4.36% |
| Total 2000 | | \$4,500,000 | \$0 | \$4,500,000 | \$0 | \$5,595,215 | \$0 | \$5,595,215 | \$1,095,215 | 1.24 | 1.24 | 4.36% |
| 2001 | | | | | | | | | | | | |
| Audax Mezzanine Fund, L.P. | 2001 | \$7,500,000 | \$0 | \$7,500,000 | \$0 | \$10,398,064 | \$0 | \$10,398,064 | \$2,898,064 | 1.39 | 1.39 | 11.36% |
| Prudential Capital Partners, L.P. | 2001 | \$7,478,501 | \$0 | \$7,478,501 | \$57,359 | \$11,623,385 | \$0 | \$11,623,385 | \$4,087,525 | 1.54 | 1.54 | 11.16% |
| Total 2001 | | \$14,978,501 | \$0 | \$14,978,501 | \$57,359 | \$22,021,449 | \$0 | \$22,021,449 | \$6,985,589 | 1.46 | 1.46 | 11.24% |
| 2004 | | | | | | | | | | | | |
| Western Tech Venture Lending & Leasing IV, L.P. | 2004 | \$5,000,000 | \$0 | \$5,000,000 | \$0 | \$10,749,971 | \$69,100 | \$10,819,071 | \$5,819,071 | 2.15 | 2.16 | 15.96% |
| Total 2004 | | \$5,000,000 | \$0 | \$5,000,000 | \$0 | \$10,749,971 | \$69,100 | \$10,819,071 | \$5,819,071 | 2.15 | 2.16 | 15.96% |
| 2005 | | | | | | | | | | | | |
| Prudential Capital Partners II, L.P. | 2005 | \$5,000,000 | \$135,878 | \$4,864,122 | -\$11,622 | \$7,225,698 | \$24,446 | \$7,250,144 | \$2,397,645 | 1.49 | 1.49 | 8.90% |
| Total 2005 | | \$5,000,000 | \$135,878 | \$4,864,122 | -\$11,622 | \$7,225,698 | \$24,446 | \$7,250,144 | \$2,397,645 | 1.49 | 1.49 | 8.90% |
| 2006 | | | | | | | | | | | | |
| Audax Mezzanine Fund II, L.P. | 2006 | \$7,500,000 | \$0 | \$7,500,000 | \$0 | \$9,629,935 | \$0 | \$9,629,935 | \$2,129,935 | 1.28 | 1.28 | 8.02% |
| Total 2006 | | \$7,500,000 | \$0 | \$7,500,000 | \$0 | \$9,629,935 | \$0 | \$9,629,935 | \$2,129,935 | 1.28 | 1.28 | 8.02% |
| 2007 | | | | | | | | | | | | |
| Western Tech Venture Lending & Leasing V, L.P. | 2007 | \$5,000,000 | \$1,250,000 | \$3,750,000 | -\$13 | \$6,331,400 | \$335,288 | \$6,666,687 | \$2,916,700 | 1.69 | 1.78 | 9.89% |
| Total 2007 | | \$5,000,000 | \$1,250,000 | \$3,750,000 | -\$13 | \$6,331,400 | \$335,288 | \$6,666,687 | \$2,916,700 | 1.69 | 1.78 | 9.89% |
| 2009 | | | | | | | | | | | | |
| Audax Mezzanine Fund III, L.P. | 2009 | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$12,877,068 | \$548,268 | \$13,425,336 | \$3,425,336 | 1.29 | 1.34 | 9.83% |
| Total 2009 | | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$12,877,068 | \$548,268 | \$13,425,336 | \$3,425,336 | 1.29 | 1.34 | 9.83% |
| 2010 | | | | | | | | | | | | |
| Western Tech Venture Lending & Leasing VI, L.P. | 2010 | \$7,500,000 | \$375,000 | \$7,125,000 | -\$6 | \$12,217,651 | \$1,612,388 | \$13,830,039 | \$6,705,045 | 1.71 | 1.94 | 14.00% |
| Total 2010 | | \$7,500,000 | \$375,000 | \$7,125,000 | -\$6 | \$12,217,651 | \$1,612,388 | \$13,830,039 | \$6,705,045 | 1.71 | 1.94 | 14.00% |
| 2011 | | | | | | | | | | | | |
| GoldenTree Distressed Debt Fund (Cayman), L.P. | 2011 | \$20,000,000 | \$1,294,000 | \$18,706,000 | \$0 | \$34,806,496 | \$4,315,926 | \$39,122,422 | \$20,416,422 | 1.86 | 2.09 | 11.00% |
| Total 2011 | | \$20,000,000 | \$1,294,000 | \$18,706,000 | \$0 | \$34,806,496 | \$4,315,926 | \$39,122,422 | \$20,416,422 | 1.86 | 2.09 | 11.00% |



Boston Retirement System

PRIVATE DEBT - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|--|--------------|----------------------|---------------------|-------------------------------|-------------------|--------------------------|----------------------|----------------------|---------------------|-------------|-------------|---------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 2012 | | | | | | | | | | | | |
| Prudential Capital Partners IV, L.P. | 2012 | \$10,000,000 | \$0 | \$10,000,000 | \$965 | \$12,218,669 | \$1,820,469 | \$14,039,138 | \$4,038,173 | 1.22 | 1.40 | 8.87% |
| Western Tech Venture Lending & Leasing VII, L.P. | 2012 | \$7,500,000 | \$0 | \$7,500,000 | \$0 | \$9,780,169 | \$3,416,625 | \$13,196,794 | \$5,696,794 | 1.30 | 1.76 | 12.07% |
| Total 2012 | | \$17,500,000 | \$0 | \$17,500,000 | \$965 | \$21,998,837 | \$5,237,094 | \$27,235,932 | \$9,734,967 | 1.26 | 1.56 | 10.51% |
| 2013 | | | | | | | | | | | | |
| Crescent Mezzanine Partners VI, L.P. | 2013 | \$10,000,000 | \$741,407 | \$9,258,593 | -\$14,486 | \$11,508,650 | \$1,337,052 | \$12,845,702 | \$3,601,595 | 1.24 | 1.39 | 8.71% |
| Z Capital Special Situations Fund II-A, L.P. | 2013 | \$10,000,000 | \$5,471,147 | \$4,528,853 | \$65,611 | \$661,945 | \$13,256,947 | \$13,918,892 | \$9,324,428 | 0.14 | 3.03 | 14.71% |
| Total 2013 | | \$20,000,000 | \$6,212,554 | \$13,787,446 | \$51,125 | \$12,170,595 | \$14,593,999 | \$26,764,594 | \$12,926,023 | 0.88 | 1.93 | 11.96% |
| 2014 | | | | | | | | | | | | |
| Goldentree Distressed Fund 2014 (Cayman), L.P. | 2014 | \$25,000,000 | \$7,125,000 | \$17,875,000 | \$0 | \$24,087,500 | \$9,415,122 | \$33,502,622 | \$15,627,622 | 1.35 | 1.87 | 12.54% |
| Total 2014 | | \$25,000,000 | \$7,125,000 | \$17,875,000 | \$0 | \$24,087,500 | \$9,415,122 | \$33,502,622 | \$15,627,622 | 1.35 | 1.87 | 12.54% |
| 2015 | | | | | | | | | | | | |
| Alcentra European Credit Opportunities Fund II, L.P. | 2015 | \$25,000,000 | \$10,622,104 | \$14,377,897 | -\$542,972 | \$11,054,808 | \$14,451,085 | \$25,505,893 | \$11,670,968 | 0.80 | 1.84 | 8.47% |
| Western Tech Venture Lending & Leasing VIII, L.P. | 2015 | \$10,000,000 | \$200,000 | \$9,800,000 | \$0 | \$8,527,618 | \$6,758,374 | \$15,285,992 | \$5,485,992 | 0.87 | 1.56 | 12.02% |
| Total 2015 | | \$35,000,000 | \$10,822,104 | \$24,177,897 | -\$542,972 | \$19,582,425 | \$21,209,459 | \$40,791,885 | \$17,156,960 | 0.83 | 1.73 | 9.31% |
| 2017 | | | | | | | | | | | | |
| Clareant Strategic Credit Fund, L.P. | 2017 | \$15,000,000 | \$5,422,647 | \$9,577,353 | \$92,172 | \$1,266,966 | \$8,884,320 | \$10,151,286 | \$481,761 | 0.13 | 1.05 | 0.81% |
| Z Capital Partners III-A, L.P. | 2017 | \$15,000,000 | \$6,263,394 | \$8,736,606 | \$83,639 | \$2,120,929 | \$18,473,983 | \$20,594,912 | \$11,774,666 | 0.24 | 2.33 | 19.69% |
| Total 2017 | | \$30,000,000 | \$11,686,041 | \$18,313,959 | \$175,812 | \$3,387,895 | \$27,358,303 | \$30,746,198 | \$12,256,427 | 0.18 | 1.66 | 10.03% |
| 2018 | | | | | | | | | | | | |
| EnTrustPermal Special Opportunities Fund IV Ltd. | 2018 | \$30,000,000 | \$1,936,061 | \$28,063,939 | \$0 | \$0 | \$27,911,560 | \$27,911,560 | -\$152,379 | 0.00 | 0.99 | -0.14% |
| GoldenTree Distressed Fund III, L.P. | 2018 | \$60,000,000 | \$55,920,000 | \$4,080,000 | \$0 | \$0 | \$39,828,590 | \$39,828,590 | \$35,748,590 | 0.00 | 9.76 | 24.96% |
| THL Credit DL IV-L (Offshore) A-1, L.P. | 2018 | \$30,000,000 | \$2,996,302 | \$27,003,698 | \$23,637 | \$7,482,627 | \$25,555,318 | \$33,037,945 | \$6,010,609 | 0.28 | 1.22 | 8.71% |
| Western Tech Venture Lending & Leasing IX, L.P. | 2018 | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$2,996,136 | \$11,050,300 | \$14,046,436 | \$4,046,436 | 0.30 | 1.40 | 16.27% |
| Total 2018 | | \$130,000,000 | \$60,852,363 | \$69,147,637 | \$23,637 | \$10,478,762 | \$104,345,768 | \$114,824,530 | \$45,653,256 | 0.15 | 1.66 | 13.01% |
| 2019 | | | | | | | | | | | | |
| HarbourVest Credit Opportunities Fund II, L.P. | 2019 | \$30,000,000 | \$4,800,000 | \$25,200,000 | \$0 | \$1,625,716 | \$25,998,556 | \$27,624,272 | \$2,424,272 | 0.06 | 1.10 | 9.44% |
| Total 2019 | | \$30,000,000 | \$4,800,000 | \$25,200,000 | \$0 | \$1,625,716 | \$25,998,556 | \$27,624,272 | \$2,424,272 | 0.06 | 1.10 | 9.44% |



Boston Retirement System

PRIVATE DEBT - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|---|--------------|----------------------|----------------------|-------------------------------|------------------|--------------------------|----------------------|----------------------|----------------------|-------------|-------------|---------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 2020 | | | | | | | | | | | | |
| 400 Capital Asset Based Offshore Term Fund II, L.P. | 2020 | \$10,000,000 | \$0 | \$10,000,000 | \$107,537 | \$0 | \$14,203,418 | \$14,203,418 | \$4,095,881 | 0.00 | 1.41 | 18.12% |
| Bain Capital Distressed and Special Situations 2019 (A), LP | 2020 | \$20,000,000 | \$2,464,302 | \$17,535,698 | \$355,090 | \$0 | \$23,740,656 | \$23,740,656 | \$5,849,868 | 0.00 | 1.33 | 15.06% |
| Crescent European Specialty Lending Fund II (Levered), L.P. | 2020 | \$15,000,000 | \$6,019,669 | \$8,980,331 | \$66,802 | \$1,991,887 | \$8,397,480 | \$10,389,367 | \$1,342,234 | 0.22 | 1.15 | 12.52% |
| GoldenTree Distressed Co-Investment Fund III, L.P. | 2020 | \$35,000,000 | \$21,875,000 | \$13,125,000 | \$0 | \$0 | \$21,233,255 | \$21,233,255 | \$8,108,255 | 0.00 | 1.62 | 33.24% |
| MC Credit Fund III (CAYMAN II), L.P. | 2020 | \$10,000,000 | \$2,996,886 | \$7,003,114 | -\$2,652 | \$0 | \$8,152,640 | \$8,152,640 | \$1,152,178 | 0.00 | 1.16 | 8.95% |
| Total 2020 | | \$90,000,000 | \$33,355,857 | \$56,644,143 | \$526,777 | \$1,991,887 | \$75,727,449 | \$77,719,336 | \$20,548,416 | 0.03 | 1.36 | 18.70% |
| 2021 | | | | | | | | | | | | |
| GoldenTree Distressed Fund IV, L.P. | 2021 | \$50,000,000 | \$43,875,000 | \$6,125,000 | -\$56,867 | \$0 | \$8,716,072 | \$8,716,072 | \$2,647,939 | 0.00 | 1.44 | 49.65% |
| WTI Fund X | 2021 | \$11,000,000 | \$7,480,000 | \$3,520,000 | \$0 | \$214,509 | \$3,434,499 | \$3,649,008 | \$129,008 | 0.06 | 1.04 | 5.06% |
| Total 2021 | | \$61,000,000 | \$51,355,000 | \$9,645,000 | -\$56,867 | \$214,509 | \$12,150,571 | \$12,365,080 | \$2,776,947 | 0.02 | 1.29 | 35.21% |
| 2022 | | | | | | | | | | | | |
| 400 Capital Asset Based Offshore Term Fund III, L.P. | 2022 | \$20,000,000 | \$11,047,217 | \$8,952,783 | \$188,773 | \$0 | \$9,371,574 | \$9,371,574 | \$230,019 | 0.00 | 1.03 | 2.74% |
| HarbourVest Credit Opportunities Fund III, L.P. | 2022 | \$20,000,000 | \$20,000,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | |
| Total 2022 | | \$40,000,000 | \$31,047,217 | \$8,952,783 | \$188,773 | \$0 | \$9,371,574 | \$9,371,574 | \$230,019 | 0.00 | 1.03 | 2.74% |
| Total | | \$557,978,501 | \$220,311,014 | \$337,667,487 | \$412,967 | \$216,993,010 | \$312,313,311 | \$529,306,320 | \$191,225,866 | 0.64 | 1.57 | 11.32% |



Boston Retirement System

REAL ESTATE - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|---|--------------|----------------------|---------------------|-------------------------------|---------------------|--------------------------|----------------------|----------------------|----------------------|-------------|-------------|---------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 1989 | | | | | | | | | | | | |
| Heitman JMB Group Trust IV, L.P. | 1989 | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$13,038,776 | \$0 | \$13,038,776 | \$3,038,776 | 1.30 | 1.30 | 3.58% |
| Total 1989 | | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$13,038,776 | \$0 | \$13,038,776 | \$3,038,776 | 1.30 | 1.30 | 3.58% |
| 1999 | | | | | | | | | | | | |
| Hearthstone-MSII Homebuilding Investors, LLC | 1999 | \$15,191,046 | \$0 | \$15,191,046 | \$3,297 | \$21,061,772 | \$0 | \$21,061,772 | \$5,867,429 | 1.39 | 1.39 | 27.49% |
| Income & Growth Fund II, Inc. | 1999 | \$10,000,000 | \$0 | \$10,000,000 | -\$98,410 | \$18,391,881 | \$0 | \$18,391,881 | \$8,490,291 | 1.86 | 1.86 | 20.34% |
| Value-Added Real Estate Separate Account | 1999 | \$147,936,064 | \$0 | \$147,936,064 | \$10,715,671 | \$210,942,324 | \$120,698 | \$211,063,022 | \$52,411,287 | 1.33 | 1.33 | 8.18% |
| Total 1999 | | \$173,127,110 | \$0 | \$173,127,110 | \$10,620,558 | \$250,395,977 | \$120,698 | \$250,516,675 | \$66,769,008 | 1.36 | 1.36 | 9.86% |
| 2003 | | | | | | | | | | | | |
| Hearthstone Multi-State Residential Value-Added Fund III, LLC | 2003 | \$12,500,000 | \$1,912,611 | \$10,587,389 | \$0 | \$13,582,954 | \$19,350 | \$13,602,304 | \$3,014,915 | 1.28 | 1.28 | 24.58% |
| Income & Growth Fund III | 2003 | \$8,923,590 | \$0 | \$8,923,590 | \$0 | \$13,334,500 | \$0 | \$13,334,500 | \$4,410,910 | 1.49 | 1.49 | 10.58% |
| Total 2003 | | \$21,423,590 | \$1,912,611 | \$19,510,979 | \$0 | \$26,917,454 | \$19,350 | \$26,936,804 | \$7,425,825 | 1.38 | 1.38 | 14.39% |
| 2004 | | | | | | | | | | | | |
| Invesco Core Real Estate - USA, L.P. | 2004 | \$100,092,840 | \$0 | \$100,092,840 | \$3,304,161 | \$126,614,572 | \$104,915,060 | \$231,529,632 | \$128,132,630 | 1.22 | 2.24 | 7.01% |
| Total 2004 | | \$100,092,840 | \$0 | \$100,092,840 | \$3,304,161 | \$126,614,572 | \$104,915,060 | \$231,529,632 | \$128,132,630 | 1.22 | 2.24 | 7.01% |
| 2005 | | | | | | | | | | | | |
| Hunt Commercial Realty Partners II, L.P. | 2005 | \$8,563,254 | \$0 | \$8,563,254 | \$0 | \$5,755,836 | \$0 | \$5,755,836 | -\$2,807,418 | 0.67 | 0.67 | -5.64% |
| PRISA SA | 2005 | \$73,217,167 | \$0 | \$73,217,167 | \$3,871,401 | \$70,801,161 | \$95,701,834 | \$166,502,995 | \$89,414,426 | 0.92 | 2.16 | 6.43% |
| Total 2005 | | \$81,780,421 | \$0 | \$81,780,421 | \$3,871,401 | \$76,556,997 | \$95,701,834 | \$172,258,831 | \$86,607,008 | 0.89 | 2.01 | 5.92% |
| 2006 | | | | | | | | | | | | |
| AEW Partners V, L.P. | 2006 | \$13,456,498 | \$0 | \$13,456,498 | \$66,577 | \$14,746,094 | \$0 | \$14,746,094 | \$1,223,019 | 1.09 | 1.09 | 1.81% |
| Arsenal Real Estate Fund IA, L.P. | 2006 | \$10,000,000 | \$0 | \$10,000,000 | \$138,397 | \$1,817,298 | \$0 | \$1,817,298 | -\$8,321,099 | 0.18 | 0.18 | -16.96% |
| Senior Housing Partners III, L.P. | 2006 | \$9,144,899 | \$0 | \$9,144,899 | \$0 | \$16,096,134 | \$0 | \$16,096,134 | \$6,951,235 | 1.76 | 1.76 | 8.84% |
| Total 2006 | | \$32,601,397 | \$0 | \$32,601,397 | \$204,974 | \$32,659,526 | \$0 | \$32,659,526 | -\$146,845 | 1.00 | 1.00 | -0.08% |
| 2007 | | | | | | | | | | | | |
| JP Morgan Special Situation Property Fund | 2007 | \$40,000,000 | \$0 | \$40,000,000 | \$0 | \$17,453,152 | \$37,134,915 | \$54,588,066 | \$14,588,066 | 0.44 | 1.36 | 2.51% |
| Total 2007 | | \$40,000,000 | \$0 | \$40,000,000 | \$0 | \$17,453,152 | \$37,134,915 | \$54,588,066 | \$14,588,066 | 0.44 | 1.36 | 2.51% |
| 2008 | | | | | | | | | | | | |
| LaSalle Income & Growth Fund V, L.P. | 2008 | \$16,713,227 | \$0 | \$16,713,227 | \$0 | \$27,984,847 | \$0 | \$27,984,847 | \$11,271,620 | 1.67 | 1.67 | 13.02% |
| Pearlmark Mezzanine Realty Partners III, L.P. | 2008 | \$9,363,873 | \$0 | \$9,363,873 | \$0 | \$11,157,554 | \$0 | \$11,157,554 | \$1,793,681 | 1.19 | 1.19 | 5.84% |
| Urdang Value-Added Fund II, L.P. | 2008 | \$34,397,958 | \$0 | \$34,397,958 | \$496,273 | \$45,716,584 | \$0 | \$45,716,584 | \$10,822,353 | 1.31 | 1.31 | 6.02% |
| Total 2008 | | \$60,475,058 | \$0 | \$60,475,058 | \$496,273 | \$84,858,986 | \$0 | \$84,858,986 | \$23,887,655 | 1.39 | 1.39 | 7.99% |



Boston Retirement System

REAL ESTATE - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|---|--------------|----------------------|---------------------|-------------------------------|--------------------|--------------------------|----------------------|----------------------|---------------------|-------------|-------------|---------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 2009 | | | | | | | | | | | | |
| Dune Real Estate Fund II, L.P. | 2009 | \$5,000,000 | \$0 | \$5,000,000 | -\$262 | \$8,345,438 | \$764,983 | \$9,110,421 | \$4,110,683 | 1.67 | 1.82 | 14.40% |
| TA Associates Realty Fund IX, L.P. | 2009 | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$16,020,070 | \$0 | \$16,020,070 | \$6,020,070 | 1.60 | 1.60 | 10.43% |
| WCP Real Estate Fund II, L.P. | 2009 | \$5,600,000 | \$0 | \$5,600,000 | \$68,824 | \$7,203,500 | \$622,355 | \$7,825,855 | \$2,157,031 | 1.27 | 1.38 | 7.08% |
| Total 2009 | | \$20,600,000 | \$0 | \$20,600,000 | \$68,562 | \$31,569,008 | \$1,387,338 | \$32,956,346 | \$12,287,784 | 1.53 | 1.59 | 10.35% |
| 2010 | | | | | | | | | | | | |
| Siguler Guff Distressed Real Estate Opportunities, L.P. | 2010 | \$15,000,000 | \$1,125,000 | \$13,875,000 | -\$54,501 | \$20,903,682 | \$3,483,835 | \$24,387,517 | \$10,567,019 | 1.51 | 1.76 | 11.41% |
| Total 2010 | | \$15,000,000 | \$1,125,000 | \$13,875,000 | -\$54,501 | \$20,903,682 | \$3,483,835 | \$24,387,517 | \$10,567,019 | 1.51 | 1.76 | 11.41% |
| 2011 | | | | | | | | | | | | |
| AG Realty Fund VIII, L.P. | 2011 | \$12,000,000 | \$1,850,145 | \$10,149,855 | -\$29,190 | \$13,909,487 | \$1,794,838 | \$15,704,325 | \$5,583,660 | 1.37 | 1.55 | 11.41% |
| Mesirow Financial Real Estate Value Fund, L.P. | 2011 | \$9,299,210 | \$0 | \$9,299,210 | \$6,423 | \$15,102,594 | \$0 | \$15,102,594 | \$5,796,961 | 1.62 | 1.62 | 10.65% |
| Total 2011 | | \$21,299,210 | \$1,850,145 | \$19,449,065 | -\$22,767 | \$29,012,081 | \$1,794,838 | \$30,806,919 | \$11,380,621 | 1.49 | 1.59 | 10.99% |
| 2012 | | | | | | | | | | | | |
| WCP Real Estate Fund III, L.P. | 2012 | \$10,000,000 | \$554,000 | \$9,446,000 | \$20,324 | \$13,637,000 | \$1,683,999 | \$15,320,999 | \$5,854,675 | 1.44 | 1.62 | 8.80% |
| Total 2012 | | \$10,000,000 | \$554,000 | \$9,446,000 | \$20,324 | \$13,637,000 | \$1,683,999 | \$15,320,999 | \$5,854,675 | 1.44 | 1.62 | 8.80% |
| 2013 | | | | | | | | | | | | |
| Brookfield Strategic Real Estate Partners, L.P. | 2013 | \$14,000,000 | \$1,669,775 | \$12,330,225 | \$11,819 | \$25,667,360 | \$4,365,000 | \$30,032,360 | \$17,690,316 | 2.08 | 2.43 | 22.42% |
| European Property Investors Special Opportunities 3, L.P. | 2013 | \$8,814,743 | \$587,834 | \$8,226,910 | \$26,981 | \$7,260,384 | \$2,689,855 | \$9,950,239 | \$1,696,349 | 0.88 | 1.21 | 4.94% |
| Real Estate Global Partnership Fund II, L.P. | 2013 | \$12,000,000 | \$4,140,000 | \$7,860,000 | \$122,992 | \$8,574,155 | \$2,296,751 | \$10,870,906 | \$2,887,914 | 1.07 | 1.36 | 5.72% |
| Siguler Guff Distressed Real Estate Opportunities Fund II, L.P. | 2013 | \$12,000,000 | \$1,542,000 | \$10,458,000 | \$0 | \$9,973,467 | \$4,960,985 | \$14,934,452 | \$4,476,452 | 0.95 | 1.43 | 7.39% |
| TA Associates Realty Fund X, L.P. | 2013 | \$10,000,000 | \$0 | \$10,000,000 | \$0 | \$16,037,911 | \$11,105 | \$16,049,016 | \$6,049,016 | 1.60 | 1.60 | 12.57% |
| Total 2013 | | \$56,814,743 | \$7,939,609 | \$48,875,135 | \$161,792 | \$67,513,277 | \$14,323,696 | \$81,836,973 | \$32,800,047 | 1.38 | 1.67 | 12.20% |
| 2014 | | | | | | | | | | | | |
| European Real Estate Debt Fund II, L.P. | 2014 | \$7,166,041 | \$1,028,119 | \$6,137,922 | \$237,482 | \$4,628,716 | \$296,268 | \$4,924,984 | -\$1,450,420 | 0.73 | 0.77 | -4.35% |
| Mesirow Financial Real Estate Value Fund II, L.P. | 2014 | \$15,000,000 | \$14,568 | \$14,985,432 | \$98,933 | \$25,591,209 | \$2,447,129 | \$28,038,338 | \$12,953,973 | 1.70 | 1.86 | 13.01% |
| U.S. Real Estate Investment Fund, LLC | 2014 | \$70,000,000 | \$0 | \$70,000,000 | \$4,568,456 | \$33,887,055 | \$104,716,439 | \$138,603,494 | \$64,035,038 | 0.45 | 1.86 | 9.65% |
| WCP Real Estate Fund IV, L.P. | 2014 | \$15,000,000 | \$75,000 | \$14,925,000 | -\$88,568 | \$13,285,919 | \$6,491,873 | \$19,777,792 | \$4,941,361 | 0.90 | 1.33 | 5.50% |
| Total 2014 | | \$107,166,041 | \$1,117,687 | \$106,048,354 | \$4,816,303 | \$77,392,899 | \$113,951,709 | \$191,344,609 | \$80,479,951 | 0.70 | 1.73 | 8.96% |
| 2016 | | | | | | | | | | | | |
| Brookfield Strategic Real Estate Partners II, L.P. | 2016 | \$20,000,000 | \$5,682,663 | \$14,317,337 | \$5,843 | \$9,266,718 | \$18,254,000 | \$27,520,718 | \$13,197,538 | 0.65 | 1.92 | 12.65% |
| Development Venture IV, L.P. | 2016 | \$10,523,812 | \$7,609,748 | \$2,914,065 | \$849 | \$2,237,388 | \$3,078,302 | \$5,315,690 | \$2,400,776 | 0.77 | 1.82 | 14.27% |
| Total 2016 | | \$30,523,812 | \$13,292,411 | \$17,231,402 | \$6,692 | \$11,504,106 | \$21,332,302 | \$32,836,408 | \$15,598,314 | 0.67 | 1.90 | 12.87% |



Boston Retirement System

REAL ESTATE - ANALYSIS BY VINTAGE YEAR

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|---|--------------|------------------------|----------------------|-------------------------------|---------------------|--------------------------|----------------------|------------------------|----------------------|-------------|-------------|---------------|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| 2017 | | | | | | | | | | | | |
| AEW Partners Real Estate Fund VIII, L.P. | 2017 | \$15,000,000 | \$2,679,920 | \$12,320,080 | \$173,431 | \$15,232,018 | \$3,725,316 | \$18,957,334 | \$6,463,823 | 1.22 | 1.52 | 19.53% |
| Oaktree Real Estate Debt Fund II, L.P. | 2017 | \$15,000,000 | \$5,038,804 | \$9,961,196 | -\$102,309 | \$6,562,864 | \$5,193,119 | \$11,755,983 | \$1,897,096 | 0.67 | 1.19 | 6.78% |
| Total 2017 | | \$30,000,000 | \$7,718,724 | \$22,281,276 | \$71,122 | \$21,794,882 | \$8,918,435 | \$30,713,317 | \$8,360,919 | 0.98 | 1.37 | 13.76% |
| 2018 | | | | | | | | | | | | |
| Brookfield Strategic Real Estate Partners III-B, L.P. | 2018 | \$15,000,000 | \$4,795,056 | \$10,204,944 | \$8,003 | \$0 | \$13,897,420 | \$13,897,420 | \$3,684,473 | 0.00 | 1.36 | 11.76% |
| Carlyle Realty Partners VIII, L.P. | 2018 | \$10,000,000 | \$6,293,733 | \$3,706,267 | \$10,590 | \$1,765,909 | \$5,888,909 | \$7,654,818 | \$3,937,961 | 0.48 | 2.06 | 27.46% |
| Mesirow Financial Real Estate Value Fund III, L.P. | 2018 | \$10,108,333 | \$0 | \$10,108,333 | \$39,437 | \$2,846,839 | \$13,611,218 | \$16,458,057 | \$6,310,287 | 0.28 | 1.62 | 15.56% |
| Senior Housing Partners VI, L.P. | 2018 | \$15,000,000 | \$2,722,952 | \$12,277,048 | -\$11,003 | \$0 | \$12,717,298 | \$12,717,298 | \$451,252 | 0.00 | 1.04 | 3.41% |
| TA Realty Core Property Fund, L.P. | 2018 | \$40,000,000 | \$0 | \$40,000,000 | \$0 | \$8,638,047 | \$58,021,803 | \$66,659,850 | \$26,659,850 | 0.22 | 1.67 | 13.08% |
| TerraCap Partners IV (Institutional), L.P. | 2018 | \$15,000,000 | \$0 | \$15,000,000 | \$1,050,890 | \$8,813,174 | \$13,760,868 | \$22,574,042 | \$6,523,152 | 0.55 | 1.41 | 10.92% |
| Total 2018 | | \$105,108,333 | \$13,811,741 | \$91,296,592 | \$1,097,917 | \$22,063,969 | \$117,897,516 | \$139,961,485 | \$47,566,975 | 0.24 | 1.51 | 13.12% |
| 2019 | | | | | | | | | | | | |
| AEW Partners Real Estate Fund IX, L.P. | 2019 | \$20,000,000 | \$7,242,798 | \$12,757,202 | -\$222 | \$0 | \$13,592,840 | \$13,592,840 | \$835,860 | 0.00 | 1.07 | 7.89% |
| Berkshire Value Fund V, L.P. | 2019 | \$20,000,000 | \$7,466,078 | \$12,533,922 | -\$977,088 | \$313,717 | \$14,244,462 | \$14,558,179 | \$3,001,345 | 0.03 | 1.26 | 13.77% |
| Davis Investment Ventures Fund IV, L.P. | 2019 | \$10,000,000 | \$4,088,300 | \$5,911,700 | \$2,992 | \$308,086 | \$7,659,687 | \$7,967,773 | \$2,053,081 | 0.05 | 1.35 | 22.44% |
| Sculptor Real Estate Fund IV, L.P. | 2019 | \$20,000,000 | \$12,152,803 | \$7,847,197 | \$1,052,985 | \$2,218,526 | \$7,464,236 | \$9,682,762 | \$782,580 | 0.25 | 1.09 | 10.05% |
| TA Associates Realty XII, L.P. | 2019 | \$20,000,000 | \$0 | \$20,000,000 | \$0 | \$1,659,747 | \$29,023,525 | \$30,683,272 | \$10,683,272 | 0.08 | 1.53 | 26.07% |
| Total 2019 | | \$90,000,000 | \$30,949,979 | \$59,050,021 | \$78,667 | \$4,500,076 | \$71,984,750 | \$76,484,826 | \$17,356,138 | 0.08 | 1.29 | 19.22% |
| 2020 | | | | | | | | | | | | |
| Oaktree Real Estate Debt Fund III, L.P. | 2020 | \$20,000,000 | \$12,400,000 | \$7,600,000 | \$0 | \$979,884 | \$7,480,167 | \$8,460,051 | \$860,051 | 0.13 | 1.11 | 10.46% |
| Total 2020 | | \$20,000,000 | \$12,400,000 | \$7,600,000 | \$0 | \$979,884 | \$7,480,167 | \$8,460,051 | \$860,051 | 0.13 | 1.11 | 10.46% |
| 2021 | | | | | | | | | | | | |
| Centerbridge Partners Real Estate Fund II | 2021 | \$30,000,000 | \$25,385,991 | \$4,614,009 | \$0 | \$0 | \$4,107,595 | \$4,107,595 | -\$506,414 | 0.00 | 0.89 | -10.98% |
| Kayne Anderson Real Estate Partners VI, L.P. | 2021 | \$30,000,000 | \$22,509,836 | \$7,490,164 | \$0 | \$0 | \$8,073,441 | \$8,073,441 | \$583,277 | 0.00 | 1.08 | 9.67% |
| Mesirow Financial Real Estate Value Fund IV, L.P. | 2021 | \$10,000,000 | \$6,206,667 | \$3,793,333 | \$2,630 | \$36,000 | \$4,233,881 | \$4,269,881 | \$473,918 | 0.01 | 1.12 | 14.75% |
| TerraCap Partners V, L.P. | 2021 | \$40,000,000 | \$0 | \$40,000,000 | \$210,381 | \$3,919,918 | \$42,859,676 | \$46,779,594 | \$6,569,212 | 0.10 | 1.16 | 11.40% |
| Total 2021 | | \$110,000,000 | \$54,102,494 | \$55,897,506 | \$213,012 | \$3,955,918 | \$59,274,593 | \$63,230,511 | \$7,119,993 | 0.07 | 1.13 | 10.32% |
| 2022 | | | | | | | | | | | | |
| Alidade Capital Fund V, L.P. | 2022 | \$15,000,000 | \$10,826,647 | \$4,173,353 | \$310,272 | \$0 | \$2,984,749 | \$2,984,749 | -\$1,498,876 | 0.00 | 0.67 | |
| Davis Investment Ventures Fund V, L.P. | 2022 | \$25,000,000 | \$24,375,000 | \$625,000 | \$9,042 | \$0 | \$507,432 | \$507,432 | -\$126,610 | 0.00 | 0.80 | |
| TA Realty Value-Add Fund XIII, L.P. | 2022 | \$25,000,000 | \$25,000,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | | | |
| Total 2022 | | \$65,000,000 | \$60,201,647 | \$4,798,353 | \$319,314 | \$0 | \$3,492,181 | \$3,492,181 | -\$1,625,486 | 0.00 | 0.68 | |
| Total | | \$1,201,012,557 | \$206,976,047 | \$994,036,510 | \$25,273,805 | \$933,322,222 | \$664,897,216 | \$1,598,219,438 | \$578,909,123 | 0.92 | 1.57 | 7.48% |



RECENT SEARCHES & COMMITMENTS

| Search/Asset Class | Manager | Mandate Size (millions) |
|------------------------------------|-----------------------|----------------------------|
| 2021 | | |
| Emerging Markets Equity (Growth) | Columbia Threadneedle | \$120 |
| Emerging Markets Equity (Core) | ABS | \$115 |
| Fixed Income (Core) | AFL-CIO | \$50 |
| Private Equity (Diverse FoF) | Grosvenor | \$25 |
| | Barings | \$20 |
| Private Equity (Secondaries) | Hamilton Lane | \$15 |
| Private Debt (Direct Lending) | WesternTech | \$11 |
| | GoldenTree | \$50 |
| Real Estate (Value-Add) | TerraCap | \$40 |
| | Mesirow | \$10 |
| Real Estate (Opportunistic) | Centerbridge | \$30 |
| | Kayne Anderson | \$30 |
| 2022 | | |
| Private Debt (Asset-Based Lending) | 400 Capital | \$20 |
| Private Debt (Opportunistic) | HarbourVest | \$20 |
| Real Estate (Value-Add) | Alidade | \$15 |
| | Davis | \$25 |
| | TA Realty | \$25 |
| 2023 | | |
| Private Equity (Diverse FoF) | Grosvenor | \$20 |
| | Muller & Monroe | \$15 |
| | Recast | \$5 (\$10) |
| Private Debt (Direct Lending) | Kayne Anderson | \$35 |
| | Blue Torch | \$15 |

INFORMATION DISCLAIMER

Past performance is no guarantee of future results.

The goal of this report is to provide a basis for substantiating asset allocation recommendations. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.

Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

This report is provided as a management aid for the client's internal use only. This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

