

## MWRA EMPLOYEES' RETIREMENT BOARD MEETING

### AGENDA

Thursday, May 26, 2022 10:00 a.m.  
MWRA, 2 Griffin Way  
Chelsea, MA 02150

Item 1 10:00 a.m. Meeting called to order

### OLD BUSINESS

- Item 2 Standing Committee Reports
- i. By-Laws Committee: Member Kevin McKenna
  - ii. Human Resources Committee: Member Thomas J. Durkin, Member Frank Zecha
  - iii. Special Committee, Stipend: Chair James M. Fleming, Member Kevin McKenna
  - iv. Job Review Committee: Member James M. Fleming, Member Thomas J. Durkin

Item 3 Draft Policy for Chair's Authority to Execute Interim Fund Transfers – VOTE

### NEW BUSINESS

Item 4 Approval of April 28, 2022 Minutes – VOTE

Item 5 Approval of Warrants – VOTE

- a) Warrant 5-2022
- b) Warrant 5-2022A – Payroll

Item 6 Approval of Monthly Transfers 5-2022 – VOTE

Item 7 Acknowledgement of retirement applications under G.L. c 32 §5 – VOTE

- a) David Smith DOR 4/30/2022
- b) Lisa Cook DOR 5/4/2022
- c) Jeffrey McLaughlin DOR 5/12/2022
- d) Lisa Grollman DOR 5/14/2022

Item 8 Manager Due Diligence Presentations

- 10:30 a.m. a) Kayne Anderson
- 10:50 a.m. b) Lord Abbett
- 11:10 a.m. c) Alcentra
- 11:30 a.m. d) Foundry

Item 9 12:00 Noon NEPC

- a) Flash Report as of 5/31/2022
- b) Q1 2022 Investment Report
- c) Q4 2021 Private Equity Performance Report
- d) Q4 2021 Real Estate Performance Report
- e) Q4 2021 Private Debt Performance Report

Item 10 12:30 p.m. Segal January 1, 2022 Preliminary Actuarial Valuation

Item 11 1:00 p.m. Legal

.....**FOR YOUR INFORMATION and REVIEW** .....

- Item 99-1 PERAC MEMO #12/2022 – Forfeiture of Retirement Allowance for Dereliction of Duty by Members
- Item 99-2 PERAC Proposed Changes to 840 CMR 28.00 Electronic Signatures
- Item 99-3 Memo from Executive Director re. Outstanding Check

**The Board reserves the right to consider items on the agenda out of order. The listing of items is those reasonably anticipated by the Chair to be discussed received at least forty-eight (48) hours prior to the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law. Items identified for discussion in Executive Session may be conducted in open session, in addition to, or in lieu of discussion in Executive Session.**

**Date of next scheduled Retirement Board meeting is Thursday, June 30, 2022, 10:00 a.m., Chelsea**

**MWRA EMPLOYEES' RETIREMENT BOARD MEETING  
MARCH 31, 2022**

A meeting of the MWRA Employees' Retirement Board was conducted remotely on Thursday, April 28, 2022. Remote access was provided to the public via Zoom, with call-in information provided on the official Meeting Notice posted to mwraretirement.com and the MA Secretary of State's website. Participating in the remote meeting were Board members James Fleming, Thomas Durkin, Kevin McKenna, Andrew Pappastergion, and Frank Zecha, and staff members Carolyn Russo, Julie McManus, and Danielle DiRuzza. Representatives from NEPC, Kevin Leonard and Kiley Fisher, as well as members of the public attended. Mr. Fleming called the meeting to order at 10:03 a.m.

- 1) Call the meeting to order-roll call of members: Mr. Fleming, Mr. McKenna, Mr. Pappastergion, and Mr. Zecha present via remote access.
- 2) Standing Committee Reports
  - i. By-Laws Committee: No report
  - ii. Human Resources Committee: 1.5% signing bonus for the Retirement Coordinator and Member Services Coordinator consistent with recently approved CBAs. Mr. McKenna made a motion to grant the Retirement Coordinator and the Member Services Coordinator a one-time bonus of 1.5% of current salary consistent with the recently executed contracts for other MWRA employees. Mr. Zecha stated that he could support the motion, but questioned that the Board had previously stated that the Unit 6 agreement would be a guide, but that the Board did not want to be locked into steps. Mr. McKenna stated that his motion was for the staff to receive the same one-time signing bonus as other employees. Mr. Zecha asked the Executive Director if the Member Services Coordinator would be getting step increases. The Executive Director expressed some confusion as to the question, because the matter before the Board is the bonus, and the Member Services Coordinator has been working for the Board for only a few months so the question of steps is not yet an issue. The Chair stated that the matter before the Board is the signing bonus and asked for a second on Mr. McKenna's motion. Mr. Pappastergion seconded the motion.

On a motion made by Mr. McKenna and seconded by Mr. Pappastergion:

**VOTED**

to grant the Retirement Coordinator and the Member Services Coordinator the signing bonus of 1.5% of current salary granted in MWRA's other recently executed Collective Bargaining Agreements. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

- iii. Special Committee, Stipend: No report

- iv. Job Review Committee: No report
- 3) a) Approval of Minutes of March 31, 2022 – VOTE

On a motion made by Mr. Pappastergion and seconded by Mr. McKenna:  
**VOTED**

to approve the regular session minutes of the March 31, 2022 meeting as submitted by the Executive Director. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

- b) Approval of Executive Session Minutes of March 31, 2022 – VOTE

On a motion made by Mr. Pappastergion and seconded by Mr. McKenna:  
**VOTED**

to approve the Executive Session minutes of the March 31, 2022 meeting as submitted by the Executive Director. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

- 4) Approval of Warrants – VOTE

- a) Warrant 4-2022
- b) Warrant 4-2022A – Payroll

On a motion made by Mr. McKenna and seconded by Mr. Pappastergion:  
**VOTED**

to approve Warrants 04-2022 and 04-2022A. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

Through the Chair the Executive Director noted in reference to Warrant 4-2022A, the payroll is somewhat higher than usual because staff has done sixty retirement benefit recalculations subsequent to the approval of the first round of retroactive contracts (Units 3 & 9), and added the retro due to the retirees onto the April payroll. She expects that the recalculations resulting from the approval of next round of contracts (Units 1 & 6) will be on the May retirement payroll.

- 5) Approval of Monthly Transfers 4-2022 – VOTE

On a motion by Mr. Zecha and seconded by Mr. McKenna:  
**VOTED**

to approve the monthly transfers as presented and as recommended by NEPC. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

Through the Chair Mr. McKenna asked the Executive Director why there were three different transfers for Rhumblin. The Executive Director responded that the first two transfers, one from S&P and one from TIPS, were approved at the March 31 meeting but executed in April. The third (from TIPS) one refers to Agenda item #10, because Terracap called the entire commitment to Fund V and the transfer request had to be executed before the meeting in order to make the call deadline. The Board had previously voted to eliminate the TIPS exposure gradually over a few months.

6) Acknowledgement of retirement applications under G.L. c 32 §5 – VOTE

- |    |                 |               |
|----|-----------------|---------------|
| a) | Susan McAree    | DOR 3/30/2022 |
| b) | Mark Jackson    | DOR 4/2/2022  |
| c) | Judith Whittier | DOR 4/2/2022  |
| d) | Steven Dembro   | DOR 4/9/2022  |
| e) | Mary White      | DOR 4/9/2022  |
| f) | William Allen   | DOR 4/11/2022 |

Mr. McKenna stated that another member had retired but that there was a split group calculation and asked the Executive Director to elaborate. The Executive Director reported that Mr. John Burke filed an application for Superannuation Retirement to become effective 4/1/2022 while his application for disability remains pending. Mr. Burke has 14.8333 years of service with MWRA and 19 years of service with the City of Chelsea. However, Mr. Burke's service for Chelsea was as a member of Group 2, while the MWRA service was Group 1. Therefore, the calculation has to be split by service in each group then the two added back together. PTG is not able to perform the computation, so it must be done manually. There is no calculation sheet for Mr. Burke such as the one which is generally included for each retiree in the Board package, just a spreadsheet the Executive Director did to perform the necessary split. She added that the computation will be going into PERAC for review of the service in two groups as well as the 3(8)(c) due from Chelsea. She suggested that Mr. Burke's retirement be added to the motion, if that is the Board's preference.

On an omnibus motion made by Mr. McKenna and seconded by Mr. Pappastergion:

**VOTED**

to acknowledge the six s. 5 retirements as detailed above, plus the superannuation retirement of Mr. Burke effective April 1, 2022, while his application for disability is pending. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

7) Approval of Brandon Parsons' buyback of 7 months MWRA contract employment (1/1/2021-7/22/2021) – VOTE

On a motion made by Mr. Pappastergion and seconded by Mr. Durkin:

**VOTED**

to approve the request of Brandon Parsons for the purchase of 7 months of prior contract service with the MWRA. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

- 8) Approval of William Hanley's buyback of 5 months MDC employment (5/6/1985-10/11/1985) – VOTE

On a motion made by Mr. Pappastergion and seconded by Mr. Durkin:

**VOTED**

to approve the request of William Hanley for the purchase of 5 months of prior service with the MDC. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

- 9) Approval of Bank Reconciliations – VOTE

- a) January 2022
- b) February 2022
- c) March 2022

On an omnibus motion made by Mr. Pappastergion and seconded by Mr. Durkin:

**VOTED**

to approve the January 2022, February 2022 and March 2022 Bank reconciliations. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

Mr. McKenna asked the Executive Director why there are outstanding checks, and mentioned one for \$63,000 from 2019. The Executive Director responded that she will review the list of outstanding checks but is not familiar with the specific one about which Mr. McKenna is inquiring.

- 10) Chair's ability to issue rebalance instructions, as a matter of necessity, in between Board meetings – VOTE

The Executive Director explained that as noted earlier, Terracap had called the full \$8m commitment to Fund V, plus true-up fees. The call was due May 3, 2022. Due to the fact that there were only two business days between the April meeting and the due date, the Chair had to authorize the request to redeem funds prior to the meeting in order to have sufficient funds in the Custody account in time to move them by Monday, so we would remain in compliance with the recently-executed subscription documents. The matter was added to the agenda

for the Board to acknowledge formally that the Chair has that authorization to move funds between meetings when necessary. A motion was made by Mr. Pappastergion and seconded by Mr. McKenna to acknowledge that the Chair is authorized by the Board to move funds in between Board meetings should it become necessary. Mr. Durkin made a motion to table the matter for the Executive Director to draft a bylaw for the Board's consideration at the next meeting.

On a motion by Mr. Durkin and seconded by Mr. Pappastergion:

**VOTED**

to table the matter of interim transfers of funds and for the Executive Director to draft a bylaw regarding the policy. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

11) Manager Due Diligence Presentations

The following managers underwent an annual investment manager review pursuant to 840 CMR 16.07. The managers presented performance and investment reports detailing the manager's activities, which the Board reviewed.

JF Lehman  
Landmark  
PRIM  
RhumbLine

At 10:30 a.m. Mr. Lou Mintz and Ms. Sammie Shin joined the call from J.F. Lehman. Lehman has over 30 years in the Aerospace/Marine industry and is currently marketing a new fund for next year with a \$150-\$200 per-deal target. The fund's focus will be engineering and technical competency, where there are recurring identifiable demand and long lifecycle assets. Mr. Mintz cites as an example dismantling ships with environmental hazards such as asbestos, which requires expertise and presents impediments to other potential buyers. Lehman buys diamonds in the rough, improves the companies' operations, and sells clarity. Mr. Mintz referred the Board to page 10 of the presentation regarding Fund IV. Most of the assets have been fully realized, with seven exits and four assets remaining, a 36.7% IRR and 2.6x multiple. Mr. Mintz expects that Lake Shore and Lone Star will be sold in the near term, leaving CodeMettle and IPR. Mr. Mintz noted that MWRAERS entered the fund at the perfect time to maximize returns. Mr. Fleming asked about MWRAERS' returns. Mr. Mintz directed the Board to p.11 for Fund IV returns and to page 12 for Fund V. None of the Fund V assets has been realized, with the underlying companies moving more slowly than those which would be found in a Growth PE portfolio. Mr. Leonard asked whether Lehman has any supply chain concerns. Mr. Mintz responded that their strategy does not involve assets that rely on budgets, elections, declarations of war, etc. but may require ongoing supply investment. There were no existential

disruptions due to Covid-19, just disruptions caused by lack of access to physical work sites. Mr. Mintz noted that Global Marine which maintains underwater cables for solar energy had a whole ship shut down because one person got sick, while the firm had a sold-out capacity, resulting in delays in services. Mr. McKenna stated that his recollection is that Lehman had an investment in fertilizer cleanup, and asked if there were concerns with Ukraine. Mr. Mintz reported that they do not have fertilizer-specific exposure, but that Lone Star is a landfill transfer station in Houston which handles construction and demolition waste. Mr. Durkin asked why NorthStar has been in Fund IV as well as Fund V. Mr. Mintz reminded the Board that there was a single-asset secondary transaction from IV to V allowing Lehman to re-underwrite the NorthStar investment and address upheaval legal among prior owners. The business had grown from \$30m to \$140m cash flow very quickly, raising operational issues. The firm demolishes skyscrapers, and has a good management team in a high-growth area. The fund investors were given a choice and many investors (including MWRAERS) took cash distributions because they were already invested in Fund V. Mr. Fleming thanked the representatives from Lehman for a spot-on presentation, and for the returns on the System's investment. Mr. Mintz thanked the Board for its support, and stated that they hope to extend the relationship with the new fund. The representatives from J.F. Lehman signed off the call at 11:00 a.m.

The Executive Director through the Chair requested that Mr. Leonard caution the remaining managers prior to the start of their presentations against the disclosure of proprietary information, given that this is a public meeting and there are members of the public on the call. Mr. Zecha informed NEPC that investment managers frequently reach out to him who appear to have outperformed, but who are unable to open discussions with NEPC. Mr. Leonard stated that NEPC receives thousands of cold calls, but to tell them to reach out to Kiley or Sebastian. Mr. Zecha continued that PRIM is the unofficial benchmark against which MWRAERS is measured, and he would like assurances that managers are given a proper vetting and that we are able to access the best performers.

Chad Alfeld from Landmark joined the call at 11:05 a.m. Mr. Leonard cautioned Mr. Alfeld that there are members of the public and/or media on the call, and to avoid discussion of any materials which may be considered proprietary. Mr. Fleming asked Mr. Alfeld to address any changes in personnel, process, and performance. Mr. Alfeld began that Landmark has been in the secondary business for thirty years, and is now wholly owned by Ares. Mr. Leonard asked whether there have been any retirements or resignations as the result, and Mr. Alfeld cited only one departure, Ira Shaw, from the Real Estate team. The Board was directed to page 12 for Fund VI performance. Fund VI has a net IRR of 18.3 and a 1.53x multiple. Fund VIII has a net IRR of 20.7 and a 1.4x multiple. Mr. Leonard asked about the impact of Covid on real estate, and whether concerns were overblown. Mr. Alfeld reported that values have come back and there has not been the pullback of office space that was expected. Ares has not reduced



their space at all and is in fact looking for a larger space. In regard to Fund XV, a short-term partner left the firm in July 2021 and another left this month, but Ares has been adding industry veterans to its investment team and Partners to support its PE group. The fund is US-focused with some Western Europe and Asia exposure, and has earned a net IRR of 14.3 and a 1.48 multiple. Mr. McKenna asked why Fund VII has not called all of the capital. Mr. Alfeld stated that only 50% has been called thus far, the investment period is coming to a close, and he expects about 95% to be called over time. Mr. Alfeld thanked the Board and signed off the call at 11:20 a.m.

Mr. Francisco Daniele joined the call on behalf of PRIT. Mr. Fleming asked Mr. Daniele to review personnel, process and performance. Mr. Daniele reported that Laura Strickland has been added to PRIT's Client Services staff. Mr. Leonard cautioned Mr. Daniele that there are members of the public and/or media on the call, and to avoid discussion of any materials which may be considered proprietary. Mr. Daniele thanked the Board for its PE VY2022 commitment. Ms. Helen Huang was added to PRIM's PE Team. Mr. Daniele reported that PRIT is GFOA compliant as well as GIPS compliant, and has undertaken an ESG initiative with MIT's Sloan School. In its recent target allocation review (page 22) the allocation to Global Equity went down 1% and the allocation to Private Equity went up 1%. Mr. Leonard asked Mr. Daniele to clarify whether the ranges went up and Mr. Daniele answered in the affirmative. (PE went from a range of 11-17% to 12 to 18% and Global Equity went from 34-44% to 33-43%.) ColInvestments can make up to 40% of any Vintage Year, with no cost and no carry. The PRIT fund had \$104.3bn in assets as of 12/31. Mr. Daniele apologized that the numbers have not been updated to reflect returns through March, but noted that both absolute and relative performance was strong through December. As displayed on page 30, the Private Equity portfolio was up 33.2% of the three-year period through December gross of fees. Through March, PRIT's General Allocation Account was up 12.3%, 12.8% and 10.8% over the one, three and five-year periods. Mr. Fleming asked if members of the Board or NEPC had any questions and there were none. Mr. Zecha told them to keep up the good work and Mr. Daniele signed off the call at 11:37 a.m.

Ms. Denise D'Entremont, Julie Lind, Lindsay Becker, Georgette Baxter and Drew Zagari from Rhumblin joined the call at 11:38 a.m. Mr. Leonard cautioned the participants that there are members of the public and/or media on the call, and to avoid discussion of any materials which may be considered proprietary. The Chair requested an update on personnel, process, and performance. Ms. D'Entremont noted that as was reported last year Mr. Owen is retiring, and she will be stepping into the role as Chief Executive Officer. Rhumblin has added a Director of Business Development, Georgette Baxter. Mr. Zagari was added to the Fixed Income team as a Portfolio Manager. Ms. Julie Lind has been with the S&P team as portfolio manager for over 20 years. Rhumblin actively works to keep fees low, and recently renegotiated with State Street to further reduce expenses. Mr. Durkin asked if it is fair to assume the returns will be the same as

the S&P's, and Ms. Lind responded yes, other than the fact that Index holds no cash, so Rhumblin has a small "cash drag" on returns. In regard to TIPS, returns are also close to the Index. MWRAERS is in the process of reducing the TIPS allocation to \$0, and \$6,000,000 will be moved out of the account today. Ms. D'Entremont thanked the Board for its business and Mr. Fleming noted the allocation has been beneficial to the System for about 25 years. Mr. McKenna commented that he had questioned why they were in the portfolio, but that they were a good play at the time. Mr. Leonard stated that TIPS were up 7% last year on a risk-adjusted basis, so they provided similar returns to other securities with lower risk and higher liquidity, but in the increasing interest rate environment they no longer make sense. Ms. D'Entremont thanked the Board and the representatives from Rhumblin signed off the call at 11:56 a.m.

The Board determined each manager continues to operate in a manner represented when retained and outlined in the agreement between the Board and the manager.

- 12) NEPC
- a) Flash Report as of 3/31/2022
  - b) Rebalance Recommendation – VOTE
  - c) Board's Consent re. RhumbLine's Leadership Change – VOTE

Mr. Leonard began with a discussion of the current market environment. The S&P is down 10% YTD, with Growth down 17.3% and Value losing 3.1%. A rising rates environment will generally benefit Value, and one would expect Value to outperform Growth in such an environment. Non-US Developed was down 10%, and Emerging Markets were down 12.2%.

The All-Country Index dropped 11% due to the attacks on Ukraine, inflation, Covid concerns, China's zero-tolerance lockdown policy, which further impacts supply chain issues, and the increasing likelihood of a recession. The MSCI fell 8.8% and investment grade credit dropped 9.5%. High Yield is down 9%, and REITS are down 4% YTD. The adage that when equities go down, fixed income goes up has not held up and there has been "nowhere to hide." All are down due to macro concerns. The possible exception would be oil and oil infrastructure.

In regard to the Flash Report, US Equities were positive in March but are still down 6.7% YTD. Coho Relative value outperformed the rest of the Large Cap portfolio and was down 2%. The Small Cap portfolio is down 7.6% YTD. Boston Partners is down 2% and Loomis Sayles Small Cap is down 13.1%. All Non-US managers underperformed the benchmark by a wide margin, and the EM managers underperformed their benchmark as well. The Fixed Income portfolio performed well on a relative basis, but is still negative on an absolute basis, down 4.6% YTD. The Hedge Fund portfolio is down .8% YTD. RE and PE returns are not in yet for the first quarter. Mr. Leonard then asked for a Board vote on the rebalance recommendations. Mr. McKenna stated that he looked at

the Flash and the numbers are different. Mr. Leonard noted that the Flash contains 3/31 reporting and the rebalance numbers were through 4/21.

On a motion by Mr. Durkin and seconded by Mr. Zecha:

**VOTED**

to approve the rebalance recommendations as presented by NEPC. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

The rebalance transfer recommendations approved were:

Rhumblin S&P 500	(\$2,000,000)
Coho Relative Value	(\$5,000,000)
Loomis Sayles FDT	(\$6,000,000)
Terracap V	(\$8,459,501)
Cash	(\$4,540,499)

Mr. Leonard stated that his presentation is complete unless there are any questions. The Executive Director noted in regard to item 12c) that Rhumblin has requested investors' consent to the change in leadership, specifically to promote President Denise D'Entremont to Chief Executive Officer. The Chair noted that the promotion is well-deserved and expressed the Board's appreciation of her work on this System's behalf for over twenty years.

On a motion by Mr. Pappastergion and seconded by Mr. Zecha:

**VOTED**

to approve and execute the requested consent to the installation of Denise D'Entremont as Rhumblin's Chief Executive Officer with the Board's compliments. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

At 12:20 p.m. the Chair declared a five-minute recess, and asked the Board to return at 12:25 p.m.

The Board resumed the meeting at 12:25 p.m.

Mr. Zecha requested that the Board take a vote to accept the 2021 Annual Statement of Financial Condition of the MWRA Employees' Retirement System as prepared by the Executive Director and as signed by the Board members before it is submitted to PERAC. Mr. Zecha stated that he knows and appreciates the work that goes into the report, especially given the complexity of the investment portfolio, and the Executive Director completed it while also working on the CLA Audit, the ACFR, the Actuarial Valuation data and process as well as all of the retroactive retirement calculations resulting from the contract

settlements. Mr. Fleming and Mr. Pappastergion concurred with Mr. Zecha's remarks.

On a motion by Mr. Durkin and seconded by Mr. Zecha:

**VOTED**

to approve the 2021 Annual Statement as presented by the Executive Director. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

Mr. Fleming extended his great thanks to the Staff.

13) Segal January 1, 2022 Preliminary Actuarial Valuation

Lisa VanDermark, Vice President and Consulting Actuary from Segal began the presentation of the preliminary valuation results at 12:30 p.m. She was joined on the call by associates Sara Monde and Gwen Zhu. Ms. VanDermark thanked the Executive Director for her work on the data that went into the valuation, for completing the year-end Asset value and Annual Statement in a timely manner, and for submitting the budget so Segal could get the results to the Board. Segal has done a valuation every year for the past ten years and the number of actives has been within 10 plus or minus of 1110. As of 12/31/2021 there were 1044 active participants, a decline of 5.3% from the prior valuation. The number of non-vested terminated members is up, but they carry very little liability. The assets returned 13.82% on a market value basis in 2021, while the return on the actuarial value of assets was 7.44%. This represents a gain over the assumed rate of 6.9%. The MVA was \$728.2m and the actuarial value was \$666.7m. Mr. McKenna asked Ms. VanDermark to explain the action taken by the Board last year to use the gains. Ms. VanDermark responded that the Board had made a one-time decision to use half, or \$18.1m of the roughly \$37.6m gains to fund assumption changes, rather than defer the gains. In the 1/1/22 valuation, the system experienced net gains on assets and administrative expenses. Segal recommends assumption changes to administrative expenses to match the amount approved in the Retirement System Budget. In addition, Segal suggests an update to the mortality assumptions, which would result in an increase to UAAL of approximately \$1.2m. The investment return assumption is within a reasonable range of Segal Marco's and NEPC's expectations. As reported on page 7, the Employer Normal Cost has declined from \$4.3 to \$4.0m because the number of actives has declined, and because newer employees are contributing at higher rates than were those who retired. The Unfunded Actuarial Accrued Liability (UAAL) dropped from \$83.9m to \$76.5m. The funded ratio based on the actuarial value of assets went from 88.23% to 89.71%. Ms. VanDermark noted that there are macro concerns which could significantly impact the value of assets in the coming year. Page 8 shows last year's funding schedule. Page 10 shows a funding schedule using the 6.9% investment return assumption with appropriation payments increasing 12.05% year over year, and full funding at

2030. Page 11 shows the same assumptions but reflects an adjustment to 1150 active plan participants.

Mr. Durkin commented that 1150 is actually an aspirational goal and that it has been extremely difficult to hire. He appreciates knowing what the numbers would look like and what the impact would be later in time. Mr. Durkin recommended the Board's adoption of the schedule on page 10. Mr. Pappastergion agreed that the 1150 is probably not accurate in the short-term. Mr. Durkin asked whether the Actuarially Determined Contribution (ADC) could be smoothed by taking the \$15m expected drop from \$24.8m in 2029 to \$10.9m in 2030 and applying it to earlier years in the schedule. Ms. VanDermark asked Mr. Durkin to clarify. Mr. Durkin asked whether the Board could keep 2030 at \$25m and reduce the ADC for 2024-2029. Ms. VanDermark responded that whether that would be a prudent course of action is a question for the Board, but whether such an action would be approved is a question for PERAC's Actuary. PERAC has long established that they will not approve a funding schedule which reduces the planned ADC. Mr. Fleming stated that last year at Mr. Durkin's suggestion the Board developed a reasonable ARC increase level so the appropriation would be more predictable in future years and questioned why the Board would now change that. Mr. Fleming stated that Mr. Durkin is asking for an effective decrease in the ARC. Mr. Durkin countered not in total, and that he is just asking whether "we can take the 2030 break earlier." He expressed concerns about the \$15m drop from 2029 to 2030. Ms. VanDermark stated that it is the Board's decision whether to use the gains to get the System fully funded earlier or to take the gains. Mr. Zecha asked whether the 2023 ADC is baked in and Mr. Durkin responded that it is. Mr. Zecha asked Ms. VanDermark what happens if 2022 is flat and the fund experiences a 0% return. Mr. Durkin stated that it is semantic, the schedule will go to \$25m anyway, and that the later years of the schedule will change, and that at this point it is pro forma. Mr. Zecha questioned how GFOA and the bond rating agencies will look at this. Mr. Durkin stated that they will look more at the funded ratio. He stated 2023 is already certain and that 2024 – 2027 are used for budget planning purposes. The rest of the schedule will change, the Board just needs to show a plan for 2030. He continued that it helps the budget but won't affect the funding date. Mr. Zecha asked Ms. VanDermark about Segal's progress on the numbers he requested showing a reduction to the return assumption from 6.9% to 6.75% and to 6.5%. Ms. VanDermark shared on the screen a draft schedule which shows that if the return assumption were reduced from 6.9% to 6.75%, the UAAL would go up to roughly \$91.8m and the percent increase to the appropriation year over year would be 13.18% with 2030 as the full-funding date. Ms. VanDermark next shared on the screen a draft schedule which shows that if the return assumption were reduced to 6.5%, the 7/1/2022 UAAL would go up to \$113.6m and the percent increase to the appropriation year over year would be 18.79% with 2030 as the full-funding date. Finally, Ms. VanDermark presented a draft schedule which shows that the lowest possible increase year over year to fully fund by 2030 would be 9.25%, but questioned whether PERAC would even approve the schedule, and if so whether it would be

accompanied by caveats and comments. Mr. Zecha asked if the System experiences losses what will happen to the appropriation in future years. Mr. responded that it's too expensive to reduce the return assumption. Mr. Zecha noted if the Authority contributes more now, it will help drop future years' appropriations. Mr. Durkin stated that it won't help, and that the budget projections are for five years so it's academic. Mr. Zecha stated that the experts are expecting a negative year and are acknowledging increased likelihood of recession, and the unfunded liability numbers will just keep getting bigger because we are looking at such as short time horizon. Mr. Zecha stated that he wants to keep 23, 24 and 25 the same. Mr. Durkin again stated that it won't help, and that he wants the numbers to be lower in the earlier years of the schedule. Mr. Zecha stated that Cities and Towns have large influx of federal funds coming in right now for infrastructure, and that even though it can't be used directly for pension funds, it could free up funds to ease the impact of keeping the System on the current schedule. We already know the schedule will go up if we don't earn at least a 6.9% return for the year and we are currently down almost 5% YTD. Mr. Durkin stated that we have \$62m in deferred asset gains because of smoothing. Mr. Zecha stated if there are losses, those will be gone. Mr. Durkin stated that the losses will be smoothed as well. Mr. McKenna stated that the Board already used the floor, next year we have one less year to play with, and asked Ms. VanDermark what other cards the Board will have left to play if we do this now. He remarked that eventually there will be no relief left and it will have to be paid. Ms. VanDermark acknowledged that as the schedule gets shorter gains and losses become more pronounced. Segal expects there could be additional losses over the next few years, noting that the last three years have been good and that statistically the System will miss the 6.9% mark half of the time. Mr. Zecha stated that he thinks it makes sense to table the matter to provide Segal the opportunity to present the other numbers, perhaps to a subcommittee. The Chair stated he wants all numbers presented to the full Board.

On a motion by Mr. Zecha and seconded by Mr. McKenna:

**VOTED**

to table the matter of approval of a Funding Schedule in order to provide Segal time to produce and present alternative schedules. 3 -2, roll call with Mr. Durkin voting no, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting no.

Mr. Zecha stated that if timing is a concern because of the budget, we can convene a special meeting. Mr. Pappastergion stated that he wants to see the impact of what Mr. Durkin is suggesting. Ms. VanDermark reiterated that she is not sure PERAC would approve a schedule which implements Mr. Durkin's suggestion. She asked the Board's guidance on next steps. Mr. Fleming commented that the Board committed to evening out the appropriation increases last year and that only the ratepayers benefited, not the System, and not the retirees. Now Mr. Durkin is trying to go back on that, and something needs to be

given back to the retirees in the form of a COLA. Mr. Zecha asked to see what the impact would be on 2024 and 2025 if 2022 is a 0% return year, and if Mr. Durkin's suggestion were implemented, what would happen a few years out. Mr. Zecha stated that he voted in favor of a request a few years ago to reduce the appropriation and still regrets doing so. He is thinking of the best interests of everyone involved. Mr. Fleming stated that if the Board is considering lowering the appropriation pursuant to Mr. Durkin's request, he wants the numbers with that assumption to include a \$17,000 COLA base for the retirees. Mr. Fleming noted that there was a motion to table which prevailed. Ms. VanDermark asked again for direction from the Board and stated she just wants to be sure she has an accurate list of the schedules the Board has requested. Ms. VanDermark noted that multiple additional schedules will require an additional fee, and Mr. Fleming acknowledged and assented. So far she has:

1. Finalize the numbers pertaining to Mr. Durkin's request to use the expected \$15m decrease from 2029 to 2030 over the next few years with the current assumptions, with the understanding it may not be approved by PERAC;
2. Same as #1 but with a 17,000 COLA;

Mr. McKenna asked about the status of the 5% COLA, and Mr. Zecha responded that is just a House proposal at this point. Mr. Fleming reiterated if we are going to help the ratepayers, then we are going to help the retirees who are dealing with inflation. We did it last year, and the retirees got nothing.

3. increasing at current rate of 12.05%
4. Lowest annual increase to keep the fully funded date at 2030

Mr. Pappastergion asked what the ARC is now for FY23, and Mr. Durkin responded \$12m. Mr. Zecha asked about the 2024 number, and Mr. Durkin answered \$14m. Mr. Durkin stated he really didn't want to comment further thereby violating the motion to table. Ms. VanDermark started over trying to ascertain the materials the Board is requesting:

1. A schedule showing the minimum percentage required for year-over-year increases to fully fund by 2030 assuming 6.9% return with the understanding it may not be approved by PERAC;
2. The same as #1 but with a \$17,000 COLA base;
3. The current schedule with 6.9% return, full-funding by 2030 and a \$17,000 COLA base; and
4. A stress test to see what the impact of a 0% return for CY22 would be on the UAAL and the remaining years of the schedule.

Mr. Zecha asked if it would harm the budget process to wait until the next meeting, and Mr. Durkin responded that it will not, and that 2023 is already set. Ms. VanDermark stated that she will send the schedules to the Executive Director prior to the meeting. The Chair stated he wants no further discussion on the matter and proceeded to the next item on the agenda.

## 14) Legal – John Burke Section 7 Medical Panel Clarification Requests

The Retirement Coordinator reported that both Mr. Gibson and Mr. McDonough had scheduling conflicts and were unable to attend, but that Counsel had drafted the requested clarification letters regarding Mr. Burke and that she had uploaded them to PERAC's PROSPER System.

Mr. Zecha asked whether the Board has anything on record as to whether it follows Robert's Rules, Cushing's, and Mr. Durkin stated the meetings run fine as they are.

Mr. Pappastergion asked if the Board will be returning to in-person meetings in the near future. Mr. Durkin stated that he is fine with returning. Mr. Durkin asked him to speak to Mr. Laskey to get his OK. Mr. Fleming asked whether the managers will be in-person, and Mr. Pappastergion stated they can continue to be participate virtually. Mr. Zecha added that Board Counsel can continue to participate virtually as well. Mr. Fleming stated that hybrid can be difficult but if IT can assist and accommodate we will try for the May meeting. Mr. Fleming noted that there is an end date in the Governor's Order by which public bodies must return to in-person, but Mr. Pappastergion expects the remote option will be made permanent.

On a motion by Mr. Zecha and seconded by Mr. Pappastergion:

**VOTED**

to schedule the May 2022 meeting of the MWRA Employees' Retirement Board as an in-person meeting with managers and Board Counsel continuing to participate remotely. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

On a motion by Mr. Zecha and seconded by Mr. Pappastergion:

**VOTED**

to adjourn the April 8, 2022 meeting of the MWRA Employees' Retirement Board. 5-0, roll call with Mr. Durkin voting yes, Mr. McKenna voting yes, Mr. Pappastergion voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes. The meeting was adjourned at 1:42 p.m.

The following communications were distributed to the Board for their review:

PERAC MEMO #10/2022 – Tobacco Company List

PERAC MEMO #11/2022 – Mandatory Retirement Board Member Training  
– 2<sup>nd</sup> Quarter 2022

PA Capital is now Apogem Capital



**The Board reserves the right to consider items on the agenda out of order. The listing of items is those reasonably anticipated by the Chair to be discussed received at least forty-eight (48) hours prior to the meeting. Not all items listed may in fact be discussed and other items not listed may also be brought up for discussion to the extent permitted by law. Items identified for discussion in Executive Session may be conducted in open session, in addition to, or in lieu of discussion in Executive Session.**

**Date of next scheduled Retirement Board meeting is Thursday, May 26, 2022, 10:00 a.m., Chelsea**

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James M. Fleming, Elected member

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Thomas Durkin, Appointed Member

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Kevin McKenna, Elected Member

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Andrew Pappastergion, Ex-Officio Member

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Frank Zecha, Fifth Member



**Firm: Kayne Anderson Capital Advisors, L.P. (“KACALP”)**

**Strategy/Product: Kayne Anderson Energy Fund VII, L.P. (“EF VII”)**

**Client: MWRA Employees’ Retirement System**

**NEPC Manager Due Diligence Questionnaire - Update**

**Instructions**

In support of our upcoming meeting we ask that you please complete this due diligence questionnaire. Please provide your responses in the form of brief descriptions, lists or tables added directly to this Word document.

Thank you for taking the time to complete this questionnaire. Please note that all materials submitted in relation to MWRA Retirement System may be subject to disclosure consistent with Massachusetts Public Record laws.

**Firm/Organization**

1. Have there been any changes in ownership or management in the past year?

*We appointed Al Rabil, CEO of all of Kayne Anderson in June 2021 (was previously CEO of Kayne Real Estate), the firm has now completed its successful succession from its founders to the next generation. There is a strong team of executive management, portfolio managers, and operating personnel under Al Rabil. In addition, the firm expanded its board to now include 10 members in total representing all of Kayne investment verticals. We restructured the firm’s ownership in late 2020 in order to convert into an all-common equity structure and broaden the partnership. This change in ownership incentivizes the next generation of firm leadership as they continue as they continue to build a leading alternative investment firm.*

2. List firm AUM, net flows and accounts gained/lost for the past 5 years.

	2017	2018	2019	2020	2021	3.31.2022
# of Clients Gained	22	19	18	24	7	7
Assets (\$MM) Gained	5,865	5,979	3,153	6,032	5,771	1,861
# of Clients Lost	17	13	13	1	8*	4
Assets (\$MM) Lost	526	1,266	356	2	1,158*	

*\*Excludes Irradiant transfers*



3. Have there been any new or discontinued products in the past year?

*Kayne is committed to its existing broad investment mandates in Energy Infrastructure, Renewables, Credit, Real Estate, and Growth Equity and anticipates measured growth as we broaden existing strategies and possibly include complementary strategies.*

*The Firm is currently marketing the following private equity funds: (1) Kayne Anderson Core Real Estate Fund, an open-end fund focused on investment in stabilized real estate in medical office, senior housing, student housing and self-storage properties with a current size of \$3.7 billion; (2) Kayne Anderson BDC, a seed investor opportunity, focused on core middle market direct lending; and (3) Kayne Partners Fund V, L.P., focused on privately held, high-growth mission critical software companies with a target size of \$500 million; and (4) KA Real Estate Impact Housing Fund, an open-end fund focused on acquiring/renovating and developing multifamily housing that promotes housing attainability for middle market renters, social impact, and environmental sustainability with a target of \$1.5 billion.*

*The Firm also has several open-end funds that are continuously in the market and invest in the equity and debt of energy infrastructure and renewable infrastructure companies.*

4. Are any products capacity constrained?

*No products are capacity constrained.*

5. Describe any current or pending regulatory, compliance or litigation issues and the expected business impact.

*There have been no material legal proceedings against Kayne or its principals that would impact the day-to-day operations of the Firm or its reputational standing. Further, there is no pending litigation against the Firm or its principals relating to investment management activities. No employees have been investigated, disciplined, suspended, subpoenaed, indicted, prosecuted or barred from investing activities by state or federal government regulatory authorities.*

6. Describe your diversity, equity and inclusion efforts with regard to the firm and its employees.

*Kayne Anderson is committed to fostering, cultivating, and preserving a diverse workplace and a culture of inclusion and recognizes the value of attracting and*



*retaining employees with a variety of backgrounds, knowledge, experiences and abilities. We embrace and encourage our employees' differences in age, race, ethnicity, family or marital status, gender identity or expression, language, national origin, physical and mental ability, religion, sexual orientation, socioeconomic status, military service status, and other characteristics that make our employees unique. We believe that diversity contributes to our business success and benefits individuals, clients, teams, investors and stakeholders.*

*Kayne Anderson's DE&I Council is focused on four areas of influence outlined below: Education, Workplace Initiatives, Recruitment and Inclusion, and Community Engagement.*

*While we are proud of the progress we have made to-date, we remain committed to continuous improvement. We are committed to continually engaging with our employees, portfolio companies, and investors to ensure our practices throughout all levels of the organization reflect a thoughtful and impactful approach to actively promoting inclusion and diversity.*

### **Portfolio Management Team**

1. Have there been any changes in the portfolio management team in the past year?

*No material changes.*

2. Are there any expected changes to the team in the future (planned additions or departures)?

*No expected changes to the team in the future.*

### **Process**

1. Have there been significant changes in any of the areas below in the past year?

*No changes in any of the areas below in the past year.*

- Identification of investment ideas
- Process for exploring and vetting ideas
- Portfolio trading practices including buy/sell rules
- Approach to portfolio monitoring and risk management



## Philosophy

1. Describe recent changes in investment philosophy, if any.

*Although there have not been any material changes in KAEF VII's investment philosophy, the Fund has adapted to the existing environment following the impact of COVID-19 to global capital markets.*

*KAEF VII has repositioned its unrealized investments by placing a higher focus on liquidity and existing cash flow maintenance versus delineation of new inventory and "proof-of-concept" development. While we remain focused on compounding returns via the drill bit and re-investing a portion of cash flow into ongoing development, we expect new opportunities to include existing production along with an attractive inventory of undeveloped locations.*

## Portfolio

1. If not included in your meeting presentation, provide portfolio holdings, sector exposure, geographic exposure and common characteristics (yield, duration, market cap, P/E, etc.).

*Please reference marketing presentation materials.*

2. List strategy AUM, net flows and accounts gained/lost for the past 5 years.

*Please see cashflow spreadsheet attached.*

3. Describe investor concentration for the strategy and note the percent of AUM attributable to the top five investors.

Org Type	EF V			EF VI			EF VII			EF VIII		
	%	Commitments	# of LPs	%	Commitments	# of LPs	%	Commitments	# of LPs	%	Commitments	# of LPs
Corporate/Private Pensions	18%	151,597,467	17	12%	\$196,387,782	28	19%	\$387,310,000	37	15%	\$151,472,500	24
Family Office	4%	34,652,533	12	7%	\$105,612,218	33	4%	\$77,570,000	35	3%	\$28,427,500	16
Foundation/Endowment	46%	378,200,000	62	38%	\$604,500,000	71	23%	\$461,800,000	47	37%	\$368,050,000	32
Fund of Funds	8%	65,443,000	12	9%	\$147,851,400	11	3%	\$66,000,000	10	3%	\$32,000,000	2
High Net Worth	6%	50,932,500	53	15%	\$233,675,000	148	17%	\$354,106,000	298	16%	\$164,845,000	181
Insurance	3%	25,000,000	1	7%	\$105,000,000	5	5%	\$105,250,000	2	6%	\$59,000,000	2
KACALP Capital	4%	32,174,500	44	3%	\$50,973,600	49	4%	\$88,814,000	66	4%	\$35,275,000	30
Public Pensions	10%	82,000,000	5	10%	\$156,000,000	8	25%	\$510,600,000	22	16%	\$165,000,000	4
<b>Total</b>	<b>100%</b>	<b>820,000,000</b>	<b>206</b>	<b>100.0%</b>	<b>\$1,600,000,000</b>	<b>353</b>	<b>100.0%</b>	<b>\$2,051,450,000</b>	<b>517</b>	<b>100.0%</b>	<b>\$1,004,070,000</b>	<b>291</b>

## Performance / Market Outlook

1. If not included in your meeting presentation, provide trailing returns as of the most recent quarter-end and calendar year returns for the past 10 years, both relative to benchmark.

*Please see the attached Excel titled "KAEF Investor Overview (3.31.22)".*



2. Briefly discuss recent performance trends and identify environments in which the strategy is likely to be in or out of favor.

*Following the depressed demand for hydrocarbons in 2020 and early 2021 due to the impact of COVID-19, the limited production growth during 2020 and much of 2021 resulted in a significantly tightened supply-demand balance and commodity prices have rebounded significantly.*

*Through year-end 2021, the Fund prioritized capital discipline and utilized discretionary cash flow to pay down debt outstanding and fund select high-returning development projects, materially improving the leverage profile and liquidity status of our remaining investments, Kraken Resources, 89 Energy III and Riverbend Permian II. The ample liquidity at these three investments has positioned the investments to capitalize on the favorable commodity price environment. All three companies currently have the financial flexibility to fund ongoing development, pursue accretive bolt-on acquisitions or make equity distributions in the near to medium-term future.*

3. Describe your market outlook and how strategy positioning is impacted by your views.

*The three portfolio companies (Kraken Resources, 89 Energy III and Riverbend Permian II) remain in substantially improved positions to capitalize on the recovery in commodity prices and continue to create value through measured high-returning development projects. Both Kraken Resources and 89 Energy III are in the process of bringing on a second rig to accelerate the development of their large inventories of economic locations at current commodity prices, growing cash flow organically and converting undeveloped reserves to existing production.*

*These companies are well-positioned to scale their production bases and aggregate within their respective basins via bolt-on acquisitions at attractive values. We believe the added size will provide flexibility for various realization opportunities for our investors. The A&D market has experienced a considerable uptick in announced transaction value after several years of historically weak activity, so we will continue to monitor the market for opportunistic exits of our remaining investments.*



4. Could you please include a slide in your presentation that sows the MWRA's account history, initial contribution, cumulative subsequent contributions, cumulative subsequent distributions, gain/loss and current value.

## MWRA Employees' Retirement System

As of March 31, 2022

**Kayne Anderson**

Capital Advisors, L.P.

### Investment Detail and Net IRR

Fund	Investment Start Date	Commitment Detail		Capital Activity			Performance			Value Date	
		Total Funds Committed	Unfunded Commitment	Contributions	Internal Transfers In	Internal Transfers Out	Withdrawals/Distributions	Net Gain/(Loss)	Net Capital Balance		IRR
<b>Commitment Funds</b>											
EF7	12/01/15	\$5,000,000	\$623,163	\$5,289,437	-	-	(\$2,143,868)	(\$79,005)	\$3,066,564	-0.5%	03/31/22
<b>Total</b>		<b>\$5,000,000</b>	<b>\$623,163</b>	<b>\$5,289,437</b>	<b>-</b>	<b>-</b>	<b>(\$2,143,868)</b>	<b>(\$79,005)</b>	<b>\$3,066,564</b>	<b>-0.5%</b>	

### Unfunded Commitment Summary

Fund	Investment Start Date	Capital Commitment	Contributions	Adjustments	Unfunded Commitment	Net Capital Balance	As of Date	Capital Call From	Distribute To
<b>MWRA Employees' Retirement System</b>									
EF7	12/01/15	\$5,000,000	(\$5,289,437)	\$912,600	\$623,163	\$3,066,564	03/31/2022	External	External
<b>Total</b>		<b>\$5,000,000</b>	<b>(\$5,289,437)</b>	<b>\$912,600</b>	<b>\$623,163</b>	<b>\$3,066,564</b>			

*Investment start date represents the first effective cash flow date used in the calculation of the IRR.  
The above Contributions and Withdrawals/Distributions represent capital wired between Kayne Anderson and Partner's external account. Excludes transfers to/from Kayne entities, which are included in the Internal Transfers columns.  
For Commitment Funds, the above Contributions and Withdrawals/Distributions include deemed transactions, when applicable.*

*Unfunded Commitment represents the total amount of capital that the fund may still call from your account. This amount generally may be called only during the Commitment Period or to fund investment commitments made but not funded during the Commitment Period, and expenses, including fees, whenever incurred. Prior distributions from the fund may be included in this amount if the distributed proceeds are recallable under the fund's limited partnership agreement. Please refer to the fund documents for further information regarding the Unfunded Commitment.*

**Kayne Anderson**

*Capital Advisors, L.P.*



**KAYNE ANDERSON ENERGY FUNDS**

**MWRA Employee's Retirement System Discussion**

**May 2022**

**[www.kaynecapital.com](http://www.kaynecapital.com)**  
**Confidential**



# Kayne Energy Private Equity Funds

Investment team

**Kayne Anderson**

*Capital Advisors, L.P.*

## Kayne Energy Private Equity Leadership



**Mark Teshoian**  
*Managing Partner*



**Danny Weingeist**  
*Managing Partner*

### KAEF Leadership

**Mike Heinz**  
*Managing Partner*

**Mark Teshoian**  
*Managing Partner*

**Ryan Sauer**  
*Managing Director*

### KPEIF Leadership

**Danny Weingeist**  
*Managing Partner*

**Mark Teshoian**  
*Managing Partner*

**David Iverson**  
*Senior Managing Director*

## Finance & Structuring

**Jack Foster**  
*Managing Director*

**Oren Marouni**  
*Managing Director*

**Jose Linardi**  
*Vice President*

**Kyle Murphy**  
*Vice President*

**Mitch Suson**  
*Vice President*

**Drew Colowich**  
*Associate*

**New Hire**  
*Associate*

**Brad Witmer**  
*CAO*

## Engineering & Operations

**Stephan Cadwallader**  
*Senior Vice President*

**New Hire**  
*Vice President*

**Turner Smith**  
*Senior Engineering Analyst*

**Angela Blevins**  
*Engineering Analyst*

**Steven Oliveira**  
*Engineering Analyst*

**Experienced investment team applying a deep technical and financial knowledge base to Kayne's two dedicated energy private equity strategies**

# MWRA Employees' Retirement System

As of March 31, 2022

**Kayne Anderson**

*Capital Advisors, L.P.*

## Investment Detail and Net IRR

Fund	Investment Start Date	Commitment Detail		Capital Activity				Performance			Value Date
		Total Funds Committed	Unfunded Commitment	Contributions	Internal Transfers In	Internal Transfers Out	Withdrawals/Distributions	Net Gain/(Loss)	Net Capital Balance	IRR	
<b>Commitment Funds</b>											
EF7	12/01/15	\$5,000,000	\$623,163	\$5,289,437	-	-	(\$2,143,868)	(\$79,005)	\$3,066,564	-0.5%	03/31/22
<b>Total</b>		<b>\$5,000,000</b>	<b>\$623,163</b>	<b>\$5,289,437</b>	<b>-</b>	<b>-</b>	<b>(\$2,143,868)</b>	<b>(\$79,005)</b>	<b>\$3,066,564</b>	<b>-0.5%</b>	

## Unfunded Commitment Summary

Fund	Investment Start Date	Capital Commitment	Contributions	Adjustments	Unfunded Commitment	Net Capital Balance	As of Date	Capital Call From	Distribute To
<b>MWRA Employees' Retirement System</b>									
EF7	12/01/15	\$5,000,000	(\$5,289,437)	\$912,600	\$623,163	\$3,066,564	03/31/2022	External	External
<b>Total</b>		<b>\$5,000,000</b>	<b>(\$5,289,437)</b>	<b>\$912,600</b>	<b>\$623,163</b>	<b>\$3,066,564</b>			

*Investment start date represents the first effective cash flow date used in the calculation of the IRR.*

*The above Contributions and Withdrawals/Distributions represent capital wired between Kayne Anderson and Partner's external account. Excludes transfers to/from Kayne entities, which are included in the Internal Transfers columns. For Commitment Funds, the above Contributions and Withdrawals/Distributions include deemed transactions, when applicable.*

*Unfunded Commitment represents the total amount of capital that the fund may still call from your account. This amount generally may be called only during the Commitment Period or to fund investment commitments made but not funded during the Commitment Period, and expenses, including fees, whenever incurred. Prior distributions from the fund may be included in this amount if the distributed proceeds are recallable under the fund's limited partnership agreement. Please refer to the fund documents for further information regarding the Unfunded Commitment.*

# MACRO OVERVIEW

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# Kayne Anderson Energy Funds

Commodity prices continue to strengthen in 2022

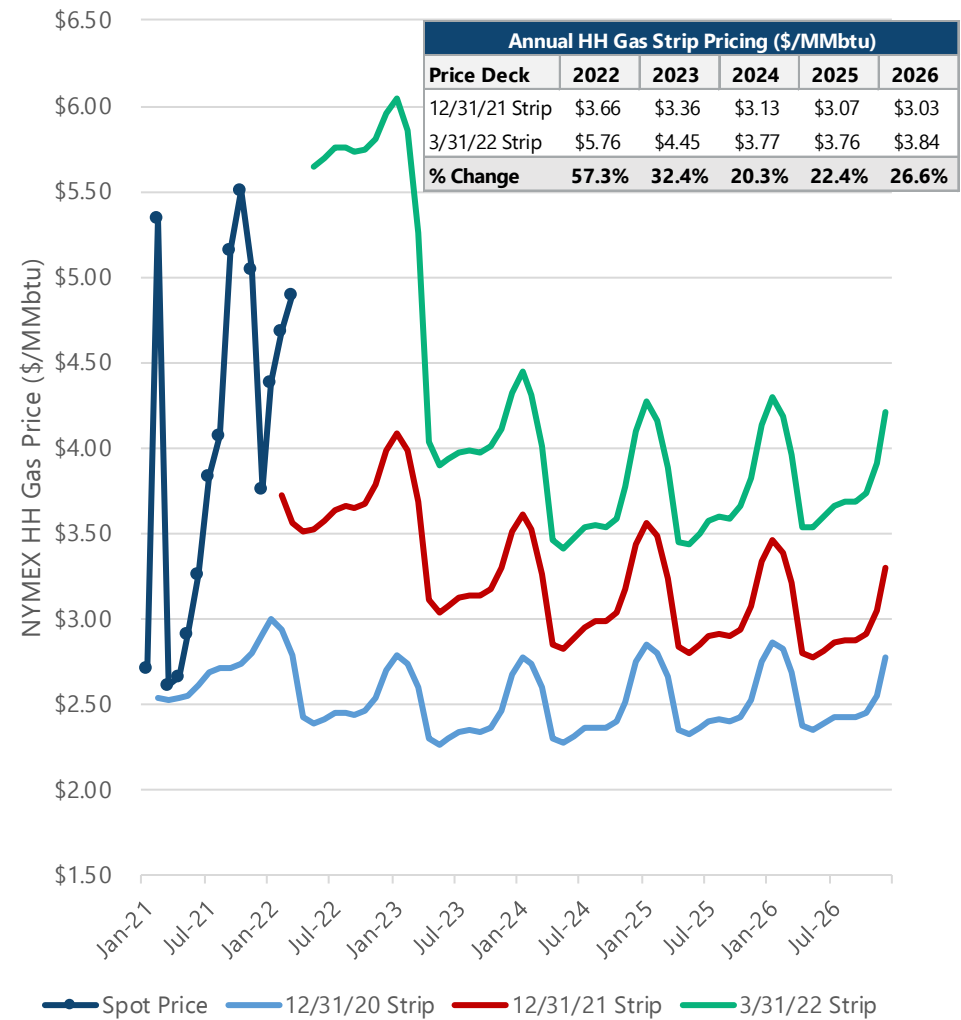
**Kayne Anderson**

*Capital Advisors, L.P.*

## NYMEX WTI Oil Prices (\$/bbl)



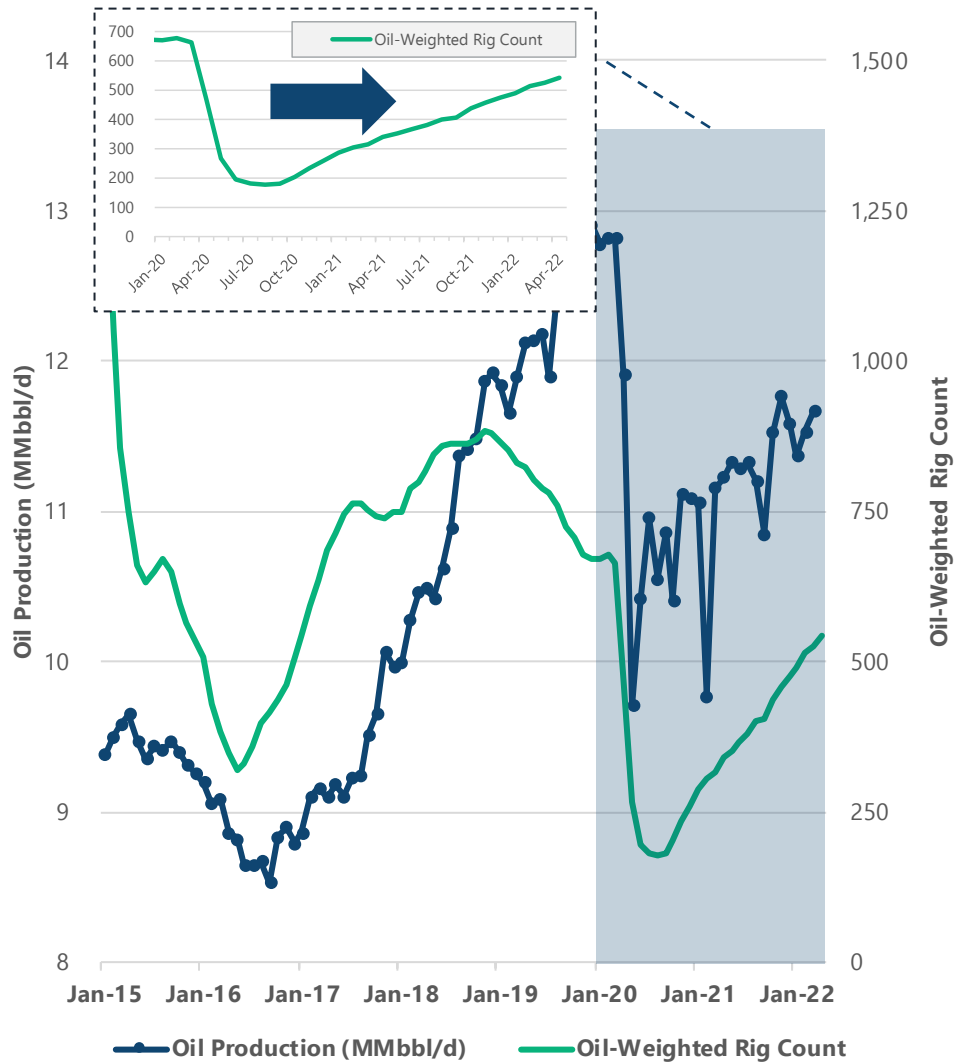
## NYMEX Henry Hub Natural Gas Prices (\$/MMbtu)



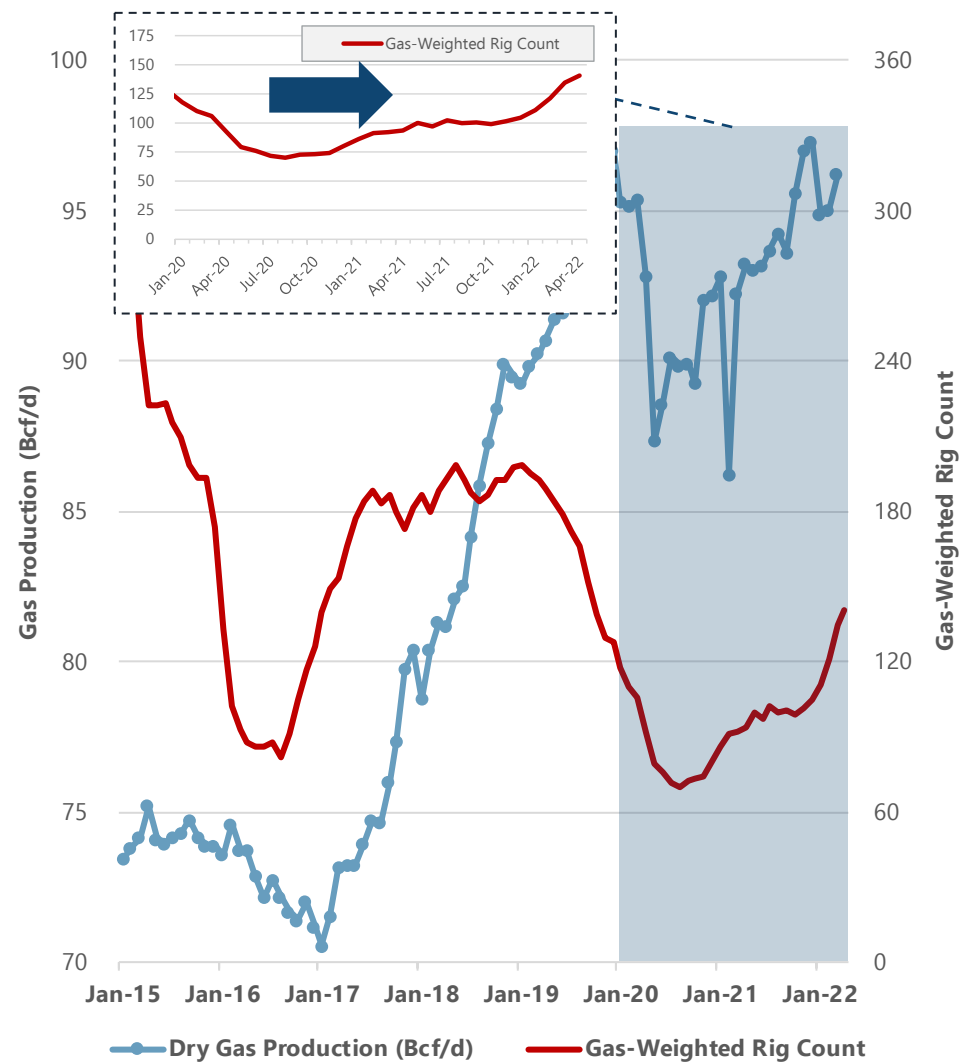
**A combination of significant underinvestment and a considerable rebound in demand has strengthened energy fundamentals and provides a constructive outlook for commodity prices**

Source: EIA and Mobius as of March 31, 2022.

## U.S. Oil Production vs. Rig Count Since 2015



## U.S. Dry Gas Production vs. Rig Count Since 2015



**Quickly rising commodity prices have failed to produce a corresponding ramp up in drilling activity, slowing the return of supply to the market**

Source: Baker Hughes and EIA as of April 19, 2022.

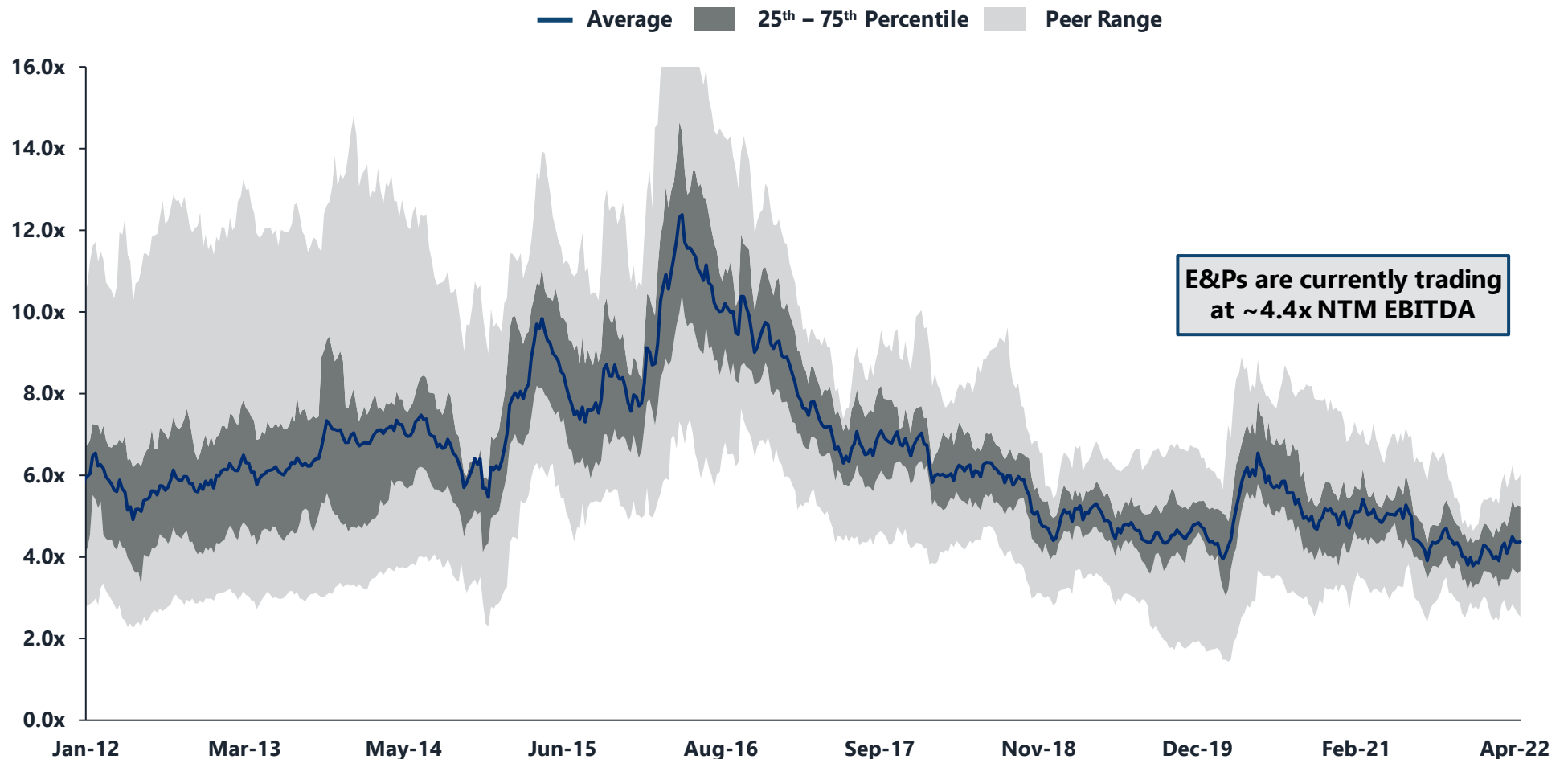
# Kayne Anderson Energy Funds

Historical E&P valuation multiples

**Kayne Anderson**

*Capital Advisors, L.P.*

## EV/NTM EBITDA Multiples Over Time<sup>1</sup>



**Despite recent trading strength, current public market valuations for E&P companies still suggest significant room to improve based on historical trading multiples**

Source: Citi. Market data as of April 19, 2022.

<sup>1</sup>E&P comp set includes: CLR, OAS, PDCE, CPE, LPI, XEC, SWN, CHK, MRO, DVN, APA, APC, NBL, MTDR, CNX, RRC, EQT, AR, GPOR.

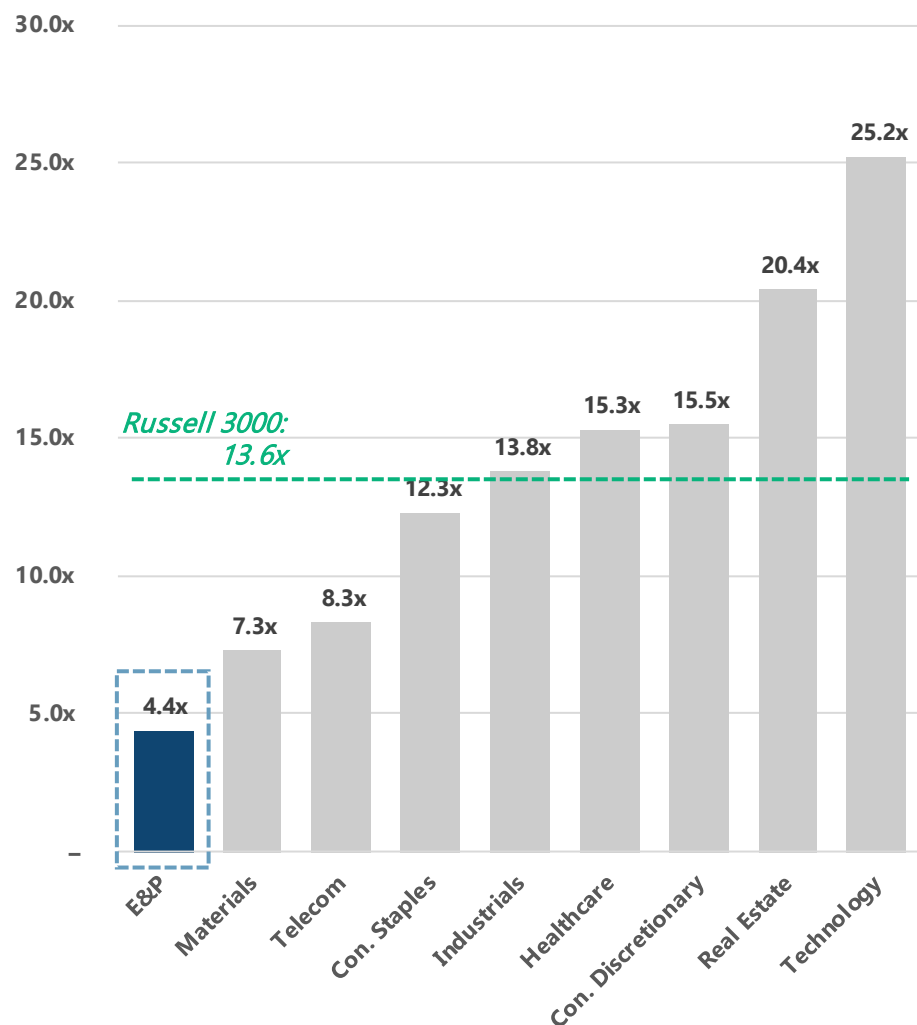
# Kayne Anderson Energy Funds

E&Ps currently trade at a significant discount to the broader market

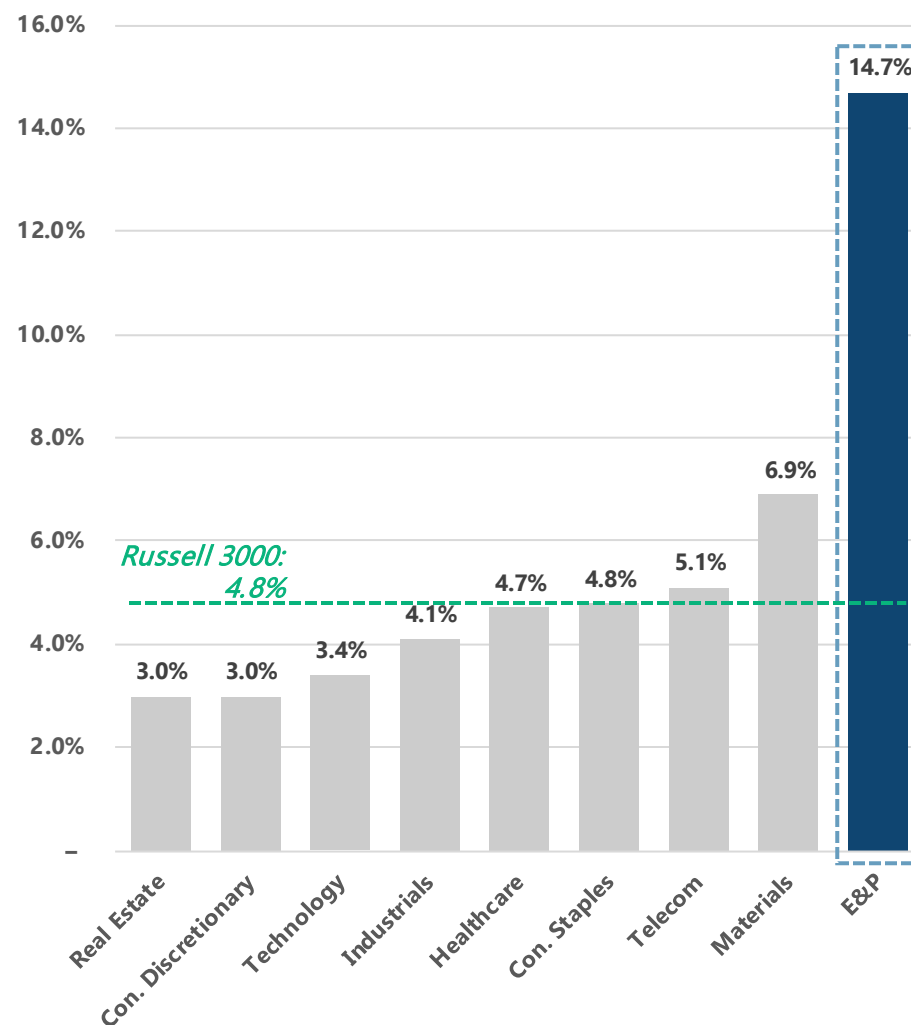
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## Enterprise Value/EBITDA by Industry



## Free Cash Flow<sup>1</sup>/Enterprise Value by Industry



**E&P companies trade at a discount to the broader market based on EBITDA multiples and free cash flow yield; moving more in line with other industries would suggest massive potential upside to current valuations**

Source: Factset, Raymond James Research.  
<sup>1</sup>Free Cash Flow defined as EBITDA, less capital expenditures.

## Energy Private Equity

- ESG pressures coupled with poor returns have driven many investors to abandon investing in energy (both LPs and diversified GPs)
- This trend is unlikely to reverse – even if returns improve
- Energy focused GPs recognize that future funds will likely be smaller, or in some cases, not possible
  - Upstream GPs raised a total of ~\$4 billion in 2020 and 2021 **combined**, representing an **83% reduction** from the 2017 high of ~\$24 billion

## Secured Debt ("RBL")

- Mass exodus of lending banks following huge losses from 2016 to 2020
- Banks that continue to lend have tightened lending standards, and large facilities (>\$500 million) have become very difficult to raise
- Banks have signaled that smaller producers are less likely to attract capital (ESG pressure, plus no economic justification without future capital markets business)

## High Yield Debt

- High yield markets are open for producers – although a meaningful spread exists for lower quality assets
- **Scale is critical** – market is effectively closed to issuers below ~\$2 billion of market value
- Credit ratings matter – step change difference in cost of debt exists for issuers below a ~BB rating



# Kayne Anderson Energy Funds

E&P M&A landscape

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## Large Cap Battlegrounds

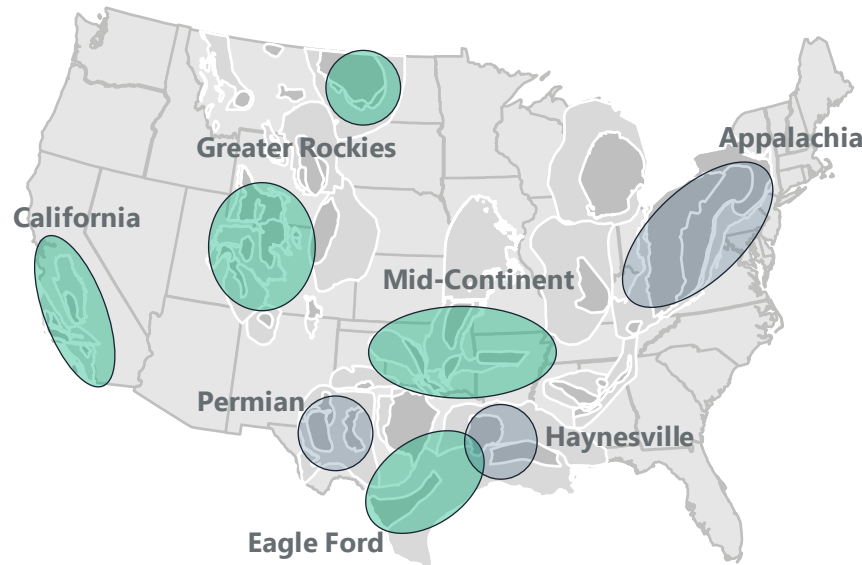
- The Permian, Haynesville and Appalachia regions have seen a resurgence in M&A activity by public large-cap buyers scrambling to achieve and maintain critical scale
- Competition for quality assets in these basins is dominated by large publics with greater access to capital

### Notable 2021 Transactions

**PIONEER** / **DOUBLEPOINT**  
NATURAL RESOURCES ENERGY  
 Pioneer acquired Permian producer DoublePoint for \$6.4 Bn

**EQT** / **ALTA**  
 EQT acquired Marcellus producer Alta Resources for \$2.9 Bn

**CHESAPEAKE** / **Vine**  
ENERGY ENERGY  
 CHK acquired Haynesville producer Vine Energy for \$2.2 Bn

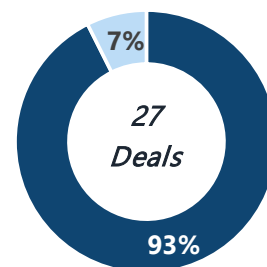


## PE/Small Cap Dominated Regions

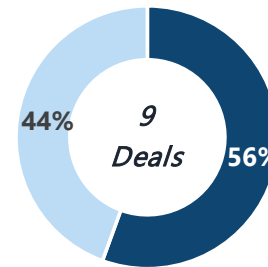
- Regions such as the Eagle Ford, Williston, MidCon, Rockies and California remain largely controlled by PE-backed and smaller public companies
- While these regions have also seen a recovery in M&A activity, they have yet to attract the same attention from public large-cap consolidators
- Operators in these basins will continue to face pressure to grow or exit

## Buyer Type (Deals > \$500 million since 2020)

### Permian, Haynesville & Appalachia



### All Other Basins



■ Public Buyers ■ Private Buyers

**KEPE's portfolio companies seek to acquire quality assets in basins with less competition and fragmented ownership**

Source: Enverus as of April 19, 2022.

# **KAEF VII UPDATE**

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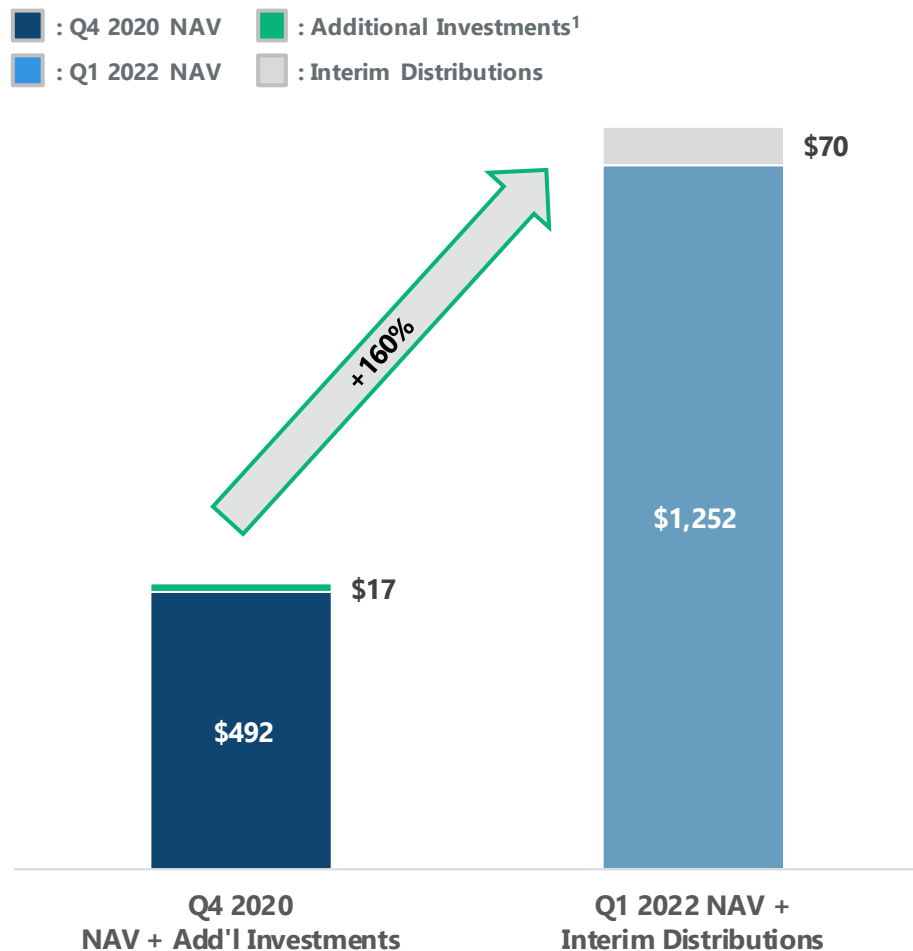
# Kayne Anderson Energy Funds

KAEF VII gross fund performance update

**Kayne Anderson**

*Capital Advisors, L.P.*

## KAEF VII Gross Performance Since Year-End 2020



## Improved Balance Sheets

### 89 Energy III

- Improved commodity prices drove outperformance vs. budget and allowed for over \$120 million of debt repayment in 2021
- Took advantage of an improved A&D market and monetized its STACK assets for \$45 million, using proceeds to pay down debt and reduce year-end LTM leverage to below 1.0x

### Kraken Resources

- Successfully divested its Mountrail County asset for \$271 million, with proceeds used for debt repayment and to make a \$100 million equity distribution
- Paid down \$365 million of debt during 2021, exiting the year with leverage below 0.5x on an LTM basis

## Strategic Investments

### 89 Energy III

- Picked up rig in the second half of 2021 and turned 8 horizontal wells to production in a high-graded area of 89 Energy III's acreage position
- Plan to run a 2-rig development program for the remainder of 2022 (~30 wells), with a capital budget of just over \$100 million

### Kraken Resources

- Brought online 17 new wells in 2021 with encouraging early-time results; plan to run a 2-rig development program during 2022
- Closed on a bolt-on position acquisition surrounding Kraken's existing acreage position in Montana for \$71 million in Q1 2022

### Riverbend Permian II

- Turned 9 horizontal wells to production in 2021 and increased current production to over ~4,500 boe/d (from ~580 boe/d in December 2020)
- Completed 3 bolt-on acquisitions in 2021, which added 15 highly-economic gross locations to the company's operated inventory

**KAEF VII remains focused on creating value through the drill bit at a manageable reinvestment rate, allowing for accelerated equity distributions to investors**

*Performance data is provided through March 31, 2022.*

*Past performance is not a guarantee of future performance.*

<sup>1</sup>Additional investments represent investments made by KAEF VII between 4Q 2020 and 1Q 2022.

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*This presentation contains "forward-looking statements". The words "forecast", "estimate", "project", "intend", "expect", "should", "believe" and similar expressions are intended to identify forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors, including those discussed in the Memorandum, which may cause the Fund's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. In addition, new risks and uncertainties may arise from time to time. Accordingly, all forward-looking statements should be evaluated with an understanding of their inherent uncertainty. Except as required by law, we assume no obligation to publicly update or revise these forward-looking statements for any reason, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.*

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*The information contained herein has been prepared by the Firm and is current as of the date hereof. Such information is subject to change. Any statements or facts contained herein derived from third-party sources are believed to be reliable but are not guaranteed as to their accuracy or completeness. Unless indicated otherwise, statistical information is provided as of the close of the quarter indicated on the cover of this presentation.*

*Returns are calculated at the respective Fund level, net of management fees and performance allocations. Individual returns may vary depending on investment timing, different fee arrangements and other issues. These amounts are not to be used for income tax purposes.*

*Past performance is not necessarily indicative of future results and there can be no assurance that targeted returns will be achieved. There can be no assurance that the Funds will achieve results comparable to or that the returns generated will equal or exceed those of other investment activities of KACALP or its affiliates or that the Funds will be able to implement its investment strategy or achieve its investment objectives. KACALP does not make any representation or warranty, express or implied, regarding future performance. Targeted investor returns shown herein are based on assumptions and calculations of KACALP using data available to it. Targeted returns are subjective and should not be construed as providing any assurance to the results that may be realized by the Funds in the future.*

*The Funds have an absolute total return objective and do not have a relevant comparative index. The possible inclusion of indices in this presentation are not for comparison purposes, but rather to show the performance of other investments during the relevant period. Data is obtained from FactSet and is assumed to be reliable.*

*Investment in the Funds are permitted only by "accredited investors" as defined in the Securities Act of 1933, as amended. In addition, investors must be "qualified clients" under the Investment Advisers Act of 1940, as amended, and "qualified purchasers" under the Investment Company Act of 1940, as amended. These requirements are set forth in detail in the Offering Documents.*

*The Firm's most recent ADV Part II, and Proxy Voting Policy and Guidelines are posted on the Firm's website at <http://www.kaynecapital.com> and are available upon request. For inquiries regarding how a specific proxy proposal was voted, please contact Investor Relations at [investorrelations@kaynecapital.com](mailto:investorrelations@kaynecapital.com).*

***Past performance is no guarantee of future results. An investment in the Funds could suffer a loss.***

As of: 3/31/22

Kayne Anderson Energy Fund, L.P.							
Company Name	Fund	Date of Transaction	Amount Invested	Amount Realized	Unrealized Value	Gross Cash Flow	IRR
Bargo Energy	Fund I	5/14/99	(876,316)			(876,316)	
Bargo Energy	Fund I	5/14/99	(9,123,684)			(9,123,684)	
Bargo Energy	Fund I	5/14/99		300,000		300,000	
Bargo Energy	Fund I	3/31/00		101,250		101,250	
Bargo Energy	Fund I	10/31/00		101,250		101,250	
Bargo Energy	Fund I	5/16/01		246,804		246,804	
Bargo Energy	Fund I	5/17/01		3,710,691		3,710,691	
Bargo Energy	Fund I	5/17/01		10,000,000		10,000,000	
Bargo Energy	Fund I	5/17/01		2,229,004		2,229,004	
Bargo Energy	Fund I	5/17/01		445,985		445,985	
Bargo Energy	Fund I	5/18/01		439,735		439,735	
Bargo Energy	Fund I	5/29/01		41,524		41,524	
Bargo Energy	Fund I	5/30/01		40,774		40,774	
Bargo Energy	Fund I	6/28/01		737,000		737,000	
Bargo Energy	Fund I	6/28/01		(217,750)		(217,750)	
Bargo Energy	Fund I	6/28/01		(335,000)		(335,000)	
Bargo Energy	Fund I	6/28/01		(184,250)		(184,250)	
Bargo Energy	Fund I	6/29/01		(34,125)		(34,125)	
Bargo Energy	Fund I	6/29/01		(34,125)		(34,125)	
Bargo Energy	Fund I	6/29/01		(119,438)		(119,438)	
Bargo Energy	Fund I	6/29/01		184,656		184,656	
Bargo Energy	Fund I	7/25/01		(184,656)		(184,656)	
Bargo Energy	Fund I	7/25/01		184,656		184,656	
Bargo Energy	Fund I	8/7/01		146,620		146,620	
Bargo Energy	Fund I	8/8/01		29,274		29,274	
Bargo Energy	Fund I	8/9/01		144,120		144,120	
Bargo Energy	Fund I	8/10/01		58,848		58,848	
Bargo Energy	Fund I	8/14/01		17,864		17,864	
Bargo Energy	Fund I	8/15/01		59,548		59,548	
Bargo Energy	Fund I	8/16/01		60,548		60,548	
Bargo Energy	Fund I	8/30/01		177,144		177,144	
Bargo Energy	Fund I	9/5/01		35,489		35,489	
Bargo Energy	Fund I	9/6/01		41,404		41,404	
Bargo Energy	Fund I	9/7/01		364,759		364,759	
Bargo Energy	Fund I	10/11/01		32,069		32,069	
Bargo Energy	Fund I	10/11/01		400,049		400,049	
Bargo Energy	Fund I	10/12/01		210,171		210,171	
Bargo Energy	Fund I	10/22/01		23,729		23,729	
Bargo Energy	Fund I	1/7/02		33,849		33,849	
Bargo Energy	Fund I	1/8/02		8,512		8,512	
Bargo Energy	Fund I	1/9/02		67,749		67,749	
Bargo Energy	Fund I	1/10/02		110,511		110,511	
Bargo Energy	Fund I	4/3/02		29,899		29,899	
Bargo Energy	Fund I	4/4/02		59,398		59,398	
Bargo Energy	Fund I	4/8/02		70,873		70,873	
Bargo Energy	Fund I	4/9/02		71,373		71,373	
Bargo Energy	Fund I	4/18/02		17,189		17,189	
Bargo Energy	Fund I	4/23/02		173,793		173,793	
Bargo Energy	Fund I	4/24/02		88,477		88,477	
Bargo Energy	Fund I	4/25/02		12,775		12,775	
Bargo Energy	Fund I	4/26/02		14,730		14,730	
Bargo Energy	Fund I	5/3/02		77,832		77,832	42.1%
Blue Mountain Energy	Fund I	11/30/00	(3,882,391)			(3,882,391)	
Blue Mountain Energy	Fund I	4/13/05		2,606,893		2,606,893	-8.7%
KAEC (Quintana Minerals)	Fund I	9/24/02	(6,000,000)			(6,000,000)	
KAEC (Quintana Minerals)	Fund I	1/3/03		52,148		52,148	
KAEC (Quintana Minerals)	Fund I	3/31/03		47,965		47,965	
KAEC (Quintana Minerals)	Fund I	6/30/03		49,085		49,085	
KAEC (Quintana Minerals)	Fund I	10/1/03		50,228		50,228	
KAEC (Quintana Minerals)	Fund I	1/6/04		50,845		50,845	
KAEC (Quintana Minerals)	Fund I	4/1/04		50,771		50,771	
KAEC (Quintana Minerals)	Fund I	5/15/04		517,896		517,896	
KAEC (Quintana Minerals)	Fund I	5/15/04		5,907,692		5,907,692	
KAEC (Quintana Minerals)	Fund I	5/31/04		493,172		493,172	12.2%
KAFU (Plains All American)	Fund I	6/8/01	(14,391,261)			(14,391,261)	
KAFU (Plains All American)	Fund I	6/18/01	(957,280)			(957,280)	
KAFU (Plains All American)	Fund I	6/18/01	(1,196,111)			(1,196,111)	
KAFU (Plains All American)	Fund I	8/15/01		288,662		288,662	
KAFU (Plains All American)	Fund I	11/15/01		194,969		194,969	
KAFU (Plains All American)	Fund I	11/28/01	(195,763)			(195,763)	
KAFU (Plains All American)	Fund I	12/13/01		5,723		5,723	
KAFU (Plains All American)	Fund I	3/5/02		336,701		336,701	
KAFU (Plains All American)	Fund I	4/12/02		3,939		3,939	
KAFU (Plains All American)	Fund I	5/20/02		356,598		356,598	
KAFU (Plains All American)	Fund I	6/13/02		4,220		4,220	
KAFU (Plains All American)	Fund I	9/9/02		212,105		212,105	
KAFU (Plains All American)	Fund I	11/19/02		4,577		4,577	
KAFU (Plains All American)	Fund I	11/19/02		386,715		386,715	
KAFU (Plains All American)	Fund I	2/19/03		4,538		4,538	

KAFU (Plains All American)	Fund I	2/19/03		383,458		383,458	
KAFU (Plains All American)	Fund I	5/15/03		4,034		4,034	
KAFU (Plains All American)	Fund I	5/15/03		340,852		340,852	
KAFU (Plains All American)	Fund I	8/18/03		4,841		4,841	
KAFU (Plains All American)	Fund I	8/18/03		409,022		409,022	
KAFU (Plains All American)	Fund I	9/16/03	(114,722)			(114,722)	
KAFU (Plains All American)	Fund I	9/17/03	(1,358)			(1,358)	
KAFU (Plains All American)	Fund I	11/19/03		4,942		4,942	
KAFU (Plains All American)	Fund I	11/19/03		417,543		417,543	
KAFU (Plains All American)	Fund I	12/22/03		(106,107)		(106,107)	
KAFU (Plains All American)	Fund I	2/20/04		4,841		4,841	
KAFU (Plains All American)	Fund I	2/20/04		409,022		409,022	
KAFU (Plains All American)	Fund I	7/26/05		67,367		67,367	
KAFU (Plains All American)	Fund I	7/26/05		5,692,221		5,692,221	
KAFU (Plains All American)	Fund I	5/19/06		7,665		7,665	
KAFU (Plains All American)	Fund I	5/19/06		647,618		647,618	
KAFU (Plains All American)	Fund I	8/24/06		9,278		9,278	
KAFU (Plains All American)	Fund I	8/24/06		783,959		783,959	
KAFU (Plains All American)	Fund I	11/17/06		10,085		10,085	
KAFU (Plains All American)	Fund I	11/17/06		852,129		852,129	
KAFU (Plains All American)	Fund I	2/16/07		15,329		15,329	
KAFU (Plains All American)	Fund I	2/16/07		1,295,236		1,295,236	
KAFU (Plains All American)	Fund I	5/22/07		16,136		16,136	
KAFU (Plains All American)	Fund I	5/22/07		1,363,406		1,363,406	
KAFU (Plains All American)	Fund I	8/17/07		18,556		18,556	
KAFU (Plains All American)	Fund I	8/17/07		1,567,917		1,567,917	
KAFU (Plains All American)	Fund I	11/23/07		22,530		22,530	
KAFU (Plains All American)	Fund I	11/23/07		1,903,660		1,903,660	
KAFU (Plains All American)	Fund I	12/31/07		266,754,868		266,754,868	57.8%
Meridian Resource Preferred	Fund I	3/28/02	(12,500,000)			(12,500,000)	
Meridian Resource Preferred	Fund I	3/28/02		750,000		750,000	
Meridian Resource Preferred	Fund I	7/17/02		227,257		227,257	
Meridian Resource Preferred	Fund I	2/21/03		50		50	
Meridian Resource Preferred	Fund I	2/25/03		531,200		531,200	
Meridian Resource Preferred	Fund I	2/25/03		(531,200)		(531,200)	
Meridian Resource Preferred	Fund I	8/18/03		553,800		553,800	
Meridian Resource Preferred	Fund I	8/18/03		(553,800)		(553,800)	
Meridian Resource Preferred	Fund I	11/6/03		357,119		357,119	
Meridian Resource Preferred	Fund I	11/7/03		213,619		213,619	
Meridian Resource Preferred	Fund I	11/10/03		312,608		312,608	
Meridian Resource Preferred	Fund I	11/11/03		113,717		113,717	
Meridian Resource Preferred	Fund I	11/14/03		894,514		894,514	
Meridian Resource Preferred	Fund I	11/26/03		456,478		456,478	
Meridian Resource Preferred	Fund I	12/3/03		228,239		228,239	
Meridian Resource Preferred	Fund I	12/5/03		344,419		344,419	
Meridian Resource Preferred	Fund I	12/5/03		935,336		935,336	
Meridian Resource Preferred	Fund I	12/8/03		1,731,723		1,731,723	
Meridian Resource Preferred	Fund I	12/11/03		1,835,873		1,835,873	
Meridian Resource Preferred	Fund I	12/12/03		2,629,406		2,629,406	
Meridian Resource Preferred	Fund I	12/15/03		1,260,344		1,260,344	
Meridian Resource Preferred	Fund I	12/18/03		1,945,376		1,945,376	
Meridian Resource Preferred	Fund I	12/18/03		96,209		96,209	
Meridian Resource Preferred	Fund I	12/30/03		687,560		687,560	
Meridian Resource Preferred	Fund I	1/2/04		656,168		656,168	
Meridian Resource Preferred	Fund I	1/5/04		820,660		820,660	
Meridian Resource Preferred	Fund I	1/6/04		1,116,970		1,116,970	23.9%
Meridian Resource Sub Debt	Fund I	6/21/99	(15,000,000)			(15,000,000)	
Meridian Resource Sub Debt	Fund I	9/15/99		344,375		344,375	
Meridian Resource Sub Debt	Fund I	12/15/99		356,250		356,250	
Meridian Resource Sub Debt	Fund I	4/6/00		356,250		356,250	
Meridian Resource Sub Debt	Fund I	7/7/00		356,250		356,250	
Meridian Resource Sub Debt	Fund I	9/15/00		356,250		356,250	
Meridian Resource Sub Debt	Fund I	12/15/00		356,250		356,250	
Meridian Resource Sub Debt	Fund I	3/15/01		356,250		356,250	
Meridian Resource Sub Debt	Fund I	6/18/01		356,250		356,250	
Meridian Resource Sub Debt	Fund I	9/14/01		356,250		356,250	
Meridian Resource Sub Debt	Fund I	12/14/01		356,250		356,250	
Meridian Resource Sub Debt	Fund I	3/15/02		356,250		356,250	
Meridian Resource Sub Debt	Fund I	6/14/02		356,250		356,250	
Meridian Resource Sub Debt	Fund I	9/13/02		356,250		356,250	
Meridian Resource Sub Debt	Fund I	12/13/02		356,250		356,250	
Meridian Resource Sub Debt	Fund I	3/14/03		356,250		356,250	
Meridian Resource Sub Debt	Fund I	6/13/03		356,250		356,250	
Meridian Resource Sub Debt	Fund I	9/15/03		356,250		356,250	
Meridian Resource Sub Debt	Fund I	12/15/03		356,250		356,250	
Meridian Resource Sub Debt	Fund I	1/12/04		971,214		971,214	
Meridian Resource Sub Debt	Fund I	1/13/04		714,551		714,551	
Meridian Resource Sub Debt	Fund I	1/14/04		814,117		814,117	
Meridian Resource Sub Debt	Fund I	1/16/04		365,079		365,079	
Meridian Resource Sub Debt	Fund I	1/16/04		660,251		660,251	
Meridian Resource Sub Debt	Fund I	1/20/04		1,526,709		1,526,709	
Meridian Resource Sub Debt	Fund I	1/21/04		1,689,689		1,689,689	
Meridian Resource Sub Debt	Fund I	1/22/04		311,045		311,045	
Meridian Resource Sub Debt	Fund I	1/23/04		603,672		603,672	

Meridian Resource Sub Debt	Fund I	1/26/04		2,853,877	2,853,877	
Meridian Resource Sub Debt	Fund I	1/26/04		710,835	710,835	
Meridian Resource Sub Debt	Fund I	1/27/04		731,386	731,386	
Meridian Resource Sub Debt	Fund I	1/28/04		462,736	462,736	
Meridian Resource Sub Debt	Fund I	2/20/04		6,935	6,935	
Meridian Resource Sub Debt	Fund I	2/24/04		1,064,258	1,064,258	
Meridian Resource Sub Debt	Fund I	2/25/04		1,123,680	1,123,680	
Meridian Resource Sub Debt	Fund I	2/26/04		1,392,704	1,392,704	
Meridian Resource Sub Debt	Fund I	2/27/04		987,953	987,953	
Meridian Resource Sub Debt	Fund I	3/1/04		808,720	808,720	
Meridian Resource Sub Debt	Fund I	3/2/04		88,381	88,381	
Meridian Resource Sub Debt	Fund I	3/15/04		356,250	356,250	
Meridian Resource Sub Debt	Fund I	3/16/04		16,260,000	16,260,000	
Meridian Resource Sub Debt	Fund I	3/17/04		(1,088,336)	(1,088,336)	
Meridian Resource Sub Debt	Fund I	3/17/04		(7,046)	(7,046)	
Meridian Resource Sub Debt	Fund I	3/17/04		(1,120,314)	(1,120,314)	
Meridian Resource Sub Debt	Fund I	3/17/04		(965,302)	(965,302)	
Meridian Resource Sub Debt	Fund I	3/17/04		(785,900)	(785,900)	
Meridian Resource Sub Debt	Fund I	3/17/04		(1,352,290)	(1,352,290)	
Meridian Resource Sub Debt	Fund I	3/17/04		(83,690)	(83,690)	
Meridian Resource Sub Debt	Fund I	3/17/04		(598,910)	(598,910)	
Meridian Resource Sub Debt	Fund I	3/17/04		(542,000)	(542,000)	
Meridian Resource Sub Debt	Fund I	3/17/04		(279,130)	(279,130)	
Meridian Resource Sub Debt	Fund I	3/17/04		(1,363,130)	(1,363,130)	
Meridian Resource Sub Debt	Fund I	3/17/04		(608,986)	(608,986)	
Meridian Resource Sub Debt	Fund I	3/17/04		(406,500)	(406,500)	
Meridian Resource Sub Debt	Fund I	3/17/04		(1,483,454)	(1,483,454)	
Meridian Resource Sub Debt	Fund I	3/17/04		(714,356)	(714,356)	
Meridian Resource Sub Debt	Fund I	3/17/04		(606,671)	(606,671)	
Meridian Resource Sub Debt	Fund I	3/17/04		(616,796)	(616,796)	
Meridian Resource Sub Debt	Fund I	3/17/04		(2,457,970)	(2,457,970)	
Meridian Resource Sub Debt	Fund I	3/17/04		(829,260)	(829,260)	
Meridian Resource Sub Debt	Fund I	3/17/04		(349,959)	(349,959)	
Meridian Resource Sub Debt	Fund I	3/17/04		274,241	274,241	
Meridian Resource Sub Debt	Fund I	3/17/04		(274,241)	(274,241)	
Meridian Resource Sub Debt	Fund I	3/30/04		1,043,271	1,043,271	
Meridian Resource Sub Debt	Fund I	7/1/04		3,731	3,731	
Meridian Resource Sub Debt	Fund I	10/6/04		554,976	554,976	
Meridian Resource Sub Debt	Fund I	10/7/04		514,562	514,562	
Meridian Resource Sub Debt	Fund I	10/8/04		183,599	183,599	
Meridian Resource Sub Debt	Fund I	10/21/04		19,469	19,469	
Meridian Resource Sub Debt	Fund I	10/21/04		126,822	126,822	
Meridian Resource Sub Debt	Fund I	10/22/04		22,855	22,855	
Meridian Resource Sub Debt	Fund I	4/25/05		12,039	12,039	
Meridian Resource Sub Debt	Fund I	4/26/05		563,579	563,579	
Meridian Resource Sub Debt	Fund I	4/26/05		(1,205,495)	(1,205,495)	
Meridian Resource Sub Debt	Fund I	4/27/05		(216,787)	(216,787)	
Meridian Resource Sub Debt	Fund I	4/27/05		169,329	169,329	15.3%
Plains Resources Preferred F	Fund I	12/15/99	(5,000,000)		(5,000,000)	
Plains Resources Preferred F	Fund I	12/16/99		300,000	300,000	
Plains Resources Preferred F	Fund I	4/17/00		147,540	147,540	
Plains Resources Preferred F	Fund I	10/6/00		250,000	250,000	
Plains Resources Preferred F	Fund I	4/6/01		250,000	250,000	
Plains Resources Preferred F	Fund I	6/6/01		7,634,449	7,634,449	
Plains Resources Preferred F	Fund I	6/15/01		2,287,225	2,287,225	75.7%
Plains Resources Preferred H	Fund I	7/29/98	(16,275,000)		(16,275,000)	
Plains Resources Preferred H	Fund I	10/1/98	(270,361)		(270,361)	
Plains Resources Preferred H	Fund I	10/1/98	270,361		270,361	
Plains Resources Preferred H	Fund I	4/14/99	785,904		785,904	
Plains Resources Preferred H	Fund I	4/14/99	(785,904)		(785,904)	
Plains Resources Preferred H	Fund I	5/25/99	(150,072)		(150,072)	
Plains Resources Preferred H	Fund I	5/25/99	(849,732)		(849,732)	
Plains Resources Preferred H	Fund I	5/25/99	(539,905)		(539,905)	
Plains Resources Preferred H	Fund I	5/25/99	(1,511,734)		(1,511,734)	
Plains Resources Preferred H	Fund I	5/25/99	(323,943)		(323,943)	
Plains Resources Preferred H	Fund I	10/4/99		26,909	26,909	
Plains Resources Preferred H	Fund I	10/4/99		15,175	15,175	
Plains Resources Preferred H	Fund I	10/4/99		39,805	39,805	
Plains Resources Preferred H	Fund I	10/4/99		25,291	25,291	
Plains Resources Preferred H	Fund I	10/4/99		70,816	70,816	
Plains Resources Preferred H	Fund I	10/4/99		7,030	7,030	
Plains Resources Preferred H	Fund I	10/6/99		823,235	823,235	
Plains Resources Preferred H	Fund I	11/1/99		(26,909)	(26,909)	
Plains Resources Preferred H	Fund I	4/17/00		25,291	25,291	
Plains Resources Preferred H	Fund I	4/17/00		7,030	7,030	
Plains Resources Preferred H	Fund I	4/17/00		823,235	823,235	
Plains Resources Preferred H	Fund I	4/17/00		15,175	15,175	
Plains Resources Preferred H	Fund I	4/17/00		39,805	39,805	
Plains Resources Preferred H	Fund I	4/17/00		70,816	70,816	
Plains Resources Preferred H	Fund I	10/6/00		70,816	70,816	
Plains Resources Preferred H	Fund I	10/6/00		15,175	15,175	
Plains Resources Preferred H	Fund I	10/6/00		25,291	25,291	
Plains Resources Preferred H	Fund I	10/6/00		39,805	39,805	
Plains Resources Preferred H	Fund I	10/6/00		7,030	7,030	

Plains Resources Preferred H	Fund I	10/6/00		823,235		823,235	
Plains Resources Preferred H	Fund I	1/17/01		402,432		402,432	
Plains Resources Preferred H	Fund I	1/17/01		34,618		34,618	
Plains Resources Preferred H	Fund I	1/17/01		7,418		7,418	
Plains Resources Preferred H	Fund I	1/17/01		3,437		3,437	
Plains Resources Preferred H	Fund I	1/17/01		12,364		12,364	
Plains Resources Preferred H	Fund I	1/17/01		19,458		19,458	
Plains Resources Preferred H	Fund I	6/8/01		7,500,000		7,500,000	
Plains Resources Preferred H	Fund I	6/8/01		1,396,675		1,396,675	
Plains Resources Preferred H	Fund I	6/8/01		2,484,775		2,484,775	
Plains Resources Preferred H	Fund I	6/8/01		532,450		532,450	
Plains Resources Preferred H	Fund I	6/8/01		636,100		636,100	
Plains Resources Preferred H	Fund I	6/15/01		2,712,775		2,712,775	
Plains Resources Preferred H	Fund I	8/26/03		487,977		487,977	
Plains Resources Preferred H	Fund I	8/28/03		497,962		497,962	
Plains Resources Preferred H	Fund I	9/8/03		507,961		507,961	
Plains Resources Preferred H	Fund I	9/9/03		382,467		382,467	
Plains Resources Preferred H	Fund I	10/3/03		764,980		764,980	
Plains Resources Preferred H	Fund I	10/6/03		131,923		131,923	
Plains Resources Preferred H	Fund I	10/7/03		133,917		133,917	
Plains Resources Preferred H	Fund I	10/8/03		18,141		18,141	
Plains Resources Preferred H	Fund I	10/10/03		198,206		198,206	
Plains Resources Preferred H	Fund I	10/22/03		1,324,923		1,324,923	
Plains Resources Preferred H	Fund I	10/27/03		279,102		279,102	
Plains Resources Preferred H	Fund I	12/3/03		658,277		658,277	
Plains Resources Preferred H	Fund I	12/4/03		260,581		260,581	
Plains Resources Preferred H	Fund I	12/5/03		14,589		14,589	
Plains Resources Preferred H	Fund I	12/8/03		764,940		764,940	
Plains Resources Preferred H	Fund I	12/16/03		188,565		188,565	
Plains Resources Preferred H	Fund I	1/19/04		958,163		958,163	
Plains Resources Preferred H	Fund I	1/23/04		49,685		49,685	
Plains Resources Preferred H	Fund I	2/12/04		458,805		458,805	
Plains Resources Preferred H	Fund I	2/12/04		552,566		552,566	
Plains Resources Preferred H	Fund I	2/26/04		799,749		799,749	
Plains Resources Preferred H	Fund I	2/27/04		2,106,125		2,106,125	
Plains Resources Preferred H	Fund I	2/27/04		294,681		294,681	
Plains Resources Preferred H	Fund I	2/27/04		518,014		518,014	
Plains Resources Preferred H	Fund I	2/27/04		335,974		335,974	
Plains Resources Preferred H	Fund I	7/23/04		1,578,185		1,578,185	
Plains Resources Preferred H	Fund I	7/23/04		8,709,870		8,709,870	
Plains Resources Preferred H	Fund I	7/23/04		310,914		310,914	
Plains Resources Preferred H	Fund I	7/23/04		903,797		903,797	21.6%
Profico Energy	Fund I	2/5/01	(5,652,500)			(5,652,500)	
Profico Energy	Fund I	5/24/02	(1,300,221)			(1,300,221)	
Profico Energy	Fund I	12/12/02		963,985		963,985	
Profico Energy	Fund I	6/16/03	(1,732)			(1,732)	
Profico Energy	Fund I	2/6/04		1,126,526		1,126,526	
Profico Energy	Fund I	10/14/04		2,590,331		2,590,331	
Profico Energy	Fund I	11/29/04		3,530,367		3,530,367	
Profico Energy	Fund I	1/31/05		3,691,203		3,691,203	
Profico Energy	Fund I	2/1/05		920,448		920,448	
Profico Energy	Fund I	2/15/05		11,768,485		11,768,485	
Profico Energy	Fund I	4/22/05		27,555,668		27,555,668	
Profico Energy	Fund I	5/5/05		3,689,116		3,689,116	
Profico Energy	Fund I	8/15/05		376,140		376,140	
Profico Energy	Fund I	8/24/05		14,112,606		14,112,606	
Profico Energy	Fund I	8/29/05		974,336		974,336	
Profico Energy	Fund I	8/29/05		11,199		11,199	
Profico Energy	Fund I	8/31/05		(3,150)		(3,150)	81.2%
Savanna Energy	Fund I	6/6/01	(1,951,220)			(1,951,220)	
Savanna Energy	Fund I	8/29/03		2,057,700		2,057,700	
Savanna Energy	Fund I	9/5/03		2,142,200		2,142,200	40.8%
Stylus Exploration	Fund I	8/27/01	(6,552,262)			(6,552,262)	
Stylus Exploration	Fund I	12/11/03		1,920,424		1,920,424	
Stylus Exploration	Fund I	2/27/04		1,026,936		1,026,936	-28.6%
<b>Gross IRR</b>							<b>37.2%</b>

Kayne Anderson Energy Fund II, L.P.							
Company Name	Fund	Date of Transaction	Amount Invested	Amount Realized	Unrealized Value	Gross Cash Flow	IRR
Canaan Natural Gas	Fund II	9/11/02	(4,925,000)			(4,925,000)	
Canaan Natural Gas	Fund II	9/11/02	(75,000)			(75,000)	
Canaan Natural Gas	Fund II	1/6/03		51,111		51,111	
Canaan Natural Gas	Fund II	4/1/03		51,084		51,084	
Canaan Natural Gas	Fund II	6/30/03		52,376		52,376	
Canaan Natural Gas	Fund II	9/19/03		46,135		46,135	
Canaan Natural Gas	Fund II	9/19/03		19,057		19,057	
Canaan Natural Gas	Fund II	9/19/03		5,260,000		5,260,000	9.5%
Crusader Energy	Fund II	5/21/04	(4,910,000)			(4,910,000)	
Crusader Energy	Fund II	5/21/04	(90,000)			(90,000)	
Crusader Energy	Fund II	7/1/04		44,736		44,736	
Crusader Energy	Fund II	8/24/04	(13,000,000)			(13,000,000)	
Crusader Energy	Fund II	9/24/04	(7,000,000)			(7,000,000)	
Crusader Energy	Fund II	10/1/04		220,667		220,667	



Crusader Energy	Fund II	12/30/04		500,000		500,000	
Crusader Energy	Fund II	2/14/05	(7,000,000)			(7,000,000)	
Crusader Energy	Fund II	3/31/05		570,000		570,000	
Crusader Energy	Fund II	7/1/05		640,000		640,000	
Crusader Energy	Fund II	10/14/05		746,667		746,667	
Crusader Energy	Fund II	10/14/05		32,270,401		32,270,401	
Crusader Energy	Fund II	10/14/05		32,000,000		32,000,000	101.6%
Crusader Energy II	Fund II	8/16/05	(1,000,000)			(1,000,000)	
Crusader Energy II	Fund II	8/23/05	(1,000,000)			(1,000,000)	
Crusader Energy II	Fund II	9/2/05	(23,000,000)			(23,000,000)	
Crusader Energy II	Fund II	10/21/05	(10,000,000)			(10,000,000)	
Crusader Energy II	Fund II	12/13/05	(8,000,000)			(8,000,000)	
Crusader Energy II	Fund II	12/30/05		849,111		849,111	
Crusader Energy II	Fund II	4/3/06		860,000		860,000	
Crusader Energy II	Fund II	9/6/06		1,481,111		1,481,111	
Crusader Energy II	Fund II	9/6/06		82,809,778		82,809,778	112.4%
Ensign Oil & Gas	Fund II	10/31/02	(23,000,000)			(23,000,000)	
Ensign Oil & Gas	Fund II	1/2/03		302,247		302,247	
Ensign Oil & Gas	Fund II	4/1/03		460,000		460,000	
Ensign Oil & Gas	Fund II	7/1/03		460,000		460,000	
Ensign Oil & Gas	Fund II	10/2/03		460,000		460,000	
Ensign Oil & Gas	Fund II	12/31/03		460,000		460,000	
Ensign Oil & Gas	Fund II	3/31/04		460,000		460,000	
Ensign Oil & Gas	Fund II	6/30/04		460,000		460,000	
Ensign Oil & Gas	Fund II	9/30/04		460,000		460,000	
Ensign Oil & Gas	Fund II	12/31/04		460,000		460,000	
Ensign Oil & Gas	Fund II	3/31/05		460,000		460,000	
Ensign Oil & Gas	Fund II	6/30/05		460,000		460,000	
Ensign Oil & Gas	Fund II	8/31/05		310,000		310,000	
Ensign Oil & Gas	Fund II	8/31/05		77,842,759		77,842,759	60.7%
Exploration Company of Delaware	Fund II	8/21/03	(8,606,558)			(8,606,558)	
Exploration Company of Delaware	Fund II	8/21/03	(5,393,442)			(5,393,442)	
Exploration Company of Delaware	Fund II	10/7/03		127,556		127,556	
Exploration Company of Delaware	Fund II	1/4/04		280,000		280,000	
Exploration Company of Delaware	Fund II	6/28/04		155,485		155,485	
Exploration Company of Delaware	Fund II	6/28/04	(4,450)			(4,450)	
Exploration Company of Delaware	Fund II	9/30/04		276,600		276,600	
Exploration Company of Delaware	Fund II	12/31/04		280,000		280,000	
Exploration Company of Delaware	Fund II	3/31/05		280,000		280,000	
Exploration Company of Delaware	Fund II	6/30/05		280,000		280,000	
Exploration Company of Delaware	Fund II	9/30/05		280,000		280,000	
Exploration Company of Delaware	Fund II	9/30/05		14,000,000		14,000,000	
Exploration Company of Delaware	Fund II	11/29/05		11,311,996		11,311,996	37.3%
KAEC (Quintana Minerals)	Fund II	9/24/02	(7,000,000)			(7,000,000)	
KAEC (Quintana Minerals)	Fund II	1/3/03		60,848		60,848	
KAEC (Quintana Minerals)	Fund II	3/31/03		55,968		55,968	
KAEC (Quintana Minerals)	Fund II	6/30/03		57,266		57,266	
KAEC (Quintana Minerals)	Fund II	10/1/03		58,599		58,599	
KAEC (Quintana Minerals)	Fund II	1/6/04		59,319		59,319	
KAEC (Quintana Minerals)	Fund II	4/1/04		59,233		59,233	
KAEC (Quintana Minerals)	Fund II	5/15/04		604,212		604,212	
KAEC (Quintana Minerals)	Fund II	5/15/04		6,892,308		6,892,308	
KAEC (Quintana Minerals)	Fund II	5/31/04		575,368		575,368	12.2%
Lyc0 Energy	Fund II	12/10/03	(3,788,000)			(3,788,000)	
Lyc0 Energy	Fund II	12/10/03	(1,262,000)			(1,262,000)	
Lyc0 Energy	Fund II	12/10/03	(100)			(100)	
Lyc0 Energy	Fund II	12/10/03	(14,949,900)			(14,949,900)	
Lyc0 Energy	Fund II	12/31/03		102,222		102,222	
Lyc0 Energy	Fund II	4/1/04		400,000		400,000	
Lyc0 Energy	Fund II	5/14/04	(41,670)			(41,670)	
Lyc0 Energy	Fund II	5/14/04	(141,540)			(141,540)	
Lyc0 Energy	Fund II	5/14/04	(1,128,300)			(1,128,300)	
Lyc0 Energy	Fund II	5/14/04	(1,586,880)			(1,586,880)	
Lyc0 Energy	Fund II	5/19/04	(63,345)			(63,345)	
Lyc0 Energy	Fund II	5/19/04	(129,345)			(129,345)	
Lyc0 Energy	Fund II	5/24/04	(20,700)			(20,700)	
Lyc0 Energy	Fund II	5/24/04	(34,500)			(34,500)	
Lyc0 Energy	Fund II	5/24/04	(148,680)			(148,680)	
Lyc0 Energy	Fund II	5/26/04	(140,010)			(140,010)	
Lyc0 Energy	Fund II	5/28/04	(9,345)			(9,345)	
Lyc0 Energy	Fund II	5/28/04	(106,005)			(106,005)	
Lyc0 Energy	Fund II	5/28/04	(13,335)			(13,335)	
Lyc0 Energy	Fund II	6/9/04	(269,415)			(269,415)	
Lyc0 Energy	Fund II	6/15/04	(8,670)			(8,670)	
Lyc0 Energy	Fund II	6/15/04	(23,340)			(23,340)	
Lyc0 Energy	Fund II	6/15/04	(30,000)			(30,000)	
Lyc0 Energy	Fund II	6/15/04	(45,345)			(45,345)	
Lyc0 Energy	Fund II	6/17/04	(9,750)			(9,750)	
Lyc0 Energy	Fund II	6/17/04	(45,000)			(45,000)	
Lyc0 Energy	Fund II	6/21/04	(94,305)			(94,305)	
Lyc0 Energy	Fund II	6/28/04	(1,702)			(1,702)	
Lyc0 Energy	Fund II	7/1/04		400,000		400,000	
Lyc0 Energy	Fund II	7/9/04	(60,015)			(60,015)	
Lyc0 Energy	Fund II	7/9/04	(82,815)			(82,815)	

Lyc0 Energy	Fund II	7/16/04	(2,587)			(2,587)	
Lyc0 Energy	Fund II	10/1/04		400,000		400,000	
Lyc0 Energy	Fund II	1/1/05		400,000		400,000	
Lyc0 Energy	Fund II	4/1/05		400,000		400,000	
Lyc0 Energy	Fund II	6/30/05		400,000		400,000	
Lyc0 Energy	Fund II	8/29/05		266,667		266,667	
Lyc0 Energy	Fund II	8/30/05		119,116,682		119,116,682	
Lyc0 Energy	Fund II	8/30/05		5,492,380		5,492,380	
Lyc0 Energy	Fund II	8/30/05		20,000,000		20,000,000	
Lyc0 Energy	Fund II	8/30/05		100		100	202.2%
MarkWest Energy	Fund II	7/29/04	(16,042,500)			(16,042,500)	
MarkWest Energy	Fund II	7/29/04		240,000		240,000	
MarkWest Energy	Fund II	11/17/04		353,400		353,400	
MarkWest Energy	Fund II	2/17/05		362,700		362,700	
MarkWest Energy	Fund II	2/24/05		383,827		383,827	
MarkWest Energy	Fund II	2/25/05		144,870		144,870	
MarkWest Energy	Fund II	3/3/05		375,098		375,098	
MarkWest Energy	Fund II	3/4/05		85,631		85,631	
MarkWest Energy	Fund II	3/7/05		352,593		352,593	
MarkWest Energy	Fund II	3/8/05		256,118		256,118	
MarkWest Energy	Fund II	5/19/05		346,560		346,560	
MarkWest Energy	Fund II	8/15/05		(9,600)		(9,600)	
MarkWest Energy	Fund II	8/19/05		346,560		346,560	
MarkWest Energy	Fund II	11/22/05		355,224		355,224	
MarkWest Energy	Fund II	2/21/06		355,224		355,224	
MarkWest Energy	Fund II	5/19/06		376,884		376,884	
MarkWest Energy	Fund II	7/31/06		398,544		398,544	
MarkWest Energy	Fund II	7/31/06		19,770,815		19,770,815	27.1%
Medicine Bow Energy	Fund II	1/6/04	(15,500,000)			(15,500,000)	
Medicine Bow Energy	Fund II	8/31/05		62,804,363		62,804,363	133.2%
Panther Energy	Fund II	3/13/03	(100,000)			(100,000)	
Panther Energy	Fund II	3/13/03	(2,981,820)			(2,981,820)	
Panther Energy	Fund II	3/31/03		15,409		15,409	
Panther Energy	Fund II	7/1/03		77,902		77,902	
Panther Energy	Fund II	10/2/03		78,758		78,758	
Panther Energy	Fund II	12/30/03		78,758		78,758	
Panther Energy	Fund II	4/1/04		77,902		77,902	
Panther Energy	Fund II	4/8/04	(2,500,000)			(2,500,000)	
Panther Energy	Fund II	7/1/04		135,540		135,540	
Panther Energy	Fund II	10/1/04		142,647		142,647	
Panther Energy	Fund II	1/1/05		142,647		142,647	
Panther Energy	Fund II	2/16/05		2,232,739		2,232,739	
Panther Energy	Fund II	2/16/05		5,124,615		5,124,615	
Panther Energy	Fund II	8/8/05		139,000		139,000	
Panther Energy	Fund II	5/15/06		20,000		20,000	
Panther Energy	Fund II	10/3/06		2,500,000		2,500,000	45.9%
Plains All-American	Fund II	4/15/04	(30,000,000)			(30,000,000)	
Plains All-American	Fund II	4/15/04		300,000		300,000	
Plains All-American	Fund II	5/14/04		547,712		547,712	
Plains All-American	Fund II	9/1/04		562,318		562,318	
Plains All-American	Fund II	11/12/04		584,226		584,226	
Plains All-American	Fund II	2/14/05		596,397		596,397	
Plains All-American	Fund II	5/17/05		620,740		620,740	
Plains All-American	Fund II	8/15/05		632,912		632,912	
Plains All-American	Fund II	11/18/05		657,254		657,254	
Plains All-American	Fund II	2/21/06		669,426		669,426	
Plains All-American	Fund II	5/18/06		688,900		688,900	
Plains All-American	Fund II	8/18/06		705,940		705,940	
Plains All-American	Fund II	11/21/06		730,283		730,283	
Plains All-American	Fund II	2/20/07		778,968		778,968	
Plains All-American	Fund II	5/15/07		791,139		791,139	
Plains All-American	Fund II	8/17/07		808,179		808,179	
Plains All-American	Fund II	11/20/07		817,916		817,916	
Plains All-American	Fund II	2/21/08		827,654		827,654	
Plains All-American	Fund II	5/19/08		842,259		842,259	
Plains All-American	Fund II	8/18/08		864,168		864,168	
Plains All-American	Fund II	11/18/08		869,036		869,036	
Plains All-American	Fund II	2/18/09		869,036		869,036	
Plains All-American	Fund II	5/15/09		881,208		881,208	
Plains All-American	Fund II	5/15/09		40,555,022		40,555,022	15.7%
<b>Gross IRR</b>							<b>73.9%</b>

Kayne Anderson Energy Fund III, L.P.							
Company Name	Fund	Date of Transaction	Amount Invested	Amount Realized	Unrealized Value	Gross Cash Flow	IRR
Augustus Energy	Fund III	9/26/06	(644,737)			(644,737)	
Augustus Energy	Fund III	10/10/07	(1,611,842)			(1,611,842)	
Augustus Energy	Fund III	5/8/08	(4,835,526)			(4,835,526)	
Augustus Energy	Fund III	3/3/09	(7,000,000)			(7,000,000)	
Augustus Energy	Fund III	3/30/09	(35,815,534)			(35,815,534)	
Augustus Energy	Fund III	3/25/11	(16,650,485)			(16,650,485)	
Augustus Energy	Fund III	12/3/13		33,300,971		33,300,971	
Augustus Energy	Fund III	3/3/14		1,141,748		1,141,748	
Augustus Energy	Fund III	7/1/14		274,202		274,202	-14.2%

Blacksand Energy	Fund III	7/21/05	(24,000,000)		(24,000,000)	
Blacksand Energy	Fund III	3/31/06		1,581,000	1,581,000	
Blacksand Energy	Fund III	3/31/06		(1,581,000)	(1,581,000)	
Blacksand Energy	Fund III	3/31/06		109,792	109,792	
Blacksand Energy	Fund III	3/31/06		(109,792)	(109,792)	
Blacksand Energy	Fund III	3/31/06		65,874	65,874	
Blacksand Energy	Fund III	3/31/06		(65,874)	(65,874)	
Blacksand Energy	Fund III	4/30/06		21,958	21,958	
Blacksand Energy	Fund III	4/30/06		(21,958)	(21,958)	
Blacksand Energy	Fund III	5/31/06		21,958	21,958	
Blacksand Energy	Fund III	5/31/06		(21,958)	(21,958)	
Blacksand Energy	Fund III	6/30/06		21,958	21,958	
Blacksand Energy	Fund III	6/30/06		(21,958)	(21,958)	
Blacksand Energy	Fund III	7/31/06		73,238,422	73,238,422	
Blacksand Energy	Fund III	10/11/06		1,736,280	1,736,280	
Blacksand Energy	Fund III	2/28/07		4,948,258	4,948,258	
Blacksand Energy	Fund III	2/28/07		122,875	122,875	212.0%
Caddo Resources	Fund III	12/8/05	(23,000,000)		(23,000,000)	
Caddo Resources	Fund III	12/8/05		(10,000)	(10,000)	
Caddo Resources	Fund III	7/12/06	(3,000,000)		(3,000,000)	
Caddo Resources	Fund III	11/13/06	(6,000,000)		(6,000,000)	
Caddo Resources	Fund III	4/11/07	(500,000)		(500,000)	
Caddo Resources	Fund III	5/15/07	(2,200,000)		(2,200,000)	
Caddo Resources	Fund III	6/15/07	(740,000)		(740,000)	
Caddo Resources	Fund III	6/20/08		23,000,000	23,000,000	
Caddo Resources	Fund III	6/20/08		2,000,000	2,000,000	
Caddo Resources	Fund III	6/23/09	(500,000)		(500,000)	
Caddo Resources	Fund III	1/29/13		1,375,000	1,375,000	
Caddo Resources	Fund III	10/23/13		390,000	390,000	-11.0%
Camcor Oil Sands	Fund III	4/9/07	(434,783)		(434,783)	
Camcor Oil Sands	Fund III	6/4/07	(5,038,905)		(5,038,905)	
Camcor Oil Sands	Fund III	7/19/07	(4,788,813)		(4,788,813)	
Camcor Oil Sands	Fund III	12/7/07	(4,809,943)		(4,809,943)	
Camcor Oil Sands	Fund III	1/14/08		183,900	183,900	
Camcor Oil Sands	Fund III	2/20/08	(2,496,767)		(2,496,767)	
Camcor Oil Sands	Fund III	4/17/08		60,842	60,842	
Camcor Oil Sands	Fund III	7/7/08		61,020	61,020	
Camcor Oil Sands	Fund III	8/5/08	(2,512,732)		(2,512,732)	
Camcor Oil Sands	Fund III	9/29/08	(2,407,665)		(2,407,665)	
Camcor Oil Sands	Fund III	10/3/08		57,722	57,722	
Camcor Oil Sands	Fund III	10/17/08		1,054,941	1,054,941	
Camcor Oil Sands	Fund III	10/17/08	(1,054,941)		(1,054,941)	
Camcor Oil Sands	Fund III	11/26/08	(2,041,650)		(2,041,650)	
Camcor Oil Sands	Fund III	1/5/09		51,809	51,809	
Camcor Oil Sands	Fund III	4/1/09		49,213	49,213	
Camcor Oil Sands	Fund III	5/21/09	(6,839,469)		(6,839,469)	
Camcor Oil Sands	Fund III	7/2/09		53,355	53,355	
Camcor Oil Sands	Fund III	10/1/09		57,881	57,881	
Camcor Oil Sands	Fund III	11/3/09	(945,490)		(945,490)	
Camcor Oil Sands	Fund III	1/4/10		59,952	59,952	
Camcor Oil Sands	Fund III	4/6/10	(286,009)		(286,009)	
Camcor Oil Sands	Fund III	7/12/10	(2,422,847)		(2,422,847)	
Camcor Oil Sands	Fund III	7/21/10		5,804,184	5,804,184	
Camcor Oil Sands	Fund III	8/12/10		4,856,047	4,856,047	
Camcor Oil Sands	Fund III	12/21/10		6,904,929	6,904,929	
Camcor Oil Sands	Fund III	3/8/11	(414,920)		(414,920)	
Camcor Oil Sands	Fund III	6/28/11		8,115,211	8,115,211	
Camcor Oil Sands	Fund III	2/23/12	(350,315)		(350,315)	
Camcor Oil Sands	Fund III	5/22/12		5,111,896	5,111,896	
Camcor Oil Sands	Fund III	10/23/12		1,469,589	1,469,589	
Camcor Oil Sands	Fund III	2/27/13		314,782	314,782	
Camcor Oil Sands	Fund III	3/20/13		18,612,335	18,612,335	
Camcor Oil Sands	Fund III	1/10/14		3,210,682	3,210,682	
Camcor Oil Sands	Fund III	8/15/16		451,802	451,802	
Camcor Oil Sands	Fund III	12/2/16		5,362	5,362	13.3%
Cavallo Energy	Fund III	10/4/05	(31,680,000)		(31,680,000)	
Cavallo Energy	Fund III	10/4/05	(320,000)		(320,000)	
Cavallo Energy	Fund III	4/13/06		487,587	487,587	
Cavallo Energy	Fund III	7/3/06		649,441	649,441	
Cavallo Energy	Fund III	2/1/07		33,993,876	33,993,876	
Cavallo Energy	Fund III	2/1/07		64,217,220	64,217,220	
Cavallo Energy	Fund III	2/2/07		1,000,354	1,000,354	
Cavallo Energy	Fund III	6/19/07		5,229,478	5,229,478	
Cavallo Energy	Fund III	6/19/07		1,708,000	1,708,000	
Cavallo Energy	Fund III	12/28/12		102,234	102,234	146.7%
Core Energy	Fund III	10/11/05	(4,000,000)		(4,000,000)	
Core Energy	Fund III	11/30/07		4,741,912	4,741,912	8.3%
Crestwood Midstream	Fund III	11/30/07	(483,334)		(483,334)	
Crestwood Midstream	Fund III	12/8/08	(290,000)		(290,000)	
Crestwood Midstream	Fund III	7/1/09	(145,000)		(145,000)	
Crestwood Midstream	Fund III	10/23/09	(188,500)		(188,500)	
Crestwood Midstream	Fund III	3/12/10	(174,000)		(174,000)	-100.0%
Cross Creek Energy	Fund III	5/9/07	(487,500)		(487,500)	
Cross Creek Energy	Fund III	9/5/07	(487,500)		(487,500)	

Cross Creek Energy	Fund III	2/22/08	(487,500)		(487,500)	
Cross Creek Energy	Fund III	5/1/08	(2,437,500)		(2,437,500)	
Cross Creek Energy	Fund III	1/13/09	(1,170,000)		(1,170,000)	
Cross Creek Energy	Fund III	9/2/09	(2,242,500)		(2,242,500)	
Cross Creek Energy	Fund III	2/3/10	(487,500)		(487,500)	
Cross Creek Energy	Fund III	6/15/10	(2,240,000)		(2,240,000)	
Cross Creek Energy	Fund III	10/15/10	(3,415,000)		(3,415,000)	
Cross Creek Energy	Fund III	11/4/11	(1,170,000)		(1,170,000)	
Cross Creek Energy	Fund III	9/9/13		9,763,144	9,763,144	
Cross Creek Energy	Fund III	8/6/14		1,682,486	1,682,486	-5.9%
Crusader Energy III	Fund III	11/10/05	(2,000,000)		(2,000,000)	
Crusader Energy III	Fund III	12/30/05		22,222	22,222	
Crusader Energy III	Fund III	4/3/06		40,000	40,000	
Crusader Energy III	Fund III	9/5/06		352,889	352,889	
Crusader Energy III	Fund III	9/5/06		3,730,261	3,730,261	
Crusader Energy III	Fund III	9/5/06		2,000,000	2,000,000	298.9%
Grenadier Energy	Fund III	4/20/07	(328,100)		(328,100)	
Grenadier Energy	Fund III	9/6/07	(1,158,000)		(1,158,000)	
Grenadier Energy	Fund III	11/27/07	(1,158,000)		(1,158,000)	
Grenadier Energy	Fund III	5/2/08	(772,000)		(772,000)	
Grenadier Energy	Fund III	6/19/08	(772,000)		(772,000)	
Grenadier Energy	Fund III	7/22/09	(386,000)		(386,000)	
Grenadier Energy	Fund III	8/20/09	(1,544,000)		(1,544,000)	
Grenadier Energy	Fund III	11/25/09	(1,158,000)		(1,158,000)	
Grenadier Energy	Fund III	5/7/10	(1,158,000)		(1,158,000)	
Grenadier Energy	Fund III	8/2/10	(3,088,000)		(3,088,000)	
Grenadier Energy	Fund III	12/1/10	(5,075,900)		(5,075,900)	
Grenadier Energy	Fund III	4/14/11	(1,930,000)		(1,930,000)	
Grenadier Energy	Fund III	6/10/11	(4,246,000)		(4,246,000)	
Grenadier Energy	Fund III	8/19/11	(2,316,000)		(2,316,000)	
Grenadier Energy	Fund III	11/14/11	(3,088,000)		(3,088,000)	
Grenadier Energy	Fund III	1/3/12	(3,088,000)		(3,088,000)	
Grenadier Energy	Fund III	2/13/12	(2,316,000)		(2,316,000)	
Grenadier Energy	Fund III	12/21/12		53,055,888	53,055,888	
Grenadier Energy	Fund III	6/11/13		307,224	307,224	
Grenadier Energy	Fund III	4/9/13		1,013,841	1,013,841	
Grenadier Energy	Fund III	12/19/13		4,915,592	4,915,592	
Grenadier Energy	Fund III	6/19/14		350,470	350,470	26.1%
O'Benco II	Fund III	7/27/06	(262,500)		(262,500)	
O'Benco II	Fund III	7/27/06	(25,987,500)		(25,987,500)	
O'Benco II	Fund III	7/23/08		262,500	262,500	
O'Benco II	Fund III	7/23/08		25,987,500	25,987,500	
O'Benco II	Fund III	7/23/08		3,573,668	3,573,668	
O'Benco II	Fund III	7/23/08		56,500	56,500	
O'Benco II	Fund III	7/23/08		5,593,500	5,593,500	
O'Benco II	Fund III	12/24/08		7,477,193	7,477,193	
O'Benco II	Fund III	1/29/10		9,453,648	9,453,648	
O'Benco II	Fund III	1/29/10		95,492	95,492	
O'Benco II	Fund III	5/7/10		236,319	236,319	
O'Benco II	Fund III	5/25/11		350,000	350,000	35.8%
Pedernales Production	Fund III	1/11/06	(702,000)		(702,000)	
Pedernales Production	Fund III	1/11/06	(10,000)		(10,000)	
Pedernales Production	Fund III	5/5/06	(3,900,000)		(3,900,000)	
Pedernales Production	Fund III	7/28/06	(2,437,500)		(2,437,500)	
Pedernales Production	Fund III	9/5/06	(4,875,000)		(4,875,000)	
Pedernales Production	Fund III	11/21/06	(3,900,000)		(3,900,000)	
Pedernales Production	Fund III	2/9/07	(7,800,000)		(7,800,000)	
Pedernales Production	Fund III	7/12/07	(750,000)		(750,000)	
Pedernales Production	Fund III	8/24/07	(780,000)		(780,000)	
Pedernales Production	Fund III	10/5/07	(4,387,500)		(4,387,500)	
Pedernales Production	Fund III	3/26/09	(3,900,000)		(3,900,000)	
Pedernales Production	Fund III	6/25/09	(5,850,000)		(5,850,000)	
Pedernales Production	Fund III	9/18/09	(5,362,500)		(5,362,500)	
Pedernales Production	Fund III	11/4/09	(4,105,500)		(4,105,500)	
Pedernales Production	Fund III	12/30/09	(2,100,000)		(2,100,000)	
Pedernales Production	Fund III	4/1/11		27,277,088	27,277,088	
Pedernales Production	Fund III	11/8/12	(6,819,272)		(6,819,272)	
Pedernales Production	Fund III	11/29/12	(6,364,654)		(6,364,654)	
Pedernales Production	Fund III	8/15/14		2,300,000	2,300,000	-47.1%
Sagebrush Resources	Fund III	11/30/07	(11,860,000)		(11,860,000)	
Sagebrush Resources	Fund III	2/11/09	(1,482,500)		(1,482,500)	
Sagebrush Resources	Fund III	1/31/11		40,709,734	40,709,734	
Sagebrush Resources	Fund III	8/30/11		7,208,886	7,208,886	
Sagebrush Resources	Fund III	11/8/11		769,769	769,769	
Sagebrush Resources	Fund III	2/8/12		4,310,706	4,310,706	
Sagebrush Resources	Fund III	8/23/12		577,327	577,327	
Sagebrush Resources	Fund III	12/24/12		38,488	38,488	
Sagebrush Resources	Fund III	5/12/15	(16,179)		(16,179)	53.8%
Winter Ridge Energy	Fund III	10/12/06	(8,100,000)		(8,100,000)	
Winter Ridge Energy	Fund III	5/23/07	(2,835,000)		(2,835,000)	
Winter Ridge Energy	Fund III	4/3/08	(12,150,000)		(12,150,000)	
Winter Ridge Energy	Fund III	10/21/11		16,200,000	16,200,000	
Winter Ridge Energy	Fund III	10/22/12		2,700,000	2,700,000	
Winter Ridge Energy	Fund III	11/8/12		1,053,000	1,053,000	

Winter Ridge Energy	Fund III	12/31/14		400,500		400,500	-2.8%
Vada Group	Fund III	12/22/06	(10,000)			(10,000)	
Vada Group	Fund III	12/22/06	(5,000,000)			(5,000,000)	
Vada Group	Fund III	5/4/07	(3,000,000)			(3,000,000)	
Vada Group	Fund III	7/20/07	(5,000,000)			(5,000,000)	
Vada Group	Fund III	11/14/07	(6,000,000)			(6,000,000)	
Vada Group	Fund III	2/5/08	(6,000,000)			(6,000,000)	
Vada Group	Fund III	3/4/09	(5,000,000)			(5,000,000)	
Vada Group	Fund III	9/17/14		400,000		400,000	-47.6%
Laricina Energy	Fund III	12/19/07	(24,913,428)			(24,913,428)	
Laricina Energy	Fund III	4/30/09	(1,606,964)			(1,606,964)	
Laricina Energy	Fund III	7/22/09	(6,826,871)			(6,826,871)	
Laricina Energy	Fund III	7/16/15		82,965		82,965	-57.8%
KMD Operating	Fund III	11/22/05	(10,000,000)			(10,000,000)	
KMD Operating	Fund III	11/22/05	(10,000)			(10,000)	
KMD Operating	Fund III	5/15/06	(3,000,000)			(3,000,000)	
KMD Operating	Fund III	8/7/06	(5,000,000)			(5,000,000)	
KMD Operating	Fund III	8/16/06	(44,825)			(44,825)	
KMD Operating	Fund III	9/21/06	(1,500,000)			(1,500,000)	
KMD Operating	Fund III	9/25/06	(22,269)			(22,269)	
KMD Operating	Fund III	10/26/06	(3,000,000)			(3,000,000)	
KMD Operating	Fund III	11/15/06	(125,000)			(125,000)	
KMD Operating	Fund III	12/22/06	(1,100,000)			(1,100,000)	
KMD Operating	Fund III	2/28/07	(250,000)			(250,000)	
KMD Operating	Fund III	4/11/07	(200,000)			(200,000)	
KMD Operating	Fund III	5/11/07	(499,855)			(499,855)	
KMD Operating	Fund III	6/12/07	(250,000)			(250,000)	
KMD Operating	Fund III	7/20/07	(235,000)			(235,000)	
KMD Operating	Fund III	8/23/07	(2,999,129)			(2,999,129)	
KMD Operating	Fund III	8/23/07	(400,000)			(400,000)	
KMD Operating	Fund III	2/21/08	(2,700,000)			(2,700,000)	
KMD Operating	Fund III	4/3/08	(2,582,583)			(2,582,583)	
KMD Operating	Fund III	4/3/08	(2,000,000)			(2,000,000)	
KMD Operating	Fund III	6/3/08	(1,300,000)			(1,300,000)	
KMD Operating	Fund III	6/30/08		44,825		44,825	
KMD Operating	Fund III	6/30/08		8,386		8,386	
KMD Operating	Fund III	6/30/08		22,269		22,269	
KMD Operating	Fund III	6/30/08		3,939		3,939	
KMD Operating	Fund III	6/30/08		125,000		125,000	
KMD Operating	Fund III	6/30/08		14,857		14,857	
KMD Operating	Fund III	11/12/09	(1,200,000)			(1,200,000)	
KMD Operating	Fund III	12/21/09	(1,300,000)			(1,300,000)	
KMD Operating	Fund III	4/23/10	(5,750,000)			(5,750,000)	
KMD Operating	Fund III	10/8/10	(3,500,000)			(3,500,000)	
KMD Operating	Fund III	6/20/11	(1,000,000)			(1,000,000)	
KMD Operating	Fund III	7/5/11	(2,000,000)			(2,000,000)	
KMD Operating	Fund III	8/4/11	(2,100,000)			(2,100,000)	
KMD Operating	Fund III	9/9/11	(3,000,000)			(3,000,000)	
KMD Operating	Fund III	10/26/11	(3,750,000)			(3,750,000)	
KMD Operating	Fund III	1/25/12	(800,000)			(800,000)	
KMD Operating	Fund III	10/9/12	(600,000)			(600,000)	
KMD Operating	Fund III	11/15/12	(500,000)			(500,000)	
KMD Operating	Fund III	3/30/16		619,493		619,493	
KMD Operating	Fund III	9/18/18	(694,069)			(694,069)	-100.0%
<b>Gross IRR</b>							<b>5.1%</b>

Kayne Anderson Energy Fund IV, L.P.							
Company Name	Fund	Date of Transaction	Amount Invested	Amount Realized	Unrealized Value	Gross Cash Flow	IRR
Addison Oil	Fund IV	10/10/08	(495,000)			(495,000)	
Addison Oil	Fund IV	7/9/09	(495,000)			(495,000)	
Addison Oil	Fund IV	12/4/09	(6,600,000)			(6,600,000)	
Addison Oil	Fund IV	1/26/10	(14,000,000)			(14,000,000)	
Addison Oil	Fund IV	8/23/11		48,082,519		48,082,519	
Addison Oil	Fund IV	1/6/12	(4,750,000)			(4,750,000)	
Addison Oil	Fund IV	4/5/12	(4,750,000)			(4,750,000)	
Addison Oil	Fund IV	10/19/12	(4,867,500)			(4,867,500)	
Addison Oil	Fund IV	4/2/14	(500,000)			(500,000)	
Addison Oil	Fund IV	12/11/14	(9,067,723)			(9,067,723)	
Addison Oil	Fund IV	6/9/16		143,934		143,934	24.8%
Adventure Exploration	Fund IV	7/5/07	(1,800,000)			(1,800,000)	
Adventure Exploration	Fund IV	1/24/08	(900,000)			(900,000)	
Adventure Exploration	Fund IV	4/17/08	(1,350,000)			(1,350,000)	
Adventure Exploration	Fund IV	12/4/08	(1,125,000)			(1,125,000)	
Adventure Exploration	Fund IV	12/24/08	(1,350,000)			(1,350,000)	
Adventure Exploration	Fund IV	3/23/09	(9,900,000)			(9,900,000)	
Adventure Exploration	Fund IV	11/22/11		51,876,852		51,876,852	
Adventure Exploration	Fund IV	5/2/12		3,744,000		3,744,000	
Adventure Exploration	Fund IV	5/14/12		288,000		288,000	
Adventure Exploration	Fund IV	4/22/14		518,400		518,400	
Adventure Exploration	Fund IV	12/18/14		32,410		32,410	47.9%
Axia Energy	Fund IV	3/1/10	(500,000)			(500,000)	
Axia Energy	Fund IV	7/13/10	(608,333)			(608,333)	
Axia Energy	Fund IV	11/18/10	(1,744,500)			(1,744,500)	

Axia Energy	Fund IV	2/16/11	(1,129,243)		(1,129,243)	
Axia Energy	Fund IV	5/13/11	(2,254,689)		(2,254,689)	
Axia Energy	Fund IV	8/16/11	(500,000)		(500,000)	
Axia Energy	Fund IV	10/20/11	(416,667)		(416,667)	
Axia Energy	Fund IV	11/16/12	(2,500,000)		(2,500,000)	
Axia Energy	Fund IV	12/13/13		70,748,508	70,748,508	
Axia Energy	Fund IV	9/12/14		2,133,334	2,133,334	
Axia Energy	Fund IV	12/22/14		1,600,000	1,600,000	
Axia Energy	Fund IV	4/10/15		1,280,000	1,280,000	
Axia Energy	Fund IV	4/13/17		602,666	602,666	
Axia Energy	Fund IV	8/28/17		123,734	123,734	115.5%
Calyx Energy	Fund IV	3/11/08	(10,000,000)		(10,000,000)	
Calyx Energy	Fund IV	8/8/08	(5,000,000)		(5,000,000)	
Calyx Energy	Fund IV	12/10/08	(1,989,425)		(1,989,425)	
Calyx Energy	Fund IV	3/15/10	(795,770)		(795,770)	
Calyx Energy	Fund IV	7/11/10	(1,041,500)		(1,041,500)	
Calyx Energy	Fund IV	9/30/10	(795,770)		(795,770)	
Calyx Energy	Fund IV	10/19/10	(1,543,454)		(1,543,454)	
Calyx Energy	Fund IV	11/19/10	(953,783)		(953,783)	
Calyx Energy	Fund IV	12/28/10	(1,118,199)		(1,118,199)	
Calyx Energy	Fund IV	2/9/11	(175,000)		(175,000)	
Calyx Energy	Fund IV	2/25/11	(81,908)		(81,908)	
Calyx Energy	Fund IV	2/25/11	(175,000)		(175,000)	
Calyx Energy	Fund IV	4/1/11	(420,000)		(420,000)	
Calyx Energy	Fund IV	5/6/11	(786,360)		(786,360)	
Calyx Energy	Fund IV	5/9/11	(420,000)		(420,000)	
Calyx Energy	Fund IV	7/13/11	(786,360)		(786,360)	
Calyx Energy	Fund IV	8/10/11	(175,000)		(175,000)	
Calyx Energy	Fund IV	8/25/11	(350,000)		(350,000)	
Calyx Energy	Fund IV	8/30/11	(786,360)		(786,360)	
Calyx Energy	Fund IV	9/12/11	(2,359,080)		(2,359,080)	
Calyx Energy	Fund IV	9/19/11	(786,360)		(786,360)	
Calyx Energy	Fund IV	10/14/11	(1,000,000)		(1,000,000)	
Calyx Energy	Fund IV	1/31/12	(5,000,000)		(5,000,000)	
Calyx Energy	Fund IV	1/31/12	(1,500,000)		(1,500,000)	
Calyx Energy	Fund IV	2/3/12	(1,000,000)		(1,000,000)	
Calyx Energy	Fund IV	4/17/12	(10,000,000)		(10,000,000)	
Calyx Energy	Fund IV	4/17/12	(2,000,000)		(2,000,000)	
Calyx Energy	Fund IV	6/29/12	(1,500,000)		(1,500,000)	
Calyx Energy	Fund IV	8/17/12	(2,000,000)		(2,000,000)	
Calyx Energy	Fund IV	10/19/12	(1,500,000)		(1,500,000)	
Calyx Energy	Fund IV	12/28/12	(3,800,000)		(3,800,000)	
Calyx Energy	Fund IV	1/4/13	(1,500,000)		(1,500,000)	
Calyx Energy	Fund IV	3/1/13	(1,000,000)		(1,000,000)	
Calyx Energy	Fund IV	2/20/14		155,951,432	155,951,432	
Calyx Energy	Fund IV	6/30/14		12,501,545	12,501,545	
Calyx Energy	Fund IV	7/25/17		2,081,262	2,081,262	32.3%
Clipper Energy	Fund IV	6/15/07	(10,000,000)		(10,000,000)	
Clipper Energy	Fund IV	7/3/07	(4,000,000)		(4,000,000)	
Clipper Energy	Fund IV	10/16/08	(500,000)		(500,000)	
Clipper Energy	Fund IV	10/22/08	(5,500,000)		(5,500,000)	
Clipper Energy	Fund IV	6/13/11		21,500,000	21,500,000	
Clipper Energy	Fund IV	10/23/12		2,100,000	2,100,000	
Clipper Energy	Fund IV	10/14/14		184,570	184,570	4.8%
Crestwood Midstream	Fund IV	11/30/07	(483,334)		(483,334)	
Crestwood Midstream	Fund IV	12/8/08	(290,000)		(290,000)	
Crestwood Midstream	Fund IV	7/1/09	(145,000)		(145,000)	
Crestwood Midstream	Fund IV	10/23/09	(188,500)		(188,500)	
Crestwood Midstream	Fund IV	3/12/10	(174,000)		(174,000)	-100.0%
Energy Contractors	Fund IV	2/29/08	(3,421,250)		(3,421,250)	
Energy Contractors	Fund IV	4/16/08	(3,910,000)		(3,910,000)	
Energy Contractors	Fund IV	6/26/08	(1,759,500)		(1,759,500)	
Energy Contractors	Fund IV	8/26/08	(7,820,000)		(7,820,000)	
Energy Contractors	Fund IV	2/17/09	(2,541,500)		(2,541,500)	
Energy Contractors	Fund IV	10/29/09	(1,466,250)		(1,466,250)	
Energy Contractors	Fund IV	7/6/10	(1,955,000)		(1,955,000)	
Energy Contractors	Fund IV	12/31/10		29,000,000	29,000,000	
Energy Contractors	Fund IV	4/13/11		3,800,000	3,800,000	
Energy Contractors	Fund IV	10/25/11		1,510,250	1,510,250	19.2%
Great Plains Operating	Fund IV	9/18/07	(490,000)		(490,000)	
Great Plains Operating	Fund IV	12/21/07	(759,500)		(759,500)	
Great Plains Operating	Fund IV	4/16/08	(1,960,000)		(1,960,000)	
Great Plains Operating	Fund IV	8/8/08	(3,000,000)		(3,000,000)	
Great Plains Operating	Fund IV	11/7/08	(1,960,000)		(1,960,000)	
Great Plains Operating	Fund IV	3/26/09	(833,000)		(833,000)	
Great Plains Operating	Fund IV	7/20/09	(784,000)		(784,000)	
Great Plains Operating	Fund IV	12/29/09	(245,000)		(245,000)	
Great Plains Operating	Fund IV	12/14/10	(2,940,000)		(2,940,000)	
Great Plains Operating	Fund IV	8/17/11	(1,960,000)		(1,960,000)	
Great Plains Operating	Fund IV	10/6/11	(3,920,000)		(3,920,000)	
Great Plains Operating	Fund IV	10/14/11	(1,960,000)		(1,960,000)	
Great Plains Operating	Fund IV	12/8/11	(3,332,000)		(3,332,000)	
Great Plains Operating	Fund IV	5/16/12		46,100,000	46,100,000	
Great Plains Operating	Fund IV	5/21/12	(4,900,000)		(4,900,000)	

Great Plains Operating	Fund IV	7/13/12	(1,960,000)		(1,960,000)	
Great Plains Operating	Fund IV	8/10/12	(1,764,000)		(1,764,000)	
Great Plains Operating	Fund IV	11/30/12	(980,000)		(980,000)	
Great Plains Operating	Fund IV	3/8/13	(980,000)		(980,000)	
Great Plains Operating	Fund IV	4/24/13	(980,000)		(980,000)	
Great Plains Operating	Fund IV	6/14/13	(882,000)		(882,000)	
Great Plains Operating	Fund IV	10/1/13	(3,430,000)		(3,430,000)	
Great Plains Operating	Fund IV	3/24/14	(980,000)		(980,000)	
Great Plains Operating	Fund IV	12/18/15		971,352	971,352	12.6%
Greystone Exploration	Fund IV	9/2/08	(4,000,000)		(4,000,000)	
Greystone Exploration	Fund IV	11/6/08	(3,000,000)		(3,000,000)	
Greystone Exploration	Fund IV	12/18/08	(2,500,000)		(2,500,000)	
Greystone Exploration	Fund IV	3/10/09	(1,500,000)		(1,500,000)	
Greystone Exploration	Fund IV	7/17/09	(2,500,000)		(2,500,000)	
Greystone Exploration	Fund IV	6/9/11		905,419	905,419	
Greystone Exploration	Fund IV	10/28/11		547,024	547,024	
Greystone Exploration	Fund IV	1/5/12		141,472	141,472	
Greystone Exploration	Fund IV	6/29/12		150,903	150,903	
Greystone Exploration	Fund IV	12/20/12		540,115	540,115	-43.6%
Highland Oil & Gas	Fund IV	10/12/07	(5,820,000)		(5,820,000)	
Highland Oil & Gas	Fund IV	2/1/08	(8,730,000)		(8,730,000)	
Highland Oil & Gas	Fund IV	5/28/08	(11,640,000)		(11,640,000)	
Highland Oil & Gas	Fund IV	9/2/08	(7,760,000)		(7,760,000)	
Highland Oil & Gas	Fund IV	12/1/08	(2,910,000)		(2,910,000)	
Highland Oil & Gas	Fund IV	1/30/09	(1,940,000)		(1,940,000)	
Highland Oil & Gas	Fund IV	5/8/09	(4,850,000)		(4,850,000)	
Highland Oil & Gas	Fund IV	7/21/09	(3,880,000)		(3,880,000)	
Highland Oil & Gas	Fund IV	1/18/11	(4,850,000)		(4,850,000)	
Highland Oil & Gas	Fund IV	2/15/11	(2,910,000)		(2,910,000)	
Highland Oil & Gas	Fund IV	3/25/11	(2,910,000)		(2,910,000)	
Highland Oil & Gas	Fund IV	4/21/11	(1,940,000)		(1,940,000)	
Highland Oil & Gas	Fund IV	6/9/11		22,374,581	22,374,581	
Highland Oil & Gas	Fund IV	10/28/11		13,517,976	13,517,976	
Highland Oil & Gas	Fund IV	1/5/12		3,496,028	3,496,028	
Highland Oil & Gas	Fund IV	6/29/12		3,729,097	3,729,097	
Highland Oil & Gas	Fund IV	9/18/14		564,535	564,535	
Highland Oil & Gas	Fund IV	12/19/18		3,406	3,406	
Highland Oil & Gas	Fund IV	2/13/19		1,703	1,703	
Highland Oil & Gas	Fund IV	3/1/19		852	852	
Highland Oil & Gas	Fund IV	3/6/19		852	852	
Highland Oil & Gas	Fund IV	4/9/19		852	852	
Highland Oil & Gas	Fund IV	4/18/19		852	852	
Highland Oil & Gas	Fund IV	5/22/19		852	852	
Highland Oil & Gas	Fund IV	7/3/19		852	852	
Highland Oil & Gas	Fund IV	7/31/19		852	852	
Highland Oil & Gas	Fund IV	8/21/19		852	852	
Highland Oil & Gas	Fund IV	9/17/19		852	852	
Highland Oil & Gas	Fund IV	10/30/19		852	852	
Highland Oil & Gas	Fund IV	11/21/19		852	852	
Highland Oil & Gas	Fund IV	12/23/19		852	852	
Highland Oil & Gas	Fund IV	1/21/20		852	852	
Highland Oil & Gas	Fund IV	2/24/20		852	852	
Highland Oil & Gas	Fund IV	3/25/20		852	852	
Highland Oil & Gas	Fund IV	5/6/20		852	852	
Highland Oil & Gas	Fund IV	5/20/20		852	852	
Highland Oil & Gas	Fund IV	7/14/20		852	852	
Highland Oil & Gas	Fund IV	7/29/20		852	852	
Highland Oil & Gas	Fund IV	8/19/20		852	852	
Highland Oil & Gas	Fund IV	10/6/20		852	852	
Highland Oil & Gas	Fund IV	10/29/20		852	852	
Highland Oil & Gas	Fund IV	11/24/20		852	852	
Highland Oil & Gas	Fund IV	12/16/20		852	852	
Highland Oil & Gas	Fund IV	1/20/21		852	852	
Highland Oil & Gas	Fund IV	2/18/21		852	852	
Highland Oil & Gas	Fund IV	3/17/21		806	806	
Highland Oil & Gas	Fund IV	4/6/21		46	46	
Highland Oil & Gas	Fund IV	5/4/21		46	46	
Highland Oil & Gas	Fund IV	5/4/21		806	806	
Highland Oil & Gas	Fund IV	5/25/21		806	806	
Highland Oil & Gas	Fund IV	6/22/21		46	46	
Highland Oil & Gas	Fund IV	6/22/21		806	806	
Highland Oil & Gas	Fund IV	6/22/21		46	46	-11.7%
HRM Resources	Fund IV	2/5/08	(470,000)		(470,000)	
HRM Resources	Fund IV	4/9/08	(1,880,000)		(1,880,000)	
HRM Resources	Fund IV	5/5/08	(6,580,000)		(6,580,000)	
HRM Resources	Fund IV	10/7/11		31,020,000	31,020,000	
HRM Resources	Fund IV	12/30/11		2,617,484	2,617,484	
HRM Resources	Fund IV	1/12/12	(1,880,000)		(1,880,000)	
HRM Resources	Fund IV	1/18/12		5,594,900	5,594,900	
HRM Resources	Fund IV	6/12/12		902,400	902,400	
HRM Resources	Fund IV	7/30/12	(940,000)		(940,000)	
HRM Resources	Fund IV	8/20/12		1,434,816	1,434,816	
HRM Resources	Fund IV	6/4/13		2,820,000	2,820,000	
HRM Resources	Fund IV	12/30/13		917,440	917,440	

HRM Resources	Fund IV	12/31/14		25,000		25,000	53.7%
KA Compass	Fund IV	6/1/09	(10,169,704)			(10,169,704)	
KA Compass	Fund IV	6/1/09	(1,091,201)			(1,091,201)	
KA Compass	Fund IV	6/30/10	(6,239,095)			(6,239,095)	
KA Compass	Fund IV	8/27/10	(2,750,000)			(2,750,000)	
KA Compass	Fund IV	1/6/11	(1,800,000)			(1,800,000)	
KA Compass	Fund IV	4/6/11	(1,900,000)			(1,900,000)	
KA Compass	Fund IV	10/31/11		12,000,000		12,000,000	
KA Compass	Fund IV	9/25/15		91,951		91,951	
KA Compass	Fund IV	11/7/19		4,860		4,860	-32.7%
Millbrae Energy	Fund IV	11/19/08	(1,900,000)			(1,900,000)	
Millbrae Energy	Fund IV	12/31/08	(3,040,000)			(3,040,000)	
Millbrae Energy	Fund IV	4/2/09	(1,900,000)			(1,900,000)	
Millbrae Energy	Fund IV	8/20/09	(1,425,000)			(1,425,000)	
Millbrae Energy	Fund IV	10/13/09	(2,375,000)			(2,375,000)	
Millbrae Energy	Fund IV	12/14/09	(1,425,000)			(1,425,000)	
Millbrae Energy	Fund IV	2/1/10	(1,662,500)			(1,662,500)	
Millbrae Energy	Fund IV	10/6/10	(1,900,000)			(1,900,000)	
Millbrae Energy	Fund IV	11/3/10	(4,560,000)			(4,560,000)	
Millbrae Energy	Fund IV	1/21/11	(1,900,000)			(1,900,000)	
Millbrae Energy	Fund IV	5/5/11	(2,470,000)			(2,470,000)	
Millbrae Energy	Fund IV	8/15/11	(1,900,000)			(1,900,000)	
Millbrae Energy	Fund IV	4/19/12	(570,000)			(570,000)	
Millbrae Energy	Fund IV	8/27/12	(570,000)			(570,000)	
Millbrae Energy	Fund IV	10/8/14		5,000,000		5,000,000	
Millbrae Energy	Fund IV	12/2/15		261,018		261,018	
Millbrae Energy	Fund IV	11/27/17		3,802		3,802	
Millbrae Energy	Fund IV	3/11/19		21,669		21,669	-31.4%
North West Upgrading	Fund IV	6/11/07	(18,726,590)			(18,726,590)	
North West Upgrading	Fund IV	12/23/14		1,950,996		1,950,996	
North West Upgrading	Fund IV	2/3/15		258,823		258,823	
North West Upgrading	Fund IV	2/3/15		409,339		409,339	-22.9%
Plano Petroleum	Fund IV	12/28/07	(1,318,025)			(1,318,025)	
Plano Petroleum	Fund IV	1/11/08	(750,000)			(750,000)	
Plano Petroleum	Fund IV	6/5/08	(750,000)			(750,000)	
Plano Petroleum	Fund IV	8/15/08	(1,500,000)			(1,500,000)	
Plano Petroleum	Fund IV	10/22/08	(3,000,000)			(3,000,000)	
Plano Petroleum	Fund IV	1/30/09	(3,000,000)			(3,000,000)	
Plano Petroleum	Fund IV	4/13/09	(939,342)			(939,342)	
Plano Petroleum	Fund IV	2/10/10	(800,000)			(800,000)	
Plano Petroleum	Fund IV	4/30/10	(3,365,000)			(3,365,000)	
Plano Petroleum	Fund IV	8/2/10	(4,544,000)			(4,544,000)	
Plano Petroleum	Fund IV	11/15/10	(2,190,000)			(2,190,000)	
Plano Petroleum	Fund IV	1/21/11	(3,358,000)			(3,358,000)	
Plano Petroleum	Fund IV	12/20/11	(4,000,000)			(4,000,000)	
Plano Petroleum	Fund IV	12/21/12		71,843,942		71,843,942	
Plano Petroleum	Fund IV	12/8/14		903,965		903,965	33.7%
Plymouth Exploration	Fund IV	3/10/09	(2,000,000)			(2,000,000)	
Plymouth Exploration	Fund IV	6/19/09	(1,016,981)			(1,016,981)	
Plymouth Exploration	Fund IV	7/20/09	(761,950)			(761,950)	
Plymouth Exploration	Fund IV	9/23/09	(2,149,528)			(2,149,528)	
Plymouth Exploration	Fund IV	1/15/10	(369,811)			(369,811)	
Plymouth Exploration	Fund IV	3/1/10	(739,623)			(739,623)	
Plymouth Exploration	Fund IV	5/3/10	(1,016,981)			(1,016,981)	
Plymouth Exploration	Fund IV	7/1/10	(1,295,126)			(1,295,126)	
Plymouth Exploration	Fund IV	10/15/10	(3,050,000)			(3,050,000)	
Plymouth Exploration	Fund IV	1/28/11	(3,200,000)			(3,200,000)	
Plymouth Exploration	Fund IV	3/28/11	(4,675,000)			(4,675,000)	
Plymouth Exploration	Fund IV	5/19/11	(2,750,000)			(2,750,000)	
Plymouth Exploration	Fund IV	7/25/11	(5,425,000)			(5,425,000)	
Plymouth Exploration	Fund IV	11/7/11	(5,375,000)			(5,375,000)	
Plymouth Exploration	Fund IV	1/17/12	(1,850,000)			(1,850,000)	
Plymouth Exploration	Fund IV	2/24/12	(4,900,000)			(4,900,000)	
Plymouth Exploration	Fund IV	3/30/12	(3,185,000)			(3,185,000)	
Plymouth Exploration	Fund IV	11/5/12	(5,240,000)			(5,240,000)	
Plymouth Exploration	Fund IV	6/30/14		66,892,197		66,892,197	
Plymouth Exploration	Fund IV	7/2/14		76,688,861		76,688,861	
Plymouth Exploration	Fund IV	12/29/14		11,593,585		11,593,585	
Plymouth Exploration	Fund IV	7/1/15		10,023,047		10,023,047	
Plymouth Exploration	Fund IV	11/7/19		84,317		84,317	
Plymouth Exploration	Fund IV	4/29/20		4,208		4,208	43.4%
Riverbend Exploration	Fund IV	4/16/08	(910,000)			(910,000)	
Riverbend Exploration	Fund IV	5/22/08	(1,092,000)			(1,092,000)	
Riverbend Exploration	Fund IV	7/3/08	(910,000)			(910,000)	
Riverbend Exploration	Fund IV	8/8/08	(2,730,000)			(2,730,000)	
Riverbend Exploration	Fund IV	12/5/08	(1,456,000)			(1,456,000)	
Riverbend Exploration	Fund IV	8/26/09	(728,000)			(728,000)	
Riverbend Exploration	Fund IV	9/25/09	(4,550,000)			(4,550,000)	
Riverbend Exploration	Fund IV	10/29/09	(31,424,000)			(31,424,000)	
Riverbend Exploration	Fund IV	7/9/13		61,956,604		61,956,604	
Riverbend Exploration	Fund IV	2/4/14		3,402,476		3,402,476	
Riverbend Exploration	Fund IV	6/18/14		1,107,194		1,107,194	
Riverbend Exploration	Fund IV	1/29/15		86,563		86,563	
Riverbend Exploration	Fund IV	12/28/15		11,141		11,141	



Riverbend Exploration	Fund IV	10/20/16		100,299	100,299	
Riverbend Exploration	Fund IV	10/27/16		4,524	4,524	11.2%
Sagebrush Resources	Fund IV	11/30/07	(11,860,000)		(11,860,000)	
Sagebrush Resources	Fund IV	2/11/09	(1,482,500)		(1,482,500)	
Sagebrush Resources	Fund IV	1/31/11		40,709,734	40,709,734	
Sagebrush Resources	Fund IV	8/30/11		7,208,886	7,208,886	
Sagebrush Resources	Fund IV	11/8/11		769,769	769,769	
Sagebrush Resources	Fund IV	2/8/12		4,310,706	4,310,706	
Sagebrush Resources	Fund IV	8/23/12		577,327	577,327	
Sagebrush Resources	Fund IV	12/24/12		38,489	38,489	
Sagebrush Resources	Fund IV	5/12/15	(16,179)		(16,179)	53.8%
Sagebrush Resources II	Fund IV	8/13/10	(66,666)		(66,666)	
Sagebrush Resources II	Fund IV	10/18/10	(733,333)		(733,333)	
Sagebrush Resources II	Fund IV	12/14/10	(1,866,648)		(1,866,648)	
Sagebrush Resources II	Fund IV	10/5/11	(1,881,859)		(1,881,859)	
Sagebrush Resources II	Fund IV	2/24/12	(324,895)		(324,895)	
Sagebrush Resources II	Fund IV	4/20/12	(302,446)		(302,446)	
Sagebrush Resources II	Fund IV	6/22/12	(1,061,046)		(1,061,046)	
Sagebrush Resources II	Fund IV	12/21/12	(323,491)		(323,491)	
Sagebrush Resources II	Fund IV	3/12/13	(966,462)		(966,462)	
Sagebrush Resources II	Fund IV	8/8/13	(323,326)		(323,326)	
Sagebrush Resources II	Fund IV	1/21/14	(69,513)		(69,513)	
Sagebrush Resources II	Fund IV	2/25/14	(56,581)		(56,581)	
Sagebrush Resources II	Fund IV	3/31/14	(113,210)		(113,210)	
Sagebrush Resources II	Fund IV	5/22/14	(113,162)		(113,162)	
Sagebrush Resources II	Fund IV	7/23/14	(48,498)		(48,498)	
Sagebrush Resources II	Fund IV	9/23/14	(48,498)		(48,498)	
Sagebrush Resources II	Fund IV	5/12/15	(9,675)		(9,675)	
Sagebrush Resources II	Fund IV	8/24/15	(485)		(485)	-100.0%
Trail Ridge Energy Partners	Fund IV	4/2/08	(6,625,000)		(6,625,000)	
Trail Ridge Energy Partners	Fund IV	2/6/09	(1,370,000)		(1,370,000)	
Trail Ridge Energy Partners	Fund IV	5/22/09	(2,000,000)		(2,000,000)	
Trail Ridge Energy Partners	Fund IV	6/18/09	(10,000,000)		(10,000,000)	
Trail Ridge Energy Partners	Fund IV	9/30/09	(2,000,000)		(2,000,000)	
Trail Ridge Energy Partners	Fund IV	12/22/09	(1,927,000)		(1,927,000)	
Trail Ridge Energy Partners	Fund IV	2/12/10	(2,500,000)		(2,500,000)	
Trail Ridge Energy Partners	Fund IV	3/30/10	(3,000,000)		(3,000,000)	
Trail Ridge Energy Partners	Fund IV	6/30/10	(3,000,000)		(3,000,000)	
Trail Ridge Energy Partners	Fund IV	9/23/10	(2,000,000)		(2,000,000)	
Trail Ridge Energy Partners	Fund IV	12/28/10	(1,000,000)		(1,000,000)	
Trail Ridge Energy Partners	Fund IV	10/31/11		47,168,421	47,168,421	
Trail Ridge Energy Partners	Fund IV	1/26/12		4,813,965	4,813,965	
Trail Ridge Energy Partners	Fund IV	6/14/12		1,910,702	1,910,702	
Trail Ridge Energy Partners	Fund IV	12/5/12		441,275	441,275	
Trail Ridge Energy Partners	Fund IV	5/5/14		830,966	830,966	
Trail Ridge Energy Partners	Fund IV	5/2/17		3,428	3,428	20.3%
Zone Energy	Fund IV	2/6/09	(1,150,000)		(1,150,000)	
Zone Energy	Fund IV	7/13/09	(600,000)		(600,000)	
Zone Energy	Fund IV	11/2/09	(600,000)		(600,000)	
Zone Energy	Fund IV	2/23/10	(600,000)		(600,000)	
Zone Energy	Fund IV	5/28/10	(600,000)		(600,000)	
Zone Energy	Fund IV	7/14/10	(8,750,000)		(8,750,000)	
Zone Energy	Fund IV	10/9/12	(3,000,000)		(3,000,000)	
Zone Energy	Fund IV	11/5/12	(1,500,000)		(1,500,000)	
Zone Energy	Fund IV	2/8/13	(2,000,000)		(2,000,000)	
Zone Energy	Fund IV	2/6/14	(1,000,000)		(1,000,000)	
Zone Energy	Fund IV	8/11/14	(650,000)		(650,000)	
Zone Energy	Fund IV	9/29/14	(950,000)		(950,000)	
Zone Energy	Fund IV	3/5/15	(18,200,000)		(18,200,000)	
Zone Energy	Fund IV	9/25/15		651,469	651,469	
Zone Energy	Fund IV	11/7/19		9,104	9,104	(37.7%)
Hayden Harper Energy	Fund IV	8/5/09	(500,000)		(500,000)	
Hayden Harper Energy	Fund IV	9/14/09	(1,500,000)		(1,500,000)	
Hayden Harper Energy	Fund IV	2/8/10	(500,000)		(500,000)	
Hayden Harper Energy	Fund IV	8/2/10	(525,000)		(525,000)	
Hayden Harper Energy	Fund IV	12/10/10	(650,000)		(650,000)	
Hayden Harper Energy	Fund IV	3/21/11	(5,000,000)		(5,000,000)	
Hayden Harper Energy	Fund IV	8/18/11	(24,000,000)		(24,000,000)	
Hayden Harper Energy	Fund IV	12/8/11	(1,400,000)		(1,400,000)	
Hayden Harper Energy	Fund IV	3/26/12	(2,925,000)		(2,925,000)	
Hayden Harper Energy	Fund IV	12/12/12	(2,000,000)		(2,000,000)	
Hayden Harper Energy	Fund IV	5/22/13	(4,000,000)		(4,000,000)	
Hayden Harper Energy	Fund IV	5/21/15	(15,009,695)		(15,009,695)	
Hayden Harper Energy	Fund IV	9/10/15	(780,172)		(780,172)	
Hayden Harper Energy	Fund IV	11/23/15	(198,900)		(198,900)	
Hayden Harper Energy	Fund IV	10/27/16	(301,071)		(301,071)	
Hayden Harper Energy	Fund IV	12/22/16	(102,087)		(102,087)	-100.0%
Laricina Energy	Fund IV	12/19/07	(24,913,428)		(24,913,428)	
Laricina Energy	Fund IV	4/30/09	(1,606,964)		(1,606,964)	
Laricina Energy	Fund IV	7/22/09	(6,826,871)		(6,826,871)	
Laricina Energy	Fund IV	7/16/15		82,965	82,965	-57.8%
Beacon E&P	Fund IV	6/18/09	(1,666,667)		(1,666,667)	
Beacon E&P	Fund IV	12/14/09	(3,000,000)		(3,000,000)	
Beacon E&P	Fund IV	2/16/10	(5,000,000)		(5,000,000)	

Beacon E&P	Fund IV	6/4/10	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	8/5/10	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	10/5/10	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	12/10/10	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	3/25/11	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	6/16/11	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	9/9/11	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	12/5/11	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	2/23/12	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	4/27/12	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	8/17/12	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	10/5/12	(2,000,000)		(2,000,000)		
Beacon E&P	Fund IV	12/21/12	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	3/27/13	(5,000,000)		(5,000,000)		
Beacon E&P	Fund IV	4/25/13	(3,333,333)		(3,333,333)		
Beacon E&P	Fund IV	3/15/16		73,333,329	73,333,329		
Beacon E&P	Fund IV	3/24/17		10,896,432	10,896,432		
Beacon E&P	Fund IV	12/29/17		171,186	171,186		
Beacon E&P	Fund IV	9/4/20		5,036	5,036	1.1%	
Katy Resources ETX	Fund IV	5/28/08	(1,380,000)		(1,380,000)		
Katy Resources ETX	Fund IV	10/22/08	(1,500,000)		(1,500,000)		
Katy Resources ETX	Fund IV	2/10/09	(552,000)		(552,000)		
Katy Resources ETX	Fund IV	2/17/09	(736,000)		(736,000)		
Katy Resources ETX	Fund IV	2/23/09	(5,129,000)		(5,129,000)		
Katy Resources ETX	Fund IV	6/1/09	(4,002,000)		(4,002,000)		
Katy Resources ETX	Fund IV	8/17/09	(2,760,000)		(2,760,000)		
Katy Resources ETX	Fund IV	10/23/09	(3,082,000)		(3,082,000)		
Katy Resources ETX	Fund IV	12/24/09	(2,760,000)		(2,760,000)		
Katy Resources ETX	Fund IV	2/5/10	(1,380,000)		(1,380,000)		
Katy Resources ETX	Fund IV	3/18/10	(300,000)		(300,000)		
Katy Resources ETX	Fund IV	4/6/10	(173,807)		(173,807)		
Katy Resources ETX	Fund IV	4/7/10	(898,233)		(898,233)		
Katy Resources ETX	Fund IV	4/26/10	(198,363)		(198,363)		
Katy Resources ETX	Fund IV	5/19/10	(190,000)		(190,000)		
Katy Resources ETX	Fund IV	6/1/10	(225,000)		(225,000)		
Katy Resources ETX	Fund IV	6/16/10	(150,000)		(150,000)		
Katy Resources ETX	Fund IV	7/7/10	(125,000)		(125,000)		
Katy Resources ETX	Fund IV	7/21/10	(315,000)		(315,000)		
Katy Resources ETX	Fund IV	7/30/10	(675,000)		(675,000)		
Katy Resources ETX	Fund IV	10/29/10	(168,597)		(168,597)		
Katy Resources ETX	Fund IV	12/16/10	(30,000)		(30,000)		
Katy Resources ETX	Fund IV	12/30/10	(200,000)		(200,000)		
Katy Resources ETX	Fund IV	2/1/11	(275,000)		(275,000)		
Katy Resources ETX	Fund IV	3/12/13	(200,000)		(200,000)		
Katy Resources ETX	Fund IV	10/19/16		320,000	320,000		
Katy Resources ETX	Fund IV	12/30/16		90,456	90,456	-44.7%	
Newton Energy	Fund IV	9/14/10	(300,000)		(300,000)		
Newton Energy	Fund IV	5/2/11	(278,000)		(278,000)		
Newton Energy	Fund IV	8/19/11	(6,250,000)		(6,250,000)		
Newton Energy	Fund IV	9/29/11	(36,672,000)		(36,672,000)		
Newton Energy	Fund IV	9/19/12	(6,700,000)		(6,700,000)		
Newton Energy	Fund IV	1/23/13	(6,800,000)		(6,800,000)		
Newton Energy	Fund IV	2/6/14	(6,700,000)		(6,700,000)		
Newton Energy	Fund IV	8/3/18		48,154,514	48,154,514		
Newton Energy	Fund IV	7/30/21		10,499,860	10,499,860		
Newton Energy	Fund IV	3/31/22			33,489,823.00	33,489,823	4.7%
Santa Maria Pacific Holdings	Fund IV	12/23/08	(5,000,000)		(5,000,000)		
Santa Maria Pacific Holdings	Fund IV	4/17/09	(5,000,000)		(5,000,000)		
Santa Maria Pacific Holdings	Fund IV	7/1/09	(2,500,000)		(2,500,000)		
Santa Maria Pacific Holdings	Fund IV	9/1/09	(1,500,000)		(1,500,000)		
Santa Maria Pacific Holdings	Fund IV	10/16/09	(2,000,000)		(2,000,000)		
Santa Maria Pacific Holdings	Fund IV	12/11/09	(500,000)		(500,000)		
Santa Maria Pacific Holdings	Fund IV	1/13/10	(500,000)		(500,000)		
Santa Maria Pacific Holdings	Fund IV	8/9/10	(3,000,000)		(3,000,000)		
Santa Maria Pacific Holdings	Fund IV	11/16/10	(2,000,000)		(2,000,000)		
Santa Maria Pacific Holdings	Fund IV	12/28/10	(2,000,000)		(2,000,000)		
Santa Maria Pacific Holdings	Fund IV	3/25/11	(1,000,000)		(1,000,000)		
Santa Maria Pacific Holdings	Fund IV	4/21/11	(3,000,000)		(3,000,000)		
Santa Maria Pacific Holdings	Fund IV	5/5/11	(12,000,000)		(12,000,000)		
Santa Maria Pacific Holdings	Fund IV	11/3/11	(5,000,000)		(5,000,000)		
Santa Maria Pacific Holdings	Fund IV	2/15/12	(5,000,000)		(5,000,000)		
Santa Maria Pacific Holdings	Fund IV	11/25/13	(372,251)		(372,251)		
Santa Maria Pacific Holdings	Fund IV	5/27/15	(750,000)		(750,000)		
Santa Maria Pacific Holdings	Fund IV	6/11/15	(29,283,948)		(29,283,948)		
Santa Maria Pacific Holdings	Fund IV	7/2/15	(1,895,662)		(1,895,662)		
Santa Maria Pacific Holdings	Fund IV	10/9/15	(270,000)		(270,000)		
Santa Maria Pacific Holdings	Fund IV	10/15/15	(268,490)		(268,490)		
Santa Maria Pacific Holdings	Fund IV	11/4/15	(299,507)		(299,507)		
Santa Maria Pacific Holdings	Fund IV	11/9/15	(375,000)		(375,000)		
Santa Maria Pacific Holdings	Fund IV	11/23/15	(125,000)		(125,000)		
Santa Maria Pacific Holdings	Fund IV	12/9/15	(400,000)		(400,000)		
Santa Maria Pacific Holdings	Fund IV	12/21/15	(150,000)		(150,000)		
Santa Maria Pacific Holdings	Fund IV	1/7/16	(225,000)		(225,000)		
Santa Maria Pacific Holdings	Fund IV	1/19/16	(250,000)		(250,000)		

Santa Maria Pacific Holdings	Fund IV	1/29/16	(220,000)			(220,000)	
Santa Maria Pacific Holdings	Fund IV	2/4/16	(70,000)			(70,000)	
Santa Maria Pacific Holdings	Fund IV	2/9/16	(110,000)			(110,000)	
Santa Maria Pacific Holdings	Fund IV	2/24/16	(150,000)			(150,000)	
Santa Maria Pacific Holdings	Fund IV	2/25/16		250,000		250,000	
Santa Maria Pacific Holdings	Fund IV	3/2/16	(150,000)			(150,000)	
Santa Maria Pacific Holdings	Fund IV	3/9/16	(300,000)			(300,000)	
Santa Maria Pacific Holdings	Fund IV	3/16/16	(100,000)			(100,000)	
Santa Maria Pacific Holdings	Fund IV	3/29/16	(110,000)			(110,000)	
Santa Maria Pacific Holdings	Fund IV	4/1/16	(40,000)			(40,000)	
Santa Maria Pacific Holdings	Fund IV	4/14/16	(230,000)			(230,000)	
Santa Maria Pacific Holdings	Fund IV	4/28/16	(160,000)			(160,000)	
Santa Maria Pacific Holdings	Fund IV	5/6/16	(40,000)			(40,000)	
Santa Maria Pacific Holdings	Fund IV	5/12/16	(120,000)			(120,000)	
Santa Maria Pacific Holdings	Fund IV	5/25/16	(110,000)			(110,000)	
Santa Maria Pacific Holdings	Fund IV	8/12/16	(136,686)			(136,686)	
Santa Maria Pacific Holdings	Fund IV	5/27/16		150,000		150,000	
Santa Maria Pacific Holdings	Fund IV	6/23/17		250,000		250,000	-100.0%
<b>Gross IRR</b>							<b>7.0%</b>

Kayne Anderson Energy Fund V, L.P.							
Company Name	Fund	Date of Transaction	Amount Invested	Amount Realized	Unrealized Value	Gross Cash Flow	IRR
Adventure Exploration II	Fund V	4/30/12	(1,888,000)			(1,888,000)	
Adventure Exploration II	Fund V	7/30/12	(11,328,000)			(11,328,000)	
Adventure Exploration II	Fund V	9/24/12	(944,000)			(944,000)	
Adventure Exploration II	Fund V	10/30/12	(2,832,000)			(2,832,000)	
Adventure Exploration II	Fund V	1/25/13	(2,832,000)			(2,832,000)	
Adventure Exploration II	Fund V	2/15/13	(1,888,000)			(1,888,000)	
Adventure Exploration II	Fund V	6/7/13	(4,720,000)			(4,720,000)	
Adventure Exploration II	Fund V	9/13/13	(2,360,000)			(2,360,000)	
Adventure Exploration II	Fund V	12/23/13	(1,888,000)			(1,888,000)	
Adventure Exploration II	Fund V	9/2/14		83,411,507		83,411,507	
Adventure Exploration II	Fund V	11/10/14		34,191,668		34,191,668	
Adventure Exploration II	Fund V	12/10/14		4,229,120		4,229,120	
Adventure Exploration II	Fund V	7/1/15		7,248,000		7,248,000	
Adventure Exploration II	Fund V	8/31/15		4,229,120		4,229,120	
Adventure Exploration II	Fund V	3/8/16		2,416,640		2,416,640	
Adventure Exploration II	Fund V	8/19/16		211,456		211,456	
Adventure Exploration II	Fund V	1/6/17		13,256		13,256	118.3%
Axia Energy	Fund V	8/19/09	(750,000)			(750,000)	
Axia Energy	Fund V	3/1/10	(250,000)			(250,000)	
Axia Energy	Fund V	7/13/10	(1,216,667)			(1,216,667)	
Axia Energy	Fund V	11/18/10	(3,489,000)			(3,489,000)	
Axia Energy	Fund V	2/16/11	(2,258,487)			(2,258,487)	
Axia Energy	Fund V	5/13/11	(4,509,383)			(4,509,383)	
Axia Energy	Fund V	8/16/11	(1,000,000)			(1,000,000)	
Axia Energy	Fund V	10/20/11	(833,333)			(833,333)	
Axia Energy	Fund V	11/16/12	(5,000,000)			(5,000,000)	
Axia Energy	Fund V	12/13/13		141,497,015		141,497,015	
Axia Energy	Fund V	9/12/14		4,266,667		4,266,667	
Axia Energy	Fund V	12/22/14		3,200,000		3,200,000	
Axia Energy	Fund V	4/10/15		2,560,000		2,560,000	
Axia Energy	Fund V	4/13/17		1,205,333		1,205,333	
Axia Energy	Fund V	8/28/17		247,466		247,466	112.2%
Corlena Oil Company	Fund V	10/11/11	(3,600,000)			(3,600,000)	
Corlena Oil Company	Fund V	12/21/11	(1,800,000)			(1,800,000)	
Corlena Oil Company	Fund V	2/23/12	(2,250,000)			(2,250,000)	
Corlena Oil Company	Fund V	5/9/12		22,392,547		22,392,547	
Corlena Oil Company	Fund V	6/29/12		3,551,040		3,551,040	
Corlena Oil Company	Fund V	6/29/12	(12,000,000)			(12,000,000)	
Corlena Oil Company	Fund V	7/30/14		16,782,964		16,782,964	
Corlena Oil Company	Fund V	8/18/17		800,000		800,000	
Corlena Oil Company	Fund V	12/12/17		384,000		384,000	
Corlena Oil Company	Fund V	7/10/18		576,000		576,000	
Corlena Oil Company	Fund V	10/16/18		2,584,620		2,584,620	
Corlena Oil Company	Fund V	12/20/18		55,703		55,703	
Corlena Oil Company	Fund V	6/27/19		3,319		3,319	435.3%
KA Henry I	Fund V	7/8/11	(1,250,000)			(1,250,000)	
KA Henry I	Fund V	7/12/11	(4,000,000)			(4,000,000)	
KA Henry I	Fund V	8/10/11	(2,000,000)			(2,000,000)	
KA Henry I	Fund V	2/15/12	(3,000,000)			(3,000,000)	
KA Henry I	Fund V	8/22/12	(1,500,000)			(1,500,000)	
KA Henry I	Fund V	8/31/12	(1,000,000)			(1,000,000)	
KA Henry I	Fund V	11/5/12	(2,000,000)			(2,000,000)	
KA Henry I	Fund V	12/17/12	(1,500,000)			(1,500,000)	
KA Henry I	Fund V	12/26/12	(1,000,000)			(1,000,000)	
KA Henry I	Fund V	1/25/13	(1,500,000)			(1,500,000)	
KA Henry I	Fund V	2/27/13	(5,150,000)			(5,150,000)	
KA Henry I	Fund V	6/30/14		25,000,000		25,000,000	
KA Henry I	Fund V	9/26/14	(4,000,000)			(4,000,000)	
KA Henry I	Fund V	11/10/14	(2,000,000)			(2,000,000)	
KA Henry I	Fund V	12/26/14		2,967,354		2,967,354	
KA Henry I	Fund V	6/7/17		9,300,000		9,300,000	

KA Henry I	Fund V	12/8/17		250,000		250,000	
KA Henry I	Fund V	4/14/20		75,695		75,695	10.1%
KA VOC Resources	Fund V	11/29/11	(2,625,000)			(2,625,000)	
KA VOC Resources	Fund V	5/1/12	(3,900,000)			(3,900,000)	
KA VOC Resources	Fund V	12/12/14		750,000		750,000	
KA VOC Resources	Fund V	5/6/15		555,134		555,134	-42.0%
Momentum Oil & Gas	Fund V	10/29/10	(199,600)			(199,600)	
Momentum Oil & Gas	Fund V	1/5/11	(499,000)			(499,000)	
Momentum Oil & Gas	Fund V	4/8/11	(1,097,800)			(1,097,800)	
Momentum Oil & Gas	Fund V	5/19/11	(1,996,000)			(1,996,000)	
Momentum Oil & Gas	Fund V	6/28/11	(21,656,600)			(21,656,600)	
Momentum Oil & Gas	Fund V	3/29/12	(4,491,000)			(4,491,000)	
Momentum Oil & Gas	Fund V	5/31/12	(1,397,200)			(1,397,200)	
Momentum Oil & Gas	Fund V	8/27/12	(7,185,600)			(7,185,600)	
Momentum Oil & Gas	Fund V	10/2/12	(2,495,000)			(2,495,000)	
Momentum Oil & Gas	Fund V	11/26/12	(4,990,000)			(4,990,000)	
Momentum Oil & Gas	Fund V	1/25/13	(3,692,600)			(3,692,600)	
Momentum Oil & Gas	Fund V	6/17/13	(1,996,000)			(1,996,000)	
Momentum Oil & Gas	Fund V	5/8/14	(499,000)			(499,000)	
Momentum Oil & Gas	Fund V	9/30/14	(499,000)			(499,000)	
Momentum Oil & Gas	Fund V	2/18/15	(199,600)			(199,600)	
Momentum Oil & Gas	Fund V	2/26/15	(5,988,000)			(5,988,000)	
Momentum Oil & Gas	Fund V	9/21/18		2,385		2,385	
Momentum Oil & Gas	Fund V	1/14/22		100		100	-80.0%
Sagebrush Resources II	Fund V	8/13/10	(133,334)			(133,334)	
Sagebrush Resources II	Fund V	10/18/10	(1,466,667)			(1,466,667)	
Sagebrush Resources II	Fund V	12/14/10	(3,733,352)			(3,733,352)	
Sagebrush Resources II	Fund V	10/5/11	(3,763,717)			(3,763,717)	
Sagebrush Resources II	Fund V	2/24/12	(649,789)			(649,789)	
Sagebrush Resources II	Fund V	4/20/12	(604,893)			(604,893)	
Sagebrush Resources II	Fund V	6/22/12	(2,122,093)			(2,122,093)	
Sagebrush Resources II	Fund V	12/21/12	(646,983)			(646,983)	
Sagebrush Resources II	Fund V	3/12/13	(1,932,923)			(1,932,923)	
Sagebrush Resources II	Fund V	8/8/13	(646,652)			(646,652)	
Sagebrush Resources II	Fund V	1/21/14	(139,027)			(139,027)	
Sagebrush Resources II	Fund V	2/25/14	(113,162)			(113,162)	
Sagebrush Resources II	Fund V	3/31/14	(226,421)			(226,421)	
Sagebrush Resources II	Fund V	5/22/14	(226,323)			(226,323)	
Sagebrush Resources II	Fund V	7/23/14	(96,996)			(96,996)	
Sagebrush Resources II	Fund V	9/23/14	(96,996)			(96,996)	
Sagebrush Resources II	Fund V	5/12/15	(19,350)			(19,350)	
Sagebrush Resources II	Fund V	8/24/15	(970)			(970)	-100.0%
Three Forks Reserves	Fund V	1/26/11	(741,107)			(741,107)	
Three Forks Reserves	Fund V	5/25/11	(513,834)			(513,834)	
Three Forks Reserves	Fund V	5/27/11	(2,248,024)			(2,248,024)	
Three Forks Reserves	Fund V	6/10/11	(1,086,957)			(1,086,957)	
Three Forks Reserves	Fund V	8/15/11	(642,292)			(642,292)	
Three Forks Reserves	Fund V	10/18/11	(1,185,771)			(1,185,771)	
Three Forks Reserves	Fund V	12/15/11	(1,235,178)			(1,235,178)	
Three Forks Reserves	Fund V	2/24/12	(580,112)			(580,112)	
Three Forks Reserves	Fund V	4/19/12	(1,068,093)			(1,068,093)	
Three Forks Reserves	Fund V	12/21/12	(163,043)			(163,043)	
Three Forks Reserves	Fund V	2/13/13	(1,113,362)			(1,113,362)	
Three Forks Reserves	Fund V	3/14/13	(494,170)			(494,170)	
Three Forks Reserves	Fund V	10/1/14		7,184,902		7,184,902	
Three Forks Reserves	Fund V	12/17/14		629,950		629,950	
Three Forks Reserves	Fund V	8/11/15		587,850		587,850	-9.0%
Treadstone Energy Partners	Fund V	3/10/11	(985,000)			(985,000)	
Treadstone Energy Partners	Fund V	6/27/11	(1,970,000)			(1,970,000)	
Treadstone Energy Partners	Fund V	9/16/11	(344,750)			(344,750)	
Treadstone Energy Partners	Fund V	9/27/11	(5,220,500)			(5,220,500)	
Treadstone Energy Partners	Fund V	1/25/12	(985,000)			(985,000)	
Treadstone Energy Partners	Fund V	2/16/12	(1,773,000)			(1,773,000)	
Treadstone Energy Partners	Fund V	3/8/12	(985,000)			(985,000)	
Treadstone Energy Partners	Fund V	4/19/12	(17,730,000)			(17,730,000)	
Treadstone Energy Partners	Fund V	6/27/12	(3,940,000)			(3,940,000)	
Treadstone Energy Partners	Fund V	9/18/12	(7,880,000)			(7,880,000)	
Treadstone Energy Partners	Fund V	7/22/14		517,106,518		517,106,518	
Treadstone Energy Partners	Fund V	12/22/14		5,988,800		5,988,800	
Treadstone Energy Partners	Fund V	8/25/16		673,740		673,740	
Treadstone Energy Partners	Fund V	11/7/17		374,300		374,300	186.5%
XOG	Fund V	12/30/10	(980,000)			(980,000)	
XOG	Fund V	10/14/11	(980,000)			(980,000)	
XOG	Fund V	8/20/12	(1,274,000)			(1,274,000)	
XOG	Fund V	10/3/12	(9,800,000)			(9,800,000)	
XOG	Fund V	5/15/13	(1,764,000)			(1,764,000)	
XOG	Fund V	9/12/13	(1,960,000)			(1,960,000)	
XOG	Fund V	9/17/14		6,100,371		6,100,371	-42.0%
Catamount Energy Partners	Fund V	6/13/12	(735,000)			(735,000)	
Catamount Energy Partners	Fund V	2/11/13	(803,600)			(803,600)	
Catamount Energy Partners	Fund V	9/27/13	(862,400)			(862,400)	
Catamount Energy Partners	Fund V	2/28/14	(980,000)			(980,000)	
Catamount Energy Partners	Fund V	4/23/14	(3,479,000)			(3,479,000)	
Catamount Energy Partners	Fund V	6/13/14	(441,000)			(441,000)	

Catamount Energy Partners	Fund V	10/3/14	(2,254,000)			(2,254,000)	
Catamount Energy Partners	Fund V	6/9/15	(2,597,000)			(2,597,000)	
Catamount Energy Partners	Fund V	12/18/15		3,850,000		3,850,000	
Catamount Energy Partners	Fund V	12/31/16		972		972	-57.6%
Endless Mountain Energy Partners	Fund V	11/15/10	(4,000,000)			(4,000,000)	
Endless Mountain Energy Partners	Fund V	12/22/10	(1,500,000)			(1,500,000)	
Endless Mountain Energy Partners	Fund V	2/16/11	(750,000)			(750,000)	
Endless Mountain Energy Partners	Fund V	8/4/11	(1,500,000)			(1,500,000)	
Endless Mountain Energy Partners	Fund V	9/26/11	(1,750,000)			(1,750,000)	
Endless Mountain Energy Partners	Fund V	12/9/11	(2,850,000)			(2,850,000)	
Endless Mountain Energy Partners	Fund V	12/16/11	(2,375,000)			(2,375,000)	
Endless Mountain Energy Partners	Fund V	1/17/12	(2,375,000)			(2,375,000)	
Endless Mountain Energy Partners	Fund V	3/7/12	(2,375,000)			(2,375,000)	
Endless Mountain Energy Partners	Fund V	8/10/12	(950,000)			(950,000)	
Endless Mountain Energy Partners	Fund V	11/21/12	(902,500)			(902,500)	
Endless Mountain Energy Partners	Fund V	6/19/13	(712,500)			(712,500)	
Endless Mountain Energy Partners	Fund V	10/25/13	(1,045,000)			(1,045,000)	
Endless Mountain Energy Partners	Fund V	2/24/14	(712,500)			(712,500)	
Endless Mountain Energy Partners	Fund V	10/1/14	(285,000)			(285,000)	
Endless Mountain Energy Partners	Fund V	1/9/15	(285,000)			(285,000)	
Endless Mountain Energy Partners	Fund V	10/26/15		195,000		195,000	-84.0%
Alamo Resources II	Fund V	6/15/10	(12,320,000)			(12,320,000)	
Alamo Resources II	Fund V	10/5/10	(2,200,000)			(2,200,000)	
Alamo Resources II	Fund V	1/24/11	(1,320,000)			(1,320,000)	
Alamo Resources II	Fund V	5/4/11	(1,760,000)			(1,760,000)	
Alamo Resources II	Fund V	8/5/11	(1,760,000)			(1,760,000)	
Alamo Resources II	Fund V	11/18/11	(3,960,000)			(3,960,000)	
Alamo Resources II	Fund V	5/11/12	(2,640,000)			(2,640,000)	
Alamo Resources II	Fund V	9/7/12	(1,760,000)			(1,760,000)	
Alamo Resources II	Fund V	12/31/12	(4,400,000)			(4,400,000)	
Alamo Resources II	Fund V	3/31/14	(880,000)			(880,000)	
Alamo Resources II	Fund V	7/16/14	(880,000)			(880,000)	
Alamo Resources II	Fund V	4/10/15	(880,000)			(880,000)	
Alamo Resources II	Fund V	5/14/15	(308,000)			(308,000)	
Alamo Resources II	Fund V	6/29/15	(572,000)			(572,000)	
Alamo Resources II	Fund V	7/29/15	(484,000)			(484,000)	
Alamo Resources II	Fund V	8/13/15	(180,400)			(180,400)	
Alamo Resources II	Fund V	8/28/15	(602,800)			(602,800)	
Alamo Resources II	Fund V	9/29/15	(440,000)			(440,000)	
Alamo Resources II	Fund V	10/13/15	(5,001,530)			(5,001,530)	
Alamo Resources II	Fund V	10/30/15	(440,000)			(440,000)	
Alamo Resources II	Fund V	12/1/15	(264,000)			(264,000)	
Alamo Resources II	Fund V	1/12/16	(264,000)			(264,000)	
Alamo Resources II	Fund V	2/4/16	(35,200)			(35,200)	
Alamo Resources II	Fund V	3/4/16	(88,000)			(88,000)	
Alamo Resources II	Fund V	4/11/16	(114,400)			(114,400)	
Alamo Resources II	Fund V	8/15/16	(200,000)			(200,000)	
Alamo Resources II	Fund V	8/22/16		200,000		200,000	
Alamo Resources II	Fund V	2/22/21		30,093		30,093	-66.1%
Canyon Midstream Partners	Fund V	6/18/12	(452,083)			(452,083)	
Canyon Midstream Partners	Fund V	9/28/12	(3,547,917)			(3,547,917)	
Canyon Midstream Partners	Fund V	1/4/13	(425,000)			(425,000)	
Canyon Midstream Partners	Fund V	7/15/13	(3,867,772)			(3,867,772)	
Canyon Midstream Partners	Fund V	1/31/14	(3,867,772)			(3,867,772)	
Canyon Midstream Partners	Fund V	4/23/14	(12,570,259)			(12,570,259)	
Canyon Midstream Partners	Fund V	9/5/14	(4,834,715)			(4,834,715)	
Canyon Midstream Partners	Fund V	12/17/14	(4,081,633)			(4,081,633)	
Canyon Midstream Partners	Fund V	1/16/15	(8,488,627)			(8,488,627)	
Canyon Midstream Partners	Fund V	5/18/15	(9,669,430)			(9,669,430)	
Canyon Midstream Partners	Fund V	11/13/15	(7,252,073)			(7,252,073)	
Canyon Midstream Partners	Fund V	5/9/16	(6,285,130)			(6,285,130)	
Canyon Midstream Partners	Fund V	10/15/19		8,165,714		8,165,714	
Canyon Midstream Partners	Fund V	10/30/20		2,218,731		2,218,731	
Canyon Midstream Partners	Fund V	4/9/21		1,128,100		1,128,100	
Canyon Midstream Partners	Fund V	3/31/22			276,550	276,550	-27.7%
Crown Energy Resources	Fund V	2/14/12	(2,835,000)			(2,835,000)	
Crown Energy Resources	Fund V	5/23/12	(1,890,000)			(1,890,000)	
Crown Energy Resources	Fund V	8/14/12	(3,780,000)			(3,780,000)	
Crown Energy Resources	Fund V	1/29/13	(2,835,000)			(2,835,000)	
Crown Energy Resources	Fund V	7/11/13	(2,835,000)			(2,835,000)	
Crown Energy Resources	Fund V	12/30/13	(6,615,000)			(6,615,000)	
Crown Energy Resources	Fund V	2/18/14	(2,835,000)			(2,835,000)	
Crown Energy Resources	Fund V	6/17/14	(1,890,000)			(1,890,000)	
Crown Energy Resources	Fund V	7/29/14	(3,780,000)			(3,780,000)	
Crown Energy Resources	Fund V	9/17/14	(2,835,000)			(2,835,000)	
Crown Energy Resources	Fund V	11/5/14	(2,835,000)			(2,835,000)	
Crown Energy Resources	Fund V	12/18/14	(1,890,000)			(1,890,000)	
Crown Energy Resources	Fund V	1/30/15	(2,835,000)			(2,835,000)	
Crown Energy Resources	Fund V	3/17/15	(3,780,000)			(3,780,000)	
Crown Energy Resources	Fund V	4/10/15	(4,725,000)			(4,725,000)	
Crown Energy Resources	Fund V	5/26/15	(3,780,000)			(3,780,000)	
Crown Energy Resources	Fund V	6/29/15	(4,725,000)			(4,725,000)	
Crown Energy Resources	Fund V	8/13/15	(2,835,000)			(2,835,000)	
Crown Energy Resources	Fund V	9/25/15	(4,725,000)			(4,725,000)	

Crown Energy Resources	Fund V	10/29/15	(4,725,000)		(4,725,000)	
Crown Energy Resources	Fund V	12/2/15	(6,142,500)		(6,142,500)	
Crown Energy Resources	Fund V	6/28/16	(1,425,000)		(1,425,000)	
Crown Energy Resources	Fund V	8/23/16	(2,375,000)		(2,375,000)	
Crown Energy Resources	Fund V	9/30/16	(3,800,000)		(3,800,000)	
Crown Energy Resources	Fund V	12/20/16	(2,375,000)		(2,375,000)	
Crown Energy Resources	Fund V	7/30/18		9,456	9,456	100.0%
Kraken Oil & Gas	Fund V	5/3/12	(5,280,000)		(5,280,000)	
Kraken Oil & Gas	Fund V	8/7/12	(2,304,000)		(2,304,000)	
Kraken Oil & Gas	Fund V	9/12/12	(3,360,000)		(3,360,000)	
Kraken Oil & Gas	Fund V	10/9/12	(2,688,000)		(2,688,000)	
Kraken Oil & Gas	Fund V	11/16/12	(1,824,000)		(1,824,000)	
Kraken Oil & Gas	Fund V	1/22/13	(576,000)		(576,000)	
Kraken Oil & Gas	Fund V	2/6/14	(3,360,000)		(3,360,000)	
Kraken Oil & Gas	Fund V	3/3/14	(3,360,000)		(3,360,000)	
Kraken Oil & Gas	Fund V	4/9/14	(2,400,000)		(2,400,000)	
Kraken Oil & Gas	Fund V	6/4/14	(2,400,000)		(2,400,000)	
Kraken Oil & Gas	Fund V	7/24/15	(1,440,000)		(1,440,000)	
Kraken Oil & Gas	Fund V	9/8/15	(1,440,000)		(1,440,000)	
Kraken Oil & Gas	Fund V	10/20/15	(1,248,000)		(1,248,000)	
Kraken Oil & Gas	Fund V	1/12/16	(864,000)		(864,000)	
Kraken Oil & Gas	Fund V	2/24/16	(384,000)		(384,000)	
Kraken Oil & Gas	Fund V	4/27/16	(480,000)		(480,000)	
Kraken Oil & Gas	Fund V	8/1/16	(192,000)		(192,000)	
Kraken Oil & Gas	Fund V	9/6/16	(768,000)		(768,000)	
Kraken Oil & Gas	Fund V	11/30/16	(1,728,000)		(1,728,000)	
Kraken Oil & Gas	Fund V	3/2/17	(3,264,000)		(3,264,000)	
Kraken Oil & Gas	Fund V	4/3/17	(3,840,000)		(3,840,000)	
Kraken Oil & Gas	Fund V	6/13/17	(4,800,000)		(4,800,000)	
Kraken Oil & Gas	Fund V	11/17/20	(5,000,000)		(5,000,000)	
Kraken Resources	Fund V	1/5/22		28,700,000	28,700,000	
Kraken Resources	Fund V	3/31/22		293,602,000	293,602,000	27.1%
Newton Energy Partners	Fund V	9/14/10	(591,000)		(591,000)	
Newton Energy Partners	Fund V	5/2/11	(547,660)		(547,660)	
Newton Energy Partners	Fund V	8/19/11	(12,312,500)		(12,312,500)	
Newton Energy Partners	Fund V	9/29/11	(72,243,840)		(72,243,840)	
Newton Energy Partners	Fund V	9/19/12	(13,199,000)		(13,199,000)	
Newton Energy Partners	Fund V	1/23/13	(13,396,000)		(13,396,000)	
Newton Energy Partners	Fund V	2/6/14	(13,100,000)		(13,100,000)	
Newton Energy Partners	Fund V	8/3/18		94,789,553	94,789,553	
Newton Energy Partners	Fund V	7/30/21		20,668,406	20,668,406	
Newton Energy Partners	Fund V	3/31/22		65,922,903	65,922,903	4.7%
Raptor Petroleum II	Fund V	6/20/11	(5,940,000)		(5,940,000)	
Raptor Petroleum II	Fund V	7/25/11	(1,980,000)		(1,980,000)	
Raptor Petroleum II	Fund V	8/11/11	(1,980,000)		(1,980,000)	
Raptor Petroleum II	Fund V	9/16/11	(5,940,000)		(5,940,000)	
Raptor Petroleum II	Fund V	9/27/11	(6,930,000)		(6,930,000)	
Raptor Petroleum II	Fund V	10/11/11	(2,970,000)		(2,970,000)	
Raptor Petroleum II	Fund V	2/3/12	(990,000)		(990,000)	
Raptor Petroleum II	Fund V	3/7/12	(1,980,000)		(1,980,000)	
Raptor Petroleum II	Fund V	4/26/12	(9,652,500)		(9,652,500)	
Raptor Petroleum II	Fund V	5/3/12	(1,386,000)		(1,386,000)	
Raptor Petroleum II	Fund V	5/18/12	(495,000)		(495,000)	
Raptor Petroleum II	Fund V	6/15/12	(1,386,000)		(1,386,000)	
Raptor Petroleum II	Fund V	10/19/12	(2,970,000)		(2,970,000)	
Raptor Petroleum II	Fund V	12/5/12	(2,920,500)		(2,920,500)	
Raptor Petroleum II	Fund V	1/18/13	(1,980,000)		(1,980,000)	
Raptor Petroleum II	Fund V	2/20/13	(7,029,000)		(7,029,000)	
Raptor Petroleum II	Fund V	5/29/13	(5,841,000)		(5,841,000)	
Raptor Petroleum II	Fund V	7/18/13	(3,960,000)		(3,960,000)	
Raptor Petroleum II	Fund V	11/24/14	(1,485,000)		(1,485,000)	
Raptor Petroleum II	Fund V	2/13/15	(2,376,000)		(2,376,000)	
Raptor Petroleum II	Fund V	2/26/15	(2,883,870)		(2,883,870)	
Raptor Petroleum II	Fund V	3/13/15	(3,415,500)		(3,415,500)	
Raptor Petroleum II	Fund V	3/31/15	(11,385,000)		(11,385,000)	
Raptor Petroleum II	Fund V	6/30/15	(495,000)		(495,000)	
Raptor Petroleum II	Fund V	1/22/16	(15,246,000)		(15,246,000)	
Raptor Petroleum II	Fund V	1/25/16	(1,500,000)		(1,500,000)	
Raptor Petroleum II	Fund V	6/30/17		750,000	750,000	
Raptor Petroleum II	Fund V	3/31/22		47,160	47,160	-63.7%
Traditions Oil and Gas	Fund V	12/21/11	(19,800,000)		(19,800,000)	
Traditions Oil and Gas	Fund V	6/29/12	(4,500,000)		(4,500,000)	
Traditions Oil and Gas	Fund V	2/14/13	(1,000,000)		(1,000,000)	
Traditions Oil and Gas	Fund V	4/9/13	(1,000,000)		(1,000,000)	
Traditions Oil and Gas	Fund V	7/8/13	(1,000,000)		(1,000,000)	
Traditions Oil and Gas	Fund V	10/4/13	(1,000,000)		(1,000,000)	
Traditions Oil and Gas	Fund V	1/16/14	(1,000,000)		(1,000,000)	
Traditions Oil and Gas	Fund V	3/14/14	(1,000,000)		(1,000,000)	
Traditions Oil and Gas	Fund V	6/9/14	(1,000,000)		(1,000,000)	
Traditions Oil and Gas	Fund V	7/9/14	(1,500,000)		(1,500,000)	
Traditions Oil and Gas	Fund V	8/6/14	(1,000,000)		(1,000,000)	
Traditions Oil and Gas	Fund V	9/23/14	(500,000)		(500,000)	
Traditions Oil and Gas	Fund V	10/14/14	(500,000)		(500,000)	
Traditions Oil and Gas	Fund V	11/19/14	(500,000)		(500,000)	

Traditions Oil and Gas	Fund V	12/22/14	(200,000)			(200,000)	
Traditions Oil and Gas	Fund V	1/5/15	(300,000)			(300,000)	
Traditions Oil and Gas	Fund V	1/20/15	(500,000)			(500,000)	
Traditions Oil and Gas	Fund V	2/4/15	(1,700,000)			(1,700,000)	
Traditions Oil and Gas	Fund V	3/12/15	(700,000)			(700,000)	
Traditions Oil and Gas	Fund V	4/10/15	(750,000)			(750,000)	
Traditions Oil and Gas	Fund V	5/13/15	(750,000)			(750,000)	
Traditions Oil and Gas	Fund V	6/11/15	(750,000)			(750,000)	
Traditions Oil and Gas	Fund V	7/17/15	(500,000)			(500,000)	
Traditions Oil and Gas	Fund V	8/26/15	(500,000)			(500,000)	
Traditions Oil and Gas	Fund V	9/11/15	(750,000)			(750,000)	
Traditions Oil and Gas	Fund V	10/22/15	(500,000)			(500,000)	
Traditions Oil and Gas	Fund V	11/13/15	(13,000,000)			(13,000,000)	
Traditions Oil and Gas	Fund V	11/24/15	(500,000)			(500,000)	
Traditions Oil and Gas	Fund V	12/31/15	(500,000)			(500,000)	
Traditions Oil and Gas	Fund V	2/2/16	(500,000)			(500,000)	
Traditions Oil and Gas	Fund V	3/2/16	(500,000)			(500,000)	
Traditions Oil and Gas	Fund V	4/14/16	(400,000)			(400,000)	
Traditions Oil and Gas	Fund V	5/17/16	(350,000)			(350,000)	
Traditions Oil and Gas	Fund V	6/28/16	(250,000)			(250,000)	
Traditions Oil and Gas	Fund V	12/20/16	(86,796)			(86,796)	-100.0%
<b>Gross IRR</b>							<b>19.8%</b>

Kayne Anderson Energy Fund VI, L.P.							
Company Name	Fund	Date of Transaction	Amount Invested	Amount Realized	Unrealized Value	Gross Cash Flow	IRR
Cantera Energy	Fund VI	8/1/12	(792,000)			(792,000)	
Cantera Energy	Fund VI	1/7/13	(990,000)			(990,000)	
Cantera Energy	Fund VI	6/7/13	(30,185,100)			(30,185,100)	
Cantera Energy	Fund VI	7/23/13	(55,440,000)			(55,440,000)	
Cantera Energy	Fund VI	8/5/13	(3,465,000)			(3,465,000)	
Cantera Energy	Fund VI	11/13/15	(14,850,000)			(14,850,000)	
Cantera Energy	Fund VI	10/24/17		-		-	
Cantera Energy	Fund VI	9/30/16	(10,000,000)			(10,000,000)	-100.0%
Canyon Midstream Partners	Fund VI	6/18/12	(611,217)			(611,217)	
Canyon Midstream Partners	Fund VI	9/28/12	(4,796,783)			(4,796,783)	
Canyon Midstream Partners	Fund VI	1/4/13	(574,600)			(574,600)	
Canyon Midstream Partners	Fund VI	7/15/13	(5,229,228)			(5,229,228)	
Canyon Midstream Partners	Fund VI	1/31/14	(5,229,228)			(5,229,228)	
Canyon Midstream Partners	Fund VI	4/23/14	(16,994,991)			(16,994,991)	
Canyon Midstream Partners	Fund VI	9/5/14	(6,536,535)			(6,536,535)	
Canyon Midstream Partners	Fund VI	12/17/14	(5,518,367)			(5,518,367)	
Canyon Midstream Partners	Fund VI	1/16/15	(11,476,624)			(11,476,624)	
Canyon Midstream Partners	Fund VI	5/18/15	(13,073,070)			(13,073,070)	
Canyon Midstream Partners	Fund VI	11/16/15	(9,804,802)			(9,804,802)	
Canyon Midstream Partners	Fund VI	5/10/16	(8,497,495)			(8,497,495)	
Canyon Midstream Partners	Fund VI	10/15/19		11,040,046		11,040,046	
Canyon Midstream Partners	Fund VI	10/30/20		2,999,727		2,999,727	
Canyon Midstream Partners	Fund VI	4/9/21		1,525,191		1,525,191	
Canyon Midstream Partners	Fund VI	3/31/22			373,919	373,919	-27.7%
Grenadier Energy Partners II	Fund VI	8/9/12	(390,240)			(390,240)	
Grenadier Energy Partners II	Fund VI	1/14/13	(390,240)			(390,240)	
Grenadier Energy Partners II	Fund VI	6/18/13	(390,240)			(390,240)	
Grenadier Energy Partners II	Fund VI	8/28/13	(1,170,719)			(1,170,719)	
Grenadier Energy Partners II	Fund VI	4/8/14	(1,560,958)			(1,560,958)	
Grenadier Energy Partners II	Fund VI	8/29/14	(1,951,198)			(1,951,198)	
Grenadier Energy Partners II	Fund VI	2/24/15	(5,853,593)			(5,853,593)	
Grenadier Energy Partners II	Fund VI	7/9/15	(5,073,114)			(5,073,114)	
Grenadier Energy Partners II	Fund VI	11/20/15	(7,024,311)			(7,024,311)	
Grenadier Energy Partners II	Fund VI	3/4/16	(1,463,398)			(1,463,398)	
Grenadier Energy Partners II	Fund VI	10/11/16	(1,951,198)			(1,951,198)	
Grenadier Energy Partners II	Fund VI	12/23/16	(22,633,892)			(22,633,892)	
Grenadier Energy Partners II	Fund VI	8/1/17	(6,731,632)			(6,731,632)	
Grenadier Energy Partners II	Fund VI	9/7/17	(16,585,180)			(16,585,180)	
Grenadier Energy Partners II	Fund VI	10/26/17	(9,560,868)			(9,560,868)	
Grenadier Energy Partners II	Fund VI	6/29/18	(5,853,593)			(5,853,593)	
Grenadier Energy Partners II	Fund VI	4/1/21		113,169,461		113,169,461	
Grenadier Energy Partners II	Fund VI	9/30/21		10,536,467		10,536,467	
Grenadier Energy Partners II	Fund VI	12/23/21		6,186,592		6,186,592	
Grenadier Energy Partners II	Fund VI	3/31/22			123,618	123,618	8.8%
Haymaker Minerals & Royalties	Fund VI	5/10/13	(1,093,950)			(1,093,950)	
Haymaker Minerals & Royalties	Fund VI	10/23/13	(1,193,400)			(1,193,400)	
Haymaker Minerals & Royalties	Fund VI	4/23/14	(6,464,250)			(6,464,250)	
Haymaker Minerals & Royalties	Fund VI	5/22/14	(9,795,825)			(9,795,825)	
Haymaker Minerals & Royalties	Fund VI	6/9/14	(9,795,825)			(9,795,825)	
Haymaker Minerals & Royalties	Fund VI	9/29/14	(8,135,625)			(8,135,625)	
Haymaker Minerals & Royalties	Fund VI	10/22/14	(17,766,580)			(17,766,580)	
Haymaker Minerals & Royalties	Fund VI	11/10/14	(95,750,000)			(95,750,000)	
Haymaker Minerals & Royalties	Fund VI	1/8/16	(1,000,000)			(1,000,000)	
Haymaker Minerals & Royalties	Fund VI	1/19/16	(6,200,000)			(6,200,000)	
Haymaker Minerals & Royalties	Fund VI	4/23/18		7,979,387		7,979,387	
Haymaker Minerals & Royalties	Fund VI	7/13/18		56,783,880		56,783,880	
Haymaker Minerals & Royalties	Fund VI	1/10/19		12,456,417		12,456,417	
Haymaker Minerals & Royalties	Fund VI	5/8/19		53,282,176		53,282,176	

Haymaker Minerals & Royalties	Fund VI	10/2/19		2,000,000		2,000,000	
Haymaker Minerals & Royalties	Fund VI	10/3/19		7,900,000		7,900,000	
Haymaker Minerals & Royalties	Fund VI	12/4/19		4,694,281		4,694,281	
Haymaker Minerals & Royalties	Fund VI	1/3/20		484		484	
Haymaker Minerals & Royalties	Fund VI	6/29/21		294,613		294,613	
Haymaker Minerals & Royalties	Fund VI	7/22/21		955		955	
Haymaker Minerals & Royalties	Fund VI	9/10/21		4,269		4,269	
Haymaker Minerals & Royalties	Fund VI	3/31/22				-	-1.8%
HRM II	Fund VI	6/4/13	(2,820,000)			(2,820,000)	
HRM II	Fund VI	6/4/13	(4,700,000)			(4,700,000)	
HRM II	Fund VI	9/26/14	(14,100,000)			(14,100,000)	
HRM II	Fund VI	8/10/15	(2,068,000)			(2,068,000)	
HRM II	Fund VI	10/5/15	(1,786,000)			(1,786,000)	
HRM II	Fund VI	11/24/15	(16,920,000)			(16,920,000)	
HRM II	Fund VI	9/14/16	(1,128,000)			(1,128,000)	
HRM II	Fund VI	12/23/16	(230,300)			(230,300)	
HRM II	Fund VI	7/12/17		65,200,000		65,200,000	
HRM II	Fund VI	12/27/17		11,300,000		11,300,000	
HRM II	Fund VI	4/19/18		7,520,000		7,520,000	
HRM II	Fund VI	12/21/18		1,504,000		1,504,000	
HRM II	Fund VI	4/26/19		752,000		752,000	
HRM II	Fund VI	12/5/19		112,800		112,800	28.7%
KA Henry II	Fund VI	12/30/13	(6,500,000)			(6,500,000)	
KA Henry II	Fund VI	7/25/14	(7,000,000)			(7,000,000)	
KA Henry II	Fund VI	8/27/14	(4,000,000)			(4,000,000)	
KA Henry II	Fund VI	10/9/14	(10,000,000)			(10,000,000)	
KA Henry II	Fund VI	12/19/14	(7,061,902)			(7,061,902)	
KA Henry II	Fund VI	12/23/14	(9,134,719)			(9,134,719)	
KA Henry II	Fund VI	2/23/15	(2,000,000)			(2,000,000)	
KA Henry II	Fund VI	1/29/15	(10,333,869)			(10,333,869)	
KA Henry II	Fund VI	4/15/15	(2,000,000)			(2,000,000)	
KA Henry II	Fund VI	10/22/15	(5,000,000)			(5,000,000)	
KA Henry II	Fund VI	1/11/16	(2,000,000)			(2,000,000)	
KA Henry II	Fund VI	2/3/16	(3,000,000)			(3,000,000)	
KA Henry II	Fund VI	2/26/16	(500,000)			(500,000)	
KA Henry II	Fund VI	3/23/16	(1,500,000)			(1,500,000)	
KA Henry II	Fund VI	7/7/16	(5,000,000)			(5,000,000)	
KA Henry II	Fund VI	9/29/17	(500,000)			(500,000)	
KA Henry II	Fund VI	11/12/20		4,000,000		4,000,000	
KA Henry II	Fund VI	6/29/21		683,498		683,498	
KA Henry II	Fund VI	6/30/21		7,611		7,611	
KA Henry II	Fund VI	1/21/22		16,392		16,392	
KA Henry II	Fund VI	3/31/22				-	-38.3%
Outrigger Energy	Fund VI	9/20/13	(1,455,000)			(1,455,000)	
Outrigger Energy	Fund VI	6/12/14		1,455,000		1,455,000	0.0%
PAK Development	Fund VI	8/16/12	(8,550,000)			(8,550,000)	
PAK Development	Fund VI	11/26/12	(6,300,000)			(6,300,000)	
PAK Development	Fund VI	2/15/13	(7,470,000)			(7,470,000)	
PAK Development	Fund VI	9/16/13	(2,250,000)			(2,250,000)	
PAK Development	Fund VI	9/15/15	(4,500,000)			(4,500,000)	
PAK Development	Fund VI	12/21/15	(5,400,000)			(5,400,000)	
PAK Development	Fund VI	3/22/16	(4,509,500)			(4,509,500)	
PAK Development	Fund VI	4/5/16	(2,690,500)			(2,690,500)	
PAK Development	Fund VI	5/18/16	(2,250,000)			(2,250,000)	
PAK Development	Fund VI	7/1/16	(2,700,000)			(2,700,000)	
PAK Development	Fund VI	9/1/16	(2,700,000)			(2,700,000)	
PAK Development	Fund VI	9/30/16	(4,500,000)			(4,500,000)	
PAK Development	Fund VI	12/15/16	(4,500,000)			(4,500,000)	
PAK Development	Fund VI	12/16/16	(3,330,000)			(3,330,000)	
PAK Development	Fund VI	2/1/17	(3,600,000)			(3,600,000)	
PAK Development	Fund VI	3/22/17	(2,250,000)			(2,250,000)	
PAK Development	Fund VI	3/1/18	(1,000,000)			(1,000,000)	
PAK Development	Fund VI	5/1/18	(2,000,000)			(2,000,000)	
PAK Development	Fund VI	7/2/18	(1,500,000)			(1,500,000)	
PAK Development	Fund VI	12/31/18		1,282,500		1,282,500	
PAK Development	Fund VI	5/21/19		10,680,970		10,680,970	
PAK Development	Fund VI	12/23/19		284,428		284,428	-42.8%
Panther Energy Company II	Fund VI	9/20/13	(1,951,220)			(1,951,220)	
Panther Energy Company II	Fund VI	9/23/13	(48,780)			(48,780)	
Panther Energy Company II	Fund VI	1/31/14	(4,000,000)			(4,000,000)	
Panther Energy Company II	Fund VI	2/7/14	(4,000,000)			(4,000,000)	
Panther Energy Company II	Fund VI	2/26/14	(10,000,000)			(10,000,000)	
Panther Energy Company II	Fund VI	3/18/14	(10,000,000)			(10,000,000)	
Panther Energy Company II	Fund VI	4/23/14	(10,000,000)			(10,000,000)	
Panther Energy Company II	Fund VI	4/27/15	(20,000,000)			(20,000,000)	
Panther Energy Company II	Fund VI	7/15/15	(30,000,000)			(30,000,000)	
Panther Energy Company II	Fund VI	11/16/15	(10,000,000)			(10,000,000)	
Panther Energy Company II	Fund VI	2/19/16	(10,000,000)			(10,000,000)	
Panther Energy Company II	Fund VI	6/1/16	(10,000,000)			(10,000,000)	
Panther Energy Company II	Fund VI	9/21/16	(10,000,000)			(10,000,000)	
Panther Energy Company II	Fund VI	3/17/17		392,358,557		392,358,557	
Panther Energy Company II	Fund VI	2/13/18		2,776,537		2,776,537	
Panther Energy Company II	Fund VI	3/15/18		10,662,005		10,662,005	
Panther Energy Company II	Fund VI	5/4/18	(1,388,286)			(1,388,286)	



Panther Energy Company II	Fund VI	5/23/19		466,464		466,464	
Panther Energy Company II	Fund VI	1/3/20		62,572		62,572	
Panther Energy Company II	Fund VI	6/11/21		126,600		126,600	71.0%
Pedernales Production II	Fund VI	5/14/12	(500,000)			(500,000)	
Pedernales Production II	Fund VI	5/21/12	(2,000,000)			(2,000,000)	
Pedernales Production II	Fund VI	5/23/12	(1,300,000)			(1,300,000)	
Pedernales Production II	Fund VI	6/19/12	(500,000)			(500,000)	
Pedernales Production II	Fund VI	6/25/12	(620,000)			(620,000)	
Pedernales Production II	Fund VI	9/11/12	(125,000)			(125,000)	
Pedernales Production II	Fund VI	10/11/12	(100,000)			(100,000)	
Pedernales Production II	Fund VI	3/27/13	(540,646)			(540,646)	
Pedernales Production II	Fund VI	6/14/13	(358,412)			(358,412)	
Pedernales Production II	Fund VI	7/26/13	(235,000)			(235,000)	
Pedernales Production II	Fund VI	10/18/13	(300,000)			(300,000)	
Pedernales Production II	Fund VI	6/9/14	(680,686)			(680,686)	
Pedernales Production II	Fund VI	10/1/14	(224,646)			(224,646)	
Pedernales Production II	Fund VI	2/13/15	(50,000)			(50,000)	-100.0%
Primary Natural Resources	Fund VI	6/6/14	(2,425,000)			(2,425,000)	
Primary Natural Resources	Fund VI	12/12/14	(970,000)			(970,000)	
Primary Natural Resources	Fund VI	4/6/15	(1,940,000)			(1,940,000)	
Primary Natural Resources	Fund VI	10/13/15	(1,940,000)			(1,940,000)	
Primary Natural Resources	Fund VI	4/15/16	(2,325,000)			(2,325,000)	
Primary Natural Resources	Fund VI	9/15/16	(4,800,000)			(4,800,000)	
Primary Natural Resources	Fund VI	6/11/17		4,186,412		4,186,412	-60.9%
PT Petroleum	Fund VI	4/10/13	(1,185,280)			(1,185,280)	
PT Petroleum	Fund VI	4/18/13	(4,300,000)			(4,300,000)	
PT Petroleum	Fund VI	5/3/13	(12,510,597)			(12,510,597)	
PT Petroleum	Fund VI	12/30/13	(3,750,000)			(3,750,000)	
PT Petroleum	Fund VI	6/4/14	(3,750,000)			(3,750,000)	
PT Petroleum	Fund VI	9/9/14	(2,250,000)			(2,250,000)	
PT Petroleum	Fund VI	12/9/14	(2,625,000)			(2,625,000)	
PT Petroleum	Fund VI	3/23/15	(3,275,000)			(3,275,000)	
PT Petroleum	Fund VI	1/29/15	(51,274,414)			(51,274,414)	
PT Petroleum	Fund VI	11/23/15	(10,000,000)			(10,000,000)	
PT Petroleum	Fund VI	3/24/16	(7,000,000)			(7,000,000)	
PT Petroleum	Fund VI	6/10/16	(5,000,000)			(5,000,000)	
PT Petroleum	Fund VI	9/30/16	(12,000,000)			(12,000,000)	
PT Petroleum	Fund VI	12/20/16	(5,000,000)			(5,000,000)	
PT Petroleum	Fund VI	9/25/17	(4,000,000)			(4,000,000)	
PT Petroleum	Fund VI	12/1/17	(6,000,000)			(6,000,000)	
PT Petroleum	Fund VI	1/5/18	(5,000,000)			(5,000,000)	
PT Petroleum	Fund VI	3/9/18	(2,000,000)			(2,000,000)	
PT Petroleum	Fund VI	6/15/18	(7,000,000)			(7,000,000)	
PT Petroleum	Fund VI	7/17/18	(6,000,000)			(6,000,000)	
PT Petroleum	Fund VI	3/31/22		1,426,606		1,426,606	-57.2%
Riverbend Permian	Fund VI	7/2/13	(3,416,000)			(3,416,000)	
Riverbend Permian	Fund VI	8/28/13	(1,952,000)			(1,952,000)	
Riverbend Permian	Fund VI	9/23/13	(1,464,000)			(1,464,000)	
Riverbend Permian	Fund VI	12/12/13	(7,808,000)			(7,808,000)	
Riverbend Permian	Fund VI	9/2/14	(6,832,000)			(6,832,000)	
Riverbend Permian	Fund VI	1/30/15	(7,776,800)			(7,776,800)	
Riverbend Permian	Fund VI	5/28/15	(10,207,050)			(10,207,050)	
Riverbend Permian	Fund VI	12/4/15	(14,732,150)			(14,732,150)	
Riverbend Permian	Fund VI	2/12/16	(5,000,000)			(5,000,000)	
Riverbend Permian	Fund VI	5/16/16		112,443,985		112,443,985	
Riverbend Permian	Fund VI	12/19/16		16,045,469		16,045,469	
Riverbend Permian	Fund VI	5/19/17		5,311,856		5,311,856	
Riverbend Permian	Fund VI	3/31/22		7,643,234		7,643,234	66.8%
Silver Hill Energy Partners	Fund VI	9/10/12	(1,748,074)			(1,748,074)	
Silver Hill Energy Partners	Fund VI	2/28/13	(2,185,092)			(2,185,092)	
Silver Hill Energy Partners	Fund VI	4/17/13	(6,555,276)			(6,555,276)	
Silver Hill Energy Partners	Fund VI	6/7/13	(5,593,836)			(5,593,836)	
Silver Hill Energy Partners	Fund VI	6/28/13	(9,614,405)			(9,614,405)	
Silver Hill Energy Partners	Fund VI	11/8/13	(3,102,831)			(3,102,831)	
Silver Hill Energy Partners	Fund VI	12/19/13	(30,591,290)			(30,591,290)	
Silver Hill Energy Partners	Fund VI	2/14/14	(6,992,295)			(6,992,295)	
Silver Hill Energy Partners	Fund VI	4/15/14	(5,681,240)			(5,681,240)	
Silver Hill Energy Partners	Fund VI	6/9/14	(14,858,626)			(14,858,626)	
Silver Hill Energy Partners	Fund VI	8/15/14	(5,244,221)			(5,244,221)	
Silver Hill Energy Partners	Fund VI	11/26/14	(1,568,184)			(1,568,184)	
Silver Hill Energy Partners	Fund VI	1/14/15	(5,227,279)			(5,227,279)	
Silver Hill Energy Partners	Fund VI	2/20/15	(8,058,722)			(8,058,722)	
Silver Hill Energy Partners	Fund VI	4/10/15	(8,537,889)			(8,537,889)	
Silver Hill Energy Partners	Fund VI	5/20/15	(7,405,312)			(7,405,312)	
Silver Hill Energy Partners	Fund VI	10/9/15	(4,356,066)			(4,356,066)	
Silver Hill Energy Partners	Fund VI	10/30/15	(14,810,624)			(14,810,624)	
Silver Hill Energy Partners	Fund VI	12/18/15	(4,356,066)			(4,356,066)	
Silver Hill Energy Partners	Fund VI	12/29/15	(5,227,279)			(5,227,279)	
Silver Hill Energy Partners	Fund VI	2/3/16	(8,712,132)			(8,712,132)	
Silver Hill Energy Partners	Fund VI	2/26/16	(10,890,164)			(10,890,164)	
Silver Hill Energy Partners	Fund VI	3/31/16	(13,503,804)			(13,503,804)	
Silver Hill Energy Partners	Fund VI	6/17/16	(5,679,777)			(5,679,777)	
Silver Hill Energy Partners	Fund VI	11/29/16		359,163,380		359,163,380	
Silver Hill Energy Partners	Fund VI	3/2/17		93,297,841		93,297,841	

Silver Hill Energy Partners	Fund VI	5/26/17		225,960,628		225,960,628	
Silver Hill Energy Partners	Fund VI	6/8/17		5,519,160		5,519,160	
Silver Hill Energy Partners	Fund VI	9/12/17		23,040,206		23,040,206	
Silver Hill Energy Partners	Fund VI	9/13/17		3,284,209		3,284,209	
Silver Hill Energy Partners	Fund VI	11/3/17		99,072,538		99,072,538	
Silver Hill Energy Partners	Fund VI	12/22/17		34,805,901		34,805,901	
Silver Hill Energy Partners	Fund VI	3/22/18		214		214	
Silver Hill Energy Partners	Fund VI	3/28/18		7,126,953		7,126,953	
Silver Hill Energy Partners	Fund VI	9/10/18		3,302,994		3,302,994	
Silver Hill Energy Partners	Fund VI	5/24/19		30,055,680		30,055,680	
Silver Hill Energy Partners	Fund VI	12/30/20		460,004		460,004	
Silver Hill Energy Partners	Fund VI	3/31/21			-	-	77.6%
Treadstone Energy Partners II	Fund VI	12/11/14	(950,000)			(950,000)	
Treadstone Energy Partners II	Fund VI	6/30/15	(950,000)			(950,000)	
Treadstone Energy Partners II	Fund VI	1/12/16	(950,000)			(950,000)	
Treadstone Energy Partners II	Fund VI	6/10/16	(1,425,000)			(1,425,000)	
Treadstone Energy Partners II	Fund VI	7/22/16	(3,800,000)			(3,800,000)	
Treadstone Energy Partners II	Fund VI	8/30/16	(28,500,000)			(28,500,000)	
Treadstone Energy Partners II	Fund VI	8/15/17	(4,750,000)			(4,750,000)	
Treadstone Energy Partners II	Fund VI	12/10/21		151,919,253		151,919,253	
Treadstone Energy Partners II	Fund VI	3/31/22			31,240,594	31,240,594	32.1%
True Oil Company	Fund VI	3/7/14	(1,428,571)			(1,428,571)	
True Oil Company	Fund VI	5/30/14	(1,547,080)			(1,547,080)	
True Oil Company	Fund VI	12/1/14	(3,146,603)			(3,146,603)	
True Oil Company	Fund VI	10/20/15	(489,472)			(489,472)	
True Oil Company	Fund VI	12/13/16		158,282		158,282	
True Oil Company	Fund VI	4/4/17		2,584		2,584	-83.8%
West Valley Energy Corporation	Fund VI	5/29/12	(2,651,575)			(2,651,575)	
West Valley Energy Corporation	Fund VI	5/30/12	(125,450)			(125,450)	
West Valley Energy Corporation	Fund VI	11/23/12	(7,775,750)			(7,775,750)	
West Valley Energy Corporation	Fund VI	4/16/13	(7,596,060)			(7,596,060)	
West Valley Energy Corporation	Fund VI	1/15/14	(8,871,702)			(8,871,702)	
West Valley Energy Corporation	Fund VI	12/9/14		2,409,148		2,409,148	
West Valley Energy Corporation	Fund VI	3/26/15		733,139		733,139	
West Valley Energy Corporation	Fund VI	7/8/15		10,069		10,069	-76.7%
Willow Bend Oil	Fund VI	7/17/13	(980,000)			(980,000)	
Willow Bend Oil	Fund VI	11/26/13	(7,642,263)			(7,642,263)	
Willow Bend Oil	Fund VI	1/22/14	(31,300,000)			(31,300,000)	
Willow Bend Oil	Fund VI	9/29/15	(1,000,000)			(1,000,000)	
Willow Bend Oil	Fund VI	3/30/16		1,000,000		1,000,000	
Willow Bend Oil	Fund VI	9/20/16		471,924		471,924	
Willow Bend Oil	Fund VI	2/6/18		865		865	-77.2%
Midcon Holdco Partners	Fund VI	10/12/16	(79,683,416)			(79,683,416)	
Midcon Holdco Partners	Fund VI	10/21/16	(6,000,000)			(6,000,000)	
Midcon Holdco Partners	Fund VI	10/31/18	(9,587,728)			(9,587,728)	
Midcon Holdco Partners	Fund VI	12/30/20	(22,914,669)			(22,914,669)	
Midcon Holdco Partners	Fund VI	1/13/21	157,373			157,373	
89 Energy	Fund VI	3/31/22			152,543,299	152,543,299	5.8%
<b>Gross IRR</b>							<b>15.0%</b>

Kayne Anderson Energy Fund VII, L.P.							
Company Name	Fund	Date of Transaction	Amount Invested	Amount Realized	Unrealized Value	Gross Cash Flow	IRR
Adventure Exploration Partners III	Fund VII	12/29/15	(3,200,000)			(3,200,000)	
Adventure Exploration Partners III	Fund VII	2/12/16	(800,000)			(800,000)	
Adventure Exploration Partners III	Fund VII	3/30/16	(800,000)			(800,000)	
Adventure Exploration Partners III	Fund VII	5/10/16	(3,200,000)			(3,200,000)	
Adventure Exploration Partners III	Fund VII	12/28/16	(6,194,943)			(6,194,943)	
Adventure Exploration Partners III	Fund VII	2/2/17	(1,800,000)			(1,800,000)	
Adventure Exploration Partners III	Fund VII	3/17/17	(4,500,000)			(4,500,000)	
Adventure Exploration Partners III	Fund VII	4/6/17	(2,700,000)			(2,700,000)	
Adventure Exploration Partners III	Fund VII	4/28/17	(2,700,000)			(2,700,000)	
Adventure Exploration Partners III	Fund VII	5/19/17	(4,500,000)			(4,500,000)	
Adventure Exploration Partners III	Fund VII	6/23/17	(3,600,000)			(3,600,000)	
Adventure Exploration Partners III	Fund VII	7/21/17	(2,700,000)			(2,700,000)	
Adventure Exploration Partners III	Fund VII	8/3/17	(5,000,000)			(5,000,000)	
Adventure Exploration Partners III	Fund VII	8/28/17	(5,000,000)			(5,000,000)	
Adventure Exploration Partners III	Fund VII	10/27/17	(4,000,000)			(4,000,000)	
Adventure Exploration Partners III	Fund VII	11/27/17	(4,000,000)			(4,000,000)	
Adventure Exploration Partners III	Fund VII	12/22/17	(5,000,000)			(5,000,000)	
Adventure Exploration Partners III	Fund VII	7/31/19		2,000,000		2,000,000	
Adventure Exploration Partners III	Fund VII	7/31/19			-	-	-80.3%
Alamo Resource III	Fund VII	1/13/20	(9,900,000)			(9,900,000)	
Alamo Resource III	Fund VII	12/28/20		3,960,000		3,960,000	
Alamo Resource III	Fund VII	12/31/20		643,500		643,500	
Alamo Resource III	Fund VII	12/15/21		4,250,000		4,250,000	
Alamo Resource III	Fund VII	3/31/22			422,802	422,802	-4.3%
Amistad Energy Partners	Fund VII	12/29/15	(3,980,000)			(3,980,000)	
Amistad Energy Partners	Fund VII	2/10/16	(6,500,000)			(6,500,000)	
Amistad Energy Partners	Fund VII	4/15/16	(12,000,000)			(12,000,000)	
Amistad Energy Partners	Fund VII	6/6/16	(20,000,000)			(20,000,000)	
Amistad Energy Partners	Fund VII	10/20/16	(13,500,000)			(13,500,000)	
Amistad Energy Partners	Fund VII	3/10/17	(5,000,000)			(5,000,000)	
Amistad Energy Partners	Fund VII	11/27/17	(500,000)			(500,000)	

Amistad Energy Partners	Fund VII	3/31/22			641,479	641,479	-55.1%
Balidor Oil & Gas	Fund VII	12/29/15	(990,000)			(990,000)	
Balidor Oil & Gas	Fund VII	2/1/16	(990,000)			(990,000)	
Balidor Oil & Gas	Fund VII	8/26/16	(3,465,000)			(3,465,000)	
Balidor Oil & Gas	Fund VII	10/4/16	(792,000)			(792,000)	
Balidor Oil & Gas	Fund VII	12/27/16	(9,900,000)			(9,900,000)	
Balidor Oil & Gas	Fund VII	1/17/17	(2,970,000)			(2,970,000)	
Balidor Oil & Gas	Fund VII	2/22/17	(2,970,000)			(2,970,000)	
Balidor Oil & Gas	Fund VII	4/11/17	(21,780,000)			(21,780,000)	
Balidor Oil & Gas	Fund VII	6/22/17	(11,880,000)			(11,880,000)	
Balidor Oil & Gas	Fund VII	9/19/17	(9,900,000)			(9,900,000)	
Balidor Oil & Gas	Fund VII	10/30/17	(9,900,000)			(9,900,000)	
Balidor Oil & Gas	Fund VII	12/22/17	(3,960,000)			(3,960,000)	
Balidor Oil & Gas	Fund VII	2/8/19	(1,980,000)			(1,980,000)	
Balidor Oil & Gas	Fund VII	5/22/19	(3,960,000)			(3,960,000)	
Balidor Oil & Gas	Fund VII	3/31/22			2,061,197	2,061,197	-100.0%
Beacon E&P Resources II	Fund VII	3/3/16	(1,662,234)			(1,662,234)	
Beacon E&P Resources II	Fund VII	8/11/16	(4,654,255)			(4,654,255)	
Beacon E&P Resources II	Fund VII	9/29/16	(6,648,936)			(6,648,936)	
Beacon E&P Resources II	Fund VII	11/8/16	(3,324,468)			(3,324,468)	
Beacon E&P Resources II	Fund VII	12/16/16	(4,986,702)			(4,986,702)	
Beacon E&P Resources II	Fund VII	1/12/17	(3,324,468)			(3,324,468)	
Beacon E&P Resources II	Fund VII	2/1/17	(4,986,702)			(4,986,702)	
Beacon E&P Resources II	Fund VII	3/2/17	(4,986,702)			(4,986,702)	
Beacon E&P Resources II	Fund VII	3/31/17	(6,648,936)			(6,648,936)	
Beacon E&P Resources II	Fund VII	5/30/17	(1,994,681)			(1,994,681)	
Beacon E&P Resources II	Fund VII	6/16/17	(9,308,510)			(9,308,510)	
Beacon E&P Resources II	Fund VII	7/14/17	(3,324,468)			(3,324,468)	
Beacon E&P Resources II	Fund VII	8/29/17	(3,989,362)			(3,989,362)	
Beacon E&P Resources II	Fund VII	10/23/17	(3,989,362)			(3,989,362)	
Beacon E&P Resources II	Fund VII	12/27/17	(1,994,681)			(1,994,681)	
Beacon E&P Resources II	Fund VII	7/23/20		2,992,021		2,992,021	
Beacon E&P Resources II	Fund VII	1/7/21		13,986,037		13,986,037	
Beacon E&P Resources II	Fund VII	4/1/21		864,362		864,362	
Beacon E&P Resources II	Fund VII	7/29/21		232,713		232,713	
Beacon E&P Resources II	Fund VII	12/24/21		293,745		293,745	-28.7%
Canyon Midstream II	Fund VII	1/13/16	(1,000,000)			(1,000,000)	
Canyon Midstream II	Fund VII	10/25/16	(7,134,000)			(7,134,000)	
Canyon Midstream II	Fund VII	3/30/17	(67,620,000)			(67,620,000)	
Canyon Midstream II	Fund VII	7/14/17	(58,800,000)			(58,800,000)	
Canyon Midstream II	Fund VII	12/12/17		46,751,527		46,751,527	
Canyon Midstream II	Fund VII	3/9/18		44,100,000		44,100,000	
Canyon Midstream II	Fund VII	10/20/21		291,320		291,320	
Canyon Midstream II	Fund VII	3/31/22			27,870	27,870	-40.2%
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	2/23/16	(10,600,000)			(10,600,000)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	4/1/16	(264,014)			(264,014)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	4/13/16	(7,685,000)			(7,685,000)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	4/20/16	(95,300,000)			(95,300,000)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	7/21/16	(1,000,000)			(1,000,000)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	8/5/16	(16,000,000)			(16,000,000)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	10/12/16	(68,359,526)			(68,359,526)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	10/13/16	(15,000,000)			(15,000,000)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	10/12/18	(13,217,500)			(13,217,500)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	10/29/18	(10,751,819)			(10,751,819)	
Casillas Petroleum Resource Partners (Now Midcon Holdco Partners)	Fund VII	12/30/20	(11,822,140)			(11,822,140)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	6/30/17	(19,707,901)			(19,707,901)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	8/10/17	(19,707,901)			(19,707,901)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	10/2/17	(9,853,950)			(9,853,950)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	10/10/17	(34,488,826)			(34,488,826)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	11/10/17	(20,693,296)			(20,693,296)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	1/24/18	(9,853,950)			(9,853,950)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	3/6/18	(14,780,926)			(14,780,926)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	4/16/18	(10,913,200)			(10,913,200)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	6/4/18	(20,000,000)			(20,000,000)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	7/30/18	(20,000,000)			(20,000,000)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	9/19/18	(10,000,000)			(10,000,000)	
Native Exploration Holdings (Now Midcon Holdco Partners)	Fund VII	10/16/18	(2,000,000)			(2,000,000)	
Midcon Holdco Partners	Fund VII	12/30/20	(45,464,532)			(45,464,532)	
Midcon Holdco Partners	Fund VII	1/13/21		393,429		393,429	
Midcon Holdco Partners	Fund VII	3/31/22			494,314,530	494,314,530	0.3%
Corlena Oil Company III	Fund VII	12/11/15	(1,900,000)			(1,900,000)	
Corlena Oil Company III	Fund VII	12/29/15	(13,775,000)			(13,775,000)	
Corlena Oil Company III	Fund VII	2/1/16	(1,900,000)			(1,900,000)	
Corlena Oil Company III	Fund VII	4/19/16	(2,375,000)			(2,375,000)	
Corlena Oil Company III	Fund VII	8/12/16	(2,375,000)			(2,375,000)	
Corlena Oil Company III	Fund VII	10/5/16	(4,750,000)			(4,750,000)	
Corlena Oil Company III	Fund VII	1/18/17	(4,750,000)			(4,750,000)	
Corlena Oil Company III	Fund VII	3/3/17	(4,750,000)			(4,750,000)	
Corlena Oil Company III	Fund VII	5/11/17	(2,850,000)			(2,850,000)	
Corlena Oil Company III	Fund VII	4/10/18	(4,750,000)			(4,750,000)	
Corlena Oil Company III	Fund VII	12/20/18		4,037,824		4,037,824	
Corlena Oil Company III	Fund VII	10/2/19		760,000		760,000	
Corlena Oil Company III	Fund VII	12/31/19		190,000		190,000	-63.2%
Haymaker Minerals and Royalties II	Fund VII	6/22/16	(1,000,000)			(1,000,000)	

Haymaker Minerals and Royalties II	Fund VII	11/18/16	(1,000,000)			(1,000,000)	
Haymaker Minerals and Royalties II	Fund VII	3/20/18	(10,000,000)			(10,000,000)	
Haymaker Minerals and Royalties II	Fund VII	3/31/22			7,003,359	7,003,359	-11.9%
Invictus Energy	Fund VII	12/11/15	(1,241,667)			(1,241,667)	
Invictus Energy	Fund VII	7/15/16	(1,049,953)			(1,049,953)	
Invictus Energy	Fund VII	1/18/17	(5,987,043)			(5,987,043)	
Invictus Energy	Fund VII	1/18/17	(1,159,040)			(1,159,040)	
Invictus Energy	Fund VII	3/16/17	(16,102,370)			(16,102,370)	
Invictus Energy	Fund VII	5/26/17	(3,847,899)			(3,847,899)	
Invictus Energy	Fund VII	9/15/17	(1,157,498)			(1,157,498)	
Invictus Energy	Fund VII	10/31/17	(496,667)			(496,667)	
Invictus Energy	Fund VII	1/5/18		10,500,000		10,500,000	
Invictus Energy	Fund VII	5/17/18		5,562,667		5,562,667	
Invictus Energy	Fund VII	7/13/18		121,328		121,328	
Invictus Energy	Fund VII	11/2/18		354		354	-48.8%
Kraken II	Fund VII	9/28/16	(157,605,000)			(157,605,000)	
Kraken II	Fund VII	8/2/17	(12,967,500)			(12,967,500)	
Kraken II	Fund VII	8/31/17	(7,980,000)			(7,980,000)	
Kraken II	Fund VII	11/16/20	(50,000,000)			(50,000,000)	
Kraken Resource	Fund VII	1/5/22		46,500,000		46,500,000	
Kraken Resource	Fund VII	3/31/22			475,696,621	475,696,621	19.1%
Monadnock Resources	Fund VII	12/29/15	(34,155,000)			(34,155,000)	
Monadnock Resources	Fund VII	2/1/16	(5,445,000)			(5,445,000)	
Monadnock Resources	Fund VII	6/3/16	(6,930,000)			(6,930,000)	
Monadnock Resources	Fund VII	8/15/16	(3,960,000)			(3,960,000)	
Monadnock Resources	Fund VII	9/23/16	(2,970,000)			(2,970,000)	
Monadnock Resources	Fund VII	12/15/16	(9,900,000)			(9,900,000)	
Monadnock Resources	Fund VII	5/19/17	(12,870,000)			(12,870,000)	
Monadnock Resources	Fund VII	10/18/17	(2,970,000)			(2,970,000)	
Monadnock Resources	Fund VII	1/26/18	(5,445,000)			(5,445,000)	
Monadnock Resources	Fund VII	4/16/18	(1,980,000)			(1,980,000)	
Monadnock Resources	Fund VII	2/21/20	(16,000,000)			(16,000,000)	
Monadnock Resources	Fund VII	3/11/20	15,200,000			15,200,000	
Monadnock Resources	Fund VII	12/30/21		2,000,000		2,000,000	
Monadnock Resources	Fund VII	3/31/22			-	-	-52.2%
Phoenix Natural Resources	Fund VII	4/1/16	(1,479,000)			(1,479,000)	
Phoenix Natural Resources	Fund VII	9/9/16	(887,400)			(887,400)	
Phoenix Natural Resources	Fund VII	1/20/17	(1,331,100)			(1,331,100)	
Phoenix Natural Resources	Fund VII	2/1/17		1,066,273		1,066,273	
Phoenix Natural Resources	Fund VII	4/20/17		120,000		120,000	
Phoenix Natural Resources	Fund VII	5/22/17		1,000,000		1,000,000	
Phoenix Natural Resources	Fund VII	11/3/21		87		87	-61.7%
Resource Rock	Fund VII	4/20/17	(4,000,000)			(4,000,000)	
Resource Rock	Fund VII	5/26/17	(1,940,000)			(1,940,000)	
Resource Rock	Fund VII	6/5/17	(36,630,000)			(36,630,000)	
Resource Rock	Fund VII	9/19/17	(1,980,000)			(1,980,000)	
Resource Rock	Fund VII	1/31/18		70,467,963		70,467,963	
Resource Rock	Fund VII	7/2/18		4,554,000		4,554,000	
Resource Rock	Fund VII	12/31/18		5,029,200		5,029,200	
Resource Rock	Fund VII	11/12/19		50,283		50,283	125.4%
Riverbend Permian II	Fund VII	8/9/16	(7,690,667)			(7,690,667)	
Riverbend Permian II	Fund VII	12/9/16	(9,613,334)			(9,613,334)	
Riverbend Permian II	Fund VII	12/30/16	(6,729,334)			(6,729,334)	
Riverbend Permian II	Fund VII	2/10/17	(11,055,334)			(11,055,334)	
Riverbend Permian II	Fund VII	4/13/17	(2,018,801)			(2,018,801)	
Riverbend Permian II	Fund VII	6/1/17	(6,248,666)			(6,248,666)	
Riverbend Permian II	Fund VII	7/19/17	(4,806,667)			(4,806,667)	
Riverbend Permian II	Fund VII	8/17/17	(4,133,733)			(4,133,733)	
Riverbend Permian II	Fund VII	11/6/17	(9,132,666)			(9,132,666)	
Riverbend Permian II	Fund VII	12/19/17	(8,652,000)			(8,652,000)	
Riverbend Permian II	Fund VII	3/26/18	(8,218,798)			(8,218,798)	
Riverbend Permian II	Fund VII	5/25/18	(3,500,000)			(3,500,000)	
Riverbend Permian II	Fund VII	7/16/18	(10,000,000)			(10,000,000)	
Riverbend Permian II	Fund VII	10/18/18	(6,210,000)			(6,210,000)	
Riverbend Permian II	Fund VII	6/14/19	(14,500,000)			(14,500,000)	
Riverbend Permian II	Fund VII	11/2/20	(7,000,000)			(7,000,000)	
Riverbend Permian II	Fund VII	2/19/21	(7,000,000)			(7,000,000)	
Riverbend Permian II	Fund VII	9/14/21	(10,000,000)			(10,000,000)	
Riverbend Permian II	Fund VII	3/31/22			251,858,575	251,858,575	16.8%
Silver Hill Energy Partners II	Fund VII	1/14/16	(29,000,000)			(29,000,000)	
Silver Hill Energy Partners II	Fund VII	2/26/16	(123,714,065)			(123,714,065)	
Silver Hill Energy Partners II	Fund VII	5/6/16	(5,896,296)			(5,896,296)	
Silver Hill Energy Partners II	Fund VII	3/1/17		237,970,015		237,970,015	
Silver Hill Energy Partners II	Fund VII	5/26/17		159,254,879		159,254,879	
Silver Hill Energy Partners II	Fund VII	9/12/17		3,764,026		3,764,026	
Silver Hill Energy Partners II	Fund VII	11/3/17		80,465,522		80,465,522	
Silver Hill Energy Partners II	Fund VII	3/21/18		24,732,744		24,732,744	
Silver Hill Energy Partners II	Fund VII	3/28/18		3,680,798		3,680,798	
Silver Hill Energy Partners II	Fund VII	12/17/18		905,671		905,671	
Silver Hill Energy Partners II	Fund VII	1/3/22		1,132,089		1,132,089	
Silver Hill Energy Partners II	Fund VII	3/31/22			2,588,931	2,588,931	158.4%
Triumph Energy Partners	Fund VII	12/29/15	(1,503,500)			(1,503,500)	
Triumph Energy Partners	Fund VII	1/7/16	(873,000)			(873,000)	
Triumph Energy Partners	Fund VII	3/31/16	(3,873,000)			(3,873,000)	

Triumph Energy Partners	Fund VII	5/18/16	(64,990,000)			(64,990,000)	
Triumph Energy Partners	Fund VII	6/20/16	(5,817,300)			(5,817,300)	
Triumph Energy Partners	Fund VII	8/9/16	(2,910,000)			(2,910,000)	
Triumph Energy Partners	Fund VII	8/26/16	(42,562,912)			(42,562,912)	
Triumph Energy Partners	Fund VII	9/23/16	(14,681,250)			(14,681,250)	
Triumph Energy Partners	Fund VII	2/28/17	(14,681,250)			(14,681,250)	
Triumph Energy Partners	Fund VII	6/28/17	(14,681,250)			(14,681,250)	
Triumph Energy Partners	Fund VII	10/5/17	(49,212,738)			(49,212,738)	
Triumph Energy Partners	Fund VII	6/17/20	(30,000,000)			(30,000,000)	
Triumph Energy Partners	Fund VII	3/31/22			17,869,231	17,869,231	-46.5%
<b>Gross IRR</b>							<b>2.3%</b>

Kayne Anderson Energy Fund VIII, L.P.							
Company Name	Fund	Date of Transaction	Amount Invested	Amount Realized	Unrealized Value	Gross Cash Flow	IRR
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	7/9/18	(4,502,500)			(4,502,500)	
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	8/3/18	(2,094,750)			(2,094,750)	
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	8/6/18	(76,568,627)			(76,568,627)	
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	8/24/18	(2,194,500)			(2,194,500)	
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	2/1/19	(2,793,000)			(2,793,000)	
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	3/13/19	(3,990,000)			(3,990,000)	
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	6/28/19	(3,491,250)			(3,491,250)	
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	9/30/19	(6,483,750)			(6,483,750)	
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	10/31/19	(2,992,500)			(2,992,500)	
Acacia Energy (Now Midcon Holdco Partners)	Fund VIII	12/24/19	(2,493,750)			(2,493,750)	
Midcon Holdco Partners	Fund VIII	12/30/20	(26,141,997)			(26,141,997)	
Midcon Holdco Partners	Fund VIII	1/13/21	317,532			317,532	
Midcon Holdco Partners	Fund VIII	1/14/21	27,778			27,778	
Midcon Holdco Partners	Fund VIII	1/19/21	404,120			404,120	
Midcon Holdco Partners	Fund VIII	3/31/22			60,680,109	60,680,109	-23.7%
Black Knight	Fund VIII	8/20/21	(620,040)			(620,040)	
Black Knight	Fund VIII	3/10/22	(620,040)			(620,040)	
Black Knight	Fund VIII	3/31/22			1,240,079	1,240,079	0.0%
Alamo Resource III	Fund VIII	1/13/20	(9,900,000)			(9,900,000)	
Alamo Resource III	Fund VIII	12/28/20		3,960,000		3,960,000	
Alamo Resource III	Fund VIII	12/31/20		643,500		643,500	
Alamo Resource III	Fund VIII	12/15/21		4,250,000		4,250,000	
Alamo Resource III	Fund VIII	3/31/22			422,802	422,802	-4.3%
Casillas Petroleum Resource Partners II	Fund VIII	6/25/18	(8,328,722)			(8,328,722)	
Casillas Petroleum Resource Partners II	Fund VIII	8/9/18	(88,957,944)			(88,957,944)	
Casillas Petroleum Resource Partners II	Fund VIII	7/15/19	(8,865,248)			(8,865,248)	
Casillas Petroleum Resource Partners II	Fund VIII	8/27/19	(9,459,230)			(9,459,230)	
Casillas Petroleum Resource Partners II	Fund VIII	10/8/19	(6,449,468)			(6,449,468)	
Casillas Petroleum Resource Partners II	Fund VIII	10/16/20		148,885,326		148,885,326	
Casillas Petroleum Resource Partners II	Fund VIII	5/27/21		2,031,520		2,031,520	
Casillas Petroleum Resource Partners II	Fund VIII	3/31/22			1,720,944	1,720,944	11.7%
HRM Resources III	Fund VIII	2/5/18	(5,868,000)			(5,868,000)	
HRM Resources III	Fund VIII	5/7/18	(2,347,059)			(2,347,059)	
HRM Resources III	Fund VIII	6/27/18	(23,071,961)			(23,071,961)	
HRM Resources III	Fund VIII	9/27/19	(16,299,020)			(16,299,020)	
HRM Resources III	Fund VIII	3/31/22			93,047,661	93,047,661	21.6%
Indianola Energy	Fund VIII	7/30/19	(990,000)			(990,000)	
Indianola Energy	Fund VIII	12/18/19	(990,000)			(990,000)	
Indianola Energy	Fund VIII	5/21/20	(371,250)			(371,250)	
Indianola Energy	Fund VIII	7/17/20	(495,000)			(495,000)	
Indianola Energy	Fund VIII	3/31/21			-	-	-100.0%
Kraken Oil & Gas III	Fund VIII	8/24/18	(15,000,000)			(15,000,000)	
Kraken Oil & Gas III	Fund VIII	10/10/18	(94,505,000)			(94,505,000)	
Kraken Oil & Gas III	Fund VIII	11/16/20	(15,000,000)			(15,000,000)	
Kraken Resource	Fund VIII	1/5/22		22,550,000		22,550,000	
Kraken Resource	Fund VIII	3/31/22			230,687,286	230,687,286	24.3%
Panther Energy III	Fund VIII	1/1/18	(3,000,000)			(3,000,000)	
Panther Energy III	Fund VIII	2/21/18	(3,000,000)			(3,000,000)	
Panther Energy III	Fund VIII	3/9/18	(6,000,000)			(6,000,000)	
Panther Energy III	Fund VIII	5/4/18	(6,000,000)			(6,000,000)	
Panther Energy III	Fund VIII	6/4/18	(12,000,000)			(12,000,000)	
Panther Energy III	Fund VIII	9/20/18	(15,000,000)			(15,000,000)	
Panther Energy III	Fund VIII	11/15/18	(5,000,000)			(5,000,000)	
Panther Energy III	Fund VIII	11/30/18	(10,000,000)			(10,000,000)	
Panther Energy III	Fund VIII	4/30/19	(7,500,000)			(7,500,000)	
Panther Energy III	Fund VIII	10/15/19	(15,000,000)			(15,000,000)	
Panther Energy III	Fund VIII	1/13/20	(3,000,000)			(3,000,000)	
Panther Energy III	Fund VIII	11/20/20		4,867,257		4,867,257	
Panther Energy III	Fund VIII	12/30/20		707,965		707,965	
Panther Energy III	Fund VIII	12/16/21		269,397		269,397	
Panther Energy III	Fund VIII	3/31/22			-	-	-76.3%
Resource Rock Exploration II	Fund VIII	4/19/18	(1,960,000)			(1,960,000)	
Resource Rock Exploration II	Fund VIII	10/16/18	(1,960,000)			(1,960,000)	
Resource Rock Exploration II	Fund VIII	9/17/19	(980,000)			(980,000)	
Resource Rock Exploration II	Fund VIII	12/30/19		506,489		506,489	
Resource Rock Exploration II	Fund VIII	12/31/19			-	-	-94.4%
Treadstone III	Fund VIII	1/29/19	(950,000)			(950,000)	
Treadstone III	Fund VIII	2/17/22	(2,397,260)			(2,397,260)	
Treadstone III	Fund VIII	3/31/22			3,347,260	3,347,260	0.0%

Wildfire Energy	Fund VIII	8/20/21	(31,398,058)			(31,398,058)	
Wildfire Energy	Fund VIII	12/15/21		52,466		52,466	
Wildfire Energy	Fund VIII	12/17/21		11,455		11,455	
Wildfire Energy	Fund VIII	3/1/22	(6,068,449)			(6,068,449)	
Wildfire Energy	Fund VIII	3/24/22		4,218,782		4,218,782	
Wildfire Energy	Fund VIII	3/31/22			59,203,506	59,203,506	165.5%
<b>Gross IRR</b>							<b>4.4%</b>

As of: 3/31/22

Fund Name	Currency	Date of Transaction	Drawn	Distributed	NAV	Net Cash Flow	Type of Fund transactions
Kayne Anderson Energy Fund, L.P.	USD	7/27/98	(20,500,000)			(20,500,000)	Capital Call
Kayne Anderson Energy Fund, L.P.	USD	5/8/99	(5,650,100)			(5,650,100)	Capital Call
Kayne Anderson Energy Fund, L.P.	USD	5/25/99	(15,850,000)			(15,850,000)	Capital Call
Kayne Anderson Energy Fund, L.P.	USD	12/14/99	(5,250,000)			(5,250,000)	Capital Call
Kayne Anderson Energy Fund, L.P.	USD	10/1/00	(3,375,000)			(3,375,000)	Deemed Capital Call
Kayne Anderson Energy Fund, L.P.	USD	10/1/00		3,375,000		3,375,000	Deemed Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	11/29/00	(7,312,501)			(7,312,501)	Capital Call
Kayne Anderson Energy Fund, L.P.	USD	12/11/00	(3,249,999)			(3,249,999)	Capital Call
Kayne Anderson Energy Fund, L.P.	USD	5/8/01		15,469,581		15,469,581	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	6/8/01	(16,544,665)			(16,544,665)	Deemed Capital Call
Kayne Anderson Energy Fund, L.P.	USD	6/8/01		16,544,665		16,544,665	Deemed Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	7/6/01		6,194,545		6,194,545	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	8/23/01	(7,001,490)			(7,001,490)	Capital Call
Kayne Anderson Energy Fund, L.P.	USD	11/8/01		1,504,722		1,504,722	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	3/15/02	(11,250,000)			(11,250,000)	Capital Call
Kayne Anderson Energy Fund, L.P.	USD	5/24/02	(1,300,221)			(1,300,221)	Deemed Capital Call
Kayne Anderson Energy Fund, L.P.	USD	5/24/02		1,300,221		1,300,221	Deemed Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	8/23/02	(6,000,000)			(6,000,000)	Capital Call
Kayne Anderson Energy Fund, L.P.	USD	12/12/02		2,643,998		2,643,998	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	5/16/03		900,000		900,000	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	9/18/03		5,895,999		5,895,999	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	12/15/03		16,580,951		16,580,951	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	3/22/04		30,602,673		30,602,673	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	6/3/04		6,000,000		6,000,000	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	7/1/04		800,000		800,000	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	8/1/04		10,410,703		10,410,703	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	10/15/04		1,710,519		1,710,519	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	12/1/04		3,306,998		3,306,998	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	2/18/05		9,415,360		9,415,360	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	4/25/05		25,539,890		25,539,890	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	5/6/05		2,266,670		2,266,670	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	6/9/05		800,000		800,000	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	7/27/05		5,372,074		5,372,074	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	8/26/05		9,012,956		9,012,956	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	12/28/05		928,630		928,630	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	4/1/06		42,505		42,505	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	5/23/06		520,000		520,000	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	11/20/06		960,000		960,000	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	2/22/07		1,040,009		1,040,009	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	5/22/07		1,120,000		1,120,000	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	8/21/07		1,320,002		1,320,002	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	11/27/07		1,520,000		1,520,000	Distribution to LPs
Kayne Anderson Energy Fund, L.P.	USD	12/31/07		216,067,264		216,067,264	Distribution to LPs
		<b>Net IRR</b>				<b>30.1%</b>	

Fund Name	Currency	Date of Transaction	Drawn	Distributed	NAV	Net Cash Flow	Type of Fund transactions
Kayne Anderson Energy Fund II, L.P.	USD	8/23/02	(10,188,036)			(10,188,036)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	9/9/02	(6,367,549)			(6,367,549)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	10/18/02	(12,805,095)			(12,805,095)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	11/22/02	(12,689,757)			(12,689,757)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	3/11/03	(1,975,184)			(1,975,184)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	8/15/03	(14,250,200)			(14,250,200)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	12/4/03	(20,000,000)			(20,000,000)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	12/16/03	(18,500,000)			(18,500,000)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	12/16/03		5,500,000		5,500,000	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	4/14/04	(30,000,000)			(30,000,000)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	5/21/04	(7,000,000)			(7,000,000)	Deemed Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	5/21/04		7,000,000		7,000,000	Deemed Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	8/10/04	(16,000,000)			(16,000,000)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	9/23/04	(20,000,000)			(20,000,000)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	2/9/05	(5,000,000)			(5,000,000)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	3/4/05		10,389,414		10,389,414	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	3/4/05	(2,000,000)			(2,000,000)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	9/2/05		244,988,747		244,988,747	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	9/2/05	(24,999,896)			(24,999,896)	Capital Call

Kayne Anderson Energy Fund II, L.P.	USD	10/20/05		71,559,000		71,559,000	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	10/20/05	(9,999,958)			(9,999,958)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	12/15/05		10,960,274		10,960,274	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	12/15/05	(7,999,967)			(7,999,967)	Capital Call
Kayne Anderson Energy Fund II, L.P.	USD	8/1/06		2,360,344		2,360,344	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	8/18/06		19,671,257		19,671,257	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	9/7/06		76,150,876		76,150,876	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	10/10/06		2,178,769		2,178,769	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	6/1/07		1,200,003		1,200,003	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	10/1/07		799,995		799,995	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	12/5/07		440,040		440,040	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	3/3/08		320,070		320,070	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	8/28/08		971,582		971,582	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	12/2/08		819,984		819,984	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	5/15/09		38,131,517		38,131,517	Distribution to LPs
Kayne Anderson Energy Fund II, L.P.	USD	7/31/09	(1,108,317)			(1,108,317)	Capital Call
		<b>Net IRR</b>				<b>52.5%</b>	

Fund Name	Currency	Date of Transaction	Drawn	Distributed	NAV	Net Cash Flow	Type of Fund transactions
Kayne Anderson Energy Fund III, L.P.	USD	4/20/05	(5,500,000)			(5,500,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	7/19/05	(27,500,000)			(27,500,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	10/28/05	(49,500,000)			(49,500,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/8/05	(22,000,000)			(22,000,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	7/3/06	(55,000,000)			(55,000,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	8/4/06		73,238,421		73,238,421	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	9/5/06		6,083,150		6,083,150	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	9/5/06	(6,083,150)			(6,083,150)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	10/11/06		1,736,280		1,736,280	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/11/06	(1,736,280)			(1,736,280)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/18/06	(33,000,000)			(33,000,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	2/5/07		100,348,379		100,348,379	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	2/28/07		4,948,258		4,948,258	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	2/28/07	(4,948,258)			(4,948,258)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	6/1/07	(38,500,000)			(38,500,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	6/19/07	(5,229,478)			(5,229,478)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	7/24/07	(355,000)			(355,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/4/07		4,741,912		4,741,912	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/4/07	(4,741,912)			(4,741,912)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/18/07	(66,000,000)			(66,000,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/21/07		122,875		122,875	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/21/07	(122,875)			(122,875)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	6/30/08		25,000,000		25,000,000	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	6/30/08	(25,000,000)			(25,000,000)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	6/30/08		219,279		219,279	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	6/30/08	(219,279)			(219,279)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	8/1/08		35,635,101		35,635,101	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	9/30/08		205,000		205,000	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/17/08		1,054,943		1,054,943	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/17/08	(1,054,943)			(1,054,943)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/19/08	(16,500,000)			(16,500,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/24/08		7,477,194		7,477,194	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/24/08	(7,477,194)			(7,477,194)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	2/1/09		5,820		5,820	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	3/24/09	(55,000,000)			(55,000,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	6/1/09		30,973		30,973	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	6/11/09	(16,500,000)			(16,500,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/14/09	(27,500,000)			(27,500,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	2/22/10		9,549,140		9,549,140	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	7/21/10		5,804,180		5,804,180	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	7/21/10	(5,804,180)			(5,804,180)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	8/12/10		4,856,042		4,856,042	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	8/12/10	(4,856,042)			(4,856,042)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	10/1/10		236,053		236,053	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/1/10	(236,053)			(236,053)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	10/5/10		1,706,512		1,706,512	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/5/10	(1,706,512)			(1,706,512)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	10/8/10		695,081		695,081	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/8/10	(695,081)			(695,081)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/20/10	(22,000,000)			(22,000,000)	Capital Call



Kayne Anderson Energy Fund III, L.P.	USD	12/21/10		61,775		61,775	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/21/10		6,898,919		6,898,919	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/21/10	(6,898,919)			(6,898,919)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/31/10		44,003		44,003	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	2/7/11		40,709,740		40,709,740	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	4/7/11		27,277,081		27,277,081	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	5/25/11		349,999		349,999	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	5/25/11	(349,999)			(349,999)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	5/27/11	(16,393,500)			(16,393,500)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	6/28/11		8,115,208		8,115,208	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	6/28/11	(8,115,208)			(8,115,208)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	6/30/11		54,724		54,724	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	9/30/11		308,079		308,079	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/27/11		23,408,880		23,408,880	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/1/11	(769,783)			(769,783)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/1/11		769,783		769,783	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/5/11	(10,929,000)			(10,929,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/23/11		16,994		16,994	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	2/8/12	(4,310,706)			(4,310,706)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	2/8/12		4,310,706		4,310,706	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	3/30/12	(205,000)			(205,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	5/22/12	(5,111,898)			(5,111,898)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	5/22/12		5,111,898		5,111,898	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	8/23/12	(577,323)			(577,323)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	8/23/12		577,323		577,323	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/22/12	(2,700,001)			(2,700,001)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	10/22/12		2,700,001		2,700,001	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/23/12	(1,469,592)			(1,469,592)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	10/23/12		1,469,592		1,469,592	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	11/8/12	(1,053,001)			(1,053,001)	Deemed Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	11/8/12		1,053,001		1,053,001	Deemed Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	11/27/12	(22,000,000)			(22,000,000)	Capital Call
Kayne Anderson Energy Fund III, L.P.	USD	12/1/12		1,760,641		1,760,641	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/28/12		53,055,889		53,055,889	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	4/10/13		20,340,614		20,340,614	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	10/1/13		11,084,208		11,084,208	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/13/13		33,690,962		33,690,962	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/31/13		1,807,525		1,807,525	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	1/27/14		8,126,269		8,126,269	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	9/23/14		11,332,193		11,332,193	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/31/14				290,642	State Withholding
Kayne Anderson Energy Fund III, L.P.	USD	12/31/15				102,038	State Withholding
Kayne Anderson Energy Fund III, L.P.	USD	12/31/16		8,470,000		8,470,000	Distribution to LPs
Kayne Anderson Energy Fund III, L.P.	USD	12/31/18			664,355	664,355	NAV as of 12.30.18
		<b>Net IRR</b>				<b>-2.2%</b>	

Fund Name	Currency	Date of Transaction	Drawn	Distributed	NAV	Net Cash Flow	Type of Fund transactions
Kayne Anderson Energy Fund IV, L.P.	USD	7/10/07	(47,500,000)			(47,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/17/07	(57,000,000)			(57,000,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	5/1/08	(57,000,000)			(57,000,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	8/22/08	(38,000,000)			(38,000,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/19/08	(47,500,000)			(47,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	3/25/09	(47,500,000)			(47,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	6/11/09	(66,500,000)			(66,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	10/23/09	(76,000,000)			(76,000,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	1/22/10	(47,500,000)			(47,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	7/30/10	(47,500,000)			(47,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/1/10	(66,500,000)			(66,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/31/10		29,000,000		29,000,000	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	2/8/11		40,709,742		40,709,742	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	4/19/11	(47,500,000)			(47,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	6/21/11		44,779,992		44,779,992	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	7/1/11	(3,800,000)			(3,800,000)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	7/1/11		3,800,000		3,800,000	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	7/12/11	(47,500,000)			(47,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	9/9/11		55,291,389		55,291,389	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	9/30/11		1,803,318		1,803,318	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	10/1/11	(1,510,243)			(1,510,243)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	10/1/11		1,510,243		1,510,243	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	10/24/11	(95,000,001)			(95,000,001)	Capital Call

Kayne Anderson Energy Fund IV, L.P.	USD	11/14/11		104,253,401		104,253,401	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/1/11	(769,766)			(769,766)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/1/11		769,766		769,766	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/2/11		51,876,855		51,876,855	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/29/11	(2,617,487)			(2,617,487)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/29/11		2,617,487		2,617,487	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	1/5/12	(141,468)			(141,468)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	1/5/12		141,468		141,468	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	1/5/12	(3,496,018)			(3,496,018)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	1/5/12		3,496,018		3,496,018	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	1/18/12	(5,594,903)			(5,594,903)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	1/18/12		5,594,903		5,594,903	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	1/26/12	(4,813,973)			(4,813,973)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	1/26/12		4,813,973		4,813,973	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	2/8/12	(4,310,713)			(4,310,713)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	2/8/12		4,310,713		4,310,713	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	4/20/12	(47,500,000)			(47,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	5/2/12	(3,744,002)			(3,744,002)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	5/2/12		3,744,002		3,744,002	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	5/14/12	(288,001)			(288,001)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	5/14/12		288,001		288,001	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	6/8/12		46,100,018		46,100,018	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	6/12/12	(902,385)			(902,385)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	6/12/12		902,385		902,385	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	6/14/12	(1,910,710)			(1,910,710)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	6/14/12		1,910,710		1,910,710	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	6/29/12	(150,901)			(150,901)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	6/29/12		150,901		150,901	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	6/29/12	(3,729,095)			(3,729,095)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	6/29/12		3,729,095		3,729,095	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	8/20/12	(1,434,816)			(1,434,816)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	8/20/12		1,434,816		1,434,816	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	8/23/12	(577,342)			(577,342)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	8/23/12		577,342		577,342	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	10/23/12	(2,100,010)			(2,100,010)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	10/23/12		2,100,010		2,100,010	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	11/7/12	(47,500,000)			(47,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/1/12		2,158,535		2,158,535	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/5/12	(441,243)			(441,243)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/5/12		441,243		441,243	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/20/12	(540,111)			(540,111)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/20/12		540,111		540,111	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/24/12	(38,488)			(38,488)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/24/12		38,488		38,488	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/28/12		71,843,952		71,843,952	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	5/10/13	(38,000,000)			(38,000,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	6/4/13	(2,819,983)			(2,819,983)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	6/4/13		2,819,983		2,819,983	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	7/18/13		61,956,586		61,956,586	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/19/13		70,748,499		70,748,499	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/1/13		1,403,346		1,403,346	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	2/20/14		160,271,350		160,271,350	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	4/4/14	(28,500,000)			(28,500,000)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	7/11/14		150,000,000		150,000,000	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/31/14				1,075,240	State Tax Withholding
Kayne Anderson Energy Fund IV, L.P.	USD	3/2/15	(24,074,961)			(24,074,961)	Deemed Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	3/2/15		24,074,961		24,074,961	Deemed Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	6/10/15	(31,876,243)			(31,876,243)	Capital Call
Kayne Anderson Energy Fund IV, L.P.	USD	12/31/15				8,843,043	State Tax Withholding
Kayne Anderson Energy Fund IV, L.P.	USD	4/5/16		73,333,333		73,333,333	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/31/16				109,020	State Tax Withholding
Kayne Anderson Energy Fund IV, L.P.	USD	3/31/17		14,070,000		14,070,000	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	8/21/17		2,899,356		2,899,356	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/31/17				66,030	State Tax Withholding
Kayne Anderson Energy Fund IV, L.P.	USD	8/10/18		48,453,236		48,453,236	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	12/31/18				11,260	State Tax Withholding
Kayne Anderson Energy Fund IV, L.P.	USD	8/20/21		11,623,451		11,623,451	Distribution to LPs
Kayne Anderson Energy Fund IV, L.P.	USD	3/31/22			34,274,909	34,274,909	NAV as of 3.31.22
		<b>Net IRR</b>				<b>3.0%</b>	

Fund Name	Currency	Date of Transaction	Drawn	Distributed	NAV	Net Cash Flow	Type of Fund transactions
Kayne Anderson Energy Fund V, L.P.	USD	7/2/09	(16,401,000)			(16,401,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	6/30/10	(32,800,000)			(32,800,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	1/28/11	(32,800,000)			(32,800,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	7/12/11	(82,000,000)			(82,000,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	9/20/11	(41,000,000)			(41,000,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	10/24/11	(82,000,000)			(82,000,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	2/14/12	(41,000,000)			(41,000,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	5/4/12	(22,392,558)			(22,392,558)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	5/4/12		22,392,558		22,392,558	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	5/23/12	(49,200,000)			(49,200,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	6/29/12	(3,551,056)			(3,551,056)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	6/29/12		3,551,056		3,551,056	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	8/23/12	(49,200,000)			(49,200,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	10/23/12	(82,000,000)			(82,000,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	3/8/13	(57,400,000)			(57,400,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	9/24/13	(41,000,000)			(41,000,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	12/19/13		141,497,008		141,497,008	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	4/4/14	(41,000,000)			(41,000,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	6/11/14	(24,600,000)			(24,600,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	7/11/14		24,999,990		24,999,990	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	7/25/14		517,106,517		517,106,517	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	8/8/14		16,782,960		16,782,960	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	9/5/14		83,411,508		83,411,508	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	10/3/14		17,551,928		17,551,928	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	10/10/14	(24,600,000)			(24,600,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	11/21/14		34,191,655		22,191,058	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	12/31/14		17,765,232		4,029,502	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	12/31/14				1,701,287	State Tax Withholding
Kayne Anderson Energy Fund V, L.P.	USD	2/9/15	(24,600,000)			(24,600,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	5/8/15	(41,000,000)			(41,000,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	7/24/15	(32,800,000)			(32,800,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	9/4/15		15,180,102		15,180,102	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	11/11/15	(49,200,000)			(49,200,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	12/31/15				255,569	State Tax Withholding
Kayne Anderson Energy Fund V, L.P.	USD	3/31/16	(195,003)			(195,003)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	3/31/16		195,003		195,003	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	3/31/16	(3,850,012)			(3,850,012)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	3/31/16		3,850,012		3,850,012	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	3/31/16	(2,416,645)			(2,416,645)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	3/31/16		2,416,645		2,416,645	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	4/18/16	(16,400,000)			(16,400,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	8/10/16	(16,400,000)			(16,400,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	11/30/16	(211,458)			(211,458)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	11/30/16		211,458		211,458	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	11/30/16	(673,743)			(673,743)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	11/30/16		673,743		673,743	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	12/7/16	(16,400,000)			(16,400,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	12/31/16	(199,995)			(199,995)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	12/31/16		199,995		199,995	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	12/31/16				1,299	State Tax Withholding
Kayne Anderson Energy Fund V, L.P.	USD	5/31/17	(13,237)			(13,237)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	5/31/17		13,237		13,237	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	5/31/17	(1,205,353)			(1,205,353)	Deemed Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	5/31/17		1,205,353		1,205,353	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	7/28/17		9,300,000		9,300,000	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	7/31/17	(749,999)			(749,999)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	7/31/17		749,999		749,999	Deemed Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	11/14/17	(24,600,000)			(24,600,000)	Capital Call
Kayne Anderson Energy Fund V, L.P.	USD	12/29/17		2,055,766		2,055,766	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	12/31/17		3,354		3,354	State Tax Withholding
Kayne Anderson Energy Fund V, L.P.	USD	8/10/18		95,375,009		95,375,009	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	12/18/18		10,624,779		10,624,779	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	12/31/18				-	State Tax Withholding
Kayne Anderson Energy Fund V, L.P.	USD	10/16/19		8,164,676		8,164,676	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	12/31/19		34,320		34,320	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	12/4/20		11,652,833		11,652,833	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	8/20/21		21,631,698		21,631,698	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	9/30/21		226,687		226,687	State Tax Withholding
Kayne Anderson Energy Fund V, L.P.	USD	12/31/21		159,622		159,622	State Tax Withholding

Kayne Anderson Energy Fund V, L.P.	USD	1/14/22		28,473,313		28,473,313	Distribution to LPs
Kayne Anderson Energy Fund V, L.P.	USD	3/31/22			286,372,607	286,372,607	NAV as of 3.31.22
		<b>Net IRR</b>				<b>11.7%</b>	

Fund Name	Currency	Date of Transaction	Drawn	Distributed	NAV	Net Cash Flow	Type of Fund transactions
Kayne Anderson Energy Fund VI, L.P.	USD	9/25/12	(43,922,800)			(43,922,800)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/11/12	(8,539,200)			(8,539,200)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/31/12	(3,638,000)			(3,638,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	1/28/13	(7,900,000)			(7,900,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	5/23/13	(48,000,000)			(48,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	7/9/13	(64,000,000)			(64,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	8/22/13	(80,000,000)			(80,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/12/13	(80,000,000)			(80,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	2/27/14	(64,000,000)			(64,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	6/11/14	(96,000,000)			(96,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	6/12/14	(1,454,995)			(1,454,995)	Deemed Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	6/12/14		1,454,995		1,454,995	Deemed Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	10/10/14	(64,000,000)			(64,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	11/3/14	(128,000,000)			(128,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/1/14	(2,409,160)			(2,409,160)	Deemed Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/1/14		2,409,160		2,409,160	Deemed Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	2/4/15	(128,000,000)			(128,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	3/26/15	(733,139)			(733,139)	Deemed Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	3/26/15		733,139		733,139	Deemed Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	6/19/15	(96,000,000)			(96,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	10/15/15	(48,000,000)			(48,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/16/15	(128,000,000)			(128,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/31/15				12,040	State Tax Withholding
Kayne Anderson Energy Fund VI, L.P.	USD	4/18/16	(80,000,000)			(80,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	4/30/16	(1,000,041)			(1,000,041)	Deemed Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	4/30/16		1,000,041		1,000,041	Deemed Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	5/24/16		112,443,985		112,443,985	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	8/10/16	(64,000,000)			(64,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	10/14/16	(176,000,000)			(176,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/2/16		359,163,364		359,163,364	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	12/30/16		16,675,677		16,675,677	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	12/31/16				24,625	State Tax Withholding
Kayne Anderson Energy Fund VI, L.P.	USD	3/10/17		93,297,818		93,297,818	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	3/20/17	(48,000,000)			(48,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	3/22/17		392,358,539		392,358,539	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	5/31/17		231,272,481		231,272,481	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	7/20/17		74,535,157		74,535,157	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	10/9/17	(48,000,000)			(48,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	11/7/17		125,396,953		125,396,953	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	12/31/17				46,705	State Tax Withholding
Kayne Anderson Energy Fund VI, L.P.	USD	1/10/18		46,050,901		46,050,901	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	2/28/18	(2,776,545)			(2,776,545)	Deemed Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	2/28/18		2,776,545		2,776,545	Deemed Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	4/6/18		17,789,172		17,789,172	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	5/14/18		15,500,252		15,500,252	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	5/31/18	(16,000,000)			(16,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	7/24/18		56,783,880		56,783,880	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	9/7/18	(24,000,000)			(24,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/31/18				359,470	State Tax Withholding
Kayne Anderson Energy Fund VI, L.P.	USD	1/25/19		18,545,911		18,545,911	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	4/3/19	(16,800,002)			(16,800,002)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	5/17/19		54,500,640		54,500,640	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	5/31/19		40,736,650		40,736,650	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	10/16/19		20,940,047		20,940,047	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	12/31/19				66,687	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	9/30/20	(5,170,772)			(5,170,772)	Deemed Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	9/30/20		5,170,772		5,170,772	Deemed Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	10/1/20	(16,000,000)			(16,000,000)	Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/31/20	(4,614,675)			(4,614,675)	Deemed Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	12/31/20		4,666,583		4,666,583	Deemed Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	3/31/21	(2,014,517)			(2,014,517)	Deemed Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	3/31/21		2,014,517		2,014,517	Deemed Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	4/9/21		113,881,405		113,881,405	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	9/30/21	(2,637,513)			(2,637,513)	Deemed Capital Call
Kayne Anderson Energy Fund VI, L.P.	USD	9/30/21		2,637,513		2,637,513	Deemed Distribution to LPs

Kayne Anderson Energy Fund VI, L.P.	USD	12/17/21		142,467,631		142,467,631	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	1/14/22		1,357,392		1,357,392	Distribution to LPs
Kayne Anderson Energy Fund VI, L.P.	USD	3/31/22			104,339,065	104,339,065	NAV as of 3.31.22
		<b>Net IRR</b>				<b>9.6%</b>	

Fund Name	Currency	Date of Transaction	Drawn	Distributed	NAV	Net Cash Flow	Type of Fund transactions
Kayne Anderson Energy Fund VII, L.P.	USD	12/21/15	(64,933,684)			(64,933,684)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	2/24/16	(215,000,000)			(215,000,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	5/3/16	(43,555,824)			(43,555,824)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	5/19/16	(52,982,250)			(52,982,250)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	6/22/16	(31,246,876)			(31,246,876)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	8/1/16	(82,011,119)			(82,011,119)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	9/23/16	(267,097,816)			(267,097,816)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	10/6/16	(160,253,625)			(160,253,625)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	10/26/16	(67,614,806)			(67,614,806)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	3/8/17		237,970,005		237,970,005	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	4/13/17	(143,601,500)			(143,601,500)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	5/31/17		159,254,879		159,254,879	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	5/31/17	(2,186,273)			(2,186,273)	Deemed Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	5/31/17		2,186,273		2,186,273	Deemed Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	6/23/17	(164,116,000)			(164,116,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	8/25/17	(123,087,000)			(123,087,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	10/31/17	(164,116,000)			(164,116,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	11/7/17		84,229,547		84,229,547	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	1/26/18		57,251,527		57,251,527	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	2/8/18		69,917,963		69,917,963	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	3/21/18	(82,058,000)			(82,058,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	4/6/18		72,513,541		72,513,541	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	6/28/18	(41,029,000)			(41,029,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	7/20/18		10,137,995		10,137,995	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	9/13/18	(41,029,000)			(41,029,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	12/27/18	(41,029,000)			(41,029,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	12/31/18				28,630.00	State Tax Withholding
Kayne Anderson Energy Fund VII, L.P.	USD	3/15/19		9,972,695		9,972,695	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	4/2/19	(20,514,500)			(20,514,500)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	7/16/19	(30,771,750)			(30,771,750)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	12/31/19	(20,514,500)			(20,514,500)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	12/31/19		4,242,015		4,242,015	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	4/17/20	(20,514,500)			(20,514,500)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	4/17/20		190,000		190,000	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	6/16/20	(102,572,500)			(102,572,500)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	12/30/20	(82,058,000)			(82,058,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	12/31/20		72,000		72,000	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	12/31/20		243,049		243,049	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	4/6/21		19,856,492		19,856,492	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	6/30/21	(72,000)			(72,000)	Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	1/14/22	(3,160,041)			(3,160,041)	Deemed Capital Call
Kayne Anderson Energy Fund VII, L.P.	USD	1/14/22		55,564,315		55,564,315	Distribution to LPs
Kayne Anderson Energy Fund VII, L.P.	USD	3/31/22			#####	1,258,417,076	NAV as of 3.31.22
		<b>Net IRR</b>				<b>-0.4%</b>	

Fund Name	Currency	Date of Transaction	Drawn	Distributed	NAV	Net Cash Flow	Type of Fund transactions
Kayne Anderson Energy Fund VIII, L.P.	USD	7/30/18	(83,066,400)			(83,066,400)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	10/31/18	(172,652,100)			(172,652,100)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	11/19/18	(30,780,000)			(30,780,000)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	4/9/19	(125,170,200)			(125,170,200)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	8/9/19	(30,122,100)			(30,122,100)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	11/19/19	(60,244,200)			(60,244,200)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	4/17/20	(20,081,400)			(20,081,400)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	4/17/20		506,489		506,489	Distribution to LPs
Kayne Anderson Energy Fund VIII, L.P.	USD	7/9/20	(22,086,374)			(22,086,374)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	10/30/20	(17,700,000)			(17,700,000)	Distribution to LPs
Kayne Anderson Energy Fund VIII, L.P.	USD	10/30/20		148,885,325		148,885,325	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	12/30/20	(17,669,099)			(17,669,099)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	12/31/20		143		143	Distribution to LPs
Kayne Anderson Energy Fund VIII, L.P.	USD	4/6/21		10,178,578		10,178,578	Distribution to LPs
Kayne Anderson Energy Fund VIII, L.P.	USD	8/4/21	(35,338,198)			(35,338,198)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	1/14/22	(4,660,229)			(4,660,229)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	1/14/22		29,596,736		29,596,736	Distribution to LPs

Kayne Anderson Energy Fund VIII, L.P.	USD	3/15/22	(13,251,824)		(13,251,824)	Capital Call
Kayne Anderson Energy Fund VIII, L.P.	USD	3/31/22		461,542,558	461,542,558	NAV as of 3.31.22
		<b>Net IRR</b>			<b>1.2%</b>	

Year	Quarter	KAEF V		KAEF VI		KAEF VII		KAEF VIII	
		ROI	IRR	ROI	IRR	ROI	IRR	ROI	IRR
2009	Q3	1.0x	0.0%						
	Q4	1.0x	0.0%						
2010	Q1	1.0x	0.0%						
	Q2	1.0x	0.0%						
	Q3	1.0x	0.0%						
	Q4	1.0x	0.0%						
2011	Q1	1.0x	0.0%						
	Q2	1.0x	0.0%						
	Q3	1.0x	0.0%						
	Q4	1.2x	12.6%						
2012	Q1	1.4x	60.8%						
	Q2	1.4x	50.5%	1.0x	2.2%				
	Q3	1.3x	38.0%	1.0x	2.6%				
	Q4	1.4x	39.7%	1.0x	1.0%				
2013	Q1	1.4x	31.4%	1.0x	-0.6%				
	Q2	1.4x	30.8%	1.0x	-1.6%				
	Q3	1.4x	26.4%	1.0x	4.9%				
	Q4	1.7x	33.9%	1.0x	8.7%				
2014	Q1	1.8x	35.7%	1.0x	5.3%				
	Q2	2.3x	47.4%	1.1x	19.1%				
	Q3	2.3x	45.5%	1.3x	36.6%				
	Q4	2.0x	35.8%	1.0x	0.7%				
2015	Q1	1.9x	35.4%	1.2x	22.9%				
	Q2	1.9x	33.9%	1.3x	26.1%				
	Q3	1.8x	32.4%	1.3x	21.8%				
	Q4	1.6x	27.7%	1.2x	13.1%	1.0x	0.0%		
2016	Q1	1.6x	27.4%	1.2x	10.8%	1.0x	0.0%		
	Q2	1.6x	26.2%	1.5x	22.5%	1.0x	0.0%		
	Q3	1.6x	25.5%	1.6x	25.8%	1.4x	>100.0%		
	Q4	1.6x	24.3%	1.7x	30.3%	1.4x	90.2%		
2017	Q1	1.5x	22.3%	1.7x	26.3%	1.3x	52.0%		
	Q2	1.5x	20.4%	1.6x	23.3%	1.4x	50.0%		
	Q3	1.5x	20.1%	1.6x	22.5%	1.4x	48.7%		
	Q4	1.5x	19.8%	1.6x	21.2%	1.6x	53.7%		
2018	Q1	1.5x	19.4%	1.6x	20.9%	1.6x	49.5%	1.0x	0.0%
	Q2	1.49	19.6%	1.6x	20.8%	1.7x	46.8%	1.0x	0.0%
	Q3	1.5x	19.6%	1.6x	20.2%	1.6x	40.5%	1.0x	0.0%
	Q4	1.4x	18.0%	1.5x	17.9%	1.5x	29.5%	1.0x	0.0%
2019	Q1	1.4x	18.1%	1.6x	18.7%	1.5x	27.6%	1.0x	0.0%
	Q2	1.4x	17.7%	1.6x	18.2%	1.4x	19.7%	1.0x	0.7%
	Q3	1.4x	17.2%	1.5x	17.4%	1.3x	13.1%	1.0x	0.4%
	Q4	1.4x	17.1%	1.6x	17.3%	1.1x	5.9%	1.1x	8.8%
2020	Q1	1.4x	16.2%	1.4x	14.7%	0.7x	-21.2%	0.5x	-38.4%
	Q2	1.4x	16.3%	1.4x	14.1%	0.6x	-22.6%	0.5x	-34.5%
	Q3	1.4x	16.8%	1.4x	14.3%	0.7x	-19.3%	0.6x	-24.8%
	Q4	1.4x	16.5%	1.4x	13.9%	0.6x	-22.1%	0.6x	-23.5%
2021	Q1	1.6x	18.8%	1.4x	14.2%	0.7x	-13.5%	0.8x	-12.9%
	Q2	1.60x	19.0%	1.47x	14.6%	0.78x	-10.2%	0.80x	-9.5%
	Q3	1.55x	18.3%	1.47x	14.5%	0.77x	-10.0%	0.80x	-9.4%
	Q4	1.59x	18.5%	1.49x	14.7%	0.86x	-5.4%	0.87x	-5.3%
2022	Q1	1.74x	19.8%	1.52x	15.0%	1.07x	2.3%	1.12x	4.4%

\*Please note that these values represent gross fund returns.



**Firm:** Lord, Abnett & Co. LLC

**Strategy/Product:** Lord Abnett Core Fixed Income Strategy

**Client:** MWRA Employee's Retirement System

### **NEPC Manager Due Diligence Questionnaire - Update**

#### **Instructions**

In support of our upcoming meeting we ask that you please complete this due diligence questionnaire. Please provide your responses in the form of brief descriptions, lists or tables added directly to this Word document.

Thank you for taking the time to complete this questionnaire. Please note that all materials submitted in relation to MWRA Retirement System may be subject to disclosure consistent with Massachusetts Public Record laws.

#### **Firm/Organization**

##### **1. Have there been any changes in ownership or management in the past year?**

There have been no changes to our ownership structure in the past year nor do we anticipate any changes to our ownership structure; however, we do envision periodic retirements and resignations, and the addition of new partners. New partners are selected based on their demonstrated contributions to Lord Abnett's business and their potential to make ongoing contributions to the development of the business.

Effective January 31, 2022, John Novak, CFA, has assumed the role of Deputy Director of Global Credit Research. Mr. Novak has earned this new position in recognition of his contributions to our credit research efforts and his consistent demonstration of our firm's values.

Driven by our mission to secure a sustainable future for our clients, our people, and our world, we continue to advance sustainability across our business and culture, effective January 10, 2022, Emanuela Scura, Partner assumed the new role of Head of Sustainable Investing. Ms. Scura continues to serve on the Investment Committee and collaborates with our investors on ESG integration and engagement, and plays a broader role in advancing sustainability across the firm.

We are driven by our responsibility as a global corporate citizen to ensure sustainable benefits for our stakeholders – seeking to secure long-term financial security for our clients, empowering our people, and advancing our communities. Delivering on this commitment, effective May 11, 2021, Brooke Fapohunda, Partner, assumed the new role of Chief Sustainability Officer, leading our buildout of a





corporate ESG structure, representing us in the market, and elevating our focus on climate, well-being, and equity. Ms. Fapohunda will continue to report to Kristen Maple, Partner, Chief Impact Officer.

**2. List firm AUM, net flows and accounts gained/lost for the past 5 years.**

Please refer to the table below for the requested information on the Firm:

Year:	Total AUM (\$ Billions)	Total Net Flows <sup>5</sup> (\$ Billions)	Accounts Gained/Lost <sup>6</sup>
April 30, 2022	\$226.4 <sup>1</sup>	(\$8.6)	6/2
2021	\$255.3 <sup>2</sup>	\$24.6	28/9
2020	\$223.7 <sup>2</sup>	\$6.4	9/13
2019	\$205.2 <sup>2</sup>	\$27.1	5/10
2018	\$162.4 <sup>3</sup>	\$9.9	22/14
2017	\$157.7 <sup>4</sup>	\$12.6	15/6

<sup>1</sup>Includes \$1.1 billion for which Lord Abbett provides investment models to managed account sponsors.

<sup>2</sup>Includes \$1.2 billion for which Lord Abbett provides investment models to managed account sponsors.

<sup>3</sup>Includes \$1.3 billion for which Lord Abbett provides investment models to managed account sponsors.

<sup>4</sup>Includes \$1.6 billion for which Lord Abbett provides investment models to managed account sponsors.

<sup>5</sup>Flows exclude exchanges between funds.

<sup>6</sup>Reflects institutional accounts: institutional separate accounts, sub-advised, Private Funds, Collective Investment Trusts ("CITs"). Due to omnibus reporting we often do not have transparency into individual account holders in pooled vehicles.

**3. Have there been any new or discontinued products in the past year?**

Yes, please see below for the new and discontinued products over the past year.

Effective March 2022, we launched the Lord Abbett Emerging Markets Equity Fund. The objective of the Emerging Markets Equity Fund is to seek long-term capital appreciation by investing in securities that are tied economically to emerging market countries. The Emerging Markets Equity Fund is managed by Sue Kim, Managing Director, Director of Global and Emerging Markets Equities.

In January 2022, we launched the Sustainable Municipal Bond Fund. The objective of the Fund is to seek the maximum amount of interest income exempt from federal income tax by investing in the securities of issuers we believe support initiatives that provide social or environmental benefits. The Sustainable Municipal Bond Fund investment team is led by Gregory Shuman, CFA, Managing Director, Portfolio Manager, Christopher English, CFA, Portfolio Manager, Eric Friedland, CFA, Director of Municipal Bond Research, and Daniel Solender, CFA, Partner, Director of Tax Free Fixed Income.

On September 13, 2021, we launched the Lord Abbett Global Funds - Convertible Fund. The Fund seeks to deliver current income and opportunity for capital



appreciation by investing primarily in convertible securities. The Fund is managed by Alan Kurtz, Managing Director, Portfolio Manager, and Jeremy Lehmann, CFA, Portfolio Manager.

On September 7, 2021, we launched the Lord Abbett Special Situations Fund. The Fund seeks to deliver high long-term total returns by investing in mispriced opportunities created by market dislocations and other special situations, with a focus on obligations that are secured, senior in the capital structure or those we believe are well covered by underlying asset values. The Fund will primarily invest in senior secured bank loans and high yield corporate bonds, drawing upon our proven capabilities in leveraged credit, but will have the flexibility to invest in other asset classes. The strategy is delivered in an interval fund structure, which enables the investment team to take advantage of opportunities in less liquid segments of the capital markets. The Special Situations Fund is managed by Todd Solomon, MBA, Portfolio Manager, and Mayur Lakhani, Portfolio Manager.

On June 24, 2021, we launched the Lord Abbett International Growth Fund. The Fund seeks to deliver capital appreciation by investing in a diversified portfolio of equity securities of large foreign companies that the portfolio management team believes demonstrate above-average, long-term growth potential. The International Growth Fund is managed by Sue Kim, Managing Director, Director of Global and Emerging Markets Equities and Matthias Knerr, CFA, Portfolio Manager.

Over the past year, given exceptionally strong returns and substantial inflows, we enacted a soft-close in three of our funds: Developing Growth Fund (effective March 5, 2021), Developing Growth Series Fund (effective May 5, 2021) and Micro Cap Growth Fund (effective March 19, 2021). Existing investors can continue to add to their original investments, while the Developing Growth Fund Class R6 share class remains open to new investors under certain circumstances.

#### **4. Are any products capacity constrained?**

We typically do not set specific targets for strategy closures. We continually monitor capacity of all portfolios in an effort to ensure that we do not allow asset size to impede our ability to manage the portfolios efficiently. When we assess capacity for a particular capability, we look at assets across all of our portfolios in that segment of the market. Factors that we consider when determining capacity include, among other things, total strategy assets under management, market cap of index, total ownership of individual securities across all Lord Abbett portfolios, liquidity, average trading volume, portfolio turnover, market outlook and new issuance outlook. In the past we have not hesitated to close a strategy in order to maintain the integrity of our investment approach.

As stated above, over the past year, given exceptionally strong returns and substantial inflows, we enacted a soft-close in three of our funds: Developing



Growth Fund (effective March 5, 2021), Developing Growth Series Fund (effective May 5, 2021) and Micro Cap Growth Fund (effective March 19, 2021). Existing investors can continue to add to their original investments, while the Developing Growth Fund Class R6 share class remains open to new investors under certain circumstances.

Additionally, a distinguishing component of our compensation structure is that portfolio managers are not compensated based on assets under management and, thus, are not incentivized to keep a strategy open to the detriment of current investors.

**5. Describe any current or pending regulatory, compliance or litigation issues and the expected business impact.**

Lord, Abnett & Co. LLC is not currently the subject of material regulatory, compliance or litigation issues.

**6. Describe your diversity, equity and inclusion efforts with regard to the firm and its employees.**

We maintain an intense focus on diversity, equity, and inclusion across all of our core talent processes. We have established the diversity, equity, and inclusion goals designed to promote accountability for diversity outcomes and identify levers for improvement. We hold ourselves accountable by injecting a diversity lens across all of our core talent processes, regularly examining people analytics, and actively listening to our people via annual engagement surveys, periodic pulse surveys, and focus groups. These efforts have resulted in increased representation of diverse talent across the firm, higher employee engagement among diverse talent, accelerated hiring of diverse talent, recognition by Pension & Investments Magazine as a Best Place to Work in Money Management, certification by Great Places to Work, and recognition by the Human Rights Campaign as a Best Place to Work for LGBTQ+ Equality.

Additionally, we conduct mandatory Respectful Workplace training designed to prevent harassment and discrimination, consistent with our core values and applicable law. This training addresses standards of behavior under our culture as well as prohibited conduct such as harassment, discrimination, and retaliation under state and federal law. To promote leadership accountability for diversity, equity, and inclusion, dedicated training for leaders also addresses the special role they play in preventing and ensuring appropriate handling of incidents of harassment and discrimination. In addition, we conduct "Breaking Bias" training for leaders focused on human rights and social structures that drive inequality, and how to model inclusive leadership behaviors. We also conduct LGBTQ+ ally training in partnership with PFLAG.



We have established business resource groups designed to foster community, sense of belonging, and environment that empowers people of all backgrounds to bring their whole selves to work. These groups are employee-led, with active executive sponsorship.

To ensure we share our career opportunities as broadly as possible, we actively market our opportunities across a diverse array of platforms, including targeted career sites for students and alumni from all-women's colleges. We have a dedicated Talent Acquisition team with extensive asset management recruiting experience across disciplines. As needed, we deploy search firms to further supplement our internal resources.

Our people are empowered to make arrangements and adjust schedules to suit both their responsibilities at home and at work. This could include using collaboration tools and technology to work flexibility, leveraging benefits like homework connection to identify tutors or support at times of need as well as using our physical space with intention. We have seen many employees change the nature of commute and work hours or, depending on school events, opportunistically use days to be present for their children or children's needs. Even before the pandemic we promoted and supported flexibility, but with newer technologies explored during the pandemic this has become even more seamless in our principles-led, performance-oriented, purpose-driven culture. In addition, we offer paid parental leave to support the ability of new parents to care for and bond with their children.

### Portfolio Management Team

#### 1. Have there been any changes in the portfolio management team in the past year?

Yes, effective April 1, 2021, Leah Traub, Ph.D., Partner, Portfolio Manager; Adam Castle, CFA, Managing Director, Portfolio Manager; and Harris Trifon, Managing Director, Portfolio Manager, became named portfolio managers for the Core Fixed Income strategy.

Please see the below for the additional changes to the Taxable Fixed Income investment team over the past year:

Additions:

Name	Title	Date Hired
Geoffrey King, CFA	Associate Trader, Global Rates, Global Fixed Income Trading	2Q22
Jessie Gong	Associate Portfolio Manager, CMBS, Taxable Fixed Income	1Q22
Colin Leong, CFA, ICAEW	Research Analyst, European Coverage: Consumer and TMT, Global Credit Research	1Q22



Name	Title	Date Hired
Zofia M. Koscielniak, MBA	Portfolio Manager, Agency, MBS, Taxable Fixed Income	1Q22
Aron Grufstedt	Portfolio Manager, Liquid & Securitized, Taxable Fixed Income	1Q22

Departures:

Name	Title	Date Hired	Departure Date
Hyun Lee	Portfolio Manager, Rates/MBS, Taxable Fixed Income	2Q01	1Q22

**2. Are there any expected changes to the team in the future (planned additions or departures)?**

We do envision periodic additions and departures of team members. There are currently no expected or planned departures to the taxable fixed income team. On the occasion that a portfolio manager should leave the firm, we would continue to manage portfolios utilizing the same disciplined investment style and an assessment of resources would be undertaken to determine the investment team's needs. We continually assess staffing resources to ensure that we adequately expand to meet our clients' needs.

**Process**

**1. Have there been significant changes in any of the areas below in the past year?**

- Identification of investment ideas
- Process for exploring and vetting ideas
- Portfolio trading practices including buy/sell rules
- Approach to portfolio monitoring and risk management

There have not been significant changes in the areas listed above during the past year.

**Philosophy**

**1. Describe recent changes in investment philosophy, if any.**

There have been no recent changes in the investment philosophy.



## Portfolio

1. If not included in your meeting presentation, provide portfolio holdings, sector exposure, geographic exposure and common characteristics (yield, duration, market cap, P/E, etc.).

Please refer to Attachment I for portfolio holdings and Attachment II for geographic exposure. All other information will be included in the meeting presentation.

2. List strategy AUM, net flows and accounts gained/lost for the past 5 years.

Please refer to the table below for the requested information on the Core Fixed Income strategy:

Year:	Total AUM (\$ millions)	Total Net Flows <sup>1</sup> (\$ millions)	Accounts Gained/Lost <sup>2</sup>
April 30, 2022	\$3,532.3	(\$62.1)	0/0
2021	\$3,908.2	\$274.1	3/1
2020	\$3,613.8	\$241.8	1/1
2019	\$2,955.8	\$215.4	0/0
2018	\$2,390.3	(\$1,767.9)	1/1
2017	\$4,268.9	(\$413.6)	3/2

<sup>1</sup>Flows exclude exchanges between funds.

<sup>2</sup>Reflects institutional account: institutional separate accounts, sub-advised, Private Funds, and Collective Investment Trusts ("CITs"). Due to omnibus reporting we often do not have transparency into individual account holders in pooled vehicles.

3. Describe investor concentration for the strategy and note the percent of AUM attributable to the top five investors.

Please refer to the tables below for the requested investor concentration and AUM breakdown attributable to the top five investors of the Core Fixed Income strategy as of April 30, 2022:

Investor Concentration	% of AUM
Mutual Fund	50.07%
Taft Hartley	35.93%
Hospital	7.41%
Commingled Investment Trust ("CIT")	4.21%
Insurance	1.03%
Public	0.97%
Corporate	0.40%

Top 5 Investors*	% of AUM
Institutional Investor 1 (Taft Hartley)	14.92%



Top 5 Investors*	% of AUM
Institutional Investor 2 (Taft Hartley)	4.43%
Institutional Investor 3 (Hospital)	3.92%
Institutional Investor 4 (Hospital)	3.48%
Institutional Investor 5 (Taft Hartley)	2.60%

*\*Reflects institutional separate accounts. Due to omnibus reporting we often do not have transparency into individual account holders in pooled vehicles.*

## Performance / Market Outlook

- 1. If not included in your meeting presentation, provide trailing returns as of the most recent quarter-end and calendar year returns for the past 10 years, both relative to benchmark.**

Please refer to the meeting presentation for requested performance.

- 2. Briefly discuss recent performance trends and identify environments in which the strategy is likely to be in or out of favor.**

Year-to-date we were modestly short duration versus the benchmark, which benefitted the portfolio's performance. In terms of yield curve positioning, we were underweight the short-end and overweight the long-end of the curve which benefitted returns as short term rates spiked aggressively relative to longer dated U.S. Treasuries.

Also contributing to performance was an allocation to bank loans. Despite posting slightly negative returns over the period, bank loans outperformed other fixed income sectors. The floating rate coupon helped mitigate price sensitivity to rising rates across the curve and the asset class benefitted from the carry advantage associated with these holdings. The backdrop for bank loans remains supportive amid continued improvement in credit metrics for loan issuers, companies' revenues increasing as leverage decreases, and low default rates. Furthermore, the asset class benefitted from technicals as investor demand was robust in anticipation of continued rising rates.

A modest allocation to collateralized loan obligations (CLO) also contributed to performance. Within AAA-rated CLO, we have found superior risk-adjusted carry versus other high quality securitized sectors. The allocation also has the added benefit of a floating rate coupon, which has aided the portfolio in mitigating rising rates across the curve.

In addition, an allocation to private label commercial mortgage-backed securities (CMBS) contributed to performance. Specifically, our investments in single-asset, single-borrower (SASB) deals and commercial real estate. Collateralized loan obligations (CRE CLO) also contributed to performance on a relative basis. Both



benefitted from floating rate coupons in a rising rate environment. Commercial real estate delinquencies continue to trend lower as the economy has reopened.

Detracting from performance over the quarter was security selection within investment grade corporate bonds and sovereign debt.

We strive to provide a product that can adapt to changing market conditions, but there are certain environments where our strategy may be more in favor than others. As a duration-neutral strategy, we do not seek to add value by interest rate anticipation. Instead, we follow a disciplined approach of model-informed sector rotation, research-driven security selection, and rigorous risk management in an effort to generate consistent risk-adjusted returns relative to the benchmark. Our strategy tends to be in favor during periods of low interest rate volatility. As we typically emphasize credit sectors, this strategy will tend to outperform during periods of narrowing credit spreads and improving economic growth. Although we strive to rotate into sectors that may perform well in an economic slowdown, the strategy may be challenged during periods of widening credit spreads, typically experienced during environments of economic contraction or recession. While there may be periods where this strategy is challenged, this process has led to consistent returns relative to the benchmark over full market cycles.

**3. Describe your market outlook and how strategy positioning is impacted by your views.**

Within corporates, we have been rotating out of low-quality pandemic winners, margin squeezed industries, and issues that exhibit notable event risk and targeting companies with strong pricing power given the uptick in inflation. We continue to favor the energy sector and non-energy commodity sectors based on fundamentals and potential tailwinds from persistent inflation. Also, as concessions in the primary market have risen, we've selectively bought larger durable industrials that have materially underperformed. Banks, financials, and energy continue to be our largest overweights from an industry perspective.

As high grade bank loans have outperformed fixed rate corporates over the past year, we're looking for more opportunities to rotate back into bonds that offer better convexity. We will look to add convexity as we believe rate volatility may continue to remain elevated amid Fed rate hikes, inflationary pressures, and geopolitical risks.

**4. Could you please include a slide in your presentation that shows the MWRA's account history, initial contribution, cumulative subsequent contributions, cumulative subsequent distributions, gain/loss and current value.**

Please refer to the meeting presentation for the account history, contributions, distributions, and current value.





# Massachusetts Water Resources Authority Employee Retirement System

For the Quarter Ended April 30, 2022

The information contained herein is being provided at your request and is intended solely for your review of the account and may not be used for any other purposes.



LORD ABBETT®



# Relationship Overview





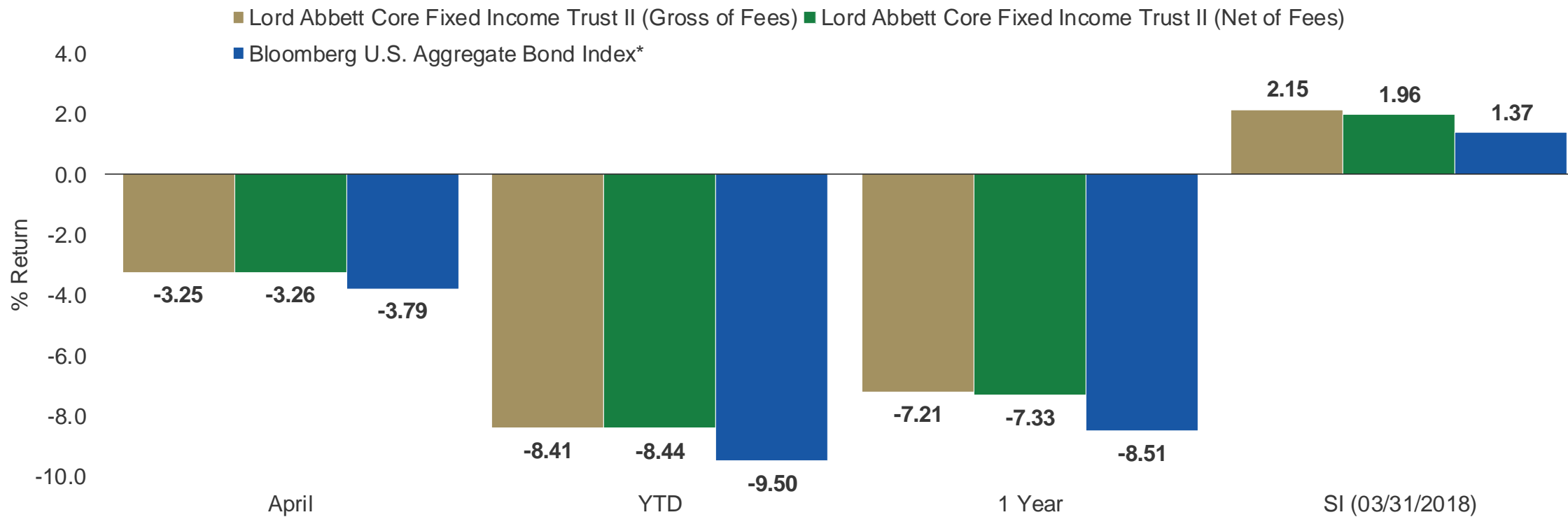
# Investment Summary

<b>Massachusetts Water Resources Authority Employee Retirement System</b>	
Investment Strategy	Core Fixed Income
Initial Funding April 2, 2018	\$10,148,571
Contributions	8/18: \$2,000,000 6/19: \$3,500,000 11/19: \$6,000,000 7/20: \$2,000,000 11/20: \$3,000,000 9/21: \$7,000,000 10/21: \$5,000,000
Withdrawals	3/20: <b>(\$3,000,000)</b>
Market Value April 30, 2022	\$35,005,421
Appreciation/Depreciation	<b>(\$643,150)</b>



# Average Annual Rates of Return

(AS OF 04/30/2022)



**Past performance is not a reliable indicator or guarantee of future results.** Returns for periods of less than one year are not annualized. Net of fees performance reflects the deduction of the highest applicable fee that would be charged based on the fee schedule for this Trust without the benefit of breakpoints.\* Source: Bloomberg Index Services Limited.



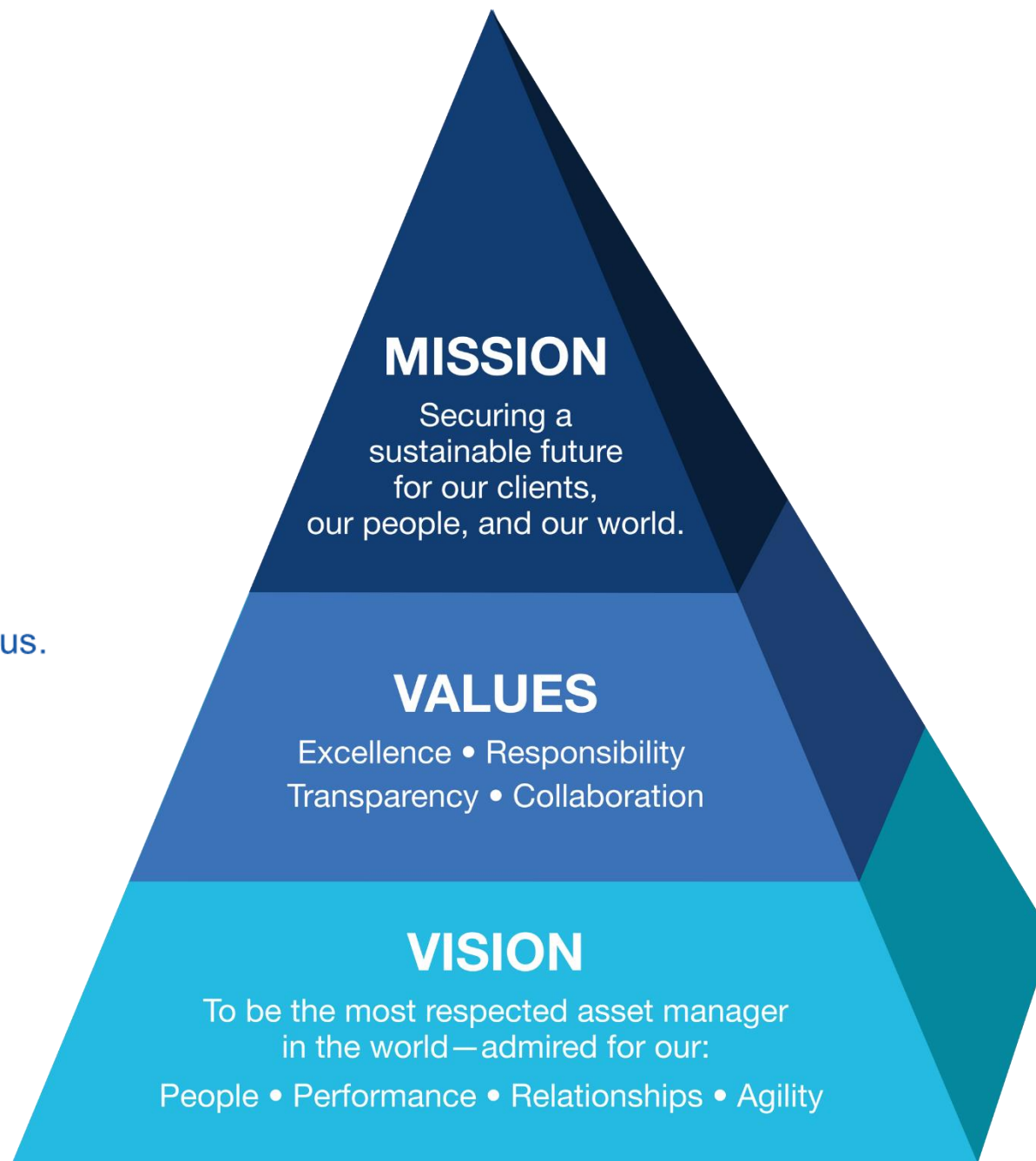
# Firm Overview





# The Strengths of Our Culture

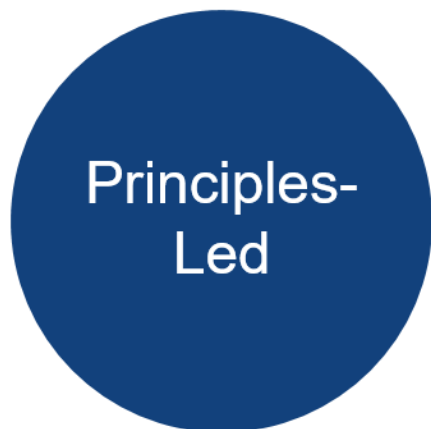
What inspires, guides, and shapes us.





# Culture

We have created a principles-led, performance-oriented, purpose-driven organization.



## **Cultivate a principles-based environment of peak performance**

- Live our values of Excellence, Responsibility, Transparency, and Collaboration
- Deliver quality and excellence to our clients
- Achieve our vision of being the most respected asset manager in the world
- Dream big, work hard, have fun



## **Empower our people to reach their full potential**

- Promote a uniform performance framework
- Cultivate a continuous improvement mindset
- Engage our people in developing the competencies necessary for success



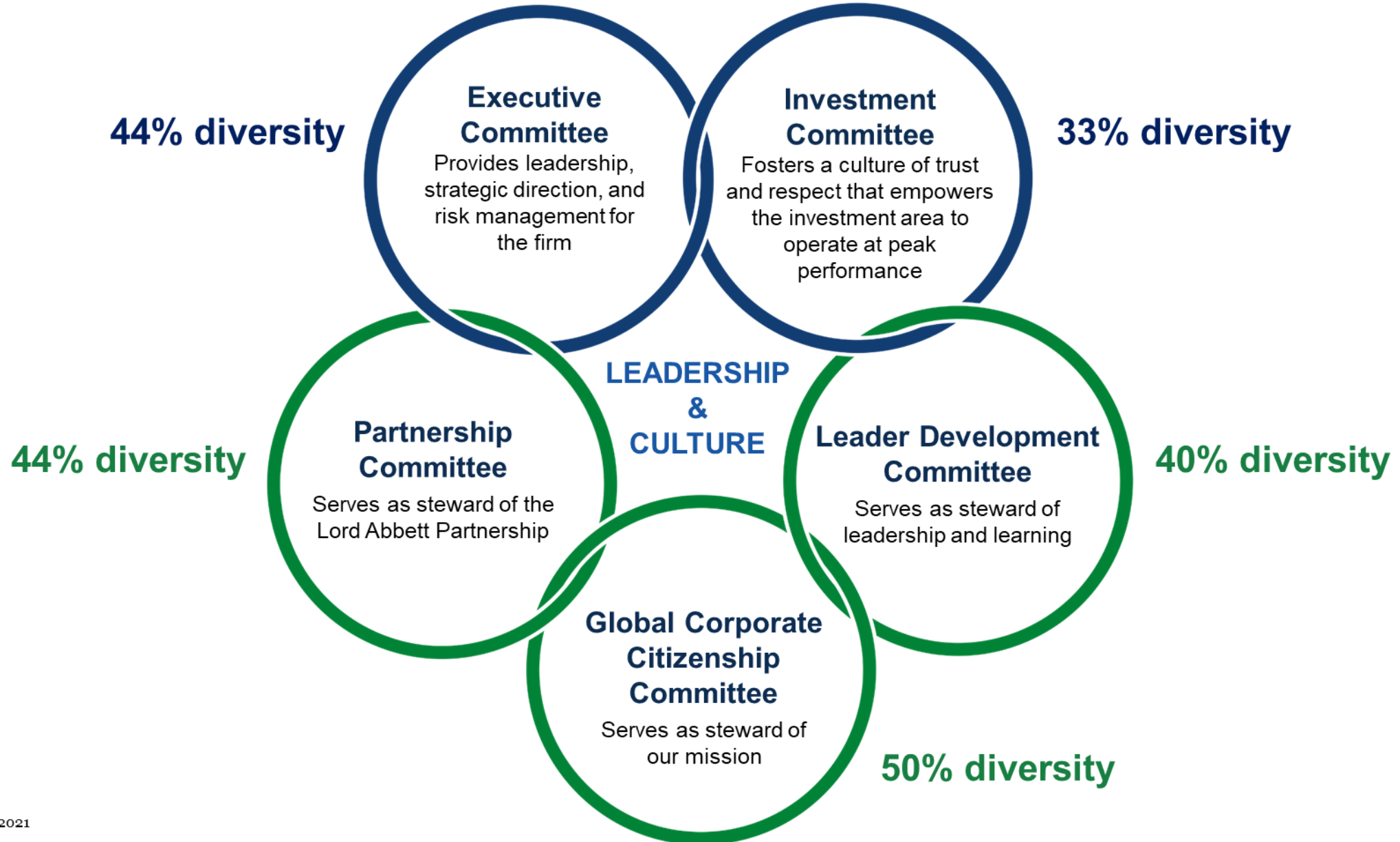
## **Practice authentic global corporate citizenship**

- Elevate our higher purpose in everything we do
- Draw upon the valued strengths of every individual to deliver on our mission
- Drive industry-leading change across climate, equity and well-being



# Leadership and Governance

39% of the leaders who serve on our five committees are women and people of color







# 2021 Lord Abbett Global People Survey

During the pandemic, our levels of engagement have increased (vs. 2020) due to our intentional cultural shift.

89%

**Our engagement scores continued to rise across the firm (89% in 2021 vs. 81% in 2020):**

We believe that engagement drives enhanced connection with our clients, enables us to deliver on our strategy, and empowers our people to achieve peak performance.

Shared Vision

**We aspire to be the most respected asset manager in the world:**

Our shared vision is supported by our Principles-Led, Performance-Oriented and Purpose-Driven culture—and our people have responded to our intentional cultural shift.

New Normal

**An inclusive and blended working environment will be critical to maintaining engagement:**

Our engagement levels allow us to deliver new ways of working, continue building trust, and fuel innovation for our clients, people, and world.

## Current Workplace Recognition





# Lord Abbett by the Numbers

As of March 31, 2022

## Independent privately held firm

Assets under management:  
approximately

**\$236**  
billion\*

**170**

investment professionals  
with an average of **18 years**  
of industry experience

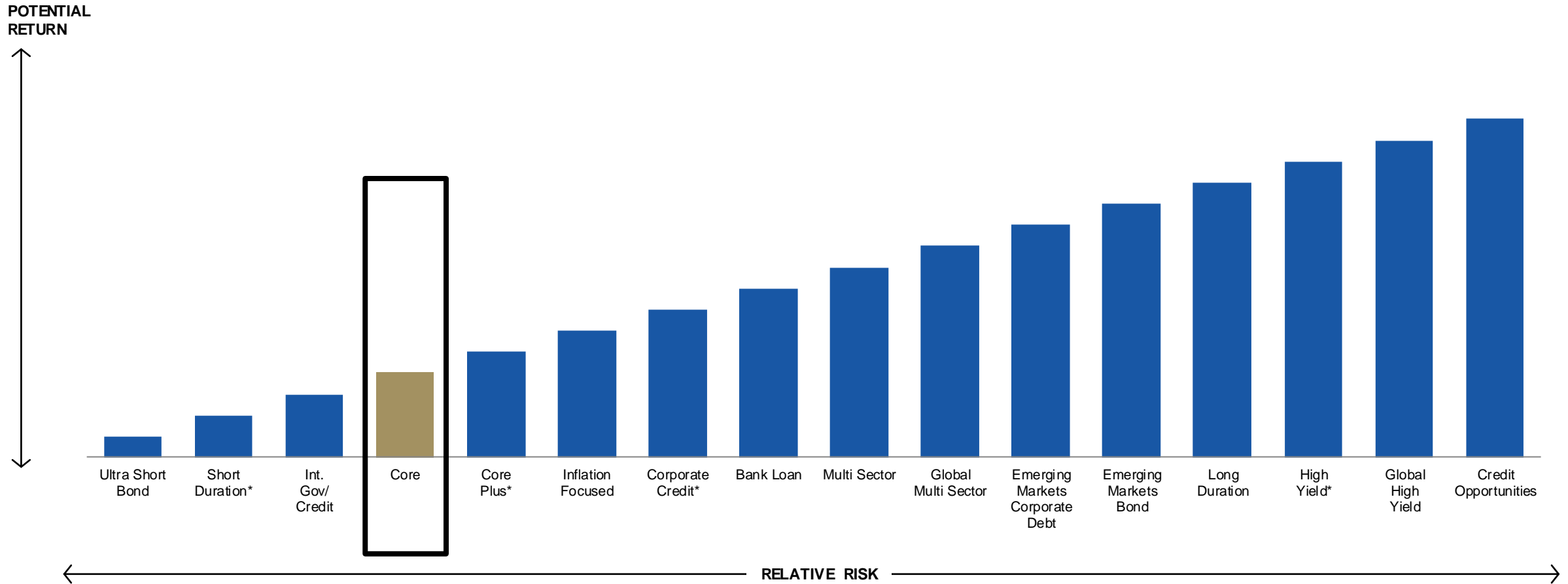
\*Includes approximately \$1.1 billion for which Lord Abbett provides investment models to managed account sponsors.



# Fixed Income Line-Up

## Lord Abbett Core Fixed Income

Seeks to deliver high risk-adjusted returns relative to the Bloomberg U.S. Aggregate Bond Index



The chart represents Lord Abbett's assessment of the relative level of investment risk and potential investment return among the Lord Abbett taxable fixed-income strategies listed in the chart. The information is intended to graphically depict Lord Abbett's overall assessment of relative risk and potential return. It is not intended to depict any specific risk measurement, such as standard deviation, for any particular product, nor is it to depict the performance of any particular product. In addition, the graphic above does not depict different types of investment risk and does not reflect that a portion of a portfolio may be invested in securities that have higher investment risk relative to the overall portfolio. For example, a portfolio may be depicted as having relatively lower risk because it had less exposure to interest rate changes; however, the portfolio may hold higher yielding securities that have relatively higher credit risk.  
\*Capability offered in multiple strategies.



# Taxable Fixed Income Assets Under Management

## ASSETS UNDER MANAGEMENT BY STRATEGY AND ASSET CLASS (AS OF 03/31/2022)

Strategy	Assets
<b>Total Taxable Fixed Income</b>	<b>\$165,516,547,074</b>
Money Market	\$719,888,688
Ultra Short	\$17,115,007,744
Short Duration Credit	\$73,110,302,612
Intermediate Government/Credit	\$487,207,083
Government	\$225,455,413
Core	\$3,659,178,656
Core Plus	\$8,985,487,094
Inflation Focused	\$4,055,142,231
Corporate Credit	\$2,952,823,073
Bank Loan	\$8,878,862,423
Multi Sector	\$28,797,357,485
Global Multi Sector	\$82,629,582
Climate Focused	\$60,090,288
Emerging Markets Corporate	\$95,915,520
Emerging Markets Bond	\$181,305,401
High Yield Core	\$4,915,477,977
High Yield Opportunistic	\$10,146,060,093
Global High Yield	\$39,253,430
Special Situations	\$59,817,120
Credit Opportunities	\$949,285,161

Asset Class	Assets
<b>Total Corporate Credit</b>	<b>\$99,973,926,570</b>
Investment Grade Corporate	\$46,789,898,584
U.S. IG Corporate	\$28,490,091,423
Non-U.S IG Corporate	\$18,299,807,161
High Yield Corporate	\$25,926,040,902
U.S. HY Corporate	\$21,372,304,185
Non-U.S. HY Corporate	\$4,553,736,717
Short Duration High Yield	\$8,914,759,650
U.S. HY Corporate	\$7,012,101,982
Non-U.S. HY Corporate	\$1,902,657,668
Bank Loans	\$18,343,227,434
<b>Total Securitized Products</b>	<b>\$47,667,221,038</b>
Commercial MBS	\$15,552,240,384
Asset Backed Securities	\$16,868,071,024
CLO	\$8,752,003,316
Residential MBS	\$6,494,906,314
U.S. Government Related	\$11,211,755,988
Emerging Markets Debt	\$7,371,997,360
EM Corporate	\$6,198,459,305
EM Sovereign US\$	\$1,125,387,036
EM Sovereign Non-US\$	\$48,151,019

Assets under management data is as of 03/31/2022 unless noted and includes approximately \$599.1 million for which Lord Abbett provides investment models to managed account sponsors. In addition to the strategies listed above, the fixed income asset totals include the fixed income portion of the multi-asset class strategies managed by Lord Abbett. Strategy and Asset Class total assets may differ since only key asset classes are displayed.

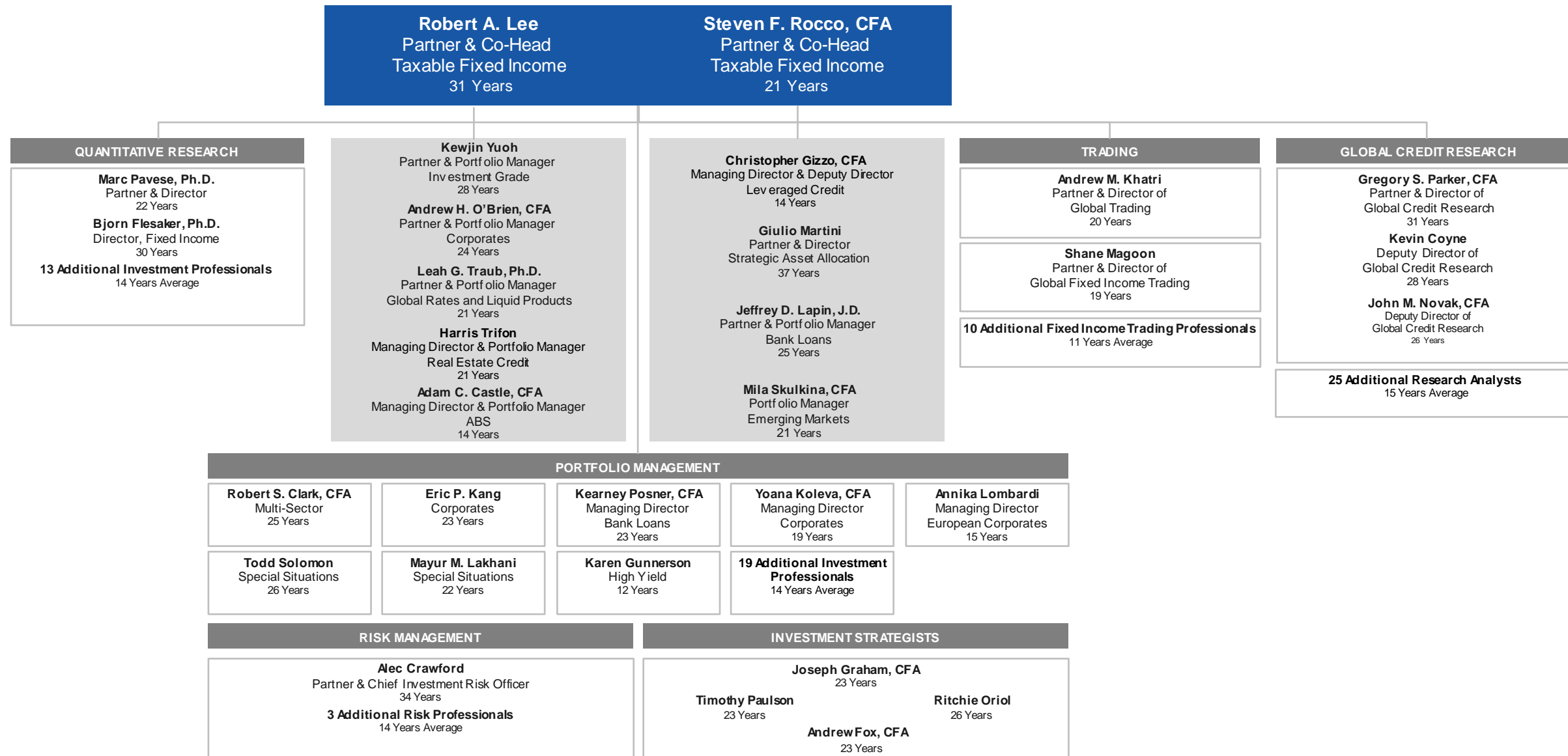


# Strategy Overview





# Collaborative Team With Deep Sector Expertise



78 Investment Professionals With an Average of 17 Years Industry Experience



# Investment Process: Key Decisions



## KEY PEOPLE

- Lead Portfolio Managers

- Portfolio Managers
- Sector Leaders

- Portfolio Managers
- Credit Analysts
- Sector Specialists

## PRIMARY INPUTS

- Economic and Market Environment
- Insights from Firm-wide Experts
- Spread Schedule

- Fundamental Research View
- Sector Allocation Model

- In-house Credit Research
- Credit Valuation Models



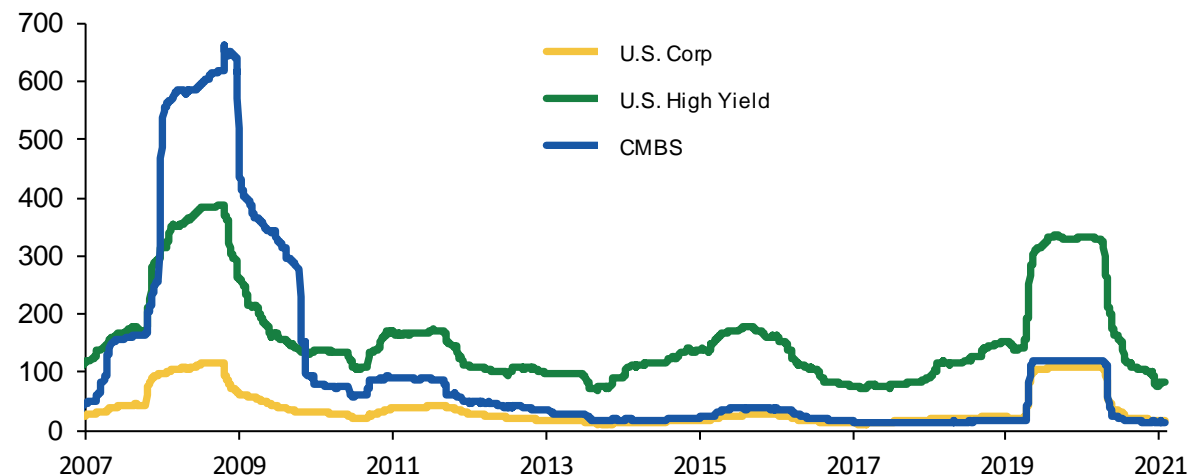
# Overall Portfolio Risk Allocation

## Investment Process

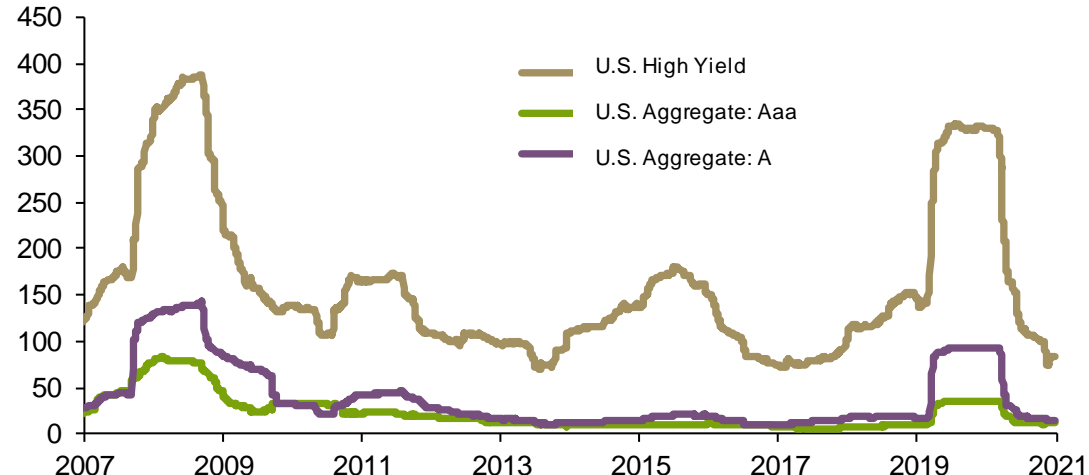
- **Effective Duration** is commonly used to estimate the price impact of rate movements
- **Spread Duration** estimates the price impact of a change in a bond's credit spread
- **Credit Adjusted Spread Duration** estimates a bond's responses to "generic" spread changes

### Major Historical drivers of spread volatility: Sector and Quality

Spread Volatility by Sector



Spread Volatility by Quality



Major drivers of spread volatility have been independent and have typically had stable ordering

Data as of 11/30/2021. The above data is based off the Bloomberg U.S. Corporate Index, Bloomberg U.S. High Yield, Bloomberg CMBS Index, Bloomberg U.S. Aggregate Aaa Index, Bloomberg U.S. Aggregate A Index respectively. For illustrative purposes only and is not meant to represent the characteristics of an actual portfolio managed by Lord Abbett. Does not constitute a recommendation nor investment advice, and should not be used as the basis for any investment decision. Source: Lord Abbett and Bloomberg Index Services Limited.





# Overall Portfolio Risk Allocation

## Investment Process

### Credit Adjusted Spread Duration



- Adjusts for relative spread volatility of sectors and ratings
- Allows for comparisons across sectors and asset classes

### Spread Volatility Betas

Sector Beta		Quality Beta	
MBS	0.39	AAA	0.40
Health	0.61	AA	0.56
Corp	1.00	A-	1.00
Lodging	1.26	BBB	1.30
CMBS	1.90	BB	1.89


### Example 1: BBB Rated CMBS 2-Year Spread Duration

Spread Duration	x	CMBS	x	BBB	=	CASD
2.00		1.90		1.30		4.94

Generic "Spreads"  1.00%  
 This issue  4.94%

### Example 2: A- Rated Lodging Corporate 2-Year Spread Duration

Spread Duration	x	Lodging	x	A-	=	CASD
2.00		1.26		1.00		2.52

Generic "Spreads"  1.00%  
 This issue  2.52%

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# Sector Allocation: Model-Informed

## SECTOR ALLOCATION MODEL (SAMPLE OUTPUT)

Sector	Current Exposure	Recommended Exposure	Suggested Action
<b>MBS: Agency Fixed Rate (R)</b>	-0.22	0.02	0.24
<b>CMBS: Agency (R)</b>	0.01	0.05	0.05
<b>U.S. Agencies (R)</b>	-0.02	-0.02	0.00
<b>Supranational (R)</b>	-0.03	0.09	0.11
<b>MBS: Covered (R)</b>	0.06	-0.01	-0.07
<b>Developed HG Corporate (C)</b>	-0.11	-0.36	-0.26
<b>Developed HY Corporate (C)</b>	0.44	0.70	0.26
<b>EM Corporate (C)</b>	-0.07	-0.46	-0.39
<b>EM Non Corporate (C)</b>	-0.13	-0.33	-0.20
<b>Developed Gov. (C)</b>	-0.03	-0.04	-0.01
<b>U.S. Municipals (C)</b>	0.03	0.13	0.10
<b>CMBS: Non-Agency (C)</b>	0.12	0.30	0.18
<b>ABS (C)</b>	0.29	0.28	-0.01
<b>MBS: Non-Agency (C)</b>	0.03	0.03	0.00
<b>RATES (R) Total</b>	-0.20	0.13	0.33
<b>CREDIT (C) Total</b>	0.56	0.24	-0.33
<b>TOTAL</b>	<b>0.36</b>	<b>0.37</b>	<b>0.01</b>

Measured in relative Spread Duration Exposures (in years).

## Sector Spread Model

- Recommends allocation of risk exposure across sectors
- Provides context to inform portfolio manager decisions (not “Model-driven”)

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# Global Credit Research Team



**Gregory S. Parker, CFA**  
Partner & Director of Global Credit Research, 31 Years

**Ke v in Coyne**  
Deputy Director of Global Credit Research, 28 Years  
Gaming, Lodging & Leisure, Media

**John M. Nov ak, CFA**  
Deputy Director of Global Credit Research, 26 Years  
Industrials (Heavy Machinery, Transportation), Automotive & Truck

**Paul A. Langlois, CFA**  
Chemicals, Energy  
(Refiners, Storage, Pipelines)  
30 Years

**Sund ar Varadarajan**  
Telecommunication  
(Telecom, Broadcasting)  
28 Years

**Andrew Bernstein**  
Energy  
(E&P, services)  
26 Years

**Murali Ganti, CPA**  
Healthcare (Facilities, Distribution, Services)  
26 Years

**Alan Danzig, CFA**  
Financials (Insurance, REITs);  
24 Years

**Ryan Butkus**  
Financials  
(Banks, Asset Managers, Special)  
22 Years

**Brian A. Ilardo**  
Consumer (Products, Restaurants, Tobacco);  
Services (Educational, Office)  
22 Years

**Raymond Wu, CFA**  
Industrials (Aero & Defense, Machinery, Diversified)  
22 Years

**Matthew Albrecht**  
Metals and Mining; Coal  
18 Years

**Klim Fedoff, CFA**  
CEEMEA  
18 Years

**Colin Leong, CFA**  
European coverage: Consumer and TMT  
16 years

**Yi Ding Chen**  
Technology  
16 years

**Erchen Yan**  
Asia  
15 years

**Larry Liou, CFA**  
Utilities  
13 Years

**Emmi Palviainen, CFA**  
Europe coverage: Technology, Media,  
Telecommunication, Europe  
12 Years

**Alexandre Marrucho**  
Latin America  
11 Years

**Vicky Wang, CFA**  
Technology  
11 Years

**Brittany Chen**  
Healthcare  
9 years

**Elan Ariel, CFA**  
Homebuilding, Commercial & Consumer Services  
8 Years

**Vanessa Deng**  
Consumer (Retail, Apparel, Packaged Food)  
6 Years

**Anna Di, CFA**  
Technology  
8 Years

**Imman Akram**  
Materials  
7 Years

**Shiv Adhlakha**  
Energy  
6 Years

**John Dong**  
Utilities  
6 Years

**Aaron Grand**  
Financials  
4 Years

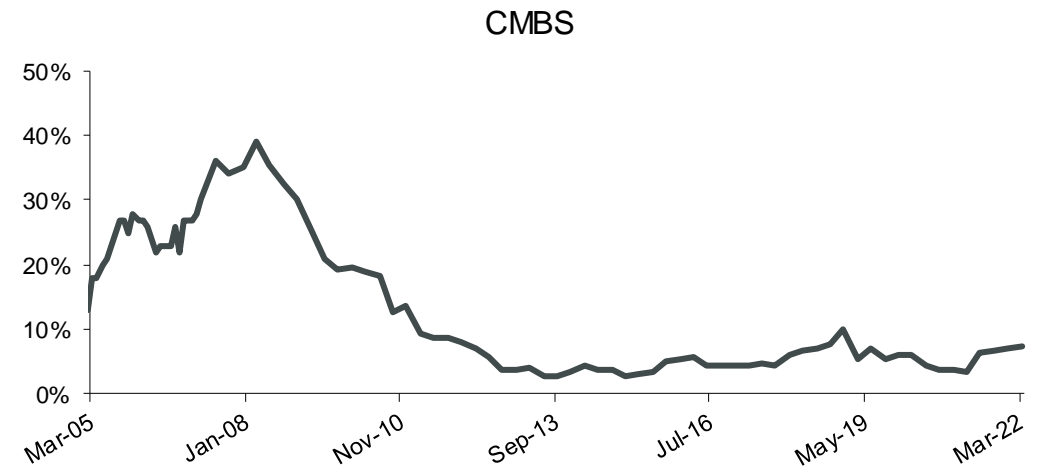
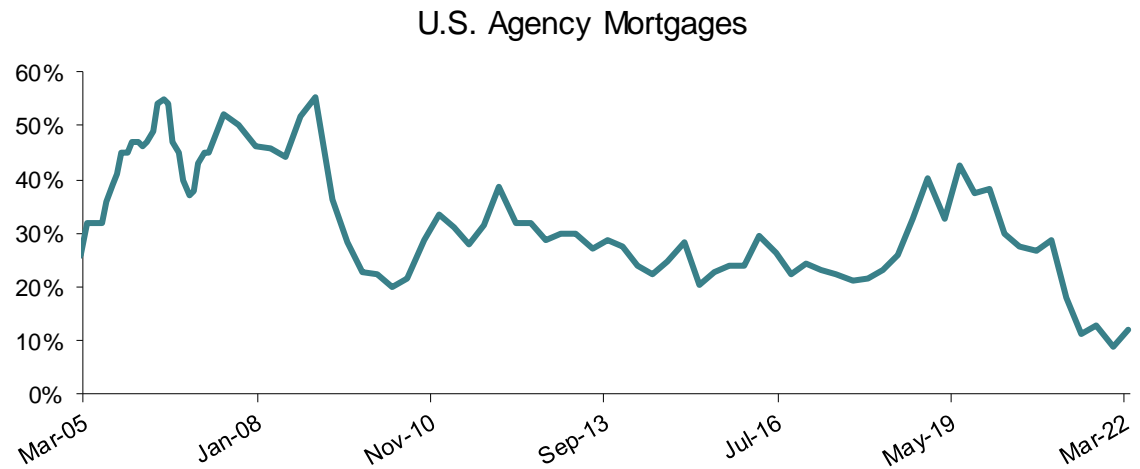
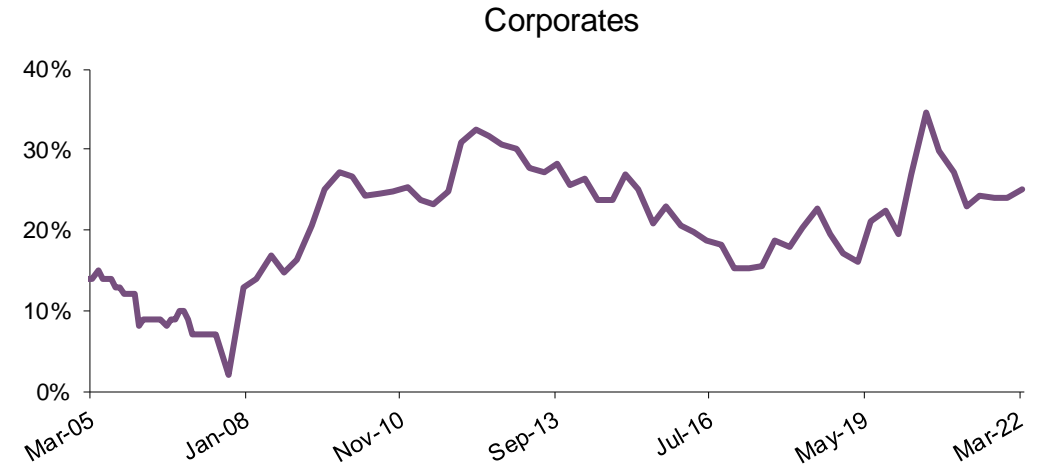
- Narrow breadth promotes deep research focus
- Cumulative knowledge drives proactive idea generation
- Centralized structure allows for timely identification of sector trends and investment opportunities

28 Investment Professionals With an Average of 17 Years Industry Experience

# Sector Rotation



(AS OF 03/31/2022)

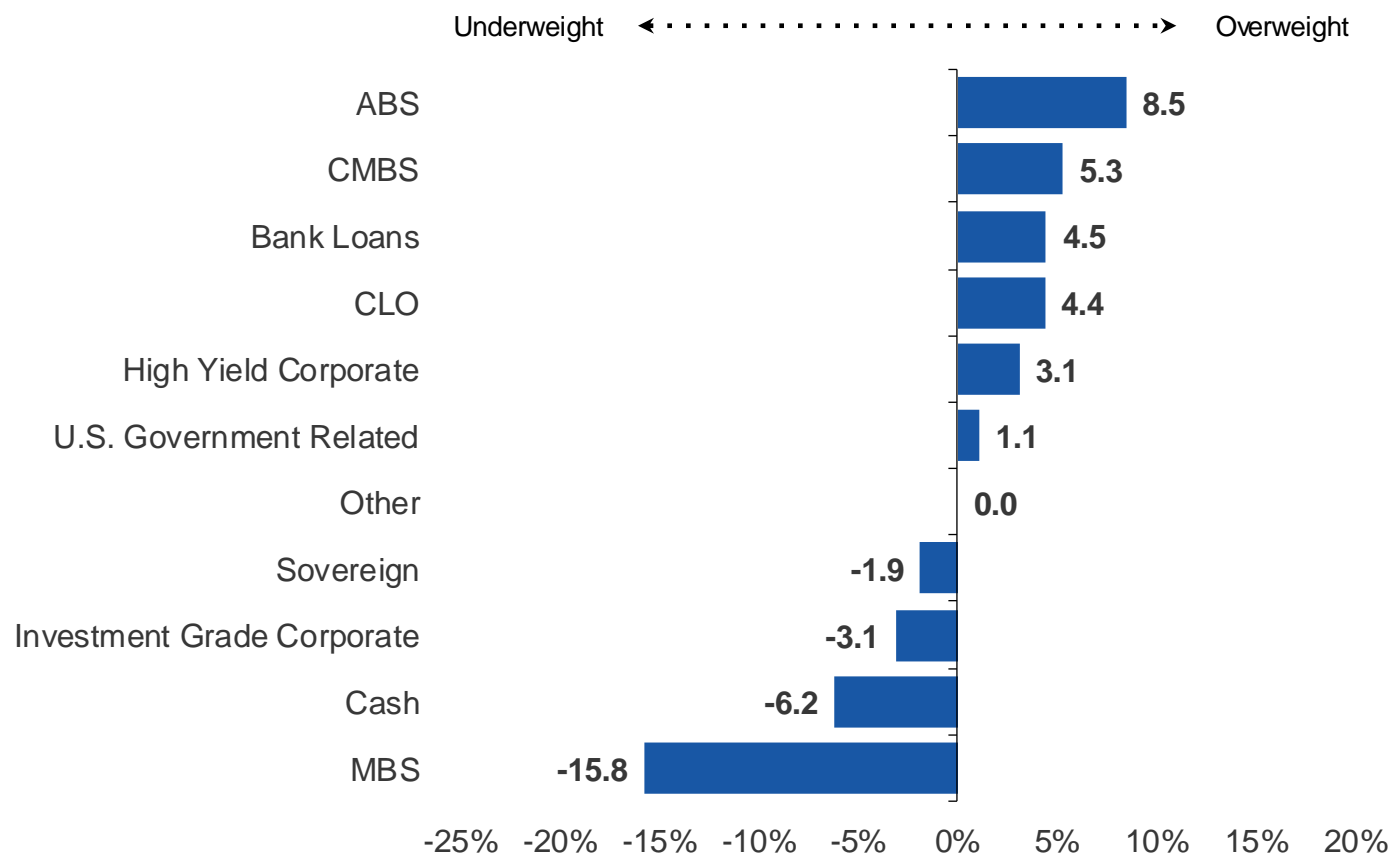


Source: Lord Abbett. The information in the chart is based on historical data of the Core Fixed Income strategy's representative portfolio as of the date indicated. The representative portfolio is a actively managed and portfolio characteristics may change over time.



# Current Active Sector Weights

(AS OF 03/31/2022)



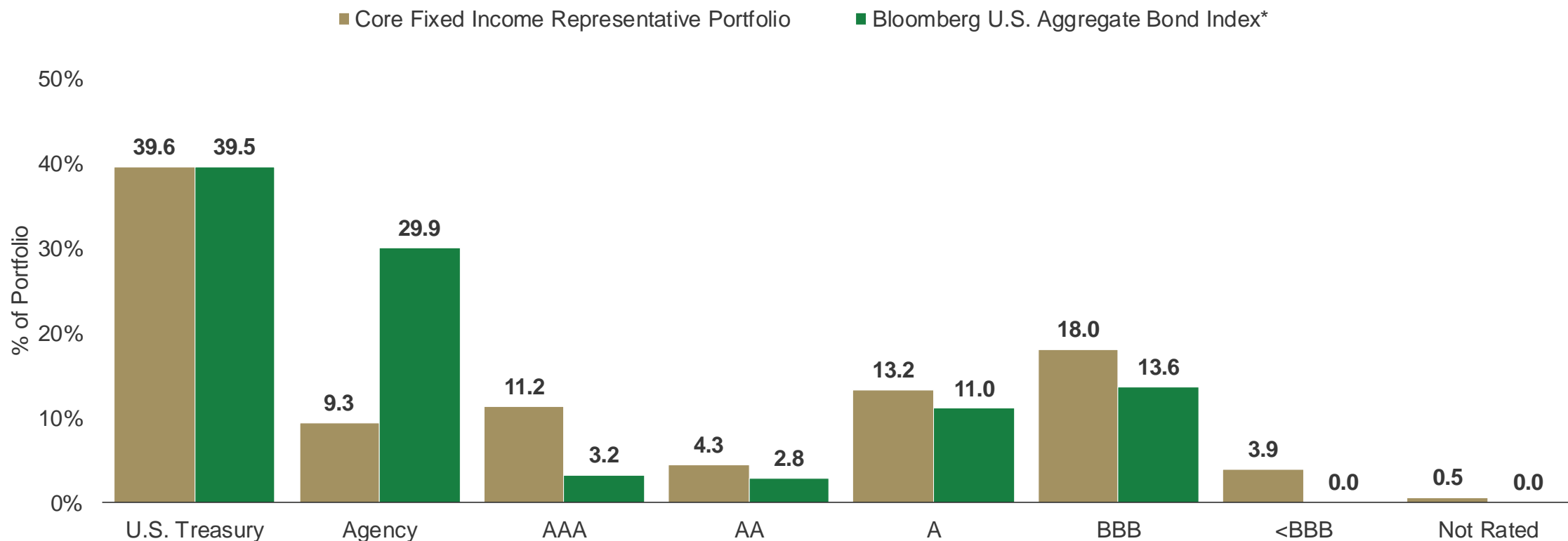
Core Fixed Income Representative Portfolio	Bloomberg U.S. Aggregate Bond Index*
8.8%	0.3%
7.3%	2.0%
4.5%	0.0%
4.4%	0.0%
3.1%	0.0%
42.0%	40.9%
0.7%	0.7%
1.5%	3.4%
22.0%	25.1%
-6.2%	0.0%
11.9%	27.7%

\*"Other" may include municipal bonds and non-index holdings. Allocations are reported as of the date a security transaction is initiated; however, certain transactions may not settle until several days later. Accordingly, cash may appear as a negative allocation as a result of forward settling instruments, such as currency forwards, certain mortgage-backed securities, and treasury futures. \*Source: Bloomberg Index Services Limited.



# Credit Quality Distribution

(AS OF 03/31/2022)

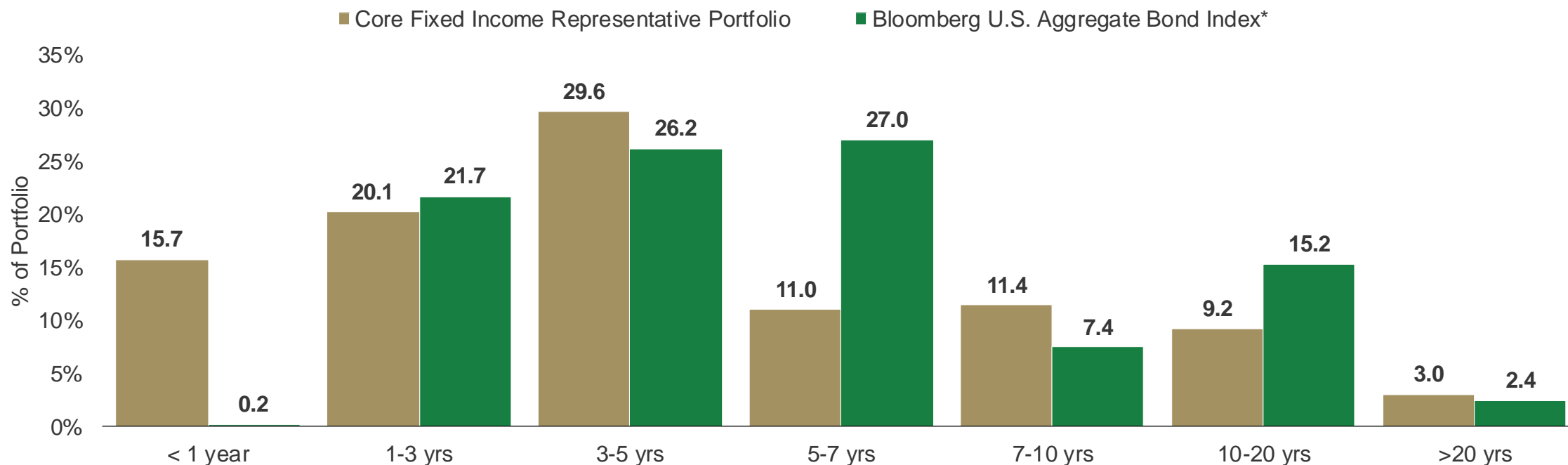


The portfolio is actively managed and credit quality distribution may change significantly over time. Totals may not equal 100% due to rounding. Ratings (other than U.S. Treasury securities or securities issued or backed by U.S. agencies) provided by Standard and Poor's, Moody's, and Fitch. For certain securities that are not rated by any of these three agencies, credit ratings from other agencies may be used. Where the rating agencies rate a security differently, Lord Abbett uses the median, but if there are only two ratings, the lower rating is used. A portion of the portfolio's securities may not be rated. Breakdown is not an S&P credit rating or an opinion of S&P as to the creditworthiness of such portfolio.\*Source: Bloomberg Index Services Limited.



# Duration Distribution

(AS OF 03/31/2022)



	Core Fixed Income Representative Portfolio	Bloomberg U.S. Aggregate Bond Index*
Effective Duration	6.3 Years	6.6 Years
Average Life	7.4 Years	8.7 Years



# Portfolio Characteristics

(AS OF 03/31/2022)

	Core Fixed Income Representative Portfolio	Bloomberg U.S. Aggregate Bond Index*
Average Coupon	2.5%	2.4%
Average Life	7.4 Years	8.7 Years
Average Price	\$98.45	\$97.82
Average Yield to Maturity	3.2%	2.9%
Average Effective Duration	6.3 Years	6.6 Years
Number of Issues	321	12,538

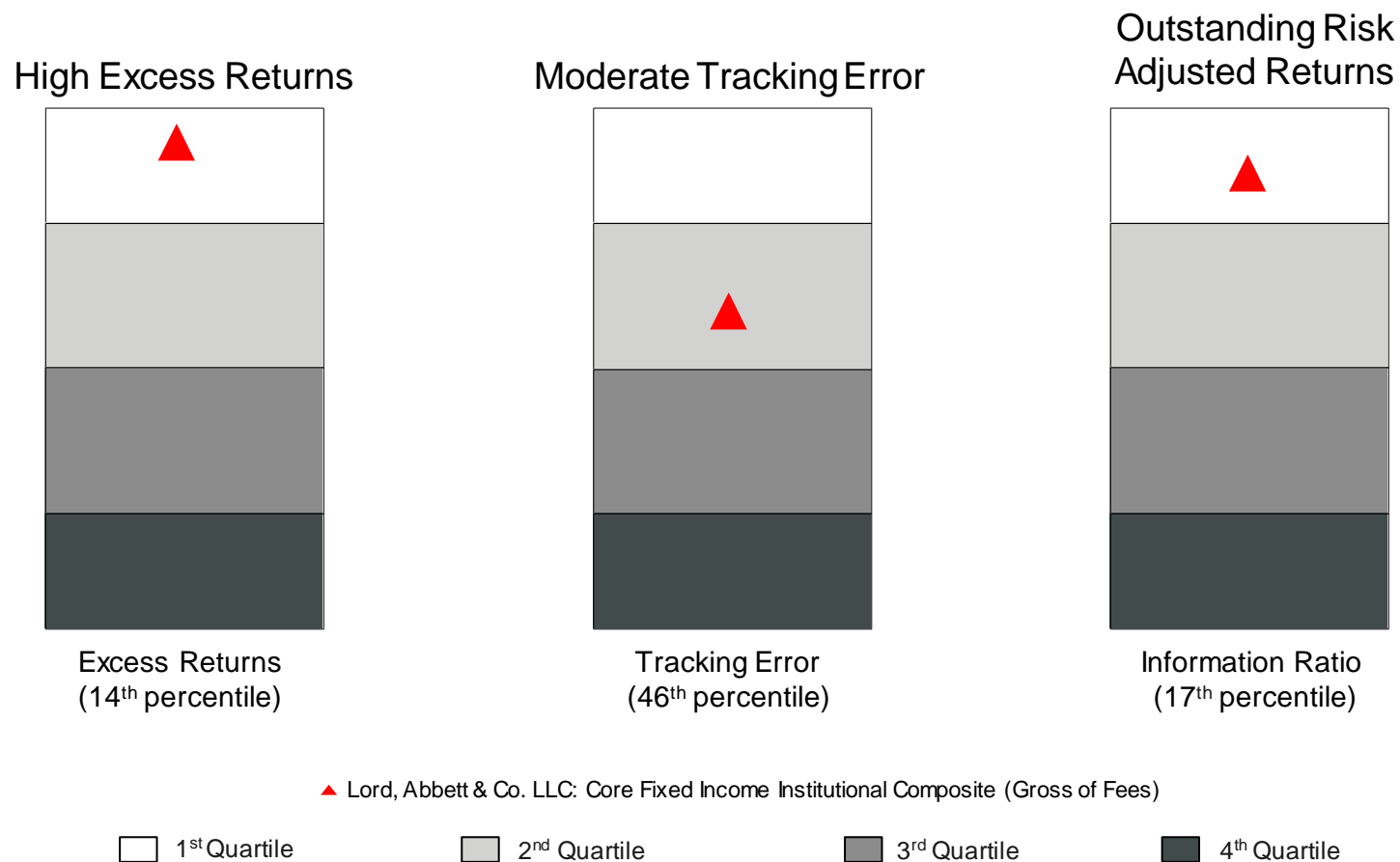
\*Source: Bloomberg Index Services Limited





# Strong Long-Term Risk Adjusted Returns

SINCE INCEPTION  
(01/01/1998 – 03/31/2022)

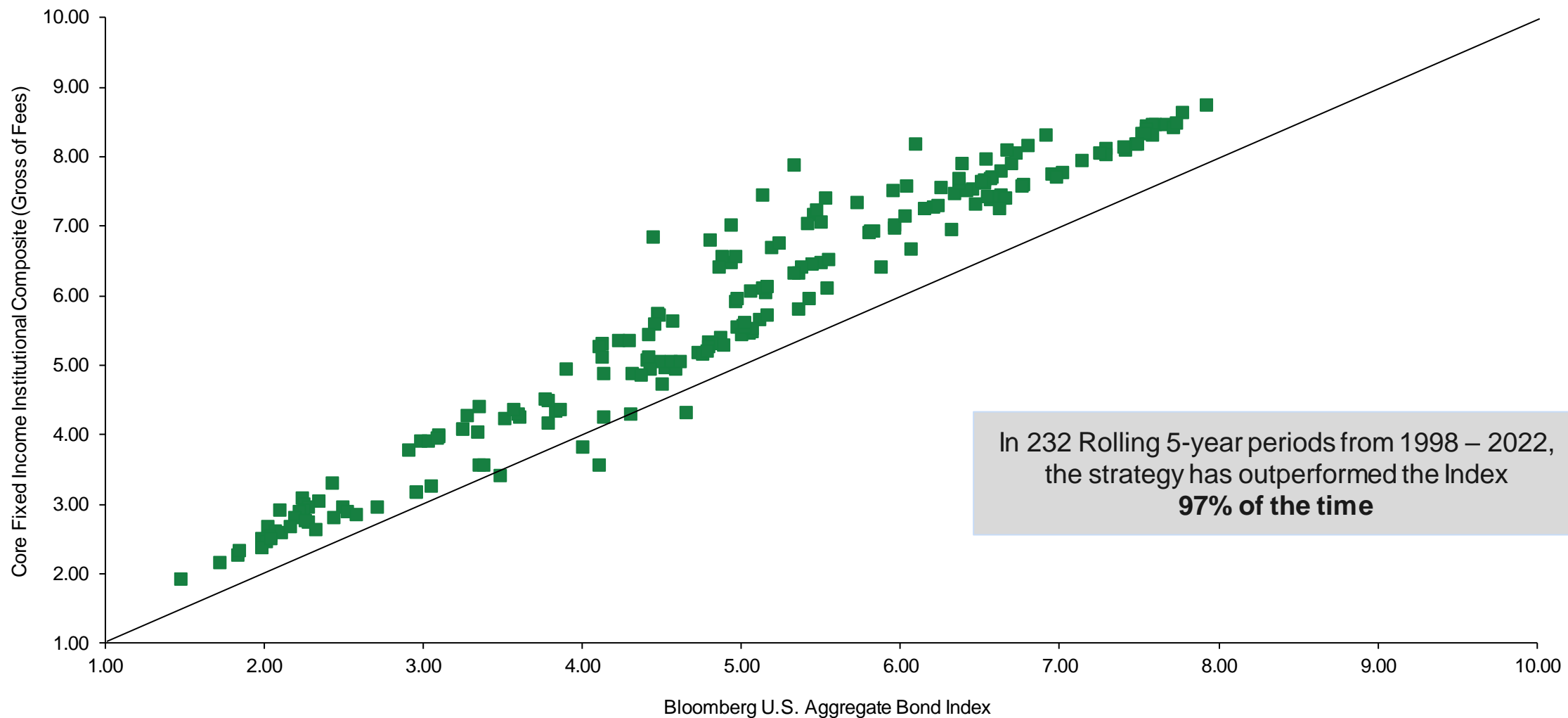


Source: eVestment Alliance. Inception of the Core Fixed Income Institutional Composite is 01/01/1998. **Past Performance is not a reliable indicator or guarantee of future results.** eVestment rankings are based on gross performance. Please refer to the GIPS Report in the Appendix for additional performance information, including the effect of fees on performance. (The peer group noted is defined by eVestment Alliance as “eA US Core Fixed Income Universe” and is comprised of 109 separate account and mutual fund portfolios, whose gross performance attributes for the time period 01/01/1998 through 03/31/2022 are represented above.)



# Consistent Returns vs. Index

EXCESS RETURNS VS. BLOOMBERG INDEX SERVICES LIMITED U.S. AGGREGATE INDEX  
(ROLLING 5 YEAR RETURNS: 01/01/1998 – 03/31/2022)

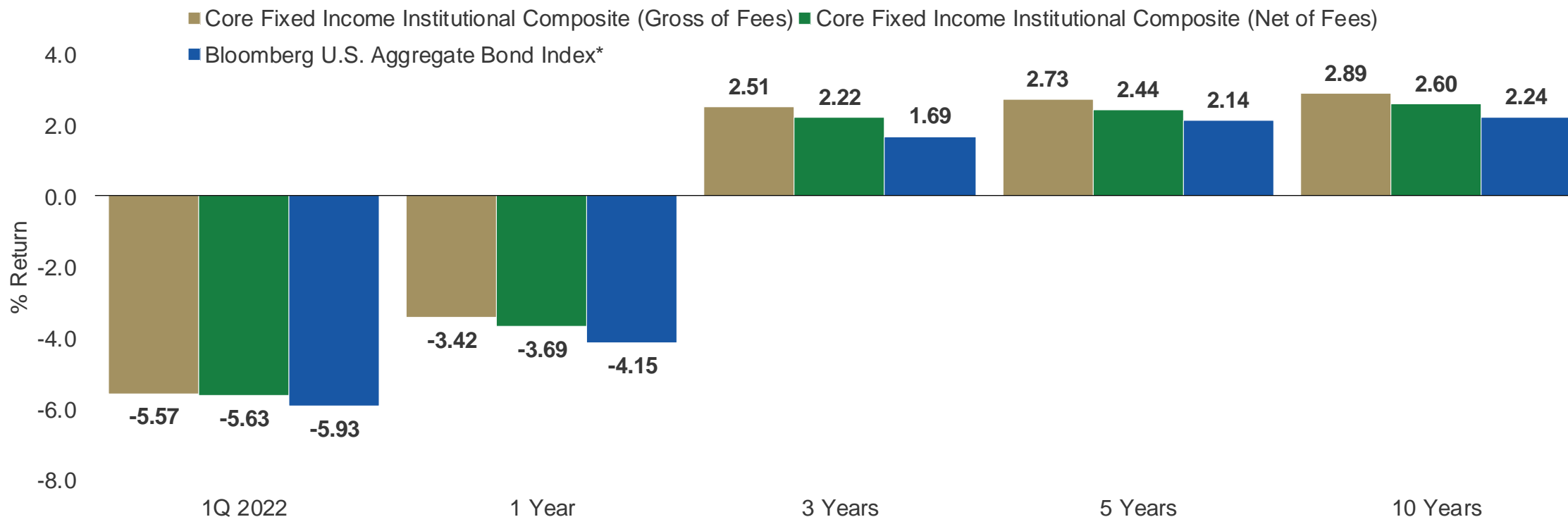


**Past performance is not a reliable indicator or guarantee of future results.** The gross performance shown does not reflect the deduction of investment advisory fees, but does reflect the deduction of any applicable transaction costs. Please refer to the GIPS Report in the Appendix for additional performance information, including the effect of fees on performance.. \*Source: Bloomberg Index Services Limited.



# Average Annual Rates of Return

(AS OF 03/31/2022)



**Past performance is not a reliable indicator or guarantee of future results.** Returns for periods of less than one year are not annualized. The gross performance shown does not reflect the deduction of investment advisory fees, but does reflect the deduction of any applicable transaction costs. Net of fees performance reflects the deduction of the highest applicable management fee (“Model Net Fee”) that would be charged based on the fee schedule appropriate to you for this mandate without the benefit of breakpoints. Please be advised that the composite may include other investment products that are subject to management fees that are inapplicable to you but are in excess of the Model Net Fee. Therefore, the actual performance of all the portfolios in the composite on a net-of-fees basis will be different, and may be lower, than the Model Net Fee performance. However, such Model Net Fee performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to you to the gross performance of the composite. \*Source: Bloomberg Index Services Limited.



# Calendar Year Returns

	Core Fixed Income Institutional Composite (Gross of Fees)	Core Fixed Income Institutional Composite (Net of Fees)	Bloomberg U.S. Aggregate Bond Index*
2021	-0.34%	-0.62%	-1.54%
2020	8.57%	8.27%	7.51%
2019	8.53%	8.23%	8.72%
2018	0.13%	-0.15%	0.01%
2017	4.10%	3.81%	3.54%
2016	3.32%	3.03%	2.65%
2015	0.15%	-0.12%	0.55%
2014	6.99%	6.68%	5.97%
2013	-1.35%	-1.64%	-2.02%
2012	6.66%	6.35%	4.22%

**Past performance is not a reliable indicator or guarantee of future results.** The gross performance shown does not reflect the deduction of investment advisory fees, but does reflect the deduction of transaction costs. Net of fees performance reflects the deduction of the highest applicable management fee ("Model Net Fee") that would be charged based on the fee schedule appropriate to a typical institutional separate account investor for this mandate without the benefit of breakpoints. Please be advised that the composite may include other investment products that are subject to management fees that are inapplicable to a typical institutional separate account investor but are in excess of the Model Net Fee. Therefore, the actual performance of all the portfolios in the composite on a net-of-fees basis will be different, and may be lower, than the Model Net Fee performance. However, such Model Net Fee performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to a typical institutional separate account investor to the gross performance of the composite. Returns for periods of less than one year are not annualized.. \*Source: Bloomberg Index Services Limited.



# Appendix





# Team Member Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Robert A. Lee*</b>	Co-Head	31	25	ARM Capital Advisors; Kidder Peabody Asset Management; First Boston Corporation	BS, University of Pennsylvania
<b>Steven F. Rocco, CFA*</b>	Co-Head	21	18	FactSet	BA, Cornell University
<b>Kew jin Yuoh*</b>	Portfolio Manager	28	12	AllianceBernstein, LLP; Credit Suisse Asset Management; Sanford C. Bernstein & Co., Inc.	BS, Cornell University
<b>Andrew H. O'Brien, CFA*</b>	Portfolio Manager	24	24	N/A	BA, Princeton University
<b>Jeffrey D. Lapin, J.D.*</b>	Portfolio Manager	25	10	Post Advisory Group; Tablerock Fund Management; Avenue Capital Management, LLC	AB, Georgetown University; JD, Northwestern University; MBA, New York University
<b>Todd Solomon</b>	Portfolio Manager	26	3	TCW Distressed, LLC; Halcyon Capital Management; Triage Capital Management	BA, Union College; MBA, Columbia University
<b>Robert S. Clark, CFA</b>	Portfolio Manager	25	12	Turner Investment Partners; People's Bank	BS, Bryant College; MBA, Yale University
<b>Eric P. Kang</b>	Portfolio Manager	23	7	MidOcean Credit Partners; Bell Point Capital; Citadel Investment Group	BS, University of Pennsylvania; MBA, University of Virginia



# Team Member Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Kearney Posner, CFA**</b>	Portfolio Manager	23	7	Metropolitan Life Insurance Company; Radian Group; Goldman Sachs	BS, Georgetown University; MBA, University of Pennsylvania
<b>Mayur M. Lakhani</b>	Portfolio Manager	22	3	Tricadia Capital Management; Bluemountain Capital Management; Deutsche Bank Securities	BS, Cornell University MBA, University of Pennsylvania
<b>Matthew Claeson, CFA</b>	Associate Portfolio Manager	21	3	Compass Group, LLC; Santander Investment Securities; BNP Paribas	BA, Amherst University; MS, London School of Economics; MA, Columbia University
<b>Mila Skulkina, CFA</b>	Portfolio Manager	21	9	Sanders Capital, LLC; Bain & Company; Triton Pacific Capital Partners	BA, University of California; MBA, UCLA Anderson School of Management
<b>Leah G. Traub, Ph.D.*</b>	Portfolio Manager	21	15	Princeton Economics Group; National Bureau of Economic Research; Rutgers University	BA, University of Chicago; MA, Ph.D., Rutgers University
<b>Harris Trifon**</b>	Portfolio Manager	21	1	Western Asset Management; Deutsche Bank; Standard & Poor's	BA, University of Florida; MS, New York University
<b>Kunal Rambhia, CFA</b>	Portfolio Manager	20	5	Lazard Asset Management; Mount Kellett Capital Management; WL Ross India	BA, Pace University



# Team Member Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Yoana Koleva, CFA**</b>	Portfolio Manager	19	11	Morgan Stanley; BlackRock	BA, The College of Saint Elizabeth
<b>Aron Grufstedt</b>	Portfolio Manager	17	<1	The Carlyle Group; CCMP Capital; Octagon Credit Investors, LLC	BS, Babson College
<b>Annika Lombardi**</b>	Portfolio Manager	15	5	Janus Capital International; Rogge Global Partners; Delaware Investments	BA, University of Pennsylvania
<b>Peter Noel, CFA</b>	Portfolio Manager	15	7	QBE Insurance; PFM Asset Management	BS, Carnegie Mellon University
<b>Zofia Koscielniak</b>	Portfolio Manager	12	<1	Pacific Investment Management Company; Fannie Mae; Morgan Stanley	BS, Carnegie Mellon University MBA, Massachusetts Institute of Technology
<b>Bridget E. Young</b>	Associate Portfolio Manager	15	10	Morgan Stanley; Moody's Investors Service; CIFG Assurance	BA, University of Memphis; MPA, New York University
<b>Christopher Gizzo, CFA**</b>	Deputy Director	14	14	N/A	BS, Cornell University
<b>Adam C. Castle, CFA**</b>	Portfolio Manager	14	7	Credit Suisse, AllianceBernstein	BS, Cornell University
<b>Karen Gunnerson</b>	Portfolio Manager	12	5	RBC Capital Markets; Bank of America Merrill Lynch	BS, University of Florida





# Team Member Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Steven Zhou, CFA</b>	Associate Portfolio Manager	17	5	Deutsche Asset Management; JP Morgan Chase	BS, University of Maryland; MS, Carnegie Mellon University
<b>Frank Zhi</b>	Associate Portfolio Manager	13	9	Commerzbank AG; BlackRock Inc.	BS, Columbia University; MS, Georgia Institute of Technology
<b>Jordan Kling, CFA</b>	Associate Portfolio Manager	12	12	N/A	BA, Dartmouth College
<b>Jessie Gong</b>	Associate Portfolio Manager	11	<1	Angelo Gordon; Morgan Stanley; Nomura Securities	BS, Huazhong University of Science & Technology; MS, Columbia University
<b>Gregory Benz, CFA</b>	Associate Portfolio Manager	11	6	Payden & Rygel Investment Management	BA, Occidental College
<b>Yuan (Shawn) Yue</b>	Associate Portfolio Manager	11	6	Potomac River Capital; Bank of America Merrill Lynch; MSCI	BS, Jilin University; MS, University of Chicago
<b>Ty Kern</b>	Associate Portfolio Manager	10	1	Goldman Sachs Asset Management; BlackRock	BS, Ohio State University
<b>Devin Hagens, CFA</b>	Associate Portfolio Manager	9	5	Bloomberg L.P.	BS, Cornell University



# Team Member Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Tony Graves, CFA</b>	Associate Portfolio Manager	8	1	Income Research + Management; Hartford Financial Services Group	BS, Indiana University; MBA, Yale School of Management
<b>Loritta Cheng</b>	Research Analyst	23	1	Metropolitan Life Insurance Company; Goldman Sachs; Deutsche Bank	BS, Columbia University; MBA, Columbia Business School
<b>Dillon Goad</b>	Research Analyst	9	3	Deutsche Bank Commercial Real Estate; KGS Alpha Real Estate LLC.; LNR Property LLC.	BBA, Texas A&M University
<b>Marc Pavese, Ph.D.*</b>	Director of Quantitative Research	22	14	Genworth Financial; General Electric	BA, Columbia University; Ph.D., University of Pennsylvania
<b>Bjorn Flesaker, Ph.D.</b>	Director of Quantitative Research, Fixed Income	30	5	Prudential; Bloomberg, L.P.; Morgan Stanley	MM, BI Norwegian Business School; Ph.D., University of California at Berkeley
<b>Giulio Martini*</b>	Director of Strategic Asset Allocation	37	7	Anderson Global Macro LLC; Sanford C. Bernstein & Co. and AllianceBernstein	BA, University of Colorado; MA, Boston University
<b>Jeffrey O. Herzog, Ph.D.</b>	Portfolio Manager	13	9	Oxford Economics LLC; Banco Bilbao Vizcaya Argentaria	M.A., Yale University; Ph.D., Cambridge University



# Global Credit Research Team Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Gregory S. Parker, CFA*</b>	Director of Global Credit Research	31	15	AIG SunAmerica Asset Management; Harbert Management Corporation; Schroder Investment Management	BS, Lawrence University; MBA, Babson College
<b>Kevin Coyne</b>	Deputy Director of Global Credit Research	28	6	Goldman Sachs & Co.; Royal Bank of Canada Dain Rauscher; Corvis Corporation	BS, Villanova University; MBA, New York University
<b>John M. Novak, CFA</b>	Deputy Director of Global Credit Research	26	8	Mizuho Securities, USA, Inc.; Barclays Capital, Inc., Lehman Brothers	BS, Pennsylvania State University; MBA, New York University
<b>Paul A. Langlois, CFA</b>	Research Analyst	30	13	J&W Seligman & Co.; Triton Partners; Delaware Management Company	BS, The Pennsylvania State University; MBA, Temple University
<b>Sundar Varadarajan</b>	Research Analyst	28	6	BNP Paribas; Knight Capital; Citadel Securities	B.Com., University of Madras; MBA, University of Rochester
<b>Andrew Bernstein</b>	Research Analyst	26	8	Credit Suisse; Shenkman Capital Management; The Bank of Tokyo Mitsubishi UFJ	BA, University of Michigan; MBA, Cornell University
<b>Murali Ganti, CPA</b>	Research Analyst	26	5	Citigroup Inc.; BNP Paribas; Nomura Securities International, Inc.	BA, University at Buffalo; MBA, University of Rochester



# Global Credit Research Team Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Alan Danzig, CFA</b>	Research Analyst	24	10	J.P. Morgan; Fox-Pitt, Kelton; Stern Stewart & Co.	BS, University of Pennsylvania
<b>Ryan Butkus</b>	Research Analyst	22	6	Citigroup; KPMG, LLP	BS, Muhlenberg College; MBA, Fordham University
<b>Brian A. Ilardo</b>	Research Analyst	22	19	UBS Warburg; Brean Murray & Co., Inc.; HealthJump	BS, Villanova University; MBA New York University
<b>Raymond Wu, CFA</b>	Research Analyst	22	7	Genworth Asset Management, Twinn Capital Management, Gruss Asset Management	BA/BS, Duke University
<b>Matthew Albrecht</b>	Research Analyst	18	6	UBS Investment Bank	BS, Bucknell University
<b>Klim Fedoff, CFA</b>	Research Analyst	18	9	TIAA-CREF; HSBC Bank	BS, Manhattan College
<b>Yi Ding Chen</b>	Research Analyst	16	1	Benefit Street Partners; Balyasny Asset Management; Canyon Partners	BA, University of Michigan
<b>Colin Leong, CFA</b>	Research Analyst	16	<1	Payden & Rygel Investment Management; MetLife Investments Limited; Royal Bank of Scotland PLC	BS, London School of Economics and Political Science
<b>Erchen Yan</b>	Research Analyst	15	1	EMSO Asset Management; TIAA Investments; Metlife Investments	BA, Wellesley College; MBA, University of Pennsylvania
<b>Larry Liou, CFA</b>	Research Analyst	13	1	Wells Capital Management; J.P. Morgan Securities LLC; Kaufman Bros LLC	BS, University of Michigan



# Global Credit Research Team Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Emmi Palviainen, CFA</b>	Research Analyst	12	1	AXA Investment Managers; EFG Asset Management; Legal & General Investment Management	BS, Cass Business School, City University London
<b>Alexandre Marrucho</b>	Research Analyst	11	7	HSBC Securities; Pricewaterhouse Coopers	BS/BA Southern Illinois University; MS, Vanderbilt University
<b>Vicky Wang, CFA</b>	Research Analyst	11	4	Goldman Sachs; AQR Capital; BlackRock	BA, Northwestern University; MBA, New York University
<b>Brittany Chen</b>	Research Analyst	9	1	Barclays	BS, New York University
<b>Elan Ariel, CFA</b>	Research Analyst	8	8	N/A	BS, University of Pennsylvania
<b>Vanessa Deng</b>	Research Analyst	6	4	SMBC Nikko Securities	BA, University of California at Berkeley
<b>Anna Di, CFA</b>	Associate Research Analyst	8	4	JPMorgan Asset Management	BS, Renmin University of China; MS, Columbia University
<b>Imman Akram</b>	Associate Research Analyst	7	1	JPMorgan; Voya Investment Management	BA, Emory University
<b>Shiv Adhlakha</b>	Associate Research Analyst	6	1	Barclays	BA, Baruch College
<b>John Dong</b>	Associate Research Analyst	6	6	N/A	BS, University of Pennsylvania
<b>Aaron Grand</b>	Associate Research Analyst	4	4	N/A	BA, Harvard University



# Global Fixed Income Trading Team Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Andrew M. Khatri*</b>	Director of Global Trading	20	11	MarketAxess; Citigroup Global Markets Inc.; Wellington Management Company, LLP	BS, Boston College
<b>Shane M. Magoon*</b>	Director of Global Fixed Income Trading	19	18	State Street Corp.	BS, Villanova University; MBA, New York University
<b>Bryan Sheehan</b>	Trader	18	5	Nomura Securities; Barclays Capital; Lehman Brothers, Inc.	BS, University of Maryland
<b>Nickolas A. Prala</b>	Trader	17	7	UBS; Loomis Sayles; BNP Paribas	BA, Ohio University; MA, Ohio University
<b>Jason Stofkoper, CFA</b>	Trader	17	15	Nomura Securities	BA, Drew University
<b>Evan Tibbetts</b>	Trader	13	6**	JP Morgan Securities; Promontory Financial Group	BA, Haverford College
<b>Michael Collins, CFA</b>	Trader	10	1	Greylock Capital Management; Brencourt Advisors; Laidlaw & Company	BS, University of Wisconsin
<b>Patrick Daly, CFA</b>	Trader	11	10	ING Financial Partners	BS, Villanova University
<b>John Perkins, CFA</b>	Trader	5	2	Bank of Montreal Capital Markets	BS, Bentley University
<b>Geoffrey King, CFA</b>	Associate Trader	7	<1	BlackRock; North American Rates Trading; Financial Markets Advisory	BA, Vanderbilt University
<b>Breanna Morrissey</b>	Trading Analyst	4	1	J.P. Morgan Chase	BA, Ohio University
<b>Natalie Clark</b>	Trading Analyst	4	1	Bank of America Merrill-Lynch	BA, Ohio University



# Team Member Biographies

Name	Role	Years of Industry Experience	Years with Lord Abbett	Prior Professional Experience	Education
<b>Joseph M. Graham, CFA**</b>	Investment Strategist	23	7	HudsonView Capital Management; Route 3 Capital; Millennium Partners	BS, Washington University; MBA, University of Pennsylvania
<b>Ritchie Oriol</b>	Investment Strategist	26	4	CQS; Goldman Sachs Asset Management; Neuberger Berman	BA, University of Notre Dame; MBA, Stanford University
<b>Timothy Paulson</b>	Investment Strategist	23	8	Goldman Sachs	BA, Haverford College; MBA, Northwestern University
<b>Andrew Fox, CFA</b>	Investment Strategist	23	21	Prudential Securities	BA, Montclair State University



# GIPS Report

The Global Investment Performance Standards (GIPS®) compliant performance results shown represent the investment performance record for the Lord, Abbett & Co. LLC (Lord Abbett) **Core Fixed Income Institutional Composite**. This composite is comprised of all fully discretionary portfolios managed on behalf of institutional investors investing primarily in various types of fixed-income securities, including securities issued by the U.S. government, its agencies and instrumentalities, mortgage-backed and other asset-backed securities, investment grade corporate debt, U.S.-dollar denominated investment-grade debt of non-U.S. issuers, senior loans and derivatives. Effective November 2017, only accounts with a value of \$40 million or more are included in the composite. Effective July 2014, only accounts with an initial value of \$50 million or more are included in the composite. Effective March 2012, only accounts with an initial value of \$40 million or more are included in the composite. Effective July 21, 2009, only accounts with an initial value of \$20 million or more are included in the composite. Effective January 2018, accounts funded on or before the 15th of the month will be included in the Composite effective the first day of the first following month. Accounts funded after the 15th of the month will be included effective on the first day of the second following month. Prior to January 2018, other than registered investment companies sponsored by Lord Abbett, accounts opened/funded on or before the 15th day of the month were included in the Composite effective the first day of the second following month and accounts opened/funded after 15th of the month were included effective on the first day of the third following month. Registered investment companies sponsored by Lord Abbett are included in the Composite in the first full month of management. Closed accounts are removed from the Composite after the last full month in which they were managed in accordance with applicable objectives, guidelines, and restrictions. Performance results are expressed in U.S. dollars and reflect reinvestment of any dividends and distributions. The Composite was created in 1999 and inception in 1998. A list of all composite and pooled fund investment strategies offered by the firm, with a description of each strategy, is available upon request. The type of portfolios in which each strategy is available (segregated account, limited distribution pooled fund, or broad distribution pooled fund) is indicated in the description of each strategy. Policies for valuing investments, calculating performance, and preparing GIPS Report are available upon request.

For GIPS® purposes, the firm is defined as Lord, Abbett & Co. LLC (“Lord Abbett”). Total Firm Assets are the aggregate fair value of all discretionary and non-discretionary assets for which the Firm has investment management responsibility. Accordingly, Total Firm Assets include, but are not limited to, mutual funds (all classes of shares), privately placed investment funds, non-U.S. domiciled investment funds, separate/institutional portfolios, individual portfolios and separately managed accounts (“Wrap Fee/SMA Portfolios”) managed by Lord Abbett. Total Firm Assets also include any collateralized, structured investment vehicle, such as a collateralized debt obligation or collateralized loan obligation, for which Lord Abbett has been appointed as the collateral manager. For the period prior to January 1, 2000, the definition of the Firm does not include any hedge fund or SMA program accounts where Lord, Abbett & Co. LLC did not have the records so long as it is impossible for Lord, Abbett & Co. LLC to have the records (within the meaning of relevant GIPS® standards interpretations). Total Firm Assets also exclude separately managed program accounts that involve model delivery.

The number of portfolios and total assets in the Composite, and the percentage of total “firm” assets represented by the Composite at the end of each calendar year for which performance information is provided are as follows:

Calendar Year Ended	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
# of Portfolios	7	9	9	7	7	8	8	6	5	5
Total Assets (\$M)	\$3,246	\$3,342	\$2,686	\$2,009	\$3,758	\$3,791	\$3,487	\$3,990	\$3,057	\$4,030
Percentage of Firm Assets	1.28%	1.50%	1.32%	1.12%	2.41%	2.82%	2.81%	2.94%	2.25%	3.20%
Total Firm Assets (\$M)	\$254,075	\$222,535	\$204,031	\$161,055	\$156,110	\$134,565	\$124,007	\$135,945	\$135,786	\$127,753
Dispersion	0.07	0.08	0.05	N/A	0.14	0.07	0.03	0.02	N/A	N/A
Lord Abbett Core Fixed Income Institutional Composite (Gross Annual)	-0.34%	8.57%	8.55%	0.12%	4.10%	3.32%	0.15%	6.99%	-1.35%	6.66%
Lord Abbett Core Fixed Income Institutional Composite Gross (3 year Annualized Return)	5.51%	5.67%	4.20%	2.50%	2.51%	3.45%	1.87%	4.03%	4.48%	7.56%
Lord Abbett Core Fixed Income Institutional Composite Gross (3 year Annualized Ex-Post Standard Deviation)	3.70%	3.70%	2.75%	2.74%	2.72%	2.95%	2.86%	2.67%	2.76%	2.33%
Lord Abbett Core Fixed Income Institutional Composite (Net Annual)	-0.62%	8.27%	8.25%	-0.16%	3.81%	3.03%	-0.12%	6.68%	-1.64%	6.35%
Lord Abbett Core Fixed Income Institutional Composite Net (3 year Annualized Return)	5.22%	5.38%	3.90%	2.21%	2.22%	3.16%	1.58%	3.73%	4.19%	7.27%
Bloomberg U.S Aggregate Bond Index (Annual)	-1.54%	7.51%	8.72%	0.01%	3.54%	2.65%	0.55%	5.97%	-2.02%	4.22%
Bloomberg U.S Aggregate Bond Index (3 year Annualized Return)	4.79%	5.34%	4.03%	2.06%	2.24%	3.03%	1.44%	2.66%	3.26%	6.19%
Bloomberg U.S Aggregate Bond Index (3 year Annualized Ex-Post Standard Deviation)	3.40%	3.40%	2.91%	2.88%	2.82%	3.03%	2.92%	2.66%	2.75%	2.42%
Supplemental Information:										
Number of Portfolios Managed in Style*	21	21	20	18	17	19	22	19	20	25
Total Assets Managed in Style*	\$3,827	\$3,837	\$2,956	\$2,343	\$4,147	\$4,374	\$4,284	\$4,586	\$3,858	\$4,930





# GIPS Report

Dispersion is represented by the asset-weighted standard deviation, a measure that explains deviations of gross portfolio rates of return from the asset-weighted composite return. Only portfolios that have been managed within the Composite style for a full year are included in the asset-weighted standard deviation calculation. The measure may not be meaningful (N/A) for composites consisting of five or fewer portfolios or for periods of less than a full year.

The performance of the Composite is shown net and gross of advisory fees, and reflects the deduction of transaction costs. The deduction of advisory fees and expenses (and the compounding effect thereof over time) will reduce the performance results and, correspondingly, the return to an investor. Net performance of the Composite as presented in the table on the previous page reflects the deduction of a “model” advisory fee, calculated as the highest advisory fee, borne by any account (without giving effect to any performance fee that may be applicable) in the Composite (an annual rate of 0.28% of assets) and other expenses (including trade execution expenses). **For example, if \$10 million were invested and experienced a 10% compounded annual return for 10 years, its ending dollar value, without giving effect to the deduction of the advisory fee, would be \$25,937,425. If an advisory fee of 0.28% of average net assets per year for the 10-year period were deducted, the annual total return would be 9.69% and the ending dollar value would be \$25,284,711. The separate account management fee schedule is as follows: 0.28% on the first \$50 million, 0.20% on the next \$100 million, 0.16% on the next \$350 million, and 0.14% on all assets over \$500 million. The Pooled Fund management fee schedule is as follows: 0.19% on the first \$50 million, 0.17% on the next \$50 million, 0.15% on the next \$100 million, 0.13% on the next \$250 million, 0.11% on the next \$500 million, and 0.09% on all assets over \$1 billion.** The Pooled Fund expense ratio is 0.27%. Net-of-fee performance reflects the deduction of the highest applicable institutional advisory fee that would be charged to a new institutional client account based on the current fee schedule for this strategy. The composite includes one or more registered investment companies sponsored by Lord Abbett (“Lord Abbett Funds”) that are subject to fees and expenses that would be inapplicable to an institutional client account. Therefore, the actual performance of Lord Abbett Fund accounts included in the composite may be lower than the net-of-fee composite performance presented. Fees and expenses applicable to the Lord Abbett Funds are disclosed in each Fund’s Prospectus, which is available upon request. Past performance does not guarantee future results. Certain securities held in portfolios contained in this composite may have valuations determined using both subjective observable and subjective unobservable inputs. The Firm’s valuation hierarchy does not materially differ from the hierarchy in the GIPS Valuation Principles. Portfolios in this composite may have sector weights that vary significantly from the Index. Any portfolio with a market value of less than \$200 million will be excluded from the composite if the portfolio has an aggregate monthly inflow/outflow equal to or above 15% of the portfolio’s beginning monthly balance. Portfolios removed from composites will be treated as new accounts, and will adhere to the standard composite inclusion policy before being re-introduced to the composite.

\*Supplemental information includes accounts managed in Lord Abbett’s Core Fixed Income Style by not included in the Composite due to the existence of certain investment restrictions that have a material effect on implementation of Lord Abbett’s investment strategies.

Lord Abbett claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Lord Abbett has been independently verified for the periods 1993-2020. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm’s policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Core Fixed Income Institutional composite has had a performance examination for the periods 1998-2020. The verification and performance examination reports are available upon request.

The Bloomberg U.S. Aggregate Bond Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

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**Past performance is not a reliable indicator or a guarantee of future results.** Differences in account size, timing of transactions, and market conditions prevailing at the time of investment may lead to different results among accounts. Differences in the methodology used to calculate performance also might lead to different performance results than those shown. Composite performance is compared to that of an unmanaged index, which does not incur management fees, transaction costs, or other expenses associated with a managed account.

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# Important Information

## **Pensions & Investments Best Places to Work in Money Management:**

To participate in the Pensions & Investments Best Places to Work in Money Management ranking process, a firm had to have at least 20 employees in the U.S., have at least \$100 million of discretionary assets under management or advisement and be in business for at least one year. Once eligibility was determined, the ranking was determined using a two-part process. In part one, the employer completed a questionnaire about the firm's policies, practices, benefits and demographics. In part two, employees were emailed an engagement and satisfaction survey that consisted of 78 statements. Employees were asked to respond on a 1-to-5 scale of Disagree Strongly to Agree Strongly. Two questions also were asked: what the firm did to make it a place where people wanted to work, and things the company could do to increase employee satisfaction and productivity. Employee responses accounted for 75% of the total company score, with the employer responses making up the remaining 25%.

## **Great Place to Work Certification™**

Great Place to Work® Certification™ is the most definitive “employer-of-choice” recognition that companies aspire to achieve. It is the only recognition based entirely on what employees report about their workplace experience – specifically, how consistently they experience a high-trust workplace. Great Place to Work Certification is recognized worldwide by employees and employers alike and is the global benchmark for identifying and recognizing outstanding employee experience. Every year, more than 10,000 companies across 60 countries apply to get Great Place to Work-Certified.

## **Human Rights Campaign Foundation's 2021 Corporate Equality Index (CEI)**

As the national benchmarking tool measuring policies, practices and benefits pertinent to lesbian, gay, bisexual, transgender and queer (LGBTQ) employees, the Human Rights Campaign Foundation's Corporate Equality Index is a primary driving force for LGBTQ workplace inclusion. The CEI rates employers providing these crucial protections to over 18 million U.S. workers and an additional 17 million abroad. Companies rated in the CEI include Fortune magazine's 500 largest publicly traded businesses, American Lawyer magazine's top 200 revenue-grossing law firms (AmLaw 200), and hundreds of publicly and privately held mid- to large-sized businesses. The CEI rates companies on detailed criteria falling under four central pillars: Non-discrimination policies across business entities; Equitable benefits for LGBTQ workers and their families; Supporting an inclusive culture; and Corporate social responsibility. Lord Abbett's efforts in satisfying all the CEI's criteria earned a 100 percent ranking and the designation as one of the Best Places to Work for LGBTQ Equality.



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Account Name Lord Abbett Core Fixed Income Trust II  
 Capability Core  
 Date April 29, 2022  
 Market Value (USD) \$148,765,258.03

### Portfolio Holdings

Name of Security	Security Type	S & P Rating	Moody's Rating	Fitch Rating	Coupon Rate %	Maturity	Quantity	Price	Price Currency	Market Value	Original Cost of Investment \$	Unrealized Gain/Loss*	Accrued Income	Total Assets
United States Treasury Note/Bond	Government	-	Aaa	AAA	0.88%	01/31/2024	13,145,000.00	96.98	USD	12,747,569.08	12,979,475.00	(231,905.92)	28,503.08	8.57%
United States Treasury Note/Bond	Government	-	Aaa	-	2.50%	03/31/2027	11,422,000.00	98.00	USD	11,194,006.14	11,409,368.44	(215,362.30)	23,959.28	7.52%
United States Treasury Note/Bond	Government	-	Aaa	AAA	2.38%	02/15/2042	8,463,000.00	88.39	USD	7,480,498.59	8,432,089.47	(951,590.88)	41,642.87	5.03%
United States Treasury Note/Bond	Government	-	Aaa	-	2.25%	03/31/2024	6,502,000.00	99.16	USD	6,447,647.32	6,486,603.27	(38,955.95)	12,391.11	4.33%
United States Treasury Note/Bond	Government	-	Aaa	AAA	2.25%	02/15/2052	6,439,000.00	85.89	USD	5,530,497.35	6,241,610.39	(711,113.04)	30,016.06	3.72%
United States Treasury Bill	Government	-	-	-	0.00%	09/29/2022	3,522,000.00	99.52	USD	3,505,184.88	3,503,904.26	1,280.62	0.00	2.36%
United States Treasury Note/Bond	Government	-	-	-	2.50%	04/30/2024	3,325,000.00	99.59	USD	3,311,232.44	3,315,973.17	(4,740.73)	451.77	2.23%
United States Treasury Note/Bond	Government	-	Aaa	AAA	1.50%	02/15/2025	3,046,000.00	96.28	USD	2,932,726.88	3,019,347.50	(86,620.62)	9,466.16	1.97%
United States Treasury Note/Bond	Government	-	Aaa	AAA	1.88%	02/15/2032	3,084,000.00	91.33	USD	2,816,559.38	2,947,010.39	(130,451.01)	11,980.32	1.89%
Japan Treasury Discount Bill	Government	-	-	-	0.00%	05/09/2022	205,000,000.00	100.00	JPY	1,579,688.89	1,697,710.33	(118,021.44)	0.00	1.06%
Capital One Prime Auto Receivables Trust 2022-1	Asset-Backed	AAA	-	-	2.71%	06/16/2025	1,400,000.00	100.11	USD	1,401,539.65	1,399,867.42	1,672.23	0.00	0.94%
Bank of America Corp	Corporate	A-	A2	AA-	ADJ%	04/22/2032	1,384,000.00	85.92	USD	1,189,110.78	1,417,157.94	(228,047.16)	929.71	0.80%
Verizon Master Trust	Asset-Backed	AAA	Aaa	-	ADJ%	01/20/2027	1,175,000.00	98.05	USD	1,152,131.09	1,174,970.04	(22,838.95)	373.39	0.77%
Southwestern Energy Co	Corporate	BBB	Baa2	BBB-	ADJ%	06/22/2027	1,135,916.52	100.06	USD	1,136,626.47	1,137,468.49	(842.02)	2,342.48	0.76%
Kommunalbanken AS	Government	AAA	Aaa	-	ADJ%	06/17/2026	1,100,000.00	102.95	USD	1,132,491.90	1,132,494.01	(2.11)	1,721.96	0.76%
JPMorgan Chase & Co	Corporate	A-	A2	AA-	ADJ%	02/01/2028	1,100,000.00	97.16	USD	1,068,791.95	1,203,782.64	(134,990.69)	10,400.52	0.72%
CPPIB Capital Inc	Corporate	AAA	Aaa	-	ADJ%	04/04/2025	970,000.00	102.76	USD	996,788.76	996,888.40	(99.64)	1,118.62	0.67%
Charter Communications Operating LLC	Corporate	BBB-	Ba1	BBB-	ADJ%	04/30/2025	960,884.03	99.36	USD	954,748.80	961,415.53	(6,666.73)	134.19	0.64%
LoanCore 2022-CRE7 Issuer Ltd	Collateralized Debt	-	Aaa	-	ADJ%	01/17/2037	840,000.00	98.88	USD	830,550.00	840,000.00	(9,450.00)	596.18	0.56%
Octagon Investment Partners 29 Ltd	Collateralized Debt	AAA	Aaa	-	ADJ%	01/24/2033	800,000.00	99.28	USD	794,200.00	800,240.00	(6,040.00)	315.20	0.53%
Apidos Clo Xxv	Collateralized Debt	-	Aaa	AAA	ADJ%	10/20/2031	800,000.00	99.24	USD	793,947.50	800,000.00	(6,052.50)	545.77	0.53%
Rad CLO 2 Ltd	Collateralized Debt	-	Aaa	AAA	ADJ%	10/15/2031	790,000.00	99.29	USD	784,371.70	789,368.00	(4,996.30)	745.86	0.53%
BlueMountain CLO 2013-2 Ltd	Collateralized Debt	AAA	Aaa	-	ADJ%	10/22/2030	784,308.52	99.73	USD	782,185.54	783,681.07	(1,495.53)	454.17	0.53%
Carlyle Global Market Strategies CLO 2014-5 Ltd	Collateralized Debt	AAA	-	AAA	ADJ%	07/15/2031	754,480.19	99.45	USD	750,330.55	753,348.47	(3,017.92)	732.45	0.50%
AerCap Ireland Capital DAC / AerCap Global Aviation Trust	Corporate	BBB	Baa3	BBB-	3.88%	01/23/2028	809,000.00	91.94	USD	743,834.34	844,501.21	(100,666.87)	8,533.82	0.50%
Lendmark Funding Trust 2021-1	Asset-Backed	AA	-	-	1.90%	11/20/2031	830,000.00	89.33	USD	741,476.35	787,981.25	(46,504.90)	481.86	0.50%
Avolon TLB Borrower 1 US LLC	Corporate	BBB-	Baa2	BBB	ADJ%	12/01/2027	734,216.11	99.55	USD	730,930.49	737,016.60	(6,086.11)	684.76	0.49%
Oracle Corp	Corporate	BBB+	Baa2	BBB+	2.88%	03/25/2031	857,000.00	84.95	USD	727,998.61	871,843.37	(143,844.76)	2,463.89	0.49%
Santander Consumer Auto Receivables Trust 2020-B	Asset-Backed	AA-	-	A	2.14%	12/15/2026	750,000.00	96.57	USD	724,280.18	759,375.00	(35,094.82)	713.33	0.49%
NOV Inc	Corporate	BBB	Baa2	-	3.60%	12/01/2029	766,000.00	93.02	USD	712,553.09	796,246.31	(83,693.22)	11,490.00	0.48%
Citigroup Inc	Corporate	BBB+	A3	A	ADJ%	01/10/2028	707,000.00	97.76	USD	691,145.98	784,252.01	(93,106.03)	8,473.34	0.46%
OneMain Financial Issuance Trust 2019-2	Asset-Backed	AAA	-	-	3.14%	10/14/2036	720,000.00	95.64	USD	688,590.07	755,212.50	(66,622.43)	1,067.60	0.46%
JBS USA LUX SA	Corporate	BBB	Baa2	BBB	ADJ%	05/01/2026	688,808.44	99.82	USD	687,578.91	688,795.77	(1,216.86)	1,201.30	0.46%
Hilton Worldwide Finance LLC	Corporate	BBB-	Baa3	-	ADJ%	06/21/2026	692,359.00	98.98	USD	685,321.17	688,897.80	(3,576.63)	274.03	0.46%
Ally Financial Inc	Corporate	BBB-	Baa3	BBB-	8.00%	11/01/2031	558,000.00	119.12	USD	664,665.35	792,247.54	(127,582.19)	22,320.00	0.45%
Hertz Vehicle Financing III LP	Asset-Backed	-	Aaa	-	1.68%	12/27/2027	727,000.00	89.58	USD	651,269.58	727,693.00	(76,423.42)	203.56	0.44%
Connecticut Avenue Securities Trust 2022-R02	CMO	-	-	BBB	ADJ%	01/25/2042	656,445.91	98.91	USD	649,270.96	656,445.92	(7,174.96)	162.88	0.44%
Lamar Media Corp	Corporate	BBB-	Baa2	-	ADJ%	02/06/2027	619,183.00	99.72	USD	617,443.10	619,095.57	(1,652.47)	423.96	0.42%
JPMorgan Chase & Co	Corporate	A-	A2	AA-	ADJ%	04/22/2032	716,000.00	85.75	USD	613,983.28	732,237.04	(118,253.76)	461.82	0.41%
Citigroup Inc	Corporate	BBB+	A3	A	ADJ%	01/29/2031	700,000.00	87.03	USD	609,200.43	721,353.50	(112,153.07)	4,769.18	0.41%
National Fuel Gas Co	Corporate	BBB-	Baa3	BBB	3.95%	09/15/2027	616,000.00	96.08	USD	591,876.75	664,504.32	(72,627.57)	3,109.09	0.40%
Asian Development Bank	Corporate	AAA	Aaa	AAA	ADJ%	04/06/2027	565,000.00	103.32	USD	583,732.09	585,328.70	(1,596.61)	505.07	0.39%
Ready Capital Mortgage Financing 2022-FL8 LLC	CMBS	-	Aaa	-	ADJ%	01/25/2037	560,000.00	100.21	USD	561,160.94	560,000.00	1,160.94	180.95	0.38%

Name of Security	Security Type	S & P Rating	Moodys Rating	Fitch Rating	Coupon Rate %	Maturity	Quantity	Price	Price Currency	Market Value	Original Cost of Investment \$	Unrealized Gain/Loss*	Accrued Income	Total Assets
BX Trust 2022-LBA6	CMBS	-	A3	-	ADJ%	01/15/2039	560,000.00	98.32	USD	550,614.06	560,000.00	(9,385.94)	464.68	0.37%
BHMS 2018-ATLS	CMBS	-	-	-	ADJ%	07/15/2035	560,000.00	96.96	USD	542,976.22	557,200.00	(14,223.78)	610.81	0.36%
Invitation Homes Operating Partnership LP	Corporate	-	-	BBB	ADJ%	01/31/2025	525,000.00	100.00	USD	525,000.00	525,000.00	0.00	0.00	0.35%
Seminole Tribe of Florida Inc	Corporate	BBB	Baa2	BBB	ADJ%	07/06/2024	523,940.87	100.00	USD	523,943.49	524,276.23	(332.74)	73.17	0.35%
Province of Ontario Canada	Government	A+	Aa3	AA-	1.05%	04/14/2026	565,000.00	92.27	USD	521,310.95	524,913.25	(3,602.30)	280.15	0.35%
CME Group Inc	Corporate	AA-	Aa3	-	2.65%	03/15/2032	580,000.00	89.17	USD	517,176.51	578,126.60	(60,950.09)	2,262.81	0.35%
nVent Finance Sarl	Corporate	BBB-	-	BBB	4.55%	04/15/2028	510,000.00	100.57	USD	512,911.31	543,238.62	(30,327.31)	1,031.33	0.34%
Exeter Automobile Receivables Trust 2022-2	Asset-Backed	AA	-	-	3.65%	10/15/2026	515,000.00	99.48	USD	512,320.20	514,969.72	(2,649.52)	574.37	0.34%
Exeter Automobile Receivables Trust 2021-2	Asset-Backed	A	Aaa	-	0.98%	06/15/2026	530,000.00	96.54	USD	511,647.11	529,888.06	(18,240.95)	230.84	0.34%
XPO Logistics Inc	Corporate	BB+	Baa3	-	ADJ%	02/23/2025	514,654.97	99.36	USD	511,345.74	513,154.66	(1,808.92)	849.95	0.34%
Danske Bank A/S	Corporate	BBB+	Baa2	A	ADJ%	03/28/2025	516,000.00	98.96	USD	510,652.72	516,000.00	(5,347.28)	1,622.39	0.34%
Rad CLO 7 Ltd	Collateralized Debt	AAA	-	AAA	ADJ%	04/17/2033	500,000.00	99.36	USD	496,775.08	500,800.00	(4,024.92)	408.54	0.33%
Churchill Downs Inc	Corporate	BBB-	Ba1	-	ADJ%	03/17/2028	479,825.56	99.09	USD	475,478.34	478,313.50	(2,835.16)	73.67	0.32%
Bank of Montreal	Corporate	BBB+	Baa1	A	ADJ%	12/15/2032	500,000.00	94.81	USD	474,069.86	536,925.00	(62,855.14)	7,183.44	0.32%
Aqua Finance Trust 2021-A	Asset-Backed	-	NR	-	3.14%	07/17/2046	529,000.00	88.01	USD	465,561.10	528,919.22	(63,358.12)	645.97	0.31%
EQT Corp	Corporate	BBB-	Ba1	BBB-	7.50%	02/01/2030	400,000.00	110.91	USD	443,654.00	467,500.00	(23,846.00)	7,500.00	0.30%
Dell Equipment Finance Trust 2021-2	Asset-Backed	-	Aa3	A	0.94%	12/22/2026	460,000.00	94.66	USD	435,454.08	459,974.79	(24,520.71)	108.10	0.29%
Ford Credit Floorplan Master Owner Trust A	Asset-Backed	AAA	-	AAA	4.06%	11/15/2030	427,000.00	101.40	USD	432,980.22	473,046.95	(40,066.73)	770.50	0.29%
Park Aerospace Holdings Ltd	Corporate	BBB-	Baa3	BBB-	5.50%	02/15/2024	420,000.00	101.13	USD	424,761.77	452,347.82	(27,586.05)	4,876.66	0.29%
New York City Transitional Finance Authority Future Tax Secured Revenue	Municipal	AAA	Aa1	AAA	2.69%	05/01/2033	490,000.00	86.56	USD	424,148.21	518,292.60	(94,144.39)	6,590.50	0.29%
Eni SpA	Corporate	A-	Baa1	A-	5.70%	10/01/2040	405,000.00	104.38	USD	422,737.75	460,031.46	(37,293.71)	1,923.75	0.28%
Bank of America Corp	Corporate	A-	A2	AA-	ADJ%	03/11/2027	466,000.00	90.65	USD	422,448.80	428,459.04	(6,010.24)	1,073.09	0.28%
Inter-American Investment Corp	Corporate	AA+	Aa1	AAA	2.63%	04/22/2025	420,000.00	98.74	USD	414,711.93	418,702.20	(3,990.27)	275.63	0.28%
Setanta Aircraft Leasing DAC	Corporate	BBB	Baa2	BBB-	ADJ%	11/05/2028	415,169.00	99.49	USD	413,049.57	416,219.58	(3,170.01)	2,308.68	0.28%
Baidu Inc	Corporate	-	A3	A	2.38%	08/23/2031	495,000.00	83.06	USD	411,140.14	475,239.05	(64,098.91)	2,220.62	0.28%
Time Warner Cable LLC	Corporate	BBB-	Ba1	BBB-	7.30%	07/01/2038	366,000.00	112.30	USD	411,022.74	485,697.53	(74,674.79)	8,905.99	0.28%
CIFC Funding 2021-I Ltd	Collateralized Debt	AAA	-	-	ADJ%	04/25/2033	410,000.00	99.41	USD	407,562.82	410,000.00	(2,437.18)	156.76	0.27%
GM Financial Consumer Automobile Receivables Trust 2022-1	Asset-Backed	AA	-	A+	1.94%	04/17/2028	425,000.00	94.42	USD	401,273.78	424,997.83	(23,724.05)	320.64	0.27%
Freddie Mac STACR REMIC Trust 2022-DNA3	CMO	A	-	-	ADJ%	04/25/2042	400,000.00	100.05	USD	400,211.08	400,000.00	211.08	328.62	0.27%
Dell International LLC / EMC Corp	Corporate	BBB	Baa3	BBB	8.35%	07/15/2046	294,000.00	133.78	USD	393,327.32	476,581.91	(83,254.59)	7,228.32	0.26%
United States Treasury Inflation Indexed Bonds	Government	-	Aaa	-	0.25%	02/15/2050	376,000.00	94.75	USD	393,023.11	398,954.55	(5,931.44)	214.85	0.26%
American Tower Corp	Corporate	-	-	-	ADJ%	12/07/2022	393,511.63	99.63	USD	392,035.96	393,515.12	(1,479.16)	221.35	0.26%
Westlake Automobile Receivables Trust 2021-2	Asset-Backed	BBB	-	-	1.23%	12/15/2026	415,000.00	94.06	USD	390,349.58	408,515.63	(18,166.05)	226.87	0.26%
Invitation Homes Operating Partnership LP	Corporate	BBB-	Baa3	BBB	2.00%	08/15/2031	472,000.00	80.16	USD	378,368.03	455,357.66	(76,989.63)	1,992.89	0.25%
AT&T Inc	Corporate	BBB	Baa2	BBB+	3.50%	09/15/2053	478,000.00	78.45	USD	375,010.47	450,303.17	(75,292.70)	2,137.73	0.25%
Kommuninvest I Sverige AB	Government	-	-	-	2.75%	03/01/2025	370,000.00	99.25	USD	367,242.05	368,901.10	(1,659.05)	0.00	0.25%
Constellation Energy Generation LLC	Corporate	BBB-	Baa2	WD	6.25%	10/01/2039	349,000.00	104.80	USD	365,758.21	443,950.17	(78,191.96)	1,817.71	0.25%
Bay Area Toll Authority	Municipal	AA	Aa3	AA	3.13%	04/01/2055	457,000.00	79.98	USD	365,492.46	457,654.86	(92,162.40)	1,190.49	0.25%
Tencent Holdings Ltd	Corporate	A+	A1	A+	2.39%	06/03/2030	430,000.00	84.80	USD	364,634.75	423,679.74	(59,044.99)	4,224.99	0.25%
Macquarie Bank Ltd	Corporate	BBB	Baa3	BBB+	ADJ%	03/03/2036	435,000.00	82.70	USD	359,747.44	432,238.00	(72,490.56)	2,138.94	0.24%
Cargill Inc	Corporate	A	A2	A	4.00%	06/22/2032	363,000.00	98.99	USD	359,318.86	360,600.57	(1,281.71)	363.00	0.24%
COMM 2015-PC1 Mortgage Trust	CMBS	-	NR	-	ADJ%	07/10/2050	360,000.00	98.76	USD	355,553.06	362,248.07	(6,695.01)	1,338.79	0.24%
Lendmark Funding Trust 2021-2	Asset-Backed	A-	-	-	2.37%	04/20/2032	400,000.00	87.76	USD	351,047.96	399,946.92	(48,898.96)	289.67	0.24%
MF1 2020-FL3 Ltd	CMBS	-	NR	-	ADJ%	07/15/2035	350,000.00	100.25	USD	350,874.88	357,109.38	(6,234.50)	642.68	0.24%
IPALCO Enterprises Inc	Corporate	BBB-	Baa3	BBB	4.25%	05/01/2030	366,000.00	95.59	USD	349,877.45	412,752.60	(62,875.15)	7,777.50	0.24%
Freeport-McMoRan Inc	Corporate	BB+	Baa3	BBB-	4.63%	08/01/2030	361,000.00	96.74	USD	349,218.73	385,929.65	(36,710.92)	4,174.07	0.23%
Morgan Stanley Capital I Trust 2012-STAR	CMBS	AAA	Aaa	-	3.20%	08/05/2034	350,000.00	99.62	USD	348,652.71	356,794.92	(8,142.21)	933.63	0.23%
Continental Resources Inc/OK	Corporate	BB+	Baa3	BBB	5.75%	01/15/2031	340,000.00	102.37	USD	348,069.90	393,468.06	(45,398.16)	5,756.39	0.23%
MF1 2021-FL6 Ltd	Collateralized Debt	-	NR	-	ADJ%	07/16/2036	350,000.00	98.25	USD	343,886.35	350,000.00	(6,113.65)	258.39	0.23%
Wells Fargo Commercial Mortgage Trust 2015-SG1	CMBS	-	NR	A	ADJ%	09/15/2048	360,000.00	94.10	USD	338,754.35	370,209.38	(31,455.03)	1,380.81	0.23%
ABN AMRO Bank NV	Corporate	BBB-	Baa2	BBB+	ADJ%	03/13/2037	400,000.00	84.20	USD	336,782.40	400,604.00	(63,821.60)	1,772.80	0.23%
Avolon Holdings Funding Ltd	Corporate	BBB-	Baa3	BBB-	5.25%	05/15/2024	334,000.00	100.83	USD	336,761.03	359,360.73	(22,599.70)	8,085.58	0.23%
Goldman Sachs Group Inc/The	Corporate	BBB+	A2	A	ADJ%	07/21/2032	406,000.00	82.73	USD	335,903.58	408,487.92	(72,584.34)	2,687.49	0.23%

Name of Security	Security Type	S & P Rating	Moodys Rating	Fitch Rating	Coupon Rate %	Maturity	Quantity	Price	Price Currency	Market Value	Original Cost of Investment \$	Unrealized Gain/Loss*	Accrued Income	Total Assets
Ford Credit Auto Lease Trust 2021-A	Asset-Backed	-	Aaa	AAA	0.30%	04/15/2024	338,000.00	98.39	USD	332,551.34	337,965.52	(5,414.18)	45.07	0.22%
Galaxy Pipeline Assets Bidco Ltd	Corporate	-	Aa2	AA	3.25%	09/30/2040	400,000.00	82.93	USD	331,727.30	402,590.00	(70,862.70)	1,119.44	0.22%
General Motors Co	Corporate	BBB	Baa3	BBB-	6.60%	04/01/2036	306,000.00	107.96	USD	330,358.81	385,654.10	(55,295.29)	1,683.00	0.22%
Oglethorpe Power Corp	Corporate	BBB+	Baa1	BBB	5.95%	11/01/2039	295,000.00	110.56	USD	326,150.58	392,040.91	(65,890.33)	8,776.25	0.22%
CSMC 2021-BHAR	CMBS	-	Aa3	-	ADJ%	11/15/2038	330,000.00	98.73	USD	325,825.40	330,000.00	(4,174.60)	301.27	0.22%
Freddie Mac STACR REMIC Trust 2021-HQA3	CMO	-	Ba3	-	ADJ%	09/25/2041	340,000.00	95.39	USD	324,334.40	339,687.50	(15,353.10)	135.36	0.22%
HGI CRE CLO 2021-FL2 Ltd	Collateralized Debt	-	NR	-	ADJ%	09/17/2036	330,000.00	98.00	USD	323,400.00	330,000.00	(6,600.00)	268.79	0.22%
Wells Fargo & Co	Corporate	BBB+	A1	A+	ADJ%	03/02/2033	355,000.00	90.98	USD	322,996.63	355,000.00	(32,003.37)	1,949.05	0.22%
Glencore Funding LLC	Corporate	BBB+	Baa1	-	2.85%	04/27/2031	375,000.00	85.51	USD	320,675.71	374,183.88	(53,508.17)	118.75	0.22%
UBS Commercial Mortgage Trust 2017-C3	CMBS	-	NR	A-	ADJ%	08/15/2050	350,000.00	91.54	USD	320,386.54	359,009.77	(38,623.23)	1,296.68	0.22%
EIG Pearl Holdings Sari	Corporate	-	A1	A	3.55%	08/31/2036	360,000.00	88.88	USD	319,952.16	360,000.00	(40,047.84)	3,403.20	0.22%
JPMorgan Chase & Co	Corporate	A-	A2	AA-	ADJ%	01/25/2033	362,000.00	88.10	USD	318,931.83	362,000.00	(43,068.17)	2,860.28	0.21%
Marlette Funding Trust 2020-2	Asset-Backed	-	-	-	4.65%	09/16/2030	310,000.00	99.98	USD	309,951.36	329,229.69	(19,278.33)	640.67	0.21%
Carlyle Global Market Strategies CLO 2015-1 Ltd	Collateralized Debt	-	Aaa	-	ADJ%	07/20/2031	310,000.00	98.91	USD	306,619.13	308,915.00	(2,295.87)	193.49	0.21%
Dryden Senior Loan Fund	Collateralized Debt	-	Aa1	-	ADJ%	04/15/2028	310,000.00	98.60	USD	305,674.80	310,000.00	(4,325.20)	346.41	0.21%
Ohio Edison Co	Corporate	A-	A1	BBB+	8.25%	10/15/2038	225,000.00	135.59	USD	305,076.12	358,350.99	(53,274.87)	825.00	0.21%
Wells Fargo Commercial Mortgage Trust 2016-C35	CMBS	-	Aa2	AAA	3.18%	07/15/2048	320,000.00	95.11	USD	304,354.66	330,000.00	(25,645.34)	849.07	0.20%
Cellnex Finance Co SA	Corporate	BB+	-	BBB-	3.88%	07/07/2041	400,000.00	75.00	USD	300,002.00	393,888.00	(93,886.00)	4,908.34	0.20%
Exeter Automobile Receivables Trust 2021-2	Asset-Backed	BBB	Baa2	-	1.40%	04/15/2027	320,000.00	93.61	USD	299,541.47	319,943.62	(20,402.15)	199.11	0.20%
Arbor Realty Commercial Real Estate Notes 2021-FL2 Ltd	Collateralized Debt	-	NR	-	ADJ%	05/15/2036	300,000.00	98.41	USD	295,221.42	300,000.00	(4,778.58)	260.55	0.20%
British Airways 2020-1 Class A Pass Through Trust	Corporate	A	-	A-	4.25%	11/15/2032	303,938.76	97.11	USD	295,170.01	320,476.40	(25,306.39)	2,727.01	0.20%
JP Morgan Chase Commercial Mortgage Securities Trust 2018-WPT	CMBS	AAA	-	-	ADJ%	07/05/2033	295,206.33	99.75	USD	294,464.54	294,468.31	(3.77)	349.14	0.20%
Wells Fargo Commercial Mortgage Trust 2017-C41	CMBS	-	NR	A-	ADJ%	11/15/2050	330,000.00	89.13	USD	294,124.68	337,029.69	(42,905.01)	1,280.21	0.20%
FirstEnergy Corp	Corporate	BB+	Ba1	BB+	4.40%	07/15/2027	297,000.00	97.13	USD	288,489.47	305,471.25	(16,981.78)	3,847.80	0.19%
Bain Capital Credit CLO 2019-2	Collateralized Debt	AAA	-	-	ADJ%	10/17/2032	290,000.00	99.17	USD	287,584.61	290,000.00	(2,415.39)	226.48	0.19%
American Airlines 2021-1 Class A Pass Through Trust	Corporate	A-	Baa1	A	2.88%	07/11/2034	325,000.00	88.47	USD	287,511.25	325,000.00	(37,488.75)	4,490.19	0.19%
Eastern Gas Transmission & Storage Inc	Corporate	A	A3	-	3.00%	11/15/2029	315,000.00	91.26	USD	287,462.58	334,726.45	(47,263.87)	4,357.50	0.19%
Citibank Credit Card Issuance Trust	Asset-Backed	AAA	Aaa	-	ADJ%	05/14/2029	288,000.00	99.71	USD	287,171.74	291,588.75	(4,417.01)	179.70	0.19%
MF1 2021-FL7 Ltd	Collateralized Debt	-	NR	-	ADJ%	10/16/2036	290,000.00	98.32	USD	285,134.97	290,000.00	(4,865.03)	197.63	0.19%
Freddie Mac STACR REMIC Trust 2021-DNA6	CMO	BBB-	-	-	ADJ%	10/25/2041	294,000.00	96.50	USD	283,716.91	290,900.63	(7,183.72)	87.65	0.19%
Broadcom Inc	Corporate	BBB-	Baa3	BBB-	4.15%	04/15/2032	303,000.00	92.90	USD	281,494.02	302,336.43	(20,842.41)	593.80	0.19%
Great Wolf Trust 2019-WOLF	CMBS	-	Aaa	-	ADJ%	12/15/2036	285,000.00	98.69	USD	281,254.79	279,940.63	1,314.16	201.16	0.19%
EPR Properties	Corporate	BBB-	Baa3	BBB-	3.75%	08/15/2029	315,000.00	88.73	USD	279,513.72	320,899.86	(41,386.14)	2,493.74	0.19%
Aviation Capital Group LLC	Corporate	BBB-	Baa2	-	1.95%	01/30/2026	312,000.00	89.44	USD	279,064.05	308,610.54	(29,546.49)	1,537.90	0.19%
Wells Fargo Bank NA	Corporate	BBB+	Aa3	A	5.85%	02/01/2037	250,000.00	111.07	USD	277,682.45	306,130.00	(28,447.55)	3,656.25	0.19%
Dryden 72 CLO Ltd	Collateralized Debt	AAA	-	-	ADJ%	05/15/2032	280,000.00	99.15	USD	277,627.93	280,087.50	(2,459.57)	925.42	0.19%
Citigroup Inc	Corporate	BBB+	A3	A	ADJ%	03/20/2030	287,000.00	95.86	USD	275,104.03	325,331.72	(50,227.69)	1,300.91	0.18%
Dell Equipment Finance Trust 2021-2	Asset-Backed	-	Baa1	BBB	1.21%	06/22/2027	290,000.00	94.81	USD	274,959.96	289,993.07	(15,033.11)	87.73	0.18%
Emera US Finance LP	Corporate	BBB-	Baa3	BBB	4.75%	06/15/2046	290,000.00	93.75	USD	271,869.13	332,831.50	(60,962.37)	5,203.88	0.18%
CMC Materials Inc	Corporate	BBB-	Ba2	-	ADJ%	11/15/2025	267,061.44	99.75	USD	266,393.79	267,061.44	(667.65)	41.73	0.18%
VMware Inc	Corporate	-	-	-	ADJ%	09/02/2024	259,626.75	99.75	USD	258,977.68	259,646.74	(669.06)	234.05	0.17%
BX Trust 2018-GW	CMBS	-	-	AAA	ADJ%	05/15/2035	259,000.00	98.25	USD	254,469.65	258,816.88	(4,347.23)	155.88	0.17%
Physicians Realty LP	Corporate	BBB	Baa2	BBB	2.63%	11/01/2031	300,000.00	84.15	USD	252,449.98	299,519.55	(47,069.57)	4,331.25	0.17%
BNP Paribas SA	Corporate	BBB+	Baa2	A-	ADJ%	03/01/2033	265,000.00	94.81	USD	251,250.29	291,070.70	(39,820.41)	1,932.29	0.17%
NGPL PipeCo LLC	Corporate	BBB-	Baa3	-	3.25%	07/15/2031	289,000.00	86.86	USD	251,027.04	291,564.64	(40,537.60)	2,765.57	0.17%
TCI-Flatiron Clo 2017-1 Ltd	Collateralized Debt	-	Aaa	NR	ADJ%	11/18/2030	250,000.00	99.95	USD	249,874.38	248,750.00	1,124.38	731.85	0.17%
Marble Point CLO XVII Ltd	Collateralized Debt	NR	Aaa	AAA	ADJ%	04/20/2033	250,000.00	99.61	USD	249,033.88	250,000.00	(966.12)	180.48	0.17%
KKR CLO 29 Ltd	Collateralized Debt	AAA	Aaa	-	ADJ%	01/15/2032	250,000.00	99.59	USD	248,969.55	250,000.00	(1,030.45)	249.37	0.17%
GREYWOLF CLO VII Ltd	Collateralized Debt	AAA	Aaa	-	ADJ%	10/20/2031	250,000.00	99.55	USD	248,875.00	249,550.00	(675.00)	171.32	0.17%
Newark BSL CLO 1 Ltd	Collateralized Debt	-	A2	NR	ADJ%	12/21/2029	250,000.00	99.26	USD	248,154.32	246,875.00	1,279.32	86.06	0.17%
Eaton Vance CLO 2013-1 Ltd	Collateralized Debt	-	Aaa	-	ADJ%	01/15/2034	250,000.00	99.26	USD	248,150.30	250,000.00	(1,849.70)	254.92	0.17%
Barings CLO Ltd 2019-III	Collateralized Debt	AA	NR	-	ADJ%	04/20/2031	250,000.00	99.18	USD	247,949.77	250,000.00	(2,050.23)	203.40	0.17%

Name of Security	Security Type	S & P Rating	Moodys Rating	Fitch Rating	Coupon Rate %	Maturity	Quantity	Price	Price Currency	Market Value	Original Cost of Investment \$	Unrealized Gain/Loss*	Accrued Income	Total Assets
CBAM 2017-1 Ltd	Collateralized Debt	-	Baa3	NR	ADJ%	07/20/2030	250,000.00	98.88	USD	247,209.05	250,200.00	(2,990.95)	367.64	0.17%
Wind River 2021-4 CLO Ltd	Collateralized Debt	-	Aa2	-	ADJ%	01/20/2035	250,000.00	98.80	USD	246,998.17	250,000.00	(3,001.83)	207.22	0.17%
OCF CLO 2019-16 Ltd	Collateralized Debt	AAA	-	-	ADJ%	04/10/2033	250,000.00	98.75	USD	246,875.00	250,000.00	(3,125.00)	276.23	0.17%
OneMain Financial Issuance Trust 2018-2	Asset-Backed	AAA	-	-	3.57%	03/14/2033	248,000.00	99.51	USD	246,795.89	262,880.00	(16,084.11)	418.09	0.17%
Bank of America Corp	Corporate	A-	A2	AA-	ADJ%	03/05/2029	254,000.00	96.88	USD	246,072.64	296,103.04	(50,030.40)	1,568.59	0.17%
Carmax Auto Owner Trust 2021-1	Asset-Backed	AA	-	A	0.94%	12/15/2026	263,000.00	92.79	USD	244,050.06	262,987.98	(18,937.92)	109.88	0.16%
Oaktree CLO 2019-4 Ltd	Collateralized Debt	A	-	-	ADJ%	10/20/2032	250,000.00	97.60	USD	243,996.30	250,000.00	(6,003.70)	253.05	0.16%
Carlyle Global Market Strategies CLO 2015-5 Ltd	Collateralized Debt	-	A2	-	ADJ%	01/20/2032	250,000.00	97.51	USD	243,763.66	250,000.00	(6,236.34)	256.87	0.16%
Mountain View CLO 2017-1 LLC	Collateralized Debt	-	Aaa	AAA	ADJ%	10/16/2029	242,684.05	99.92	USD	242,485.45	242,684.04	(198.59)	188.65	0.16%
Halliburton Co	Corporate	BBB+	Baa1	WD	7.45%	09/15/2039	195,000.00	122.11	USD	238,106.38	272,687.40	(34,581.02)	1,856.29	0.16%
Morgan Stanley	Corporate	BBB+	A1	A	ADJ%	07/21/2032	286,000.00	82.63	USD	236,330.47	281,029.32	(44,698.85)	1,778.76	0.16%
Continental Resources Inc/OK	Corporate	BB+	Baa3	BBB	4.90%	06/01/2044	270,000.00	87.40	USD	235,980.00	280,413.75	(44,433.75)	5,512.50	0.16%
GSK Consumer Healthcare Capital US LLC	Corporate	BBB	Baa1	-	3.63%	03/24/2032	250,000.00	94.01	USD	235,025.14	249,625.00	(14,599.86)	931.42	0.16%
AES Corp/The	Corporate	BBB-	Ba1	BBB-	3.95%	07/15/2030	250,000.00	93.99	USD	234,978.75	273,507.00	(38,528.25)	2,907.64	0.16%
BX Trust 2021-ARIA	CMBS	NR	-	-	ADJ%	10/15/2036	240,000.00	97.39	USD	233,746.56	238,800.00	(5,053.44)	298.52	0.16%
Netflix Inc	Corporate	BBB	Ba1	-	5.88%	11/15/2028	223,000.00	103.25	USD	230,247.50	250,596.25	(20,348.75)	6,041.13	0.15%
Centene Corp	Corporate	BBB-	Ba1	BB+	2.45%	07/15/2028	263,000.00	87.37	USD	229,784.42	253,136.00	(23,351.58)	1,897.25	0.15%
Lending Funding Trust 2020-2	Asset-Backed	A	-	-	2.32%	04/21/2031	248,000.00	91.64	USD	227,265.59	247,977.38	(20,711.79)	175.80	0.15%
FMG Resources August 2006 Pty Ltd	Corporate	BB+	Ba1	-	4.38%	04/01/2031	255,000.00	88.62	USD	225,986.10	262,984.50	(36,998.40)	929.69	0.15%
Progress Residential 2021-SFR4	Asset-Backed	-	Baa3	-	2.31%	05/17/2038	250,000.00	90.07	USD	225,185.60	249,992.35	(24,806.75)	481.04	0.15%
Freeport-McMoRan Inc	Corporate	BB+	Baa3	BBB-	4.25%	03/01/2030	237,000.00	94.23	USD	223,326.29	250,457.50	(27,131.21)	1,678.75	0.15%
FactSet Research Systems Inc	Corporate	-	Baa3	BBB	3.45%	03/01/2032	237,000.00	91.83	USD	217,637.47	236,066.22	(18,428.75)	1,362.75	0.15%
Goldman Sachs Group Inc/The	Corporate	BBB+	A2	A	ADJ%	04/22/2032	255,000.00	84.67	USD	215,904.02	233,625.90	(17,721.88)	166.71	0.15%
Deephaven Residential Mortgage Trust 2021-3	CMO	AAA	-	-	ADJ%	08/25/2066	232,045.22	93.04	USD	215,893.55	232,043.74	(16,150.19)	230.88	0.15%
Progress Residential 2021-SFR4	Asset-Backed	-	NR	-	2.41%	05/17/2038	240,000.00	89.74	USD	215,379.65	239,992.44	(24,612.79)	481.80	0.14%
Freddie Mac STACR REMIC Trust 2021-HQA4	CMO	-	Baa3	-	ADJ%	12/25/2041	220,000.00	97.61	USD	214,752.67	220,000.00	(5,247.33)	45.42	0.14%
COMM 2015-PC1 Mortgage Trust	CMBS	-	NR	-	ADJ%	07/10/2050	222,000.00	96.64	USD	214,543.64	222,011.58	(7,467.94)	825.58	0.14%
American Transmission Systems Inc	Corporate	BBB	A3	BBB	2.65%	01/15/2032	246,000.00	87.09	USD	214,253.18	245,321.04	(31,067.86)	2,716.25	0.14%
National Australia Bank Ltd	Corporate	BBB+	Baa1	A-	2.99%	05/21/2031	250,000.00	85.53	USD	213,833.47	250,000.00	(36,166.53)	3,322.22	0.14%
Glencore Finance Canada Ltd	Corporate	BBB+	Baa1	-	5.55%	10/25/2042	211,000.00	99.54	USD	210,035.54	236,616.92	(26,581.38)	195.19	0.14%
Dell International LLC / EMC Corp	Corporate	BBB	Baa3	BBB	3.38%	12/15/2041	279,000.00	75.17	USD	209,732.01	277,352.76	(67,620.75)	3,609.56	0.14%
CenterPoint Energy Resources Corp	Corporate	BBB+	A3	A-	1.75%	10/01/2030	250,000.00	82.91	USD	207,268.26	238,720.00	(31,451.74)	364.58	0.14%
Horizon Therapeutics USA Inc	Corporate	BB+	Ba1	-	ADJ%	03/15/2028	207,540.63	98.97	USD	205,409.19	207,021.79	(1,612.60)	84.31	0.14%
UBS AG	Corporate	BBB+	-	A-	5.13%	05/15/2024	200,000.00	101.87	USD	203,740.60	216,798.00	(13,057.40)	9,851.39	0.14%
Arbor Realty Commercial Real Estate Notes 2021-FL3 Ltd	Collateralized Debt	-	NR	-	ADJ%	08/15/2034	210,000.00	96.77	USD	203,210.95	210,000.00	(6,789.05)	257.05	0.14%
Morgan Stanley	Corporate	BBB	Baa1	BBB+	ADJ%	09/16/2036	250,000.00	80.10	USD	200,254.07	247,798.75	(47,544.68)	776.26	0.13%
Korea East-West Power Co Ltd	Corporate	AA	-	-	3.60%	05/06/2025	200,000.00	99.94	USD	199,876.10	199,146.00	730.10	0.00	0.13%
TSMC Arizona Corp	Corporate	AA-	Aa3	-	4.25%	04/22/2032	200,000.00	99.56	USD	199,129.26	199,484.00	(354.74)	212.50	0.13%
Viterra Finance BV	Corporate	BBB-	-	BBB-	4.90%	04/21/2027	202,000.00	98.39	USD	198,746.05	201,248.56	(2,502.51)	274.94	0.13%
Abu Dhabi Crude Oil Pipeline LLC	Corporate	AA	-	AA	4.60%	11/02/2047	200,000.00	99.25	USD	198,507.00	229,960.00	(31,453.00)	3,092.22	0.13%
Bank of America Corp	Corporate	A-	A2	AA-	ADJ%	07/21/2028	206,000.00	96.26	USD	198,302.32	231,088.32	(32,786.00)	2,055.99	0.13%
Morgan Stanley	Corporate	BBB+	A1	A	ADJ%	01/23/2030	200,000.00	99.15	USD	198,293.94	226,790.67	(28,496.73)	2,412.44	0.13%
Westlake Automobile Receivables Trust 2020-3	Asset-Backed	A-	-	-	3.34%	06/15/2026	200,000.00	97.88	USD	195,764.62	206,867.19	(11,102.57)	296.89	0.13%
Freeport Indonesia PT	Corporate	-	Baa3	BBB-	5.32%	04/14/2032	200,000.00	97.25	USD	194,500.00	200,000.00	(5,500.00)	501.97	0.13%
JPMorgan Chase & Co	Corporate	A-	A2	-	ADJ%	04/26/2033	193,000.00	100.55	USD	194,054.38	193,000.00	1,054.38	122.93	0.13%
Upstart Securitization Trust 2021-2	Asset-Backed	-	-	-	1.75%	06/20/2031	205,000.00	94.63	USD	193,981.95	204,978.54	(10,996.59)	109.62	0.13%
PulteGroup Inc	Corporate	BBB-	Baa2	BBB	6.38%	05/15/2033	178,000.00	108.21	USD	192,608.94	232,047.92	(39,438.98)	5,232.46	0.13%
Anglo American Capital PLC	Corporate	-	Baa2	BBB	3.88%	03/16/2029	200,000.00	94.97	USD	189,930.68	198,704.00	(8,773.32)	968.75	0.13%
BBCMS 2019-BWAY Mortgage Trust	CMBS	-	-	AAA	ADJ%	11/15/2034	192,000.00	98.64	USD	189,386.88	191,095.50	(1,708.62)	128.87	0.13%
Alcoa Nederland Holding BV	Corporate	BB+	Ba1	BBB-	4.13%	03/31/2029	200,000.00	93.75	USD	187,493.00	209,250.00	(21,757.00)	710.42	0.13%
AMMC CLO 23 Ltd	Collateralized Debt	A	-	-	ADJ%	10/17/2031	190,000.00	98.30	USD	186,775.71	190,000.00	(3,224.29)	210.14	0.13%
Extended Stay America Trust 2021-ESH	CMBS	-	A3	A-	ADJ%	07/15/2038	188,837.80	98.64	USD	186,265.62	188,837.80	(2,572.18)	189.19	0.13%
Minejesa Capital BV	Corporate	-	Baa3	BBB-	4.63%	08/10/2030	200,000.00	91.33	USD	182,654.00	213,000.00	(30,346.00)	2,081.25	0.12%
Toyota Auto Receivables 2021-A Owner Trust	Asset-Backed	-	Aaa	AAA	0.16%	07/17/2023	182,180.20	99.90	USD	182,005.64	182,178.71	(173.07)	12.96	0.12%
SCF Equipment Leasing 2019-2 LLC	Asset-Backed	-	Aaa	-	2.76%	08/20/2026	185,000.00	97.61	USD	180,575.17	184,977.52	(4,402.35)	156.02	0.12%



Name of Security	Security Type	S & P Rating	Moodys Rating	Fitch Rating	Coupon Rate %	Maturity	Quantity	Price	Price Currency	Market Value	Original Cost of Investment \$	Unrealized Gain/Loss*	Accrued Income	Total Assets
Macquarie Group Ltd	Corporate	BBB+	A3	A-	ADJ%	03/27/2029	180,000.00	99.61	USD	179,301.90	179,681.40	(379.50)	791.18	0.12%
Goldman Sachs Group Inc/The	Corporate	BBB	Baa2	BBB+	6.75%	10/01/2037	155,000.00	115.63	USD	179,223.38	219,500.15	(40,276.77)	871.88	0.12%
Prosus NV	Corporate	BBB	Baa3	-	3.26%	01/19/2027	200,000.00	89.54	USD	179,087.86	200,000.00	(20,912.14)	1,845.63	0.12%
BHMS 2018-ATLS	CMBS	-	-	-	ADJ%	07/15/2035	180,000.00	98.98	USD	178,159.59	180,168.75	(2,009.16)	144.33	0.12%
CSMC Series 2019-UVIL	CMBS	-	Aaa	-	ADJ%	12/15/2041	16,362,886.00	1.08	USD	175,982.84	226,887.78	(50,904.94)	3,180.81	0.12%
Freddie Mac Structured Agency Credit Risk Debt Notes	CMO	BBB-	-	-	ADJ%	11/25/2041	180,000.00	96.89	USD	174,394.89	180,000.00	(5,605.11)	62.66	0.12%
JPMBB Commercial Mortgage Securities Trust 2015-C30	CMBS	-	NR	-	ADJ%	07/15/2048	185,000.00	94.23	USD	174,327.59	180,434.31	(6,106.72)	678.66	0.12%
UBS Commercial Mortgage Trust 2017-C4	CMBS	AA+	Aa3	AAA	ADJ%	10/15/2050	180,000.00	96.75	USD	174,149.32	193,598.44	(19,449.12)	575.40	0.12%
Navient Private Education Refi Loan Trust 2020-F	Asset-Backed	AAA	-	AAA	1.22%	07/15/2069	177,490.89	97.08	USD	172,315.44	178,842.87	(6,527.43)	96.24	0.12%
TSMC Arizona Corp	Corporate	AA-	Aa3	-	3.25%	10/25/2051	200,000.00	83.38	USD	166,750.24	197,316.00	(30,565.76)	108.33	0.11%
Tengizchevroil Finance Co International Ltd	Corporate	BBB-	Baa2	-	3.25%	08/15/2030	200,000.00	80.72	USD	161,432.00	200,008.00	(38,576.00)	1,372.22	0.11%
Citigroup Commercial Mortgage Trust 2017-P7	CMBS	-	NR	A-	ADJ%	04/14/2050	175,000.00	92.08	USD	161,139.88	182,068.36	(20,928.48)	666.16	0.11%
Carnival Corp	Corporate	BB-	Ba2	-	4.00%	08/01/2028	178,000.00	90.15	USD	160,465.22	172,215.00	(11,749.78)	1,780.00	0.11%
World Omni Auto Receivables Trust 2021-A	Asset-Backed	AAA	-	AAA	0.17%	02/15/2024	159,672.09	99.91	USD	159,523.79	159,667.57	(143.78)	12.06	0.11%
Alfa Desarrolo SpA	Corporate	BBB-	Baa3	-	4.55%	09/27/2051	199,460.84	78.56	USD	156,701.42	199,460.84	(42,759.42)	857.13	0.11%
ON Semiconductor Corp	Corporate	BB	Ba2	-	3.88%	09/01/2028	167,000.00	92.92	USD	155,170.56	166,048.10	(10,877.54)	1,078.54	0.10%
Venture Global Calcasieu Pass LLC	Corporate	BB	Ba3	-	4.13%	08/15/2031	166,000.00	90.90	USD	150,898.98	169,112.50	(18,213.52)	1,445.58	0.10%
Toll Brothers Finance Corp	Corporate	BB+	Baa3	BBB-	3.80%	11/01/2029	164,000.00	90.96	USD	149,176.02	177,607.65	(28,431.63)	3,116.00	0.10%
OneMain Direct Auto Receivables Trust 2019-1	Asset-Backed	AA	-	-	3.95%	11/14/2028	150,000.00	98.95	USD	148,430.87	164,179.69	(15,748.82)	279.79	0.10%
Sprint Capital Corp	Corporate	BB+	Ba2	BB+	6.88%	11/15/2028	135,000.00	109.91	USD	148,380.53	171,679.50	(23,298.97)	4,279.69	0.10%
DBWF 2018-GLKS Mortgage Trust	CMBS	-	-	AAA	ADJ%	12/19/2030	150,000.00	98.66	USD	147,987.76	148,542.80	(555.04)	81.22	0.10%
Netflix Inc	Corporate	BBB	Ba1	-	6.38%	05/15/2029	139,000.00	106.14	USD	147,529.04	168,728.60	(21,199.56)	4,086.02	0.10%
Connecticut Avenue Securities Trust 2021-R01	CMO	BBB-	-	-	ADJ%	10/25/2041	150,000.00	96.82	USD	145,229.01	150,000.00	(4,770.99)	45.97	0.10%
Carmax Auto Owner Trust 2021-1	Asset-Backed	AAA	-	AAA	0.22%	02/15/2024	145,237.21	99.89	USD	145,070.98	145,235.81	(164.83)	14.20	0.10%
VMware Inc	Corporate	BBB-	Baa3	BBB	4.70%	05/15/2030	143,000.00	99.63	USD	142,477.12	166,474.00	(23,996.88)	3,099.13	0.10%
Fannie Mae Pool	POOL	-	-	-	3.50%	09/01/2051	144,730.94	98.40	USD	142,410.66	145,070.15	(2,659.49)	154.78	0.10%
Aircastle Ltd	Corporate	BBB-	Baa3	BBB	2.85%	01/26/2028	161,000.00	87.43	USD	140,765.94	162,417.35	(21,651.41)	1,210.86	0.09%
ZH Trust 2021-2	CMO	-	-	-	2.35%	10/17/2027	141,762.86	99.08	USD	140,454.37	141,762.68	(1,308.31)	277.55	0.09%
Occidental Petroleum Corp	Corporate	BB+	Ba1	BB+	6.45%	09/15/2036	126,000.00	108.66	USD	136,910.34	153,405.00	(16,494.66)	1,038.45	0.09%
Assurant Inc	Corporate	BBB	Baa3	-	2.65%	01/15/2032	165,000.00	81.54	USD	134,543.86	163,633.05	(29,089.19)	1,287.46	0.09%
Fannie Mae Connecticut Avenue Securities	CMO	-	-	BB	ADJ%	11/25/2041	140,000.00	95.27	USD	133,374.43	140,000.00	(6,625.57)	53.40	0.09%
Csail 2015-C2 Commercial Mortgage Trust	CMBS	-	NR	-	ADJ%	06/15/2057	140,000.00	91.18	USD	127,656.28	129,168.90	(1,512.62)	504.66	0.09%
Ford Credit Auto Lease Trust 2021-A	Asset-Backed	-	Aaa	AAA	0.19%	07/15/2023	121,738.95	99.91	USD	121,630.14	121,730.43	(100.29)	10.28	0.08%
Oracle Corp	Corporate	BBB+	Baa2	BBB+	6.13%	07/08/2039	116,000.00	103.89	USD	120,516.80	158,942.61	(38,425.81)	2,230.18	0.08%
First American Financial Corp	Corporate	BBB-	Baa2	BBB	2.40%	08/15/2031	140,000.00	82.53	USD	115,544.82	139,528.20	(23,983.38)	709.33	0.08%
Drive Auto Receivables Trust 2019-3	Asset-Backed	AAA	Aaa	-	2.90%	08/15/2025	111,332.35	100.26	USD	111,623.69	114,698.42	(3,074.73)	143.50	0.08%
American Homes 4 Rent LP	Corporate	BBB-	Baa3	-	2.38%	07/15/2031	131,000.00	82.76	USD	108,421.13	129,052.03	(20,630.90)	916.09	0.07%
Oracle Corp	Corporate	BBB+	Baa2	BBB+	5.38%	07/15/2040	107,000.00	95.95	USD	102,663.29	114,094.24	(11,430.95)	1,693.42	0.07%
Hudsons Bay Simon JV Trust 2015-HBS	CMBS	B+	-	-	ADJ%	08/05/2034	140,000.00	72.86	USD	102,005.33	132,941.33	(30,936.00)	621.95	0.07%
UBS-Barclays Commercial Mortgage Trust 2012-C3	CMBS	-	Aa1	-	ADJ%	08/10/2049	100,000.00	100.16	USD	100,162.36	104,089.20	(3,926.84)	363.75	0.07%
Master Credit Card Trust II Series 2018-1	Asset-Backed	-	Aaa	AAA	ADJ%	07/21/2024	100,000.00	100.16	USD	100,161.72	100,000.00	161.72	30.96	0.07%
MSCI Inc	Corporate	BB+	Ba1	BBB-	3.25%	08/15/2033	118,000.00	84.65	USD	99,882.28	120,065.00	(20,182.72)	809.61	0.07%
Flagship Credit Auto Trust 2021-1	Asset-Backed	AAA	-	-	0.31%	06/16/2025	99,567.00	99.19	USD	98,759.92	99,561.45	(801.53)	13.72	0.07%
GS Mortgage Securities Corp Trust 2018-RIVR	CMBS	AAA	-	-	ADJ%	07/15/2035	99,828.05	98.75	USD	98,582.55	99,828.05	(1,245.50)	66.74	0.07%
HONO 2021-LULU Mortgage Trust	CMBS	-	-	-	ADJ%	10/15/2036	100,000.00	98.35	USD	98,354.72	100,000.00	(1,645.28)	89.07	0.07%
HONO 2021-LULU Mortgage Trust	CMBS	-	-	-	ADJ%	10/15/2036	100,000.00	98.33	USD	98,328.01	100,000.00	(1,671.99)	106.85	0.07%
Atrium Hotel Portfolio Trust 2018-ATRM	CMBS	AAA	-	-	ADJ%	06/15/2035	100,000.00	98.18	USD	98,180.82	100,000.00	(1,819.18)	66.85	0.07%
COMM 2015-PC1 Mortgage Trust	CMBS	-	NR	-	ADJ%	07/10/2050	110,000.00	88.56	USD	97,415.02	88,666.95	8,748.07	409.07	0.07%
CPI Swap	Swaps	-	-	-	2.68%	02/14/2032	-	94.28	-	97,267.95	0.00	97,267.95	0.00	0.07%
Mountain View CLO X Ltd	Collateralized Debt	AAA	Aaa	-	ADJ%	10/13/2027	95,480.71	99.57	USD	95,065.74	93,809.79	1,255.95	87.91	0.06%
Bank of America Corp	Corporate	BBB+	Baa1	A	4.00%	01/22/2025	95,000.00	100.06	USD	95,054.75	98,438.25	(3,383.50)	1,045.00	0.06%
Wells Fargo Commercial Mortgage Trust 2016-C35	CMBS	-	NR	A-	ADJ%	07/15/2048	103,000.00	91.68	USD	94,432.98	103,296.99	(8,864.01)	358.44	0.06%
Hudsons Bay Simon JV Trust 2015-HBS	CMBS	AA	-	-	4.15%	08/05/2034	100,000.00	91.40	USD	91,401.29	103,015.63	(11,614.34)	346.21	0.06%

Name of Security	Security Type	S & P Rating	Moodys Rating	Fitch Rating	Coupon Rate %	Maturity	Quantity	Price	Price Currency	Market Value	Original Cost of Investment \$	Unrealized Gain/Loss*	Accrued Income	Total Assets
SFAVE Commercial Mortgage Securities Trust 2015-5AVE	CMBS	AAA	-	-	ADJ%	01/05/2043	100,000.00	90.75	USD	90,753.84	100,479.62	(9,725.78)	322.67	0.06%
New Jersey Educational Facilities Authority	Municipal	AA	-	-	3.84%	09/01/2036	94,000.00	94.07	USD	88,422.52	98,167.02	(9,744.50)	600.97	0.06%
SLC Student Loan Trust 2008-1	Asset-Backed	AAA	Aa1	AA	ADJ%	12/15/2032	86,655.85	101.19	USD	87,685.01	89,342.82	(1,657.81)	274.46	0.06%
Drive Auto Receivables Trust 2019-2	Asset-Backed	AA+	Aaa	-	3.69%	08/17/2026	86,000.00	100.75	USD	86,648.29	90,491.48	(3,843.19)	141.04	0.06%
Foothill-Eastern Transportation Corridor Agency	Municipal	A	Baa2	BBB	4.09%	01/15/2049	92,000.00	92.42	USD	85,022.76	93,171.68	(8,148.92)	1,109.02	0.06%
CSAIL 2019-C18 Commercial Mortgage Trust	CMBS	AA+	-	AAA	3.32%	12/15/2052	90,260.00	92.83	USD	83,787.51	92,966.99	(9,179.48)	249.82	0.06%
Bayer Corp	Corporate	BBB	Baa2	BBB+	6.65%	02/15/2028	74,000.00	108.19	USD	80,059.17	90,283.77	(10,224.60)	1,038.87	0.05%
New Jersey Educational Facilities Authority	Municipal	AA	-	-	3.64%	09/01/2029	78,000.00	96.48	USD	75,253.39	81,534.96	(6,281.57)	472.68	0.05%
Westlake Automobile Receivables Trust 2019-2	Asset-Backed	AAA	-	-	3.20%	11/15/2024	74,000.00	100.28	USD	74,205.62	73,993.04	212.58	105.24	0.05%
Starwood Mortgage Residential Trust 2020-3	CMO	AAA	-	-	ADJ%	04/25/2065	74,435.97	98.37	USD	73,222.17	74,434.99	(1,212.82)	92.18	0.05%
Neuberger Berman Group LLC / Neuberger Berman Finance Corp	Corporate	BBB+	Baa2	-	4.50%	03/15/2027	70,000.00	101.95	USD	71,363.16	72,842.76	(1,479.60)	402.50	0.05%
Verus Securitization Trust 2020-4	CMO	AAA	-	-	ADJ%	05/25/2065	71,556.07	97.41	USD	69,705.32	71,554.81	(1,849.49)	89.56	0.05%
J.P. Morgan Chase Commercial Mortgage Securities Trust 2018-MINN	CMBS	-	Aaa	-	ADJ%	11/15/2035	66,000.00	99.67	USD	65,781.36	66,000.00	(218.64)	59.25	0.04%
Freddie Mac Multifamily Structured Pass Through Certificates	CMBS	AAA	-	-	ADJ%	02/25/2032	696,613.61	9.43	USD	65,711.56	110,549.06	(44,837.50)	1,240.98	0.04%
CPI Swap	Swaps	-	-	-	2.54%	03/02/2052	-	91.89	-	64,884.44	0.00	(11,291.17)	0.00	0.04%
CPI Swap	Swaps	-	-	-	2.54%	03/02/2052	-	91.89	-	64,884.44	0.00	26,308.83	0.00	0.04%
Wells Fargo Commercial Mortgage Trust 2017-C41	CMBS	-	Aa3	AAA	ADJ%	11/15/2050	64,000.00	95.68	USD	61,235.16	68,085.00	(6,849.84)	201.87	0.04%
Dell Equipment Finance Trust 2019-2	Asset-Backed	-	Aaa	AAA	1.91%	10/22/2024	59,487.53	100.10	USD	59,544.58	60,421.67	(877.09)	28.41	0.04%
County of Miami-Dade FL	Municipal	A+	-	A+	2.79%	10/01/2037	70,000.00	80.93	USD	56,650.12	69,856.00	(13,205.88)	162.52	0.04%
GCAT 2020-NQM2 Trust	CMO	AAA	-	-	ADJ%	04/25/2065	55,752.32	97.70	USD	54,472.39	55,751.43	(1,279.04)	72.25	0.04%
Verus Securitization Trust 2020-INV1	CMO	AAA	-	-	ADJ%	03/25/2060	52,467.59	98.75	USD	51,810.54	52,467.46	(656.92)	86.44	0.03%
Vista Point Securitization Trust 2020-2	CMO	AAA	-	-	ADJ%	04/25/2065	52,300.20	97.17	USD	50,820.82	52,299.63	(1,478.81)	64.29	0.03%
Mercedes-Benz Auto Lease Trust 2021-A	Asset-Backed	AAA	Aaa	-	0.18%	03/15/2023	50,505.55	99.96	USD	50,482.95	50,505.17	(22.22)	4.04	0.03%
Ellington Financial Mortgage Trust 2020-1	CMO	AAA	-	-	ADJ%	05/25/2065	45,026.00	98.25	USD	44,240.00	45,025.39	(785.39)	75.27	0.03%
Neuberger Berman Group LLC / Neuberger Berman Finance Corp	Corporate	BBB+	Baa2	-	4.88%	04/15/2045	43,000.00	97.79	USD	42,048.17	41,626.30	421.87	93.16	0.03%
GS Mortgage Securities Trust 2015-GC32	CMBS	-	NR	A-	ADJ%	07/10/2048	43,000.00	97.18	USD	41,788.04	42,830.99	(1,042.95)	163.73	0.03%
Regents of the University of California Medical Center Pooled Revenue	Municipal	AA-	Aa3	AA-	3.01%	05/15/2050	50,000.00	78.96	USD	39,482.13	50,000.00	(10,517.87)	693.05	0.03%
Credit Suisse Mortgage Capital Certificates	CMO	-	-	AAA	ADJ%	04/25/2065	38,582.36	99.28	USD	38,303.91	38,582.08	(278.17)	51.96	0.03%
BBCMS 2019-BWAY Mortgage Trust	CMBS	-	-	AA-	ADJ%	11/15/2034	37,000.00	98.32	USD	36,379.08	36,759.30	(380.22)	30.65	0.02%
Towd Point Asset Trust 2018-SL1	Asset-Backed	-	Aaa	-	ADJ%	01/25/2046	35,901.50	99.79	USD	35,824.48	35,757.10	67.38	7.59	0.02%
ReadyCap Commercial Mortgage Trust 2019-6	CMBS	-	Aaa	-	2.83%	10/25/2052	35,055.30	96.73	USD	33,907.48	35,055.25	(1,147.77)	16.55	0.02%
UBS-Barclays Commercial Mortgage Trust 2012-C2	CMBS	-	Aaa	AAA	3.53%	05/10/2063	33,865.37	99.89	USD	33,826.82	34,047.92	(221.10)	99.48	0.02%
Citigroup Commercial Mortgage Trust 2016-P3	CMBS	-	NR	BB-	ADJ%	04/15/2049	44,000.00	76.28	USD	33,561.32	33,931.10	(369.78)	102.81	0.02%
Oaktree CLO 2015-1 Ltd	Collateralized Debt	AAA	Aaa	-	ADJ%	10/20/2027	29,399.11	99.88	USD	29,363.96	29,399.11	(35.15)	17.36	0.02%
Verus Securitization Trust 2020-1	CMO	AAA	-	-	ADJ%	01/25/2060	26,720.03	99.11	USD	26,483.26	26,519.53	(36.27)	53.82	0.02%
Wells Fargo Commercial Mortgage Trust 2015-C29	CMBS	-	NR	AAA	ADJ%	06/15/2048	1,648,159.88	1.59	USD	26,172.78	64,884.71	(38,711.93)	1,014.99	0.02%
New Residential Mortgage Loan Trust 2020-NQM1	CMO	-	-	AAA	ADJ%	01/26/2060	26,651.86	97.43	USD	25,965.88	26,651.87	(685.99)	54.73	0.02%
Vista Point Securitization Trust 2020-1	CMO	AAA	-	-	ADJ%	03/25/2065	24,889.00	99.90	USD	24,863.67	24,888.66	(24.99)	36.57	0.02%
PFP 2019-6 Ltd	CMBS	-	Aaa	-	ADJ%	04/14/2037	24,231.65	99.31	USD	24,063.78	24,231.64	(167.86)	18.32	0.02%
Pennsylvania Higher Education Assistance Agency	Asset-Backed	AA+	Aaa	AAA	ADJ%	04/25/2038	20,757.91	93.17	USD	19,341.03	20,084.68	(743.65)	5.03	0.01%
Westlake Automobile Receivables Trust 2020-2	Asset-Backed	AAA	-	-	0.93%	02/15/2024	14,400.35	99.98	USD	14,396.93	14,399.60	(2.67)	5.95	0.01%
Angel Oak Mortgage Trust 2020-1	CMO	AAA	-	-	ADJ%	12/25/2059	13,308.60	98.51	USD	13,110.32	13,308.35	(198.03)	27.35	0.01%
Government National Mortgage Association	CMBS	-	-	-	ADJ%	02/16/2053	8,752.89	97.34	USD	8,519.74	8,697.59	(177.85)	21.15	0.01%
Deephaven Residential Mortgage Trust 2020-2	CMO	-	-	AAA	1.69%	05/25/2065	8,221.60	99.95	USD	8,217.63	8,221.55	(3.92)	11.59	0.01%
GM Financial Consumer Automobile Receivables Trust 2018-4	Asset-Backed	AAA	Aaa	-	3.21%	10/16/2023	8,182.29	100.13	USD	8,192.54	8,386.21	(193.67)	10.94	0.01%
COMM 2014-CCRE19 Mortgage Trust	CMBS	-	NR	AAA	ADJ%	08/10/2047	124,359.08	1.72	USD	2,137.70	6,283.32	(4,145.62)	113.54	0.00%

Name of Security	Security Type	S & P Rating	Moody's Rating	Fitch Rating	Coupon Rate %	Maturity	Quantity	Price	Price Currency	Market Value	Original Cost of Investment \$	Unrealized Gain/Loss*	Accrued Income	Total Assets
Flagship Credit Auto Trust 2020-2	Asset-Backed	AAA	-	-	1.49%	07/15/2024	1,743.35	99.99	USD	1,743.10	1,743.21	(0.11)	1.15	0.00%
US 10YR NOTE (CBT)Jun22	Futures	-	-	-	0.00%	06/30/2022	(20.00)	119.16	USD	0.00	0.00	26,211.60	0.00	0.00%
US 10yr Ultra Fut Jun22	Futures	-	-	-	0.00%	06/30/2022	14.00	129.00	USD	0.00	0.00	(79,761.29)	0.00	0.00%
US 5YR NOTE (CBT) Jun22	Futures	-	-	-	0.00%	07/06/2022	132.00	112.67	USD	0.00	0.00	(606,987.32)	0.00	0.00%
US ULTRA BOND CBT Jun22	Futures	-	-	-	0.00%	06/30/2022	28.00	160.44	USD	0.00	0.00	(664,391.28)	0.00	0.00%
Ginnie Mae	TBA	-	-	-	4.50%	05/20/2048	750,000.00	101.50	USD	(585.94)	761,835.94	(762,421.88)	0.00	0.00%
Fannie Mae or Freddie Mac	TBA	-	-	-	4.50%	06/25/2048	1,450,000.00	101.25	USD	(931.38)	1,469,031.25	(1,469,962.63)	0.00	0.00%
Fannie Mae or Freddie Mac	TBA	-	-	-	4.00%	02/25/2049	2,250,000.00	99.15	USD	(1,669.94)	2,232,597.66	(2,234,267.60)	0.00	0.00%
Ginnie Mae	TBA	-	-	-	4.00%	12/20/2048	750,000.00	99.83	USD	(1,845.71)	750,585.94	(752,431.65)	0.00	0.00%
Ginnie Mae	TBA	-	-	-	3.50%	06/20/2049	800,000.00	97.85	USD	(19,250.00)	802,062.50	(821,312.50)	0.00	(0.01)%
Credit Index Swap	Swaps	-	-	-	1.00%	06/20/2027	-	100.76	-	(31,083.23)	0.00	31,452.14	(4,638.70)	(0.02)%
Fannie Mae or Freddie Mac	TBA	-	-	-	3.00%	06/25/2049	5,187,000.00	94.30	USD	(137,164.49)	5,028,755.97	(5,165,920.46)	0.00	(0.09)%
Commercial Mortgage Backed Index Swap	Swaps	-	-	-	3.00%	09/17/2058	-	88.00	-	(139,238.05)	0.00	(12,876.12)	580.00	(0.09)%
Fannie Mae or Freddie Mac	TBA	-	-	-	3.50%	03/25/2049	8,703,000.00	97.01	USD	(215,476.54)	8,658,066.42	(8,873,542.96)	0.00	(0.14)%
<b>SECURITIES (EXCLUDING CASH EQUIVALENTS)</b>										\$136,667,083.45				91.87%
<b>CURRENCY FORWARD(UNREALIZED GAIN/LOSS)</b>										\$120,112.55				0.08%
<b>CASH EQUIVALENTS</b>										\$5,084,873.77				3.42%
<b>ACCRUED INCOME</b>										\$554,026.78				0.37%
<b>CASH</b>										\$6,339,161.48				4.26%
<b>TOTAL</b>										\$148,765,258.03				100.00%

\*Does not include amortization of premium or accretion of discount.



LORD ABBETT®

**The portfolio is actively managed and holdings are subject to change.**

**This material has been prepared exclusively for use by analysts, institutional investors and their consultants, registered investment advisors, broker-dealers, and sponsors of plans with a minimum of 100 participants. It is not intended for, and should not be used with, small plan sponsors, plan participants, or the public in written or oral form or for any other purpose.**



LORD ABBETT®

### Lord Abbett Core Fixed Income Trust II Geographic Breakdown

As of 4/30/2022

Country	Weight
Germany	0.05%
Chile	0.11%
Kazakhstan	0.11%
South Africa	0.13%
South Korea	0.13%
France	0.17%
Spain	0.21%
Saudi Arabia	0.22%
Taiwan	0.25%
Sweden	0.25%
Indonesia	0.26%
Switzerland	0.29%
Italy	0.29%
Denmark	0.35%
United Arab Emirates	0.36%
Netherlands	0.36%
Luxembourg	0.46%
United Kingdom	0.55%
China	0.65%
Supra-National	0.67%
Norway	0.77%
Australia	0.88%
Japan	1.07%
Ireland	1.31%
Canada	1.60%
Cayman Islands	7.55%
United States	80.96%

	<b>100.00%</b>
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NEPC, LLC

**Firm: Alcentra**

**Strategy/Product: Alcentra European Direct Lending Fund**

**Client: The Massachusetts Water Resource Authority**

## **NEPC Manager Due Diligence Questionnaire - Update**

### **Instructions**

In support of our upcoming meeting we ask that you please complete this due diligence questionnaire. Please provide your responses in the form of brief descriptions, lists or tables added directly to this Word document.

Thank you for taking the time to complete this questionnaire. Please note that all materials submitted in relation to MWRA Retirement System may be subject to disclosure consistent with Massachusetts Public Record laws.

### **Firm/Organization**

#### **1. Have there been any changes in ownership or management in the past year?**

There has been no change to Alcentra's ownership structure over past year ending 31 March 2022. Please find below senior management changes during the stated period.

##### **2022:**

As of 1 April, Graham Rainbow stepped down from his role as Co-CIO. Graham Rainbow will no longer carry out Portfolio Manager roles, however, he will remain on the investment committee and will continue to provide his advice and knowledge across European Loan accounts. Daire Wheeler and Ross Curran will carry out the Portfolio Manager roles and will continue to be supported by the broader European portfolio management team. The broader strategic decisions around positioning will continue to be done by the broader portfolio management team which will include Graham Rainbow.

In April 2022, Joe Cantwell was appointed as Chief Investment Officer, Liquid Credit.

##### **2021:**

In November 2021, Ross Curran was appointed Head of Responsible investing, to lead Alcentra's newly formed dedicated Responsible Investing team.

In September 2021, Joe Cantwell was appointed as Co-Chief Investment Officer, Liquid Credit.

Peter Glaser, Head of European Direct Lending, departed the Firm at the end of September 2021. Jon DeSimone has stepped in as Interim CIO of Private Credit until a replacement is appointed.



Ruth Davis joined Alcentra in July 2021 as Alcentra’s first Chief of Staff based in London.

Chris Mulshine was appointed Chief Commercial Officer in May 2021.

David Forbes-Nixon stepped down from the board and remained a special advisor to the Firm until December 2021.

In January 2021, Leland Hart and Dan Fabian left their roles as Co-CIO, Liquid Credit and COO & President, respectively.

**2. List firm AUM, net flows and accounts gained/lost for the past 5 years.**

	AUM (March 31, 2022)	AUM (March 31,2017)	Cash Flow Out	Cash Flow Out (Matured) *	Cash Flow In	Accounts Gained**	Accounts Lost**
<b>Firm</b>	\$38.98 billion	\$31.46 billion	\$2.20 billion	\$4.53 billion	\$20.88 billion	42	15

\*Naturally matured CLOs and vehicles

\*\*Accounts represent number of vehicles

**3. Have there been any new or discontinued products in the past year?**

Overtime, Alcentra adds new products based on demand, market conditions and trends. In 2021 we launched our fourth vintage European Direct Lending Fund which is currently fundraising.

As of 1 November 2021 the Alcentra Global Loan Fund, AUM \$155m, was put into managed wind-down due to a change of circumstances in which all remaining investors indicated that they would be submitting a full redemption request for the 1 December 2021 dealing day.

**4. Are any products capacity constrained?**

No.

**5. Describe any current or pending regulatory, compliance or litigation issues and the expected business impact.**

To the best of our knowledge, as of 31 March 2022 there is no pending or ongoing litigation against Alcentra or any key employee of Alcentra that will provide services to the account that would have an impact on the account.

As a large and established global manager, Alcentra has been involved in past proceedings and matters that have been fully resolved with no material impact on its business or ability to fulfill its





duties and obligations to clients. Alcentra may also be involved from time to time in proceedings related to its investment activities (e.g., company restructurings, recovery of defaulted debt) that are expected to arise given the nature of certain investment strategies (direct lending, special situations) that Alcentra pursues.

**6. Describe your diversity, equity and inclusion efforts with regard to the firm and its employees.**

Alcentra utilizes BNY Mellon's Diversity and Inclusion policy. BNY Mellon has an unwavering commitment to diversity and inclusion. This commitment is not only important to our company's culture and to each of us as individuals, it is also critical to our ability to serve our clients and grow our businesses. An important part of this commitment is founded on compliance with all applicable Equal Employment Opportunity and Affirmative Action laws and regulations. We reaffirm BNY Mellon's commitment to abide by these laws. BNY Mellon outlines the company's commitment to Diversity & Inclusion in its internal web portal that all employees can access.

The Global Diversity and Inclusion function has developed an enterprise-wide approach to the diversity strategy which is directly aligned with the company's "Play to Win" strategic framework. Our vision is 'To power investment success through a culture of inclusion and innovation', anchored around three major pillars:

- Market leadership
- Business integration
- Great people

Additional Diversity and Inclusion Resources and Tools that we offer to our employees include:

- D&I External Messaging Framework & Client Proposal Narrative: Informational tools for employees that communicates the business case for diversity and inclusion and how it can positively impact the organization and increase business outcomes
- "Unconscious bias": A diversity and inclusion training program has been rolled out to all employees across the company
- Access to the 30% Club: Offers individuals formal mentoring opportunities across various industries
- Investment2020: An initiative championing a more inclusive culture by focusing on social economic diversity
- GENEDGE: Taps into and shares the knowledge capital, energy and range of talents within our diverse, multigenerational workforce
- HEART: Increases awareness and education around the needs of people with disabilities
- IMPACT: Provides an invaluable resource for the recruitment, retention, professional development and advancement of multicultural employees
- PRISM: Fosters an open and supportive environment for lesbian, gay, bisexual, transgender, queer/questioning and ally employees (LGBTQA)
- VETNET: Serves as a resource for professional development and advancement of military members as they transition to new careers and civilian life



- WIN: Promotes a culture of leadership and sponsorship to recognize and support the professional development and advancement of our women.

To learn more about our diversity and inclusion efforts please refer to the following link from the BNY Mellon website: <https://www.bnymellon.com/us/en/about-us/diversity-inclusion.html>

## Portfolio Management Team

### 1. Have there been any changes in the portfolio management team in the past year?

Yes. As mentioned, Peter Glaser, Head of European Direct Lending, departed the Firm at the end of September 2021. Joanna Layton was promoted to Deputy Portfolio Manager of European Direct Lending and Jon DeSimone has stepped in as an interim CIO of Private Credit until a replacement is appointed. Jon will be supported by the wider Private Credit team including Howard Sharp, Head of Origination, Joanna Layton, Head of Portfolio Monitoring, Alex Walker, Head of Structuring and Suhail Shaikh, Head of US Private Credit.

### Are there any expected changes to the team in the future (planned additions or departures)?

We continue to invest in European Direct Lending resourcing in conjunction with our planned growth of the platform via the launch of the fourth vintage of our EDL strategy. We are adding incremental capability to each of our Origination & Execution, Portfolio Monitoring, Structuring, and Operations teams.

## Process

### 1. Have there been significant changes in any of the areas below in the past year?

- Identification of investment ideas
- Process for exploring and vetting ideas
- Portfolio trading practices including buy/sell rules
- Approach to portfolio monitoring and risk management

No significant changes.

## Philosophy

### 1. Describe recent changes in investment philosophy, if any.

No changes.



## Portfolio

1. If not included in your meeting presentation, provide portfolio holdings, sector exposure, geographic exposure and common characteristics (yield, duration, market cap, P/E, etc.).

Included within the presentation.

2. List strategy AUM, net flows and accounts gained/lost for the past 5 years.

	AUM (March 31, 2022)	Cash Flow Out	Cash Flow In	Accounts Gained*	Accounts Lost*
Strategy	\$9.2 billion	NA – closed ended	\$6.9 billion	10	NA

\*New accounts

3. Describe investor concentration for the strategy and note the percent of AUM attributable to the top five investors.

*Below information is as of December 31, 2021.*

Type	% of Strategy AUM
Pension Funds	66%
Insurance	13%
Government	6%
Asset Managers	6%
Bank	5%
Others	5%
<b>Total</b>	<b>100%</b>

Region	% of Strategy AUM
UK	37%
Europe Ex UK	28%
North America	22%
Asia	9%
Middle East	4%
<b>Total</b>	<b>100%</b>



Top 5 Investors	% of Strategy AUM
Investor 1	9%
Investor 2	4%
Investor 3	4%
Investor 4	3%
Investor 5	3%

## Performance / Market Outlook

- 1. If not included in your meeting presentation, provide trailing returns as of the most recent quarter-end and calendar year returns for the past 10 years, both relative to benchmark.**

Included within the presentation.

- 2. Briefly discuss recent performance trends and identify environments in which the strategy is likely to be in or out of favor.**

Market momentum returned and remained strong throughout 2021, with transaction volumes recovering to pre-COVID levels. We have seen a number of exits from the EDL I portfolio over the year and are working toward exits on the remaining assets in the Fund.

Financial performance across the portfolio continues to be robust, with the impact of initial severe COVID-19 lockdowns in 2020 having predominantly subsided. Despite the broad-based improvement in trading versus 2020, we remain in close dialogue with all of our borrower management teams and have protective covenants in place to allow us to closely track business recovery. This ensures we have appropriate triggers to precipitate discussions with shareholders and management teams should recovery profiles differ from business plans.

Alcentra's view is that there are several drivers of growth in the European market. From the perspective of opportunity to deploy middle market direct lending capital, commercial and investment banks continue to be subject to capital pressures and regulatory requirements, which make them less aggressive and less able to lend capital to mid-market companies. At the same time, private equity dry powder is large and growing, and such firms like to work with middle market direct lenders, as they can typically be more flexible around the capital structure than banks.

It is the view of Alcentra that the European middle market is, and will remain, a large contributor to European GDP and employer of its workforce and that non-bank lending may



gradually overtake traditional bank financing for European middle market companies seeking external capital.

Having faced its sternest and first real test since its inception after the global financial crisis during the COVID-19 crisis, direct lending has taken another important step forward as a fast maturing asset class. This is a notable moment. Not only has it played an essential role for almost a decade in filling the capital holes left by previous economic dislocation but 2020 will be seen as the year that European direct lending has worked as designed for investors, providing attractive returns with robust downside protection even during turbulent economic conditions. Broad sourcing networks, rigorous due diligence and structuring, discipline in selecting credits, high degrees of portfolio diversification and excellence in portfolio monitoring all have served to protect investor capital and drive returns.

Strategic activity is likely to continue apace, providing more investing opportunities for direct lenders. As with any downturn, the economic reality of Covid-19 is that better managed businesses are likely to look for market share opportunities by acquisition. Alongside this, smaller players might not be able to weather the profitability and capital challenges brought about by the strains of the pandemic. These factors are likely to drive sector consolidation. With large pools of private equity and debt dry powder, private markets are well placed to support LBOs and growth via acquisition. Similarly, in a low yield environment, with the inflationary outlook uncertain and highly priced equity markets, floating rate private credit is also likely to become an even more important part of institutional investment portfolios to drive attractive risk adjusted returns.

**3. Describe your market outlook and how strategy positioning is impacted by your views.**

Please see our response for Question 2, above

**4. Could you please include a slide in your presentation that shows the MWRA's account history, initial contribution, cumulative subsequent contributions, cumulative subsequent distributions, gain/loss and current value.**

Included within the presentation.

# Alcentra European Direct Lending – Portfolio Update

26<sup>th</sup> May 2022



NOT FDIC-INSURED | NOT BANK-GUARANTEED | MAY LOSE VALUE

# Disclosures



Alcentra Limited is the investment manager of the Alcentra European Direct Lending Fund (“EDL I”), (the “Fund”) and is part of the BNY Mellon organization. See information that follows for more detail. Any losses in the Funds will be borne solely by investors in the Funds and not by BNY Mellon (including its affiliates); therefore, BNY Mellon’s losses in the Funds will be limited to losses attributable to the ownership interests in the Funds held by BNY Mellon and any affiliate in its capacity as an investor in the Funds or as beneficiary of a restricted profit interest held by BNY Mellon or any affiliate. Ownership interests in the Funds are not insured by the FDIC and are not deposits, obligations of, or endorsed or guaranteed in any way, directly or indirectly, by BNY Mellon or any of its affiliates. The investor should read the Funds’ offering documents before investing which includes information about the role of BNY Mellon its affiliates and their employees in sponsoring or providing services to the Funds.

Securities offered in the United States through BNY Mellon Securities Corporation (“BNYMSC”), a registered broker dealer, and a member of FINRA. BNYMSC and BNY Alcentra Group Holdings Inc (the “Alcentra Group”) are both subsidiaries of The Bank of New York Mellon Corporation (“BNY Mellon”).

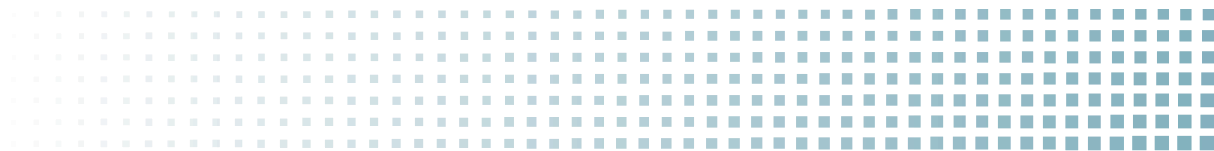
Due to the lifting of the Volcker Rule restrictions on Alcentra with regard to using the name "Alcentra" in the names of the funds managed and/or sponsored by Alcentra the “Clareant” name has been converted back to “Alcentra”. This has no further consequence to the structure or investment guidelines of the Funds.

## **Not for public distribution**

## **Prepared for institutional/professional investors only.**

Securities offered in the United States through BNY Mellon Securities Corporation (“BNYMSC”), a registered broker dealer, and a member of FINRA. BNYMSC and BNY Alcentra Group Holdings Inc (the “Alcentra Group”) are both subsidiaries of The Bank of New York Mellon Corporation (“BNY Mellon”).

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# Team Update

01

# An Experienced, Well-Organised Team

ONE OF THE LARGEST, MOST EXPERIENCED DIRECT LENDING TEAMS IN EUROPE WITH 24 YEARS OF AVERAGE SENIOR EXPERIENCE AND 12 YEARS FOR THE TEAM<sup>1,2</sup>

## Private Credit Investment Committee

<b>Jonathan DeSimone</b> CEO, Interim CIO Private Credit & Chair of IC (30)	<b>Joanna Layton</b> Deputy PM, Head of Portfolio Monitoring, Vice Chair of IC (22)	<b>Suhail Shaikh</b> Head of US DL, Vice Chair of IC (29)	<b>Kevin Lennon</b> Co-Head of Credit Research (32)	<b>Graham Rainbow</b> Senior Portfolio Advisor (29)
---	---	---	---	---

## Alcentra Dedicated Direct Lending Team

### PAN-EUROPEAN ORIGINATION, CLIENT COVERAGE & EXECUTION

Howard Sharp – Head of Origination (34)			Paul Hollis (25)	
Kris Winter (14) UK & Nordics	Brian O’Connell (11) UK & Nordics	Frédéric Méreau (16) France & S. Europe	New Hire TBD DACH	Philippe de Limburg (10) Benelux
Stephen Kong (9)	Alexsey Protsik (7) Matthew Johnson (6)	Bastian Stange (9) Dumitrita Rudeanu (5)	Uzair Chiragdin (8)	

### INVESTMENT STRUCTURING & EXECUTION

### PORTFOLIO MONITORING

### FUND OPERATIONS

<b>Alex Walker</b> (19)  Jilian Chieng (13) Carson Lau (8) Alysia Tay (6)	<b>Joanna Layton</b> (22)  Nicolas Besson (16) Emma Blakey (9) Vern Chong (8) Kate Ennis (4)	<b>Stuart Glencross</b> (13) & <b>Alex Brown</b> (9)  +7 Team Members
---	---	---

### ~40 CREDIT ANALYSTS

Broadcasting	Business Services	Cable	Chemicals	Education	Energy	Food & Beverage	Gaming	Healthcare	Industrials	Leisure	Packaging	Payment Services	Pharma	Publishing	Retail	Tech	TMT	Utilities
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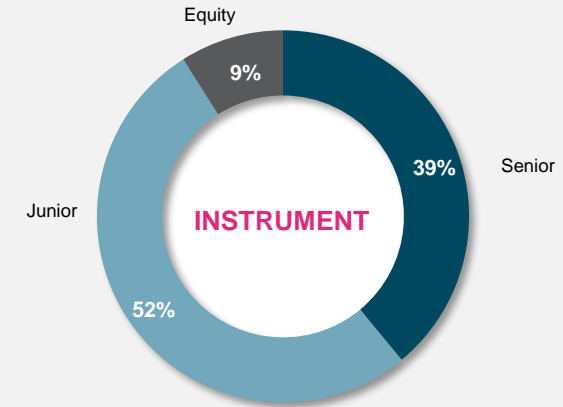
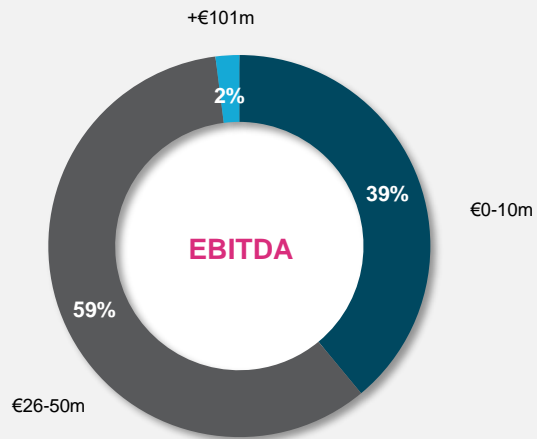
Source: Alcentra, as of 1 April 2022. Years experience reflects relevant finance and investment experience; <sup>1</sup>Senior experience based on senior team members; <sup>2</sup>Based on Alcentra’s market observations. DACH region contains Germany, Austria and Switzerland. Benelux region contains Belgium, Netherlands and Luxembourg. Nordic region (Nordics) contains Denmark, Finland, Norway and Sweden.

# Portfolio Highlights

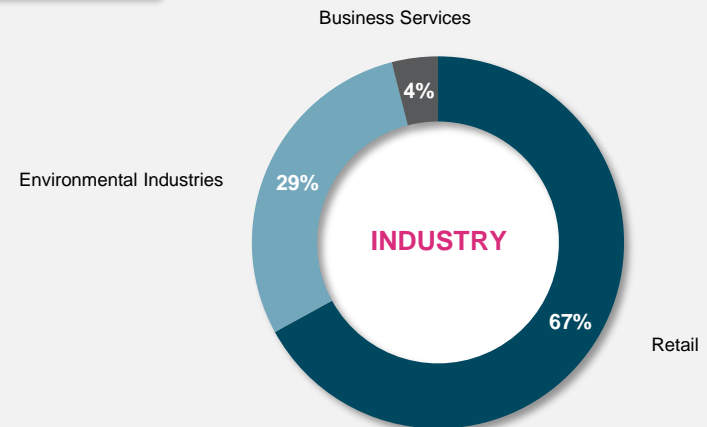
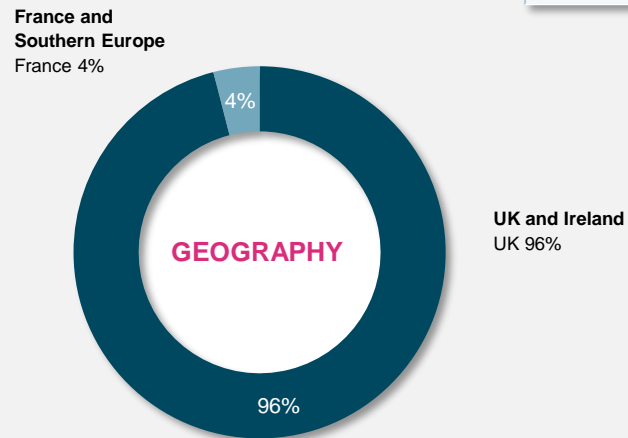
EDL I

02

# Alcentra European Direct Lending Fund I<sup>1</sup>



**Number of Companies** 3



<sup>1</sup>Source: Alcentra, as of 31 December 2021. Amount Invested includes undrawn, drawn facilities and amounts that were syndicated post funding. Breakdown percentages based on Par positions of unrealised investments. Portfolio holdings are subject to change at any time without notice and should not be construed as an investment recommendation. This fund is closed to new investors.

# Review of Existing Investment

## Alcentra European Direct Lending Fund

- Commitment of \$5,000,000 on November 14, 2014

### Status

- Maximum Drawn Amount Since Inception: \$4,665,088 (93% of Commitment)
  - Capital Returned as of December 31, 2021: \$4,402,055 (88% of Commitment)
- Current Account Value as of December 31, 2021: \$263,034 (5% of Commitment)

### Distributions

- Total Distributions Since Inception: \$1,404,408 (28% of Commitment)
  - Income: \$1,269,242
  - Capital Gains: \$135,246

Investment Distributions (\$USD)	Q1	Q2	Q3	Q4	Total
2021	22,013	4,929	11,686	27,668	54,611
2020	-	13,314	26,119	10,592	50,025
2019	15,159	25,929	18,604	32,464	92,156
2018	45,536	57,267	152,641	58,242	313,686
2017	55,767	100,843	46,306	69,020	271,937
2016	56,022	86,651	56,274	77,250	276,197
2017	31,954	65,561	97,965	90,779	286,259
2014	-	-	-	47,932	47,932

# Expected Exit Dates – EDL I



EDL I	
Issuer	Current View
Fat Face	2024 onwards
Highfield Environmental	During 2022
Infopro	During 2022

# Impairment & Watchlist Statistics – EDL I

## Impairment Statistics

EDL I

		Q3 2021	Q4 2021
Impairment Statistics	Total Fund Cost (€m)	1,048	1,048
	Impairments (€m)	53	53
	Of which Permanent Impairments (€m)	4	4
	Of which Realised Impairments (€m)	39	39
	Total Impairments by Fund Cost %	5.1%	5.1%
	Permanent & Realised Impairments by Fund Cost %	4.1%	4.1%
Watchlist Statistics	Number of Watchlist Assets	1	-

# Return Statistics – EDL I

EDL I Return Statistics USD Partnership <sup>1</sup>		
	Q3 2021	Q4 2021
Net IRR <sup>2</sup>	7.10%	6.90%
TVPI <sup>3</sup>	1.29x	1.28x
<b><i>Roll Forward<sup>4</sup></i></b>		
Net IRR <sup>2</sup> Lower Range	7.00%	7.05%
Net IRR <sup>2</sup> Upper Range	7.15%	7.25%
TVPI <sup>3</sup> Lower Range	1.30x	1.30x
TVPI <sup>3</sup> Upper Range	1.30x	1.35x

Source: Alcentra, as of 31 December 2021; <sup>1</sup>Please see Related Performance, IRR disclosures and assumptions at the end of this presentation. <sup>2</sup>Internal Rate of Return for the CCY Pool as at the reporting date based on the NAV of the CCY Pool, and historic cashflows between Investors and the Fund. All cashflows to investors are net of fund expenses and management fees which are calculated in accordance with the fund documentation relating to the relevant currency pool; <sup>3</sup>TVPI (Total Value to Paid In): NAV plus total distributions over Max Drawn Amount; <sup>4</sup>Roll Forward IRR's are based on historic cashflows between the CCY Pool Investors and the Fund as well as projected cashflows based on a number of assumptions listed below. The lower range Roll Forward returns are based on the reporting period Fair Value marks (as if all marks become permanent) and the upper range are based on positions marked at Par except for assets that are permanently impaired which are included at the reporting period Fair Value marks. Please note that the calculations are based upon current valuation and do not guarantee future returns.



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The Interests are offered only to Institutional / Qualified Investors who do not require immediate liquidity of the investment. An investment in the Fund does not constitute a complete investment program. Investors must fully understand and be willing to assume the risks involved in the Fund’s investment program.

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## Assets Under Management

Assets under management reflect assets of all accounts and portions of accounts managed by Alcentra for Alcentra and its affiliates. Specifically, certain assets under management reflect assets managed by Alcentra personnel as employees of The Bank of New York Mellon Corporation and BNY Mellon Investment Adviser, Inc. under a dual employee arrangement.

Consultants may only provide these materials to prospective investors that are Accredited Investors (as defined under the U.S. Securities Act of 1933 (the “Securities Act”)) and Qualified Purchasers within the meaning of the Investment Company Act of 1940 and with whom the Consultant has a substantive and pre-existing relationship (“Qualified Clients”). All materials must be provided in its entirety and shall not under any circumstances be provided in a manner that would deem such information to be a public or general solicitation under Regulation D of the Securities Act. Consultants will not receive any compensation from Alcentra or the Fund(s) for referring any of the products or services herein to their clients.

Gross IRR information: Represents the gross annual compounded pre-tax internal rate of return based on cash flows from date of investment. Gross IRR does not account for management fees, expenses and carried interest, the effect of which could be material.

Net IRR: Represents the net annual compounded pre-tax internal rate of return based on cash flows from the date of investment net of any fees, expenses and carried interest.

Performance is shown net of fees and expenses, and assumes the reinvestment of dividends and capital gains distributions.

# Disclosures



## **Specific Fund Fees**

Alcentra European Direct Lending Fund – 1.00% Management Fee, 6% Hurdle and a 10% Catch-up have also been assumed to calculate the IRR on a Net basis

Fees and expenses associated with the Fund may be higher or lower than those reflected. Many factors affect performance including changes in market conditions and interest rates and in response to other economic, political, or financial developments. Investment return and principal value of your investment will fluctuate, so that when your investment is sold, the amount you receive could be less than what you originally invested.

## **Past Performance Does Not Predict Future Returns**

# Key Risks

## Key Risks

### Past Performance does not predict future returns

#### The value of investments and the income from them is not guaranteed and can fall as well as rise due to market and currency movements

An investor should consider the Fund's investment objectives, risks, charges and expenses carefully before investing. Portfolios are subject to investment risks, including possible loss of the principal amount invested. Material in this publication is for general information only and is not intended to provide specific investment advice or recommendations for any purchase or sale of any specific security or commodity. No specific investment objectives, financial situation or particular needs of any recipient have been taken into consideration in connection with the preparation of this presentation. An investment in the Fund does not constitute a complete investment program.

Investments in sub-investment grade debt are speculative and involve special risks, and there can be no assurance that an account's investment objectives will be realized or that appropriate investments may be identified. Many factors affect performance including changes in market conditions and interest rates and in response to other economic, political, or financial developments. An investor could lose all or a substantial portion of his or her investment. No investment process is free of risk and there is no guarantee that the investment process described herein will be profitable. No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment.

Investments may involve complex tax structures resulting in delays in distributing important tax information. Alcentra may fair value securities and other instruments for which there is no readily available market or third party pricing, or for which Alcentra believes the third party pricing does not accurately reflect the value of those securities, and such value may be based on proprietary or other models. Leverage and other speculative investment practices may increase the risk of investment loss, and adherence to risk control mechanisms does not guarantee investment returns. Additionally, fees and expenses of the Fund may offset an investor's profits. A lack of strategy diversification may result in higher risk. The Fund may limit transparency and other notification to investors, there may be restrictions on transferring interests in the Fund vehicle, and there is generally no secondary market for an investor's interest in the Fund. This is not an inclusive list of all risk factors, and investments in private funds may be appropriate only for certain investors. A comprehensive list of potential risk factors is outlined in the Fund's private offering memorandum.

Investments in private funds are speculative and involve special risks, and there can be no assurance that a fund's investment objectives will be realized or that appropriate investments may be identified. An investor could lose all or a substantial portion of his or her investment. Investments may involve complex tax structures resulting in delays in distributing important tax information. The manager or their administrator may fair value securities and other instruments for which there is no readily available market or third party pricing, or for which the manager believes the third party pricing does not accurately reflect the value of those securities, and such value may be based on proprietary or other models. Private funds may not be required to provide periodic pricing or valuation information to investors. Performance may be volatile as underlying managers may employ leverage and other speculative investment practices that may increase the risk of investment loss, and adherence to risk control mechanisms does not guarantee investment returns. Additionally, high fees and expenses of a private fund may offset an investor's profits. A manager may reserve the right to limit transparency and other notifications to investors. There may be restrictions on transferring interests in private funds, and there is generally no secondary market for such interests. This is not an inclusive list of all risk factors, and investments in private funds may be appropriate only for certain investors. A comprehensive list of potential risk factors is outlined in the Fund's private offering memorandum. Also, investors should independently investigate any investment strategy or manager, and consult with qualified investment, legal, and tax professionals before making an investment.

# Definitions Return Statistics

**Gross Asset Yields (or “Asset Yields”)** are calculated using the EUR Equivalent cashflows across all assets and the FV of all assets at the time of reporting. The EUR Equivalents are generated using historic FX rates. Please note that Asset Yields reflect arrangement fees being amortised over a three year period rather than being recognised in full at close. Note that the underlying actual cashflows associated with the performance of an asset remain unchanged

**TVPI (Total Value to Paid In):** NAV plus total distributions over Max Drawn Amount.

**Roll Forward Net IRR's** are based on historic cashflows between the CCY Pool Investors and the Fund as well as projected cashflows based on a number of assumptions listed below. All cashflows to investors are net of fund expenses and management fees which are calculated in accordance with the fund documentation relating to the relevant currency pool. The lower range Roll Forward returns are based on the reporting period Fair Value marks (as if all marks become permanent) and the upper range are based on positions marked at Par except for assets that are permanently impaired which are included at the reporting period Fair Value marks. Please note that the calculations are based upon current valuation and do not guarantee future returns.

## **Roll Forward Net IRR Assumptions:**

Roll forward Cashflows are modelled on a deal by deal basis using the margin for each respective investment. Interest and PIK capitalisations occur on a quarterly basis.

Assets realisation dates are based on our current view of when the fund will be refinanced or repaid for each given investment. We do not assume to hold assets to their maturity date under the terms of the loan agreement. For most loans, we assume a 3 year hold but if we are aware of a reason that the hold period being longer or shorter we will adjust the expected exit date to reflect this.

Cash from asset realisations and net available cash, which is interest proceeds less management fees, expenses and performance fees, is distributed to investors on a quarterly basis.

Calculations based on unaudited positions of the Currency Pool (CCY Pool) in the Fund.

The portfolio allocation above is for illustrative purposes only. It should not be assumed that any investment described would be profitable if implemented because, among other things, assumptions described herein may not materialize. If any of the assumptions used do not materialize, results may vary substantially.

## **Base Currencies as follows:**

EUR is the base currency for Alcentra European Direct Lending Fund I



NEPC, LLC

**Firm:** Foundry  
**Strategy/Product:** Venture Capital  
**Client:** MWRA

## **NEPC Manager Due Diligence Questionnaire - Update**

### **Instructions**

In support of our upcoming meeting we ask that you please complete this due diligence questionnaire. Please provide your responses in the form of brief descriptions, lists or tables added directly to this Word document.

Thank you for taking the time to complete this questionnaire. Please note that all materials submitted in relation to MWRA Retirement System may be subject to disclosure consistent with Massachusetts Public Record laws.

### **Firm/Organization**

1. Have there been any changes in ownership or management in the past year? **No**
2. List firm AUM, net flows and accounts gained/lost for the past 5 years. **At 3/31/2022, firm AUM (total commitments) is \$2.9b**
3. Have there been any new or discontinued products in the past year? **Yes, we launched a new fund in 2022**
4. Are any products capacity constrained? **N/A**
5. Describe any current or pending regulatory, compliance or litigation issues and the expected business impact. **None**
6. Describe your diversity, equity and inclusion efforts with regard to the firm and its employees. **As a small, 16 person firm, we employ very few formal structures for our operations. We view DEI goals as collective goals and look for everyone at Foundry to contribute to progress in reaching DEI goals. The last two investment professionals we hired were women of color.**

### **Portfolio Management Team**

1. Have there been any changes in the portfolio management team in the past year? **No portfolio management changes in MWRA associated funds**
2. Are there any expected changes to the team in the future (planned additions or departures)? **No planned changes in MWRA associated funds**



### Process

1. Have there been significant changes in any of the areas below in the past year? \*\*
  - Identification of investment ideas **No**
  - Process for exploring and vetting ideas **No**
  - Portfolio trading practices including buy/sell rules **No**
  - Approach to portfolio monitoring and risk management **No**

### Philosophy

1. Describe recent changes in investment philosophy, if any. \*\*  
**None**

### Portfolio

1. If not included in your meeting presentation, provide portfolio holdings, sector exposure, geographic exposure and common characteristics (yield, duration, market cap, P/E, etc.). **See presentation**
2. List strategy AUM, net flows and accounts gained/lost for the past 5 years. **AUM (fund commitments) for MWRA associated funds is \$485m**
3. Describe investor concentration for the strategy and note the percent of AUM attributable to the top five investors. **N/A**

### Performance / Market Outlook

1. If not included in your meeting presentation, provide trailing returns as of the most recent quarter-end and calendar year returns for the past 10 years, both relative to benchmark. **See attachment**
2. Briefly discuss recent performance trends and identify environments in which the strategy is likely to be in or out of favor.
3. Describe your market outlook and how strategy positioning is impacted by your views.
4. Could you please include a slide in your presentation that shows the MWRA's account history, initial contribution, cumulative subsequent contributions, cumulative subsequent distributions, gain/loss and current value.

\*\* The answers presented here apply to just the MWRA associated funds.



# **FOUNDRY**

May 2022 | MWRA Update



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In considering any performance information contained herein, you should bear in mind that past or projected performance is not necessarily indicative of future results, and there can be no assurance that any entity referenced herein will achieve comparable results or that return objectives, if any, will be met. Additionally, the target or expected return information included is based on a set of assumptions that might not be realized, and actual result might materially differ.

“FMV” (Fair Market Value) refers to an investment’s unrealized value calculated through the application of Foundry’s valuation policy. Please note that the FMVs referenced herein are estimated as of September 30, 2021 and are inherently uncertain and subject to change. There is no guarantee that such value will be ultimately realized by the applicable Foundry fund and co-investors or that such value reflects the actual value of the investments. As a result, it is important to note that the ultimate realized returns of these investments may vary materially and negatively from the FMVs included herein. FMVs do not reflect the deduction of any applicable management fees, ‘carried interest’, taxes, and other expenses, including but not limited to any transaction costs in connection with the disposition of such investment, borne by limited partners and which will reduce returns.

“Net IRR” is an annualized since inception net internal rate of return of cash flows to and from the fund and the fund’s residual value at the end of the measurement period. Net IRRs reflect returns to the limited partners. The cash flow dates used in the Net IRR calculations are based on the actual dates of the cash flows. The Net IRRs are calculated after giving effect to management fees, carried interest, as applicable, and other expenses. The funds may utilize a credit facility during the investment period and for general cash management purposes.

“Gross IRR” represents an annualized since inception gross internal rate of return of cash flows to and from the fund and the fund’s residual value at the end of the measurement period. Gross IRR reflects returns to the fee-paying limited partners and, if applicable, excludes interests attributable to the non-fee paying limited partners and/or the general partner which does not pay management fees or carried interest. The cash flow dates used in the Gross IRR calculation are based on the actual dates of the cash flows. The Gross IRRs are calculated before giving effect to management fees, carried interest, other expenses and taxes, as applicable.

“Net DPI” represents all cumulative distributions to the limited partners as of period end divided by the cumulative limited partner contributions and shows the limited partners’ investments realized return as a multiple of its cost basis. An individual investor’s DPI may vary from the stated Fund DPI.

“Net TVPI” represents the overall realized return on an investment, which has been calculated using all limited partner cash flows (excluding general partner’s capital) that are from capital called, distributed and the LP ending capital balance as of period end. It is the return that equates to all cumulative distributed returns and the residual value of the investment, divided by the limited partner contributions and shows the investments total value as a multiple of paid in capital. Net TVPI is calculated after the application of management fees, allocable fund expenses (including interest from the capital call credit facility) and carried interest. An individual investor’s Net TVPI may vary from the stated Fund Net TVPI.

“Gross TVPI” represents the overall realized return on an investment, which has been calculated using the realized and unrealized value of the fund. It is that sum divided by the total cash contributions of the investment and shows the investments total value as a multiple of total paid in capital. Gross TVPI is calculated before the application of management fees, allocable fund expenses (including interest from the capital call credit facility) and carried interest. An individual investor’s Gross TVPI may vary from the stated Fund Gross TVPI.

Logos of portfolio companies included on the fund investments slides are provided for illustrative purposes and do not include the logos of all portfolio companies.

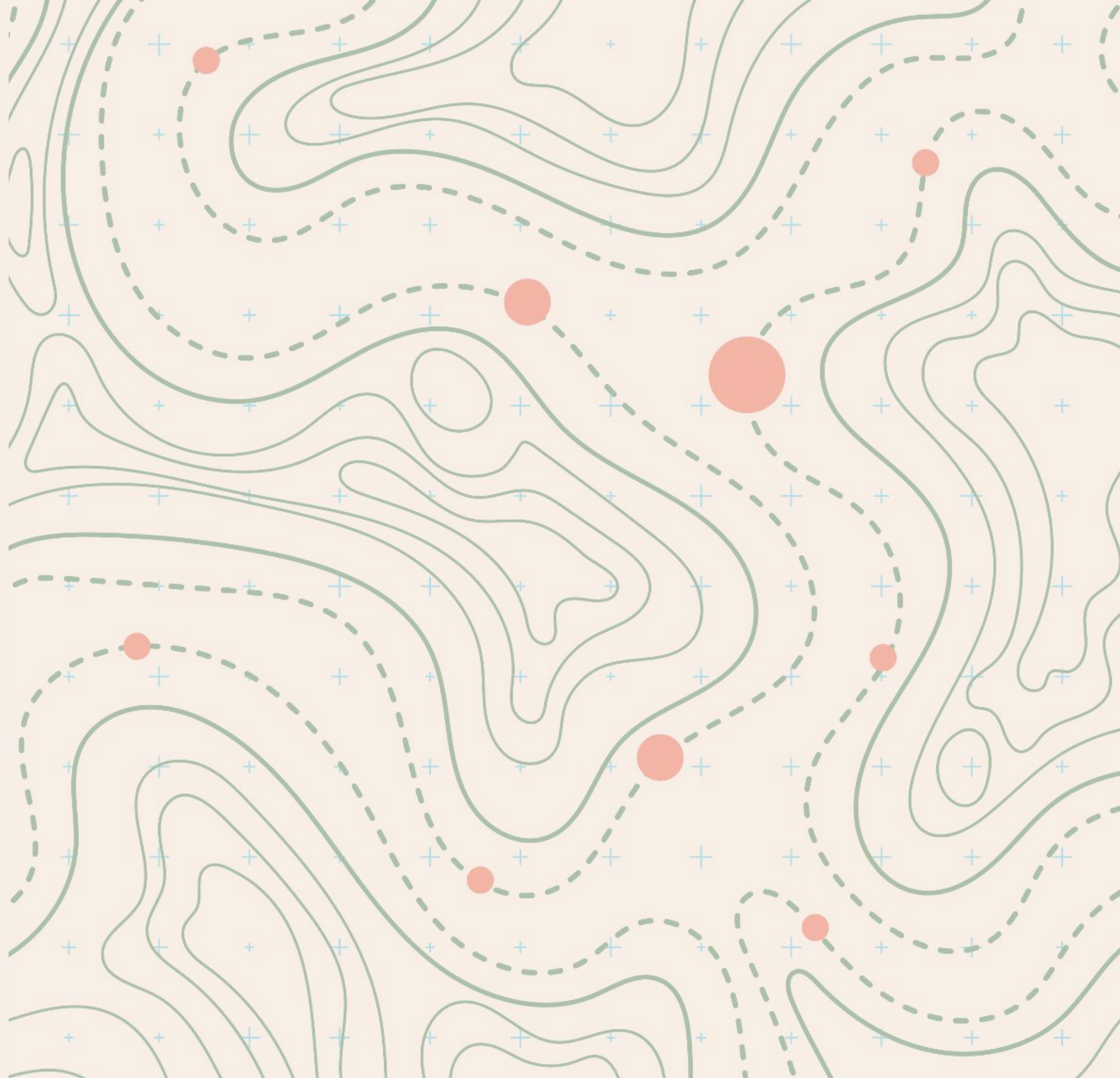
The charts, tables, and graphs contained in this document are not intended to be used to assist the reader in determining which securities to buy or sell or when to buy or sell securities. Additional information is available upon request. Unless otherwise noted, the source of information for the charts, graphs, and other materials contained herein is Foundry.

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# Foundry Venture Capital 2007, L.P.

 **FOUNDRY**

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# Fund Summary

Foundry Venture Capital 2007, L.P.

## Key Metrics

Vintage

Fund Capital

Capital Called | % of Total Fund

Capital Invested | % of Total Fund

Realized Value | Unrealized Value

% Invested + Reserved

Gross TVPI | Net TVPI | Net DPI

Gross IRR | Net IRR

MOIC

2007

\$232.0m

\$228.5m | 98.5%

\$257.1m | 110.8%

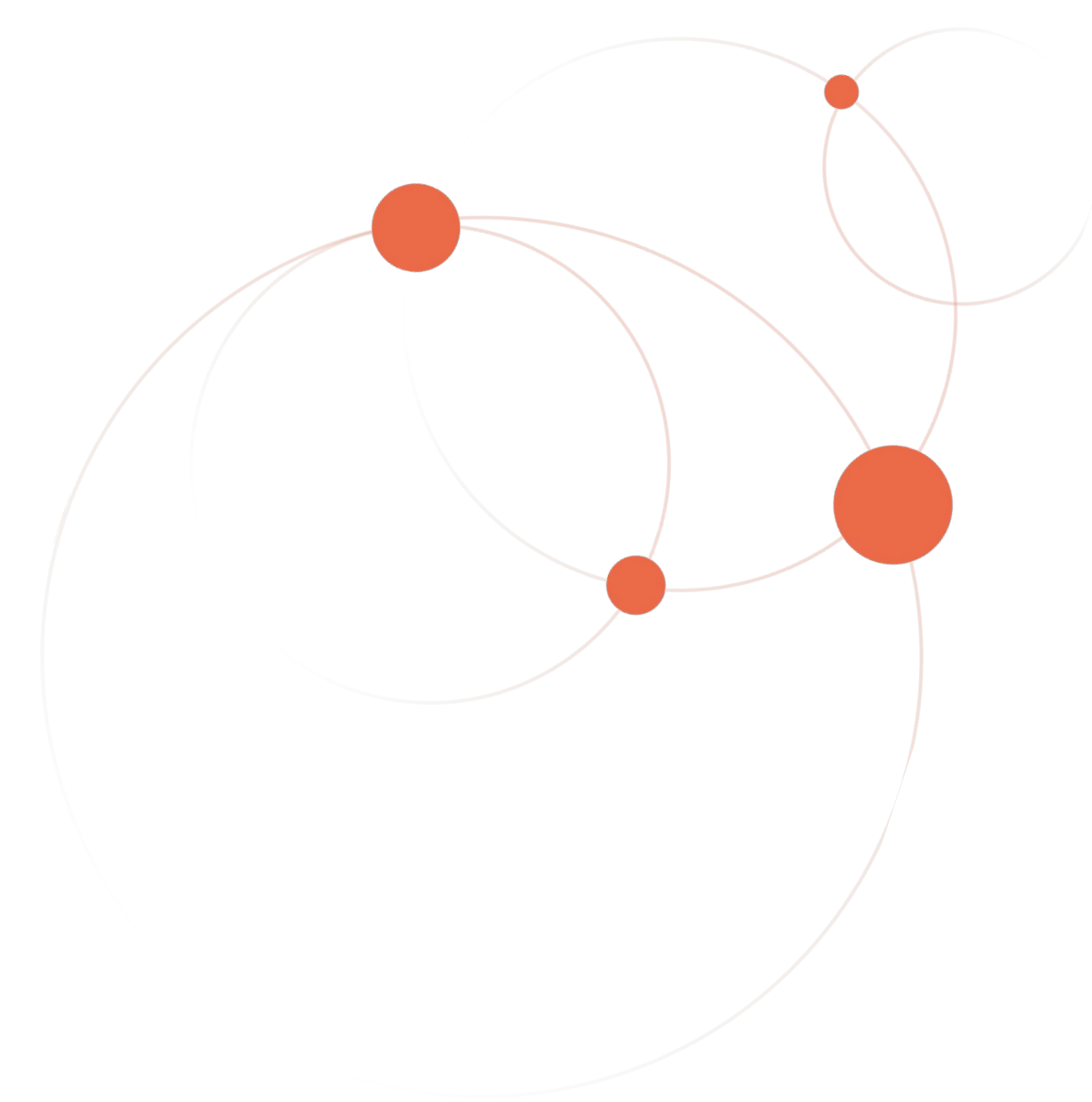
\$1,428.4m | \$47.7m

110.8%

6.6x | 5.1x | 4.9x

56.1% | 42.9%

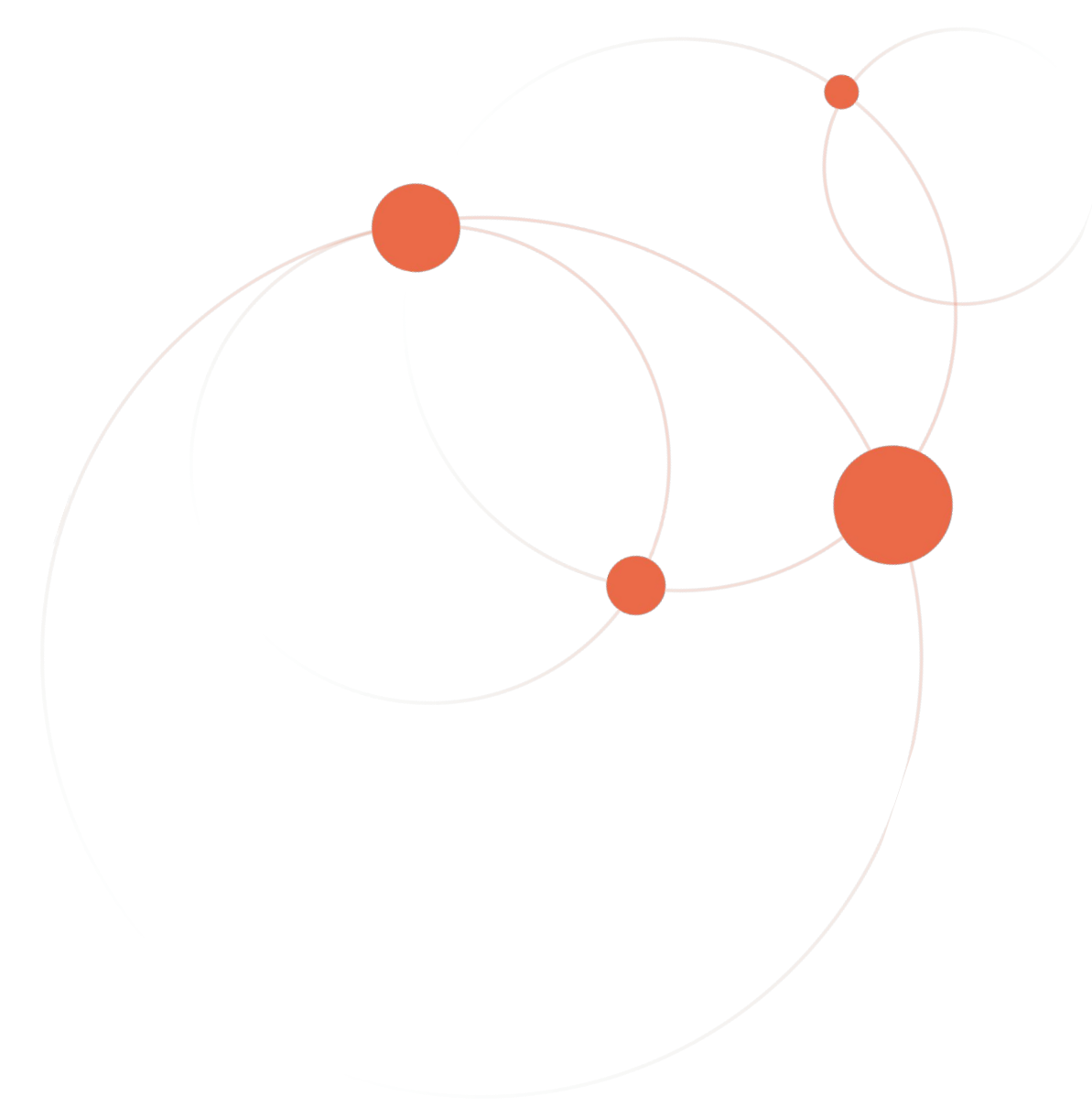
5.7x



# MWRA Summary

Foundry Venture Capital 2007, L.P.

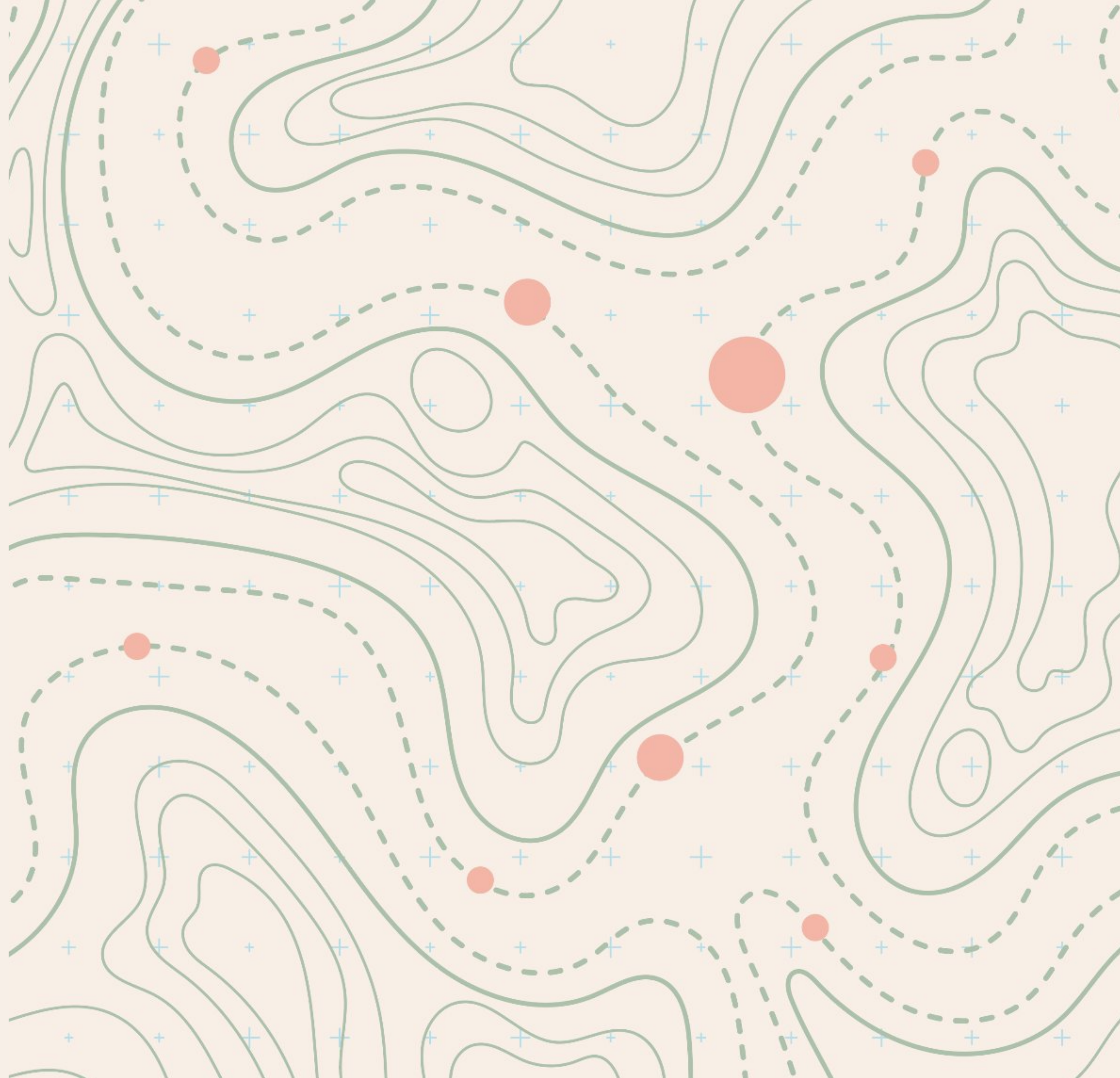
Capital Commitment	\$3,000,000
Capital Called   %	\$2,955,000   98.5%
Initial Contribution   Follow-on Contributions	\$285,000   \$2,670,000
Distributions	\$14,506,309
NAV	\$528,336
Net TVPI	5.1x
Net IRR	42.9%



# Foundry Venture Capital 2010, L.P.

 **FOUNDRY**

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# Fund Summary

Foundry Venture Capital 2010, L.P.

## Key Metrics

Vintage

Fund Capital

Capital Called | % of Total Fund

Capital Invested | % of Total Fund

Realized Value | Unrealized Value

% Invested + Reserved

Gross TVPI | Net TVPI | Net DPI

Gross IRR | Net IRR

MOIC

2010

\$232.0m

\$226.7m | 97.8%

\$249.7m | 107.7%

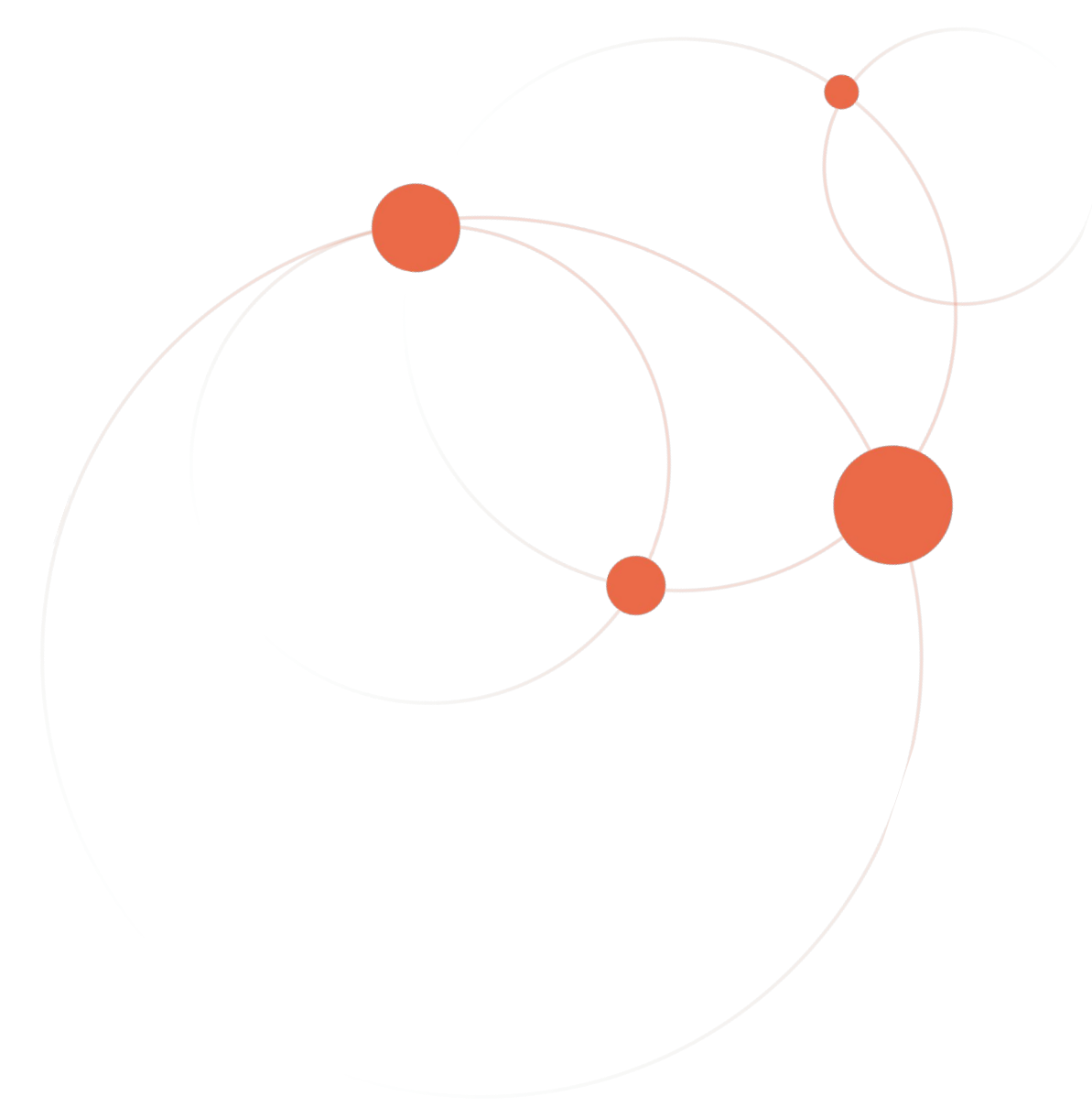
\$336.3m | \$572.3m

107.7%

4.1x | 3.1x | 1.1x

20.6% | 15.4%

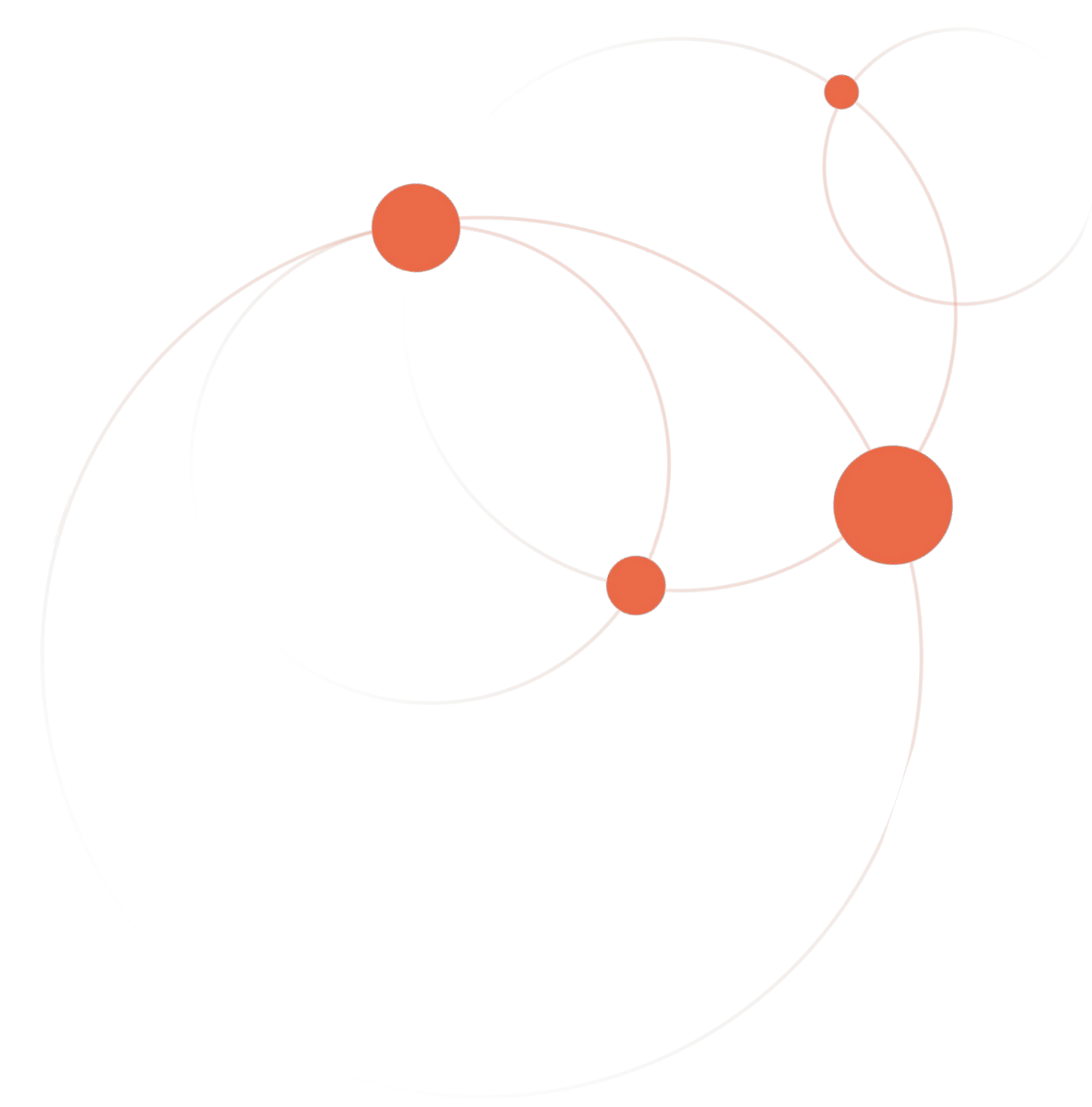
3.6x



# MWRA Summary

Foundry Venture Capital 2010, L.P.

Capital Commitment	\$3,000,000
Capital Called   %	\$2,932,500   97.8%
Initial Contribution   Follow-on Contributions	\$75,000   \$2,857,500
Distributions	\$3,177,966
NAV	\$6,041,097
Net TVPI	3.1x
Net IRR	15.4%



# Step Function in Value

Clear Return Drivers



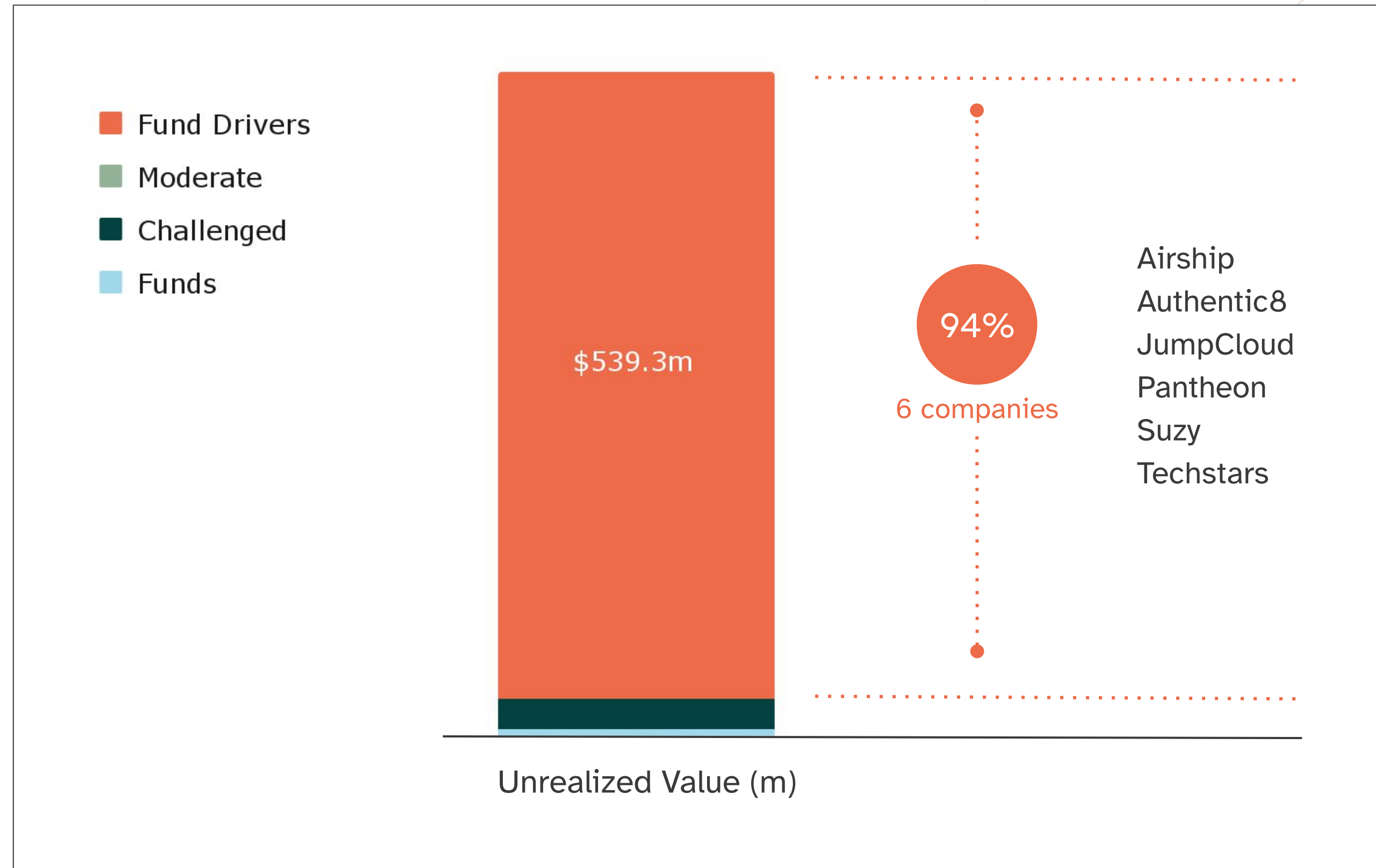
Realized



Unrealized



Total Value





# Meaningful Fund Drivers



Multi-channel marketing platform for driving mobile device engagement

Cost | FMV: \$16.8m | \$34.7m    Ownership: 10%



The Silo Web Isolation Platform enables any device to experience the web without risk

Cost | FMV: \$10m | \$14.2m    Ownership: 7.7%



All-in-One User Access Control & Device Management

Cost | FMV: \$6m | \$252.8m    Ownership: 9.6%



WebOps platform designed to develop professional websites

Cost | FMV: \$9.8m | \$147m    Ownership: 12.3%



Consumer research software platform

Cost | FMV: \$15.3m | \$55.3m    Ownership: 18.9%



Techstars is the global platform for investment and innovation

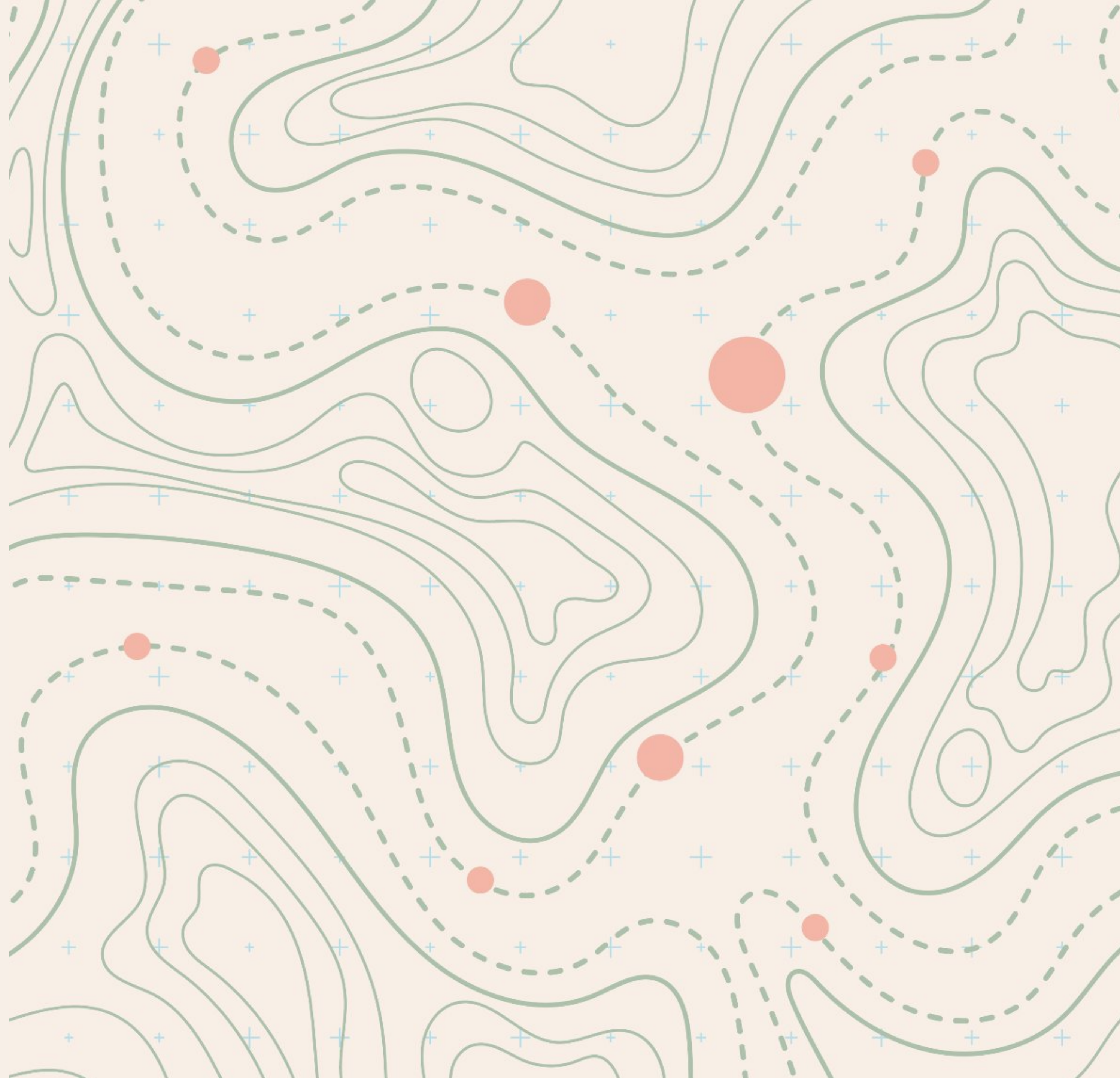
Cost | FMV: \$0.2m | \$43m\*    Ownership: 5.9%

\*Includes Funds

# Foundry Venture Capital 2010 Annex, L.P.

 **FOUNDRY**

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# Fund Summary

Foundry Venture Capital 2010 Annex, L.P.

## Key Metrics

Vintage

Fund Capital

Capital Called | % of Total Fund

Capital Invested | % of Total Fund

Realized Value | Unrealized Value

% Invested + Reserved

Gross TVPI | Net TVPI | Net DPI

Gross IRR | Net IRR

MOIC

2015

\$20.7m

\$20.7m | 100%

\$20.5m | 98.9%

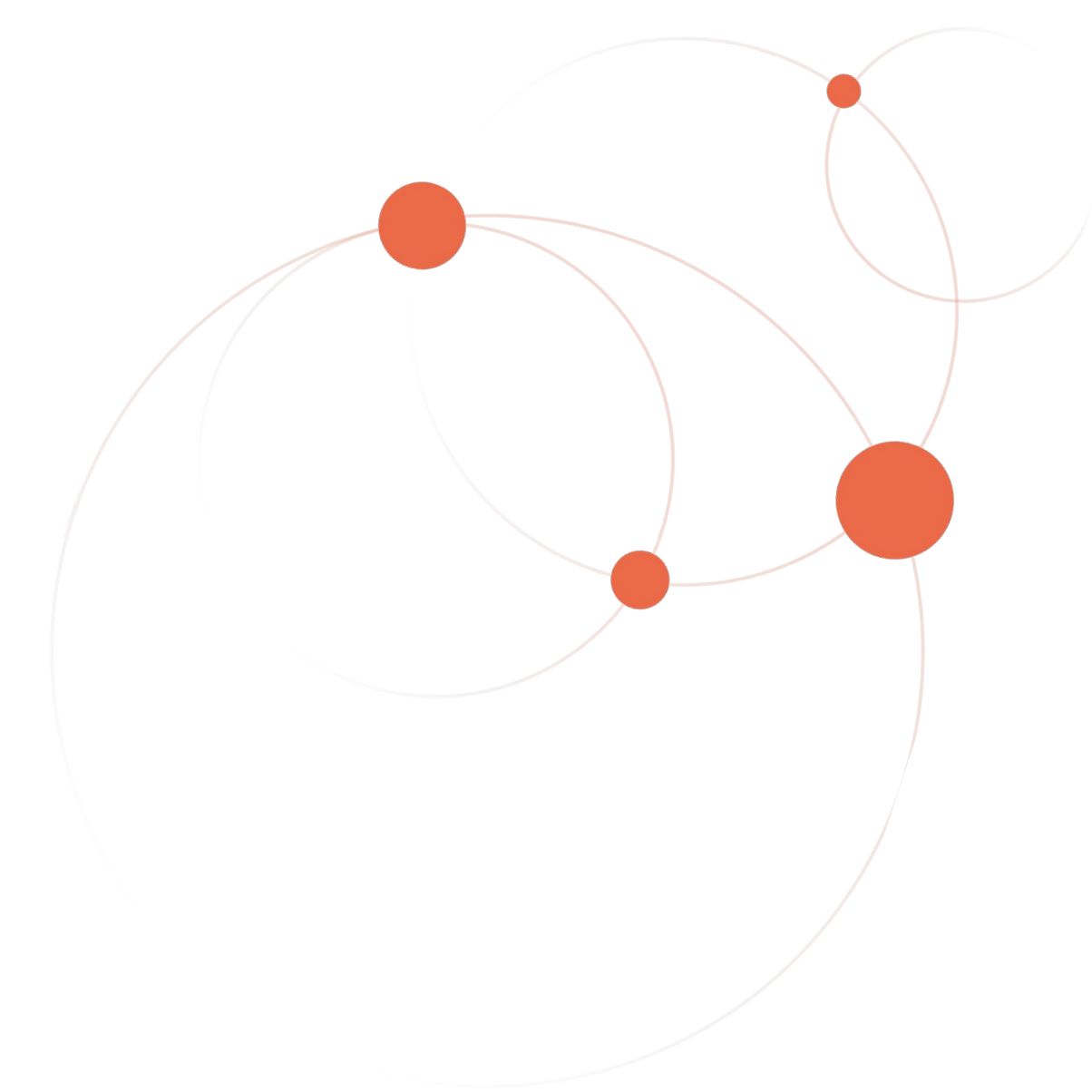
\$34.3m | \$107.6m

98.9%

6.8x | 5.7x | 1.5x

44.8% | 39.3%

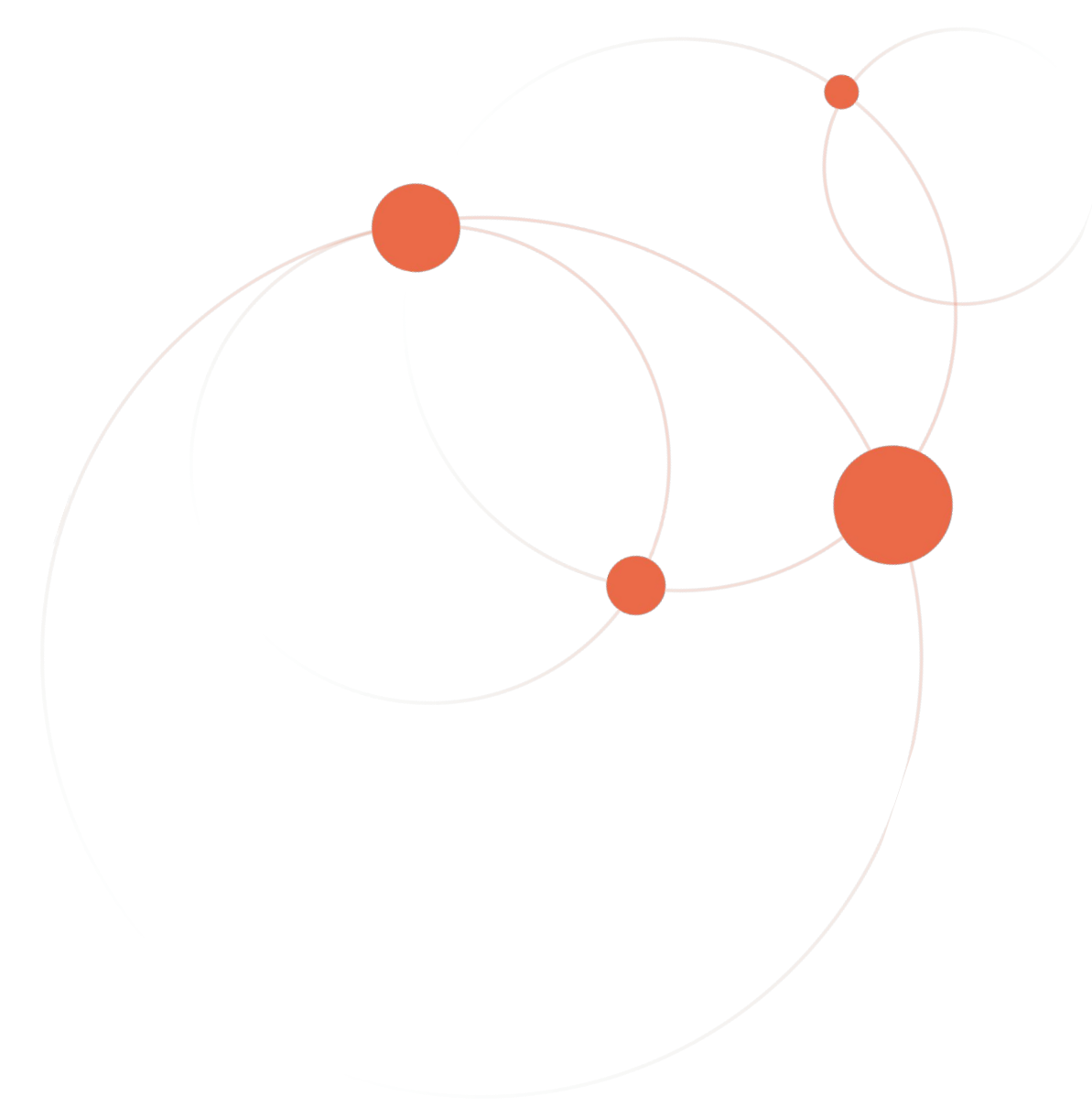
6.9x



# MWRA Summary

Foundry Venture Capital 2010 Annex, L.P.

Capital Commitment	\$268,205
Capital Called   %	\$268,205   100%
Initial Contribution   Follow-on Contributions	\$93,120   \$175,085
Distributions	\$407,252
NAV	\$1,114,790
Net TVPI	5.7x
Net IRR	39.3%



# Thank You

Q&A



**Foundry Venture Capital 2007, LP**  
**MWRA Employees' Retirement System**  
**3/31/2022**

	Date	
Initial Contribution	11/15/2007	\$ 285,000
Follow-on Contribution	1/23/2008	\$ 18,750
Follow-on Contribution	3/21/2008	\$ 30,000
Follow-on Contribution	4/17/2008	\$ 97,500
Follow-on Contribution	6/24/2008	\$ 195,000
Follow-on Contribution	7/16/2008	\$ 142,500
Follow-on Contribution	9/29/2008	\$ 7,500
Follow-on Contribution	10/16/2008	\$ 60,000
Follow-on Contribution	11/4/2008	\$ 22,500
Follow-on Contribution	12/9/2008	\$ 52,500
Follow-on Contribution	4/4/2009	\$ 97,500
Follow-on Contribution	4/30/2009	\$ 105,000
Follow-on Contribution	6/19/2009	\$ 60,000
Follow-on Contribution	8/20/2009	\$ 22,500
Follow-on Contribution	9/30/2009	\$ 37,500
Follow-on Contribution	10/15/2009	\$ 82,500
Follow-on Contribution	10/28/2009	\$ 30,000
Follow-on Contribution	3/16/2010	\$ 37,500
Follow-on Contribution	4/5/2010	\$ 67,500
Follow-on Contribution	4/30/2010	\$ 180,000
Follow-on Contribution	5/14/2010	\$ 22,500
Follow-on Contribution	5/25/2010	\$ 60,000
Follow-on Contribution	6/18/2010	\$ 105,000
Follow-on Contribution	8/3/2010	\$ 30,000
Follow-on Contribution	9/1/2010	\$ 75,000
Follow-on Contribution	9/22/2010	\$ 67,500
Follow-on Contribution	11/2/2010	\$ 52,500
Follow-on Contribution	11/30/2010	\$ 22,500
Follow-on Contribution	1/3/2011	\$ 22,500
Follow-on Contribution	2/22/2011	\$ 15,000
Follow-on Contribution	3/31/2011	\$ 75,000
Follow-on Contribution	4/19/2011	\$ 120,000
Follow-on Contribution	6/30/2011	\$ 30,000
Follow-on Contribution	8/16/2011	\$ 37,500
Follow-on Contribution	9/27/2011	\$ 157,500
Follow-on Contribution	12/14/2011	\$ 210,000
Follow-on Contribution	9/28/2012	\$ 45,000
Follow-on Contribution	11/30/2012	\$ 30,000
Follow-on Contribution	1/4/2013	\$ 22,500
Follow-on Contribution	3/28/2013	\$ 93,750
Follow-on Contribution	4/1/2014	\$ 30,000
		<u>\$ 2,955,000</u>
Distributions	2/12/2010	\$ (145,016)
Distributions	7/13/2010	\$ (194,778)
Distributions	2/17/2011	\$ (158,101)
Distributions	3/22/2011	\$ (266,376)
Distributions	12/13/2011	\$ (905,333)
Distributions	5/29/2012	\$ (2,697,729)
Distributions	5/23/2014	\$ (340,466)
Distributions	10/31/2014	\$ (109,954)
Distributions	6/24/2015	\$ (1,787,428)
Distributions	7/21/2015	\$ (108,918)
Distributions	11/19/2015	\$ (1,072,433)
Distributions	12/10/2015	\$ (358,709)
Distributions	2/11/2016	\$ (1,007,539)
Distributions	3/30/2016	\$ (968,040)
Distributions	5/3/2016	\$ (1,233,331)
Distributions	9/28/2016	\$ (411,154)
Distributions	12/16/2016	\$ (333,783)
Distributions	2/9/2017	\$ (230,771)
Distributions	2/14/2017	\$ (186,240)
Distributions	4/13/2018	\$ (495,333)
Distributions	7/9/2018	\$ (484,843)
Distributions	9/13/2018	\$ (275,421)
Distributions	9/18/2018	\$ (734,614)
		<u>\$ (14,506,309)</u>
Gains/(Losses)		\$ 12,079,645
<b>Current Account Value</b>		<u>\$ 528,336</u>
<b>Net TVPI</b>		<u>5.1x</u>

**Foundry Venture Capital 2010, LP**  
**MWRA Employees' Retirement System**  
**3/31/2022**

	Date	
Initial Contribution	10/12/2010	\$ 75,000
Follow-on Contribution	11/24/2010	\$ 75,000
Follow-on Contribution	12/28/2010	\$ 150,000
Follow-on Contribution	3/30/2011	\$ 60,000
Follow-on Contribution	5/5/2011	\$ 22,500
Follow-on Contribution	6/29/2011	\$ 150,000
Follow-on Contribution	7/22/2011	\$ 67,500
Follow-on Contribution	8/26/2011	\$ 67,500
Follow-on Contribution	9/30/2011	\$ 67,500
Follow-on Contribution	11/4/2011	\$ 60,000
Follow-on Contribution	12/7/2011	\$ 180,000
Follow-on Contribution	2/16/2012	\$ 37,500
Follow-on Contribution	3/26/2012	\$ 120,000
Follow-on Contribution	4/6/2012	\$ 262,500
Follow-on Contribution	5/17/2012	\$ 37,500
Follow-on Contribution	6/5/2012	\$ 105,000
Follow-on Contribution	6/28/2012	\$ 82,500
Follow-on Contribution	7/18/2012	\$ 37,500
Follow-on Contribution	9/4/2012	\$ 120,000
Follow-on Contribution	10/30/2012	\$ 172,500
Follow-on Contribution	12/6/2012	\$ 45,000
Follow-on Contribution	1/25/2013	\$ 45,000
Follow-on Contribution	2/14/2013	\$ 30,000
Follow-on Contribution	3/6/2013	\$ 30,000
Follow-on Contribution	4/26/2013	\$ 60,000
Follow-on Contribution	8/15/2013	\$ 37,500
Follow-on Contribution	8/22/2013	\$ 45,000
Follow-on Contribution	1/28/2014	\$ 60,000
Follow-on Contribution	3/21/2014	\$ 75,000
Follow-on Contribution	5/5/2014	\$ 60,000
Follow-on Contribution	9/2/2014	\$ 180,000
Follow-on Contribution	10/1/2014	\$ 30,000
Follow-on Contribution	3/5/2015	\$ 56,250
Follow-on Contribution	3/30/2015	\$ 52,500
Follow-on Contribution	6/16/2015	\$ 131,250
Follow-on Contribution	12/16/2016	\$ 45,000
		<u>\$ 2,932,500</u>
Distributions	9/11/2013	\$ (516,984)
Distributions	11/21/2014	\$ (258,667)
Distributions	7/3/2018	\$ (262,479)
Distributions	8/30/2018	\$ (133,333)
Distributions	11/16/2018	\$ (200,000)
Distributions	6/11/2019	\$ (285,621)
Distributions	2/7/2020	\$ (77,600)
Distributions	6/23/2020	\$ (12,933)
Distributions	1/21/2021	\$ (200,467)
Distributions	6/28/2021	\$ (256,581)
Distributions	12/21/2021	\$ (973,301)
		<u>\$ (3,177,966)</u>
Gains/(Losses)		\$ 6,286,563
<b>Current Account Value</b>		<u>\$ 6,041,097</u>
<b>Net TVPI</b>		<u>3.1x</u>

**Foundry Venture Capital 2010 Annex, LP**  
**MWRA Employees' Retirement System**  
**3/31/2022**

	Date	
Initial Contribution	8/25/2015	\$ 93,120
Follow-on Contribution	10/19/2015	\$ 70,810
Follow-on Contribution	11/24/2015	\$ 25,220
Follow-on Contribution	9/26/2016	\$ 51,895
Follow-on Contribution	12/16/2016	\$ 27,160
		<u>\$ 268,205</u>
Distributions	7/3/2018	\$ (191,460)
Distributions	6/11/2019	\$ (36,890)
Distributions	2/7/2020	\$ (39,855)
Distributions	6/23/2020	\$ (3,621)
Distributions	8/13/2021	\$ (60,191)
Distributions	12/10/2021	\$ (75,236)
		<u>\$ (407,253)</u>
Gains/(Losses)		\$ 1,253,838
<b>Current Account Value</b>		<u>\$ 1,114,790</u>
<b>Net TVPI</b>		<u>5.7x</u>

# MONTHLY PERFORMANCE REPORT

**MWRA EMPLOYEES' RETIREMENT  
SYSTEM**

APRIL 30, 2022



PROPRIETARY & CONFIDENTIAL

# GOALS & OBJECTIVES

## Investment Return Objective

“Its primary goal is to provide promised benefits to participants and beneficiaries of the MWRA Employees’ Retirement system. Plan assets should be equal to or greater than the present value of the projected benefit obligations (“fully funded”). When Plan assets are less than the present value of projected benefit obligations, a schedule will be established and a plan will be in place to meet a fully funded status. When achieving return objectives required to fully fund the system, the Board is intent on controlling risk. Consistency of returns and risk of loss are primary considerations. The Board has also determined that the annual performance of plan assets should not vary substantially from returns achieved by other public pension funds with similar goals and objectives.”

## Return Expectations

**The investment growth should be maintained in such a manner that the minimum nominal rate of return does not cause a negative real rate of return over a full market cycle:**

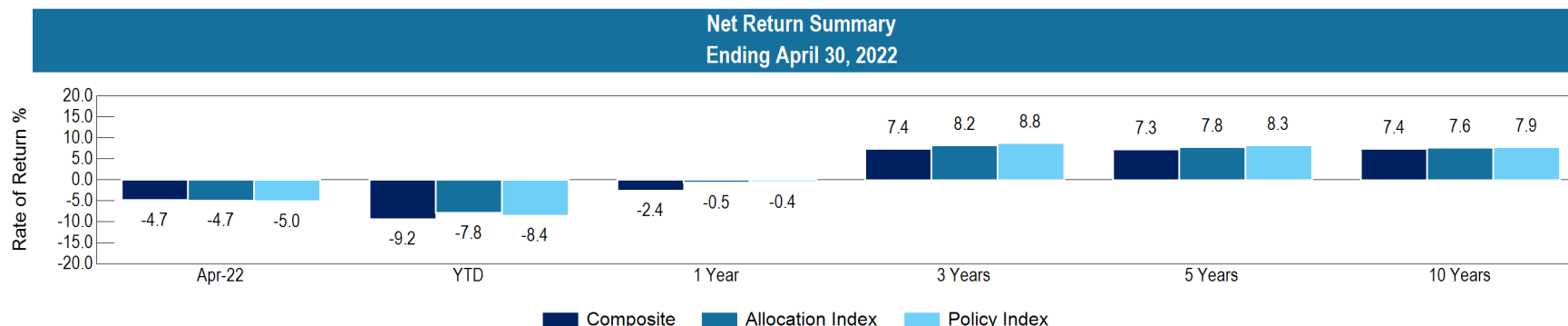
- **Time Horizon:** Return assumptions will be based on a ten-year time horizon with a detailed review and analysis to be made at least annually to monitor allocations and assumptions. Should a manager deviate from proscribed mandate or expected risk and return profile by a consequential degree, that manager may be reevaluated at any time.
- **Liquidity Needs:** Presently contributions exceed plan withdrawals to provide benefits, payouts, and/or plan expenses. Portfolio liquidity will be managed based on the cash flow needs of the System.
- **Regulatory Considerations:** Assets of this Fund shall be invested in a manner consistent with the fiduciary standards established under Code of Massachusetts Regulations 840 (“840 CMR”). The Board shall also use as precedent the Employee Retirement Income Security Act (ERISA).



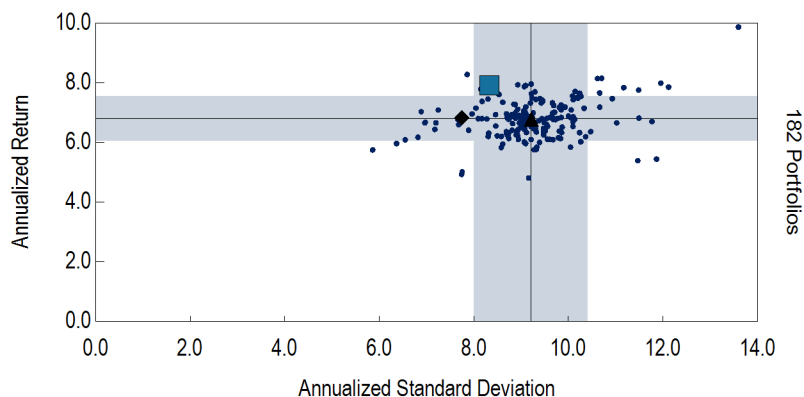


# MWRA Employees' Retirement System

## EXECUTIVE SUMMARY



**20 Years Ending March 31, 2022**



### Performance

- The Composite had a return of -4.7% (net) for the month, matching the Allocation Index (-4.7%) and outperforming the Policy Index (-5.0%).
- Equities were dragged down in April due to tighter monetary policy, geopolitical tensions and lockdowns in China. In the U.S., the S&P 500 fell 8.7%. Outside the U.S., markets outperformed on a relative basis; the MSCI EAFE and MSCI Emerging Markets indexes were down 6.5% and 5.6%, respectively. The portfolio's Domestic Equity composite was down 8.4% (net) while the Non-US Equity composite fell 7.7% (net) for the month.
- In fixed income, the U.S. 10- and 30-year Treasury yields increased 56 and 49 basis points, respectively. The release of the March FOMC minutes, which highlighted a more hawkish policy stance, and another elevated inflation print. The Fixed Income composite fell 3.0% (net) for the month while both the Bloomberg Agg and Bloomberg US HY fell 3.8% and 3.6% respectively.
- This brings the total plan return for the trailing one-year period to -2.4% (net), while the Allocation and Policy Index returned -0.5% and -0.4% respectively.

**Statistics Summary**

	Anlzd Ret	Anlzd Std Dev	Rank
Composite	7.5%	8.3%	11
Allocation Index	6.5%	7.8%	74
Policy Index	6.8%	8.4%	54
InvMetrics Public DB Gross Median	6.9%	9.1%	--

20 years Risk/Return is as of 03/31/2022. Chart reflects universe data on quarter end months only. Returns for 20 years Risk/Return and Statistics Summary are gross of fees.

Since inception return is 8.4% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns.



# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Composite</b>	<b>654,869,159</b>	<b>100.0</b>	<b>100.0</b>	<b>-4.7</b>	<b>-9.2</b>	<b>-2.4</b>	<b>7.4</b>	<b>7.3</b>	<b>7.4</b>	<b>6.9</b>	<b>Jan-86</b>
Allocation Index				-4.7	-7.8	-0.5	8.2	7.8	7.6	--	Jan-86
Policy Index				-5.0	-8.4	-0.4	8.8	8.3	7.9	--	Jan-86
<b>Total Balanced</b>	<b>5,129,904</b>	<b>0.8</b>	<b>0.0</b>	<b>-4.3</b>	<b>-6.5</b>	<b>4.7</b>	<b>8.9</b>	<b>6.7</b>	<b>5.4</b>	<b>5.2</b>	<b>Dec-10</b>
PRIT Core Fund	5,129,904	0.8		-4.3	-6.5	4.7	10.5	9.5	9.0	7.2	Apr-99
60% S&P 500 / 40% Bloomberg Aggregate				-6.8	-11.5	-3.2	8.7	8.9	9.0	6.3	Apr-99
<b>Total Domestic Equity</b>	<b>203,317,066</b>	<b>31.0</b>	<b>31.0</b>	<b>-8.4</b>	<b>-14.5</b>	<b>-5.8</b>	<b>11.8</b>	<b>12.7</b>	<b>12.5</b>	<b>7.6</b>	<b>May-99</b>
Russell 3000				-9.0	-13.8	-3.1	13.1	13.0	13.3	7.3	May-99
<b>Large Cap</b>	<b>158,960,628</b>	<b>24.3</b>	<b>24.0</b>	<b>-8.4</b>	<b>-14.3</b>	<b>-3.6</b>	<b>12.8</b>	<b>13.8</b>	<b>13.0</b>	<b>13.2</b>	<b>Dec-10</b>
Rhumblin Advisors S&P 500 Index Fund	61,782,758	9.4	10.0	-8.7	-12.9	0.2	13.8	13.6	13.6	9.1	Apr-97
S&P 500				-8.7	-12.9	0.2	13.8	13.7	13.7	9.0	Apr-97
Coho Relative Value Equity	53,062,626	8.1	7.0	-3.3	-5.2	2.4	11.9	11.7	--	11.7	Mar-16
Russell 1000 Value				-5.6	-6.3	1.3	9.6	9.1	11.2	11.6	Mar-16
Polen Focused Growth	44,115,244	6.7	7.0	-13.7	-25.2	-15.4	11.6	15.9	--	15.5	Feb-16
Russell 1000 Growth				-12.1	-20.0	-5.3	16.7	17.3	15.6	17.9	Feb-16
<b>Small Cap</b>	<b>44,356,438</b>	<b>6.8</b>	<b>7.0</b>	<b>-8.1</b>	<b>-15.0</b>	<b>-13.0</b>	<b>8.6</b>	<b>9.6</b>	<b>11.1</b>	<b>11.5</b>	<b>Dec-10</b>
Boston Partners Small Cap Value	22,934,987	3.5	3.5	-6.3	-8.2	-6.4	8.9	7.0	9.8	10.4	Feb-97
Russell 2000 Value				-7.8	-10.0	-6.6	8.4	6.7	9.8	9.0	Feb-97
Loomis Sayles Small Cap Growth	21,421,450	3.3	3.5	-9.9	-21.7	-19.8	7.5	11.4	12.0	6.7	Jan-97
Russell 2000 Growth				-12.3	-23.3	-26.4	4.1	7.1	9.9	6.7	Jan-97
<b>Total Non-US Equity</b>	<b>106,711,010</b>	<b>16.3</b>	<b>19.0</b>	<b>-7.7</b>	<b>-18.4</b>	<b>-19.8</b>	<b>0.7</b>	<b>3.1</b>	<b>4.3</b>	<b>3.9</b>	<b>Mar-99</b>
<b>International Equity</b>	<b>70,219,054</b>	<b>10.7</b>	<b>12.0</b>	<b>-7.8</b>	<b>-18.9</b>	<b>-19.7</b>	<b>1.8</b>	<b>4.1</b>	<b>4.9</b>	<b>3.3</b>	<b>Sep-05</b>
SEG Baxter Street	29,983,725	4.6	5.0	-6.3	-17.1	-19.0	1.8	5.6	--	7.1	May-16
MSCI ACWI ex USA				-6.3	-11.4	-10.3	4.3	4.9	5.0	6.2	May-16
Schroder International Alpha Trust Class 1	26,975,478	4.1	4.0	-7.6	-14.2	-10.1	8.2	8.1	7.1	6.8	Mar-12
MSCI ACWI ex USA				-6.3	-11.4	-10.3	4.3	4.9	5.0	4.6	Mar-12
Baillie Gifford International Growth Fund Class K	13,259,850	2.0	3.0	-11.4	-30.6	-38.6	--	--	--	-16.0	Oct-20
MSCI ACWI ex USA				-6.3	-11.4	-10.3	4.3	4.9	5.0	7.3	Oct-20

Since inception return is 8.4% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns.

In November 2019, Loomis sayles and Schroders transitioned from a mutual fund to a CIT structure. Performance prior to the transition to the CIT investment vehicle is linked to mutual fun performance history.



# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Emerging Markets Equity</b>	<b>36,491,957</b>	<b>5.6</b>	<b>7.0</b>	<b>-7.5</b>	<b>-17.3</b>	<b>-22.5</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-19.7</b>	<b>Mar-21</b>
Axiom Emerging Markets Trust Class 2	17,635,378	2.7	7.0	-8.5	-18.7	-24.2	--	--	--	-21.2	Mar-21
<i>MSCI Emerging Markets</i>				-5.6	-12.1	-18.3	2.2	4.3	2.9	-15.3	Mar-21
ABS Emerging Markets MA Fund	18,856,578	2.9		-6.5	-15.9	--	--	--	--	-14.1	Dec-21
<i>MSCI Emerging Markets</i>				-5.6	-12.1	-18.3	2.2	4.3	2.9	-10.5	Dec-21
<b>Total Fixed Income</b>	<b>139,662,878</b>	<b>21.3</b>	<b>20.0</b>	<b>-3.0</b>	<b>-7.5</b>	<b>-5.8</b>	<b>2.4</b>	<b>2.6</b>	<b>3.5</b>	<b>6.0</b>	<b>Mar-99</b>
Garcia Hamilton Fixed Income Aggregate	35,991,935	5.5	6.0	-3.3	-7.4	-7.1	0.6	--	--	1.4	Apr-18
<i>Bloomberg US Aggregate TR</i>				-3.8	-9.5	-8.5	0.4	1.2	1.7	1.4	Apr-18
Lord Abbett Core Fixed Income	35,005,422	5.3	4.0	-3.4	-8.8	-7.8	1.1	--	--	1.8	Apr-18
<i>Bloomberg US Aggregate TR</i>				-3.8	-9.5	-8.5	0.4	1.2	1.7	1.4	Apr-18
Rhumbline TIPS	2,680,991	0.4	0.0	-2.1	-5.0	0.7	5.3	3.9	--	3.6	Jun-16
<i>Bloomberg US TIPS TR</i>				-2.0	-5.0	0.7	5.4	3.9	2.3	3.7	Jun-16
Loomis Sayles Multisector Full Discretion Trust	51,750,218	7.9	8.0	-3.6	-8.9	-7.5	3.0	3.3	4.3	7.1	Mar-99
<i>Bloomberg US Aggregate TR</i>				-3.8	-9.5	-8.5	0.4	1.2	1.7	4.1	Mar-99
<i>Bloomberg US High Yield TR</i>				-3.6	-8.2	-5.2	2.8	3.7	5.3	6.4	Mar-99
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	14,180,575	2.2	2.0	-0.1	-0.4	1.7	--	--	--	3.5	Aug-19
<i>Credit Suisse Leveraged Loan</i>				0.2	0.1	2.9	3.6	4.0	4.4	3.7	Aug-19
Invesco Mortgage Recovery Loans Feeder Fund	53,738	0.0		0.0	0.0	-1.5	-2.7	1.9	5.6	10.3	Apr-10
<i>Bloomberg US Aggregate TR</i>				-3.8	-9.5	-8.5	0.4	1.2	1.7	2.6	Apr-10
<b>Total Hedge Fund</b>	<b>42,926,124</b>	<b>6.6</b>	<b>6.0</b>	<b>-0.4</b>	<b>-1.1</b>	<b>2.5</b>	<b>5.9</b>	<b>4.5</b>	<b>4.4</b>	<b>3.6</b>	<b>Oct-06</b>
PRIM Portfolio Completion Strategies	15,310,530	2.3		-1.1	-0.2	2.2	4.4	4.2	4.9	4.0	Oct-06
Corbin Pinehurst Partners	13,379,216	2.0		-1.6	-5.3	-1.1	6.9	--	--	6.9	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				-1.4	-4.1	-2.2	5.1	4.2	3.8	5.3	Nov-18
UBS Neutral Alpha Strategies	13,496,707	2.1		1.6	2.2	6.8	7.7	--	--	6.8	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				-1.4	-4.1	-2.2	5.1	4.2	3.8	5.3	Nov-18
Entrust Peru Wind Down	739,671	0.1		-0.1	-0.7	-1.0	-2.7	--	--	-3.3	Dec-17
<i>HFRI Fund of Funds Composite Index</i>				-1.4	-4.1	-2.2	5.1	4.2	3.8	3.9	Dec-17
<b>Other</b>	<b>12,380,360</b>	<b>1.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.8</b>	<b>1.2</b>	<b>0.7</b>	<b>0.6</b>	<b>Dec-10</b>
Cash Account	12,380,360	1.9		0.0	0.0	0.0	0.8	1.2	0.7	1.7	Feb-00
<i>91 Day T-Bills</i>				0.0	0.1	0.1	0.6	1.0	0.6	1.5	Feb-00

Importantly, all returns in this report, including those of the private real estate managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences. Corbin Pinehursts Partners, UBS Neutral Alpha Strategies, and Entrust Peru Wind Down are preliminary as of 04/30/2022 and are subject to change once finalized.



# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Real Estate</b>	<b>62,608,860</b>	<b>9.6</b>	<b>12.0</b>	<b>0.0</b>	<b>6.5</b>	<b>29.5</b>	<b>12.4</b>	<b>10.9</b>	<b>11.9</b>	<b>8.5</b>	<b>Apr-99</b>
<i>NCREIF Property Index</i>				0.0	5.3	21.9	9.6	8.5	9.6	9.0	Apr-99
Morgan Stanley Prime Property (\$2.8m commitment in '95)	26,193,378	4.0		0.0	7.0	27.6	11.3	10.0	11.6	9.0	Sep-95
TA Realty Core Property Fund, LP (\$15m commitment in '19)	27,431,345	4.2		0.0	8.2	37.0	--	--	--	16.0	Jun-19
Invesco Mortgage Recovery II (\$3M commitment in '15)	980,203	0.1		0.0	0.0	7.1	-16.6	-5.0	--	-1.2	Oct-15
Landmark VI (\$2m commitment in '11)	93,801	0.0		0.0	0.0	14.8	-5.2	-4.9	3.1	4.1	Jul-11
Landmark VIII (\$4m commitment in '17)	1,534,703	0.2		0.0	0.0	33.7	12.8	--	--	18.1	Nov-17
StepStone Real Estate Fund II (\$2m commitment in '11)	561,793	0.1		0.0	0.0	3.6	-2.7	0.2	2.4	2.4	May-12
Cerberus Institutional Real Estate Partners III (\$1.5m commitment in '12)	649,585	0.1		0.0	10.6	81.9	30.6	19.8	--	18.4	May-13
TA Realty Fund X LP (\$3.5m commitment in '12)	3,352	0.0		0.0	1.8	0.8	2.6	7.2	--	8.0	May-13
TerraCap Partners III, LP (\$2.6m commitment in '15)	1,496,857	0.2		0.0	0.0	1.8	2.7	5.0	--	9.0	Jul-15
TerraCap Partners IV, LP (\$4m commitment in '17)	3,663,842	0.6		0.0	0.0	12.2	11.6	--	--	11.0	Nov-17
<b>Total Private Equity</b>	<b>82,132,957</b>	<b>12.5</b>	<b>12.0</b>	<b>-0.1</b>	<b>1.1</b>	<b>28.7</b>	<b>20.1</b>	<b>17.4</b>	<b>14.9</b>	<b>10.7</b>	<b>Apr-99</b>
<i>CJA US All PE</i>				0.0	0.0	25.9	22.2	19.1	15.8	13.6	Apr-99
<i>NASDAQ W/O Income</i>				-13.3	-21.2	-11.7	15.1	15.3	15.0	7.2	Apr-99
PRIM Vintage Year 2008 (\$3m commitment in '08)	872,702	0.1		0.6	6.5	39.2	20.1	20.8	20.3	10.8	Jun-08
PRIM Vintage Year 2009 (\$1m commitment in '09)	141,812	0.0		0.0	10.3	64.2	53.5	41.0	29.6	17.2	Nov-09
PRIM Vintage Year 2010 (\$1m commitment in '10)	696,656	0.1		-0.2	-19.0	60.5	37.1	29.8	23.5	14.7	Jun-10
PRIM Vintage Year 2011 (\$1.5m commitment in '11)	1,058,441	0.2		0.0	7.2	59.0	40.4	31.3	23.1	11.8	May-11
PRIM Vintage Year 2012 (\$1m commitment in '12)	677,970	0.1		-1.7	-5.1	18.0	27.9	23.8	--	-7.6	Jun-12
PRIM Vintage Year 2014 (\$2m commitment in '14)	2,534,005	0.4		-0.2	7.6	50.2	34.3	30.1	--	10.4	Jun-14
PRIM Vintage Year 2017 (\$2m commitment in '17)	2,632,173	0.4		-1.6	5.5	40.1	29.2	18.9	--	18.9	May-17
PRIM Vintage Year 2020 (\$5m commitment in '20)	3,060,388	0.5		-1.1	8.8	36.2	--	--	--	24.4	Mar-20
PRIM Vintage Year 2021 (\$5m commitment in '21)	2,151,057	0.3		-0.3	1.9	5.9	--	--	--	3.9	Dec-20
PRIM Vintage Year 2022 (\$7.5m commitment in '22)	196,311	0.0		-2.4	--	--	--	--	--	-5.0	Mar-22
Alcentra European DLF (\$5m commitment in '14)	201,615	0.0		0.0	0.0	73.5	20.9	13.3	--	11.7	Jan-15
Ascent Fund IV (\$2m commitment in '04)	900	0.0		0.0	0.0	-15.5	-8.6	-38.4	-31.9	-21.0	Jul-04
Ascent Fund IV-B (\$1m commitment in '16)	53,007	0.0		0.0	0.0	-56.7	-39.4	-27.6	--	-23.7	Jul-16
Ascent Fund V (\$2m commitment in '08)	1,669,821	0.3		0.0	0.0	19.2	4.3	1.0	6.9	5.3	Oct-08
Ascent VI (\$3m commitment in '15)	3,366,212	0.5		0.0	0.0	11.8	1.2	4.9	--	2.2	Dec-15
CVI Credit Value Fund IV A LP (\$6m commitment in '17)	6,707,826	1.0		0.0	0.3	7.9	6.5	--	--	6.0	Dec-17

Importantly, all returns in this report, including those of the private markets managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.



# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Invesco Fund VI (\$5m commitment in '13)	1,489,373	0.2		0.0	0.0	18.2	35.9	27.5	--	21.1	Jul-13
Kayne Energy Fund VII (\$5m commitment in '15)	1,962,050	0.3		0.0	0.0	25.9	-31.9	-16.0	--	-9.2	Jan-16
Foundry 2007 (\$3m commitment in '07)	533,967	0.1		0.0	0.0	14.2	20.1	5.5	9.7	21.1	Dec-07
Foundry 2010 (\$3m commitment in '10)	6,096,181	0.9		0.0	0.0	90.3	33.3	26.9	16.9	15.3	Jan-11
Foundry 2010 Annex (\$0.4m commitment in '15)	1,114,912	0.2		0.0	0.0	200.2	106.6	71.6	--	47.2	Sep-15
Pinebridge PEP V (\$6m commitment in '07)	521,010	0.1		0.0	0.0	3.9	10.0	6.0	9.5	--	Mar-08
Landmark XV (\$3m commitment in '13)	1,199,414	0.2		0.0	0.5	15.2	16.1	14.2	--	14.0	Nov-13
JFL Equity Investors IV, L.P. (\$6m commitment in '16)	2,310,695	0.4		0.0	-0.9	36.9	44.3	44.0	--	40.2	Jan-17
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)	4,705,229	0.7		0.0	0.0	14.7	23.5	21.4	--	20.9	Feb-17
Park Square Credit Opportunities III (\$3m commitment in '17)	2,822,936	0.4		0.0	0.0	6.5	8.2	--	--	6.8	Feb-18
Ironsides Constitution Opportunities (\$3m commitment in '18)	2,269,124	0.3		0.0	0.0	10.7	13.5	--	--	12.5	Oct-18
HarbourVest Dover Street X (\$9m commitment in '20)	5,774,507	0.9		0.0	0.0	41.9	--	--	--	78.8	Jun-20
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)	7,052,206	1.1		0.0	0.0	43.9	--	--	--	47.2	Jul-20
Constitution Ironsides Co-Investment Fund VI (\$12m commitment in '21)	10,771,012	1.6		0.0	--	--	--	--	--	0.0	Feb-22
JFL Equity Investors V, L.P. (\$9m commitment in '20)	7,089,447	1.1		0.0	6.5	12.6	--	--	--	-1.0	Sep-20
<i>Private Equity Benchmark (1 Qtr. Lag)</i>				0.0	5.4	38.7	24.2	20.0	16.4	45.5	Sep-20

Importantly, all returns in this report, including those of the private markets managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.



# MWRA Employees' Retirement System

## ESTIMATED FEE SCHEDULE

Account	Fee Schedule	Market Value As of 4/30/2022	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
PRIT Core Fund	0.49% of Assets	\$5,129,904	0.8%	\$25,137	0.49%
Rhumblin Advisors S&P 500 Index Fund	0.05% of Assets	\$61,782,758	9.4%	\$30,891	0.05%
Coho Relative Value Equity	0.50% of First 75.0 Mil, 0.40% of Next 75.0 Mil, 0.35% Thereafter	\$53,062,626	8.1%	\$265,313	0.50%
Polen Focused Growth	0.65% of Assets	\$44,115,244	6.7%	\$286,749	0.65%
Boston Partners Small Cap Value	1.00% of Assets	\$22,934,987	3.5%	\$229,350	1.00%
Loomis Sayles Small Cap Growth	0.45% of Assets	\$21,421,450	3.3%	\$96,397	0.45%
SEG Baxter Street	1.00% of Assets	\$29,983,725	4.6%	\$299,837	1.00%
Schroder International Alpha Trust Class 1	0.55% of Assets	\$26,975,478	4.1%	\$148,365	0.55%
Baillie Gifford International Growth Fund Class K	0.60% of Assets	\$13,259,850	2.0%	\$79,559	0.60%
Axiom Emerging Markets Trust Class 2	0.73% of Assets	\$17,635,378	2.7%	\$128,738	0.73%
ABS Emerging Markets MA Fund	0.75% of Assets	\$18,856,578	2.9%	\$141,424	0.75%
Garcia Hamilton Fixed Income Aggregate	Performance-based 0.13 and 15.00	\$35,991,935	5.5%	\$44,990	0.13%
Lord Abbett Core Fixed Income	0.19% of Assets	\$35,005,422	5.3%	\$66,510	0.19%
Rhumblin TIPS Pooled Index Fund	0.04% of Assets	\$2,680,991	0.4%	\$1,072	0.04%
Loomis Sayles Multisector Full Discretion Trust	0.50% of First 20.0 Mil, 0.40% of Next 20.0 Mil, 0.30% Thereafter	\$51,750,218	7.9%	\$215,251	0.42%
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	0.40% of Assets	\$14,180,575	2.2%	\$56,722	0.40%
Invesco Mortgage Recovery Loans Feeder Fund	No Fee	\$53,738	0.0%	--	--
PRIM Portfolio Completion Strategies	No Fee	\$15,310,530	2.3%	--	--
Corbin Pinehurst Partners	0.85% of Assets	\$13,379,216	2.0%	\$113,723	0.85%
UBS Neutral Alpha Strategies	0.90% of Assets	\$13,496,707	2.1%	\$121,470	0.90%
Entrust Peru Wind Down	0.50% of Assets	\$739,671	0.1%	\$3,698	0.50%
Cash Account	No Fee	\$12,380,360	1.9%	--	--
Morgan Stanley Prime Property (\$2.8m commitment in '95)	No Fee	\$26,193,378	4.0%	--	--
TA Realty Core Property Fund, LP (\$15m commitment in '19)	No Fee	\$27,431,345	4.2%	--	--
Invesco Mortgage Recovery II (\$3M commitment in '15)	No Fee	\$980,203	0.1%	--	--
Landmark VI (\$2m commitment in '11)	No Fee	\$93,801	0.0%	--	--



# MWRA Employees' Retirement System

## ESTIMATED FEE SCHEDULE

Account	Fee Schedule	Market Value As of 4/30/2022	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Landmark VIII (\$4m commitment in '17)	No Fee	\$1,534,703	0.2%	--	--
StepStone Real Estate Fund II (\$2m commitment in '11)	No Fee	\$561,793	0.1%	--	--
Cerberus Institutional Real Estate Partners III (\$1.5m commitment in '12)	No Fee	\$649,585	0.1%	--	--
TA Realty Fund X LP (\$3.5m commitment in '12)	No Fee	\$3,352	0.0%	--	--
TerraCap Partners III, LP (\$2.6m commitment in '15)	No Fee	\$1,496,857	0.2%	--	--
TerraCap Partners IV, LP (\$4m commitment in '17)	No Fee	\$3,663,842	0.6%	--	--
PRIM Vintage Year 2008 (\$3m commitment in '08)	No Fee	\$872,702	0.1%	--	--
PRIM Vintage Year 2009 (\$1m commitment in '09)	No Fee	\$141,812	0.0%	--	--
PRIM Vintage Year 2010 (\$1m commitment in '10)	No Fee	\$696,656	0.1%	--	--
PRIM Vintage Year 2011 (\$1.5m commitment in '11)	No Fee	\$1,058,441	0.2%	--	--
PRIM Vintage Year 2012 (\$1m commitment in '12)	No Fee	\$677,970	0.1%	--	--
PRIM Vintage Year 2014 (\$2m commitment in '14)	No Fee	\$2,534,005	0.4%	--	--
PRIM Vintage Year 2017 (\$2m commitment in '17)	No Fee	\$2,632,173	0.4%	--	--
PRIM Vintage Year 2020 (\$5m commitment in '20)	No Fee	\$3,060,388	0.5%	--	--
PRIM Vintage Year 2021 (\$5m commitment in '21)	No Fee	\$2,151,057	0.3%	--	--
PRIM Vintage Year 2022 (\$7.5m commitment in '22)	No Fee	\$196,311	0.0%	--	--
Alcentra European DLF (\$5m commitment in '14)	No Fee	\$201,615	0.0%	--	--
Ascent Fund IV (\$2m commitment in '04)	No Fee	\$900	0.0%	--	--
Ascent Fund IV-B (\$1m commitment in '16)	No Fee	\$53,007	0.0%	--	--
Ascent Fund V (\$2m commitment in '08)	No Fee	\$1,669,821	0.3%	--	--
Ascent VI (\$3m commitment in '15)	No Fee	\$3,366,212	0.5%	--	--
CVI Credit Value Fund IV A LP (\$6m commitment in '17)	No Fee	\$6,707,826	1.0%	--	--
Invesco Fund VI (\$5m commitment in '13)	No Fee	\$1,489,373	0.2%	--	--
Kayne Energy Fund VII (\$5m commitment in '15)	No Fee	\$1,962,050	0.3%	--	--
Foundry 2007 (\$3m commitment in '07)	No Fee	\$533,967	0.1%	--	--
Foundry 2010 (\$3m commitment in '10)	No Fee	\$6,096,181	0.9%	--	--
Foundry 2010 Annex (\$0.4m commitment in '15)	No Fee	\$1,114,912	0.2%	--	--
Pinebridge (AIG) PEP V Asia (\$6m commitment in '07)	No Fee	\$40,070	0.0%	--	--
Pinebridge (AIG) PEP V Co-Investment (\$6m commitment in '07)	No Fee	\$89,273	0.0%	--	--



# MWRA Employees' Retirement System

## ESTIMATED FEE SCHEDULE

Account	Fee Schedule	Market Value As of 4/30/2022	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Pinebridge (AIG) PEP V Europe (\$6m commitment in '07)	No Fee	\$22,011	0.0%	--	--
Pinebridge (AIG) PEP V Large Market US Buyout (\$6m commitment in '07)	No Fee	\$91,895	0.0%	--	--
Pinebridge (AIG) PEP V Preferred Participation Fund (\$6m commitment in '07)	No Fee	\$106,747	0.0%	--	--
Pinebridge (AIG) PEP V Secondary (\$6m commitment in '07)	No Fee	\$33,880	0.0%	--	--
Pinebridge (AIG) PEP V Small-Mid Market US Buyout (\$6m commitment in '07)	No Fee	\$92,082	0.0%	--	--
Pinebridge (AIG) PEP V US Venture (\$6m commitment in '07)	No Fee	\$45,052	0.0%	--	--
Landmark XV (\$3m commitment in '13)	No Fee	\$1,199,414	0.2%	--	--
JFL Equity Investors IV, L.P. (\$6m commitment in '16)	No Fee	\$2,310,695	0.4%	--	--
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)	No Fee	\$4,705,229	0.7%	--	--
Park Square Credit Opportunities III (\$3m commitment in '17)	No Fee	\$2,822,936	0.4%	--	--
Ironsides Constitution Opportunities (\$3m commitment in '18)	No Fee	\$2,269,124	0.3%	--	--
HarbourVest Dover Street X (\$9m commitment in '20)	No Fee	\$5,774,507	0.9%	--	--
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)	No Fee	\$7,052,206	1.1%	--	--
Constitution Ironsides Co-Investment Fund VI (\$12m commitment in '21)	No Fee	\$10,771,012	1.6%	--	--
JFL Equity Investors V, L.P. (\$9m commitment in '20)	No Fee	\$7,089,447	1.1%	--	--
HarbourVest Co-Investment Fund VI (\$8m commitment in '21)	No Fee	\$400,000	0.1%	--	--
<b>Investment Management Fee</b>		<b>\$654,869,159</b>	<b>100.0%</b>	<b>\$2,355,198</b>	<b>0.36%</b>

Note:  
 Estimate fee for privates are ~\$1,556,212 annually, which brings the total expense ratio for privates to ~22 bps. This brings the total estimated expense ratio for MWRA to ~ 58bps.





# MWRA Employees' Retirement System

## NOTES

- 1 - Results for periods longer than one year are annualized.
- 2 - Total Balances, Large Cap, Small Cap, and Other Composite performance starts 12/1/2010.
- 3 - Preliminary Total Composite net of fee since inception return is 6.9% for the current month.
- 4 - Preliminary Total Composite gross of fee since inception return is 8.4% for the current month.
- 5 - Targets, Allocation Index, and Policy Index have been updated to reflect new allocation of 02/01/2022.
- 6 - Policy Index changed from Nasdaq to Cambridge All PE to reflect as of 5/1/2012.
- 7 - Policy Index Consists of: 24% S&P 500, 7% Russell 2000, 12% MSCI ACWI IMI, 7% MSCI Emerging Markets, 12% Bloomberg US Aggregate TR, 8% Bloomberg US Universal TR, 6% HFRI Fund of Funds Composite Index, 12% NCREIF Property Index, 12% C|A US All PE.
- 8 - Allocation Index Consists of: Weighted index of underlying managers to their respective benchmark.



# DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

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

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv





# Q1 2022 INVESTMENT REPORT

MWRA EMPLOYEES' RETIREMENT SYSTEM

MAY 26, 2022

Sebastian Grzejka, CAIA, Principal  
Kiley Fischer, Sr. Consulting Analyst



# GOALS & OBJECTIVES

## Investment Return Objective

**“Its primary goal is to provide promised benefits to participants and beneficiaries of the MWRA Employees’ Retirement system. Plan assets should be equal to or greater than the present value of the projected benefit obligations (“fully funded”). When Plan assets are less than the present value of projected benefit obligations, a schedule will be established, and a plan will be in place to meet a fully funded status. When achieving return objectives required to fully fund the system, the Board is intent on controlling risk. Consistency of returns and risk of loss are primary considerations. The Board has also determined that the annual performance of plan assets should not vary substantially from returns achieved by other public pension funds with similar goals and objectives.”**

## Return Expectations

**The investment growth should be maintained in such a manner that the minimum nominal rate of return does not cause a negative real rate of return over a full market cycle:**

**Time Horizon:** Return assumptions will be based on a ten-year time horizon with a detailed review and analysis to be made at least annually to monitor allocations and assumptions. Should a manager deviate from proscribed mandate or expected risk and return profile by a consequential degree, that manager may be reevaluated at any time

**Liquidity Needs:** Presently contributions exceed plan withdrawals to provide benefits, payouts, and/or plan expenses. Portfolio liquidity will be managed based on the cash flow needs of the System.

**Regulatory Considerations:** Assets of this Fund shall be invested in a manner consistent with the fiduciary standards established under Code of Massachusetts Regulations 840 (“840 CMR”). The Board shall also use as precedent the Employee Retirement Income Security Act (ERISA).



# TABLE OF CONTENTS

	<u>Tab</u>
<b>Market Review</b>	<b>1</b>
<b>First Quarter Plan Performance</b>	<b>2</b>

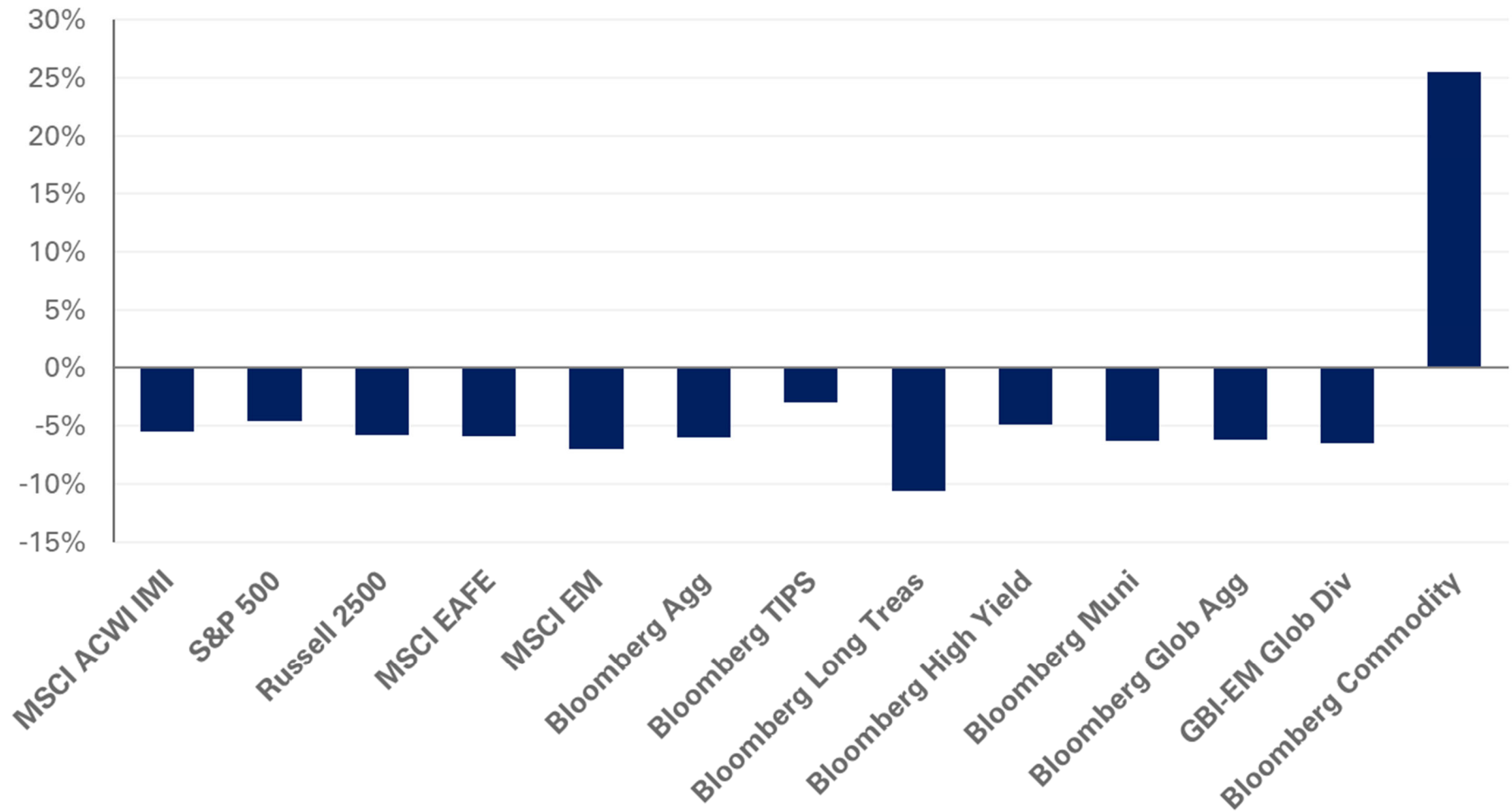


# MARKET REVIEW



# GLOBAL MARKETS BROADLY DECLINED

## QUARTERLY TOTAL RETURNS

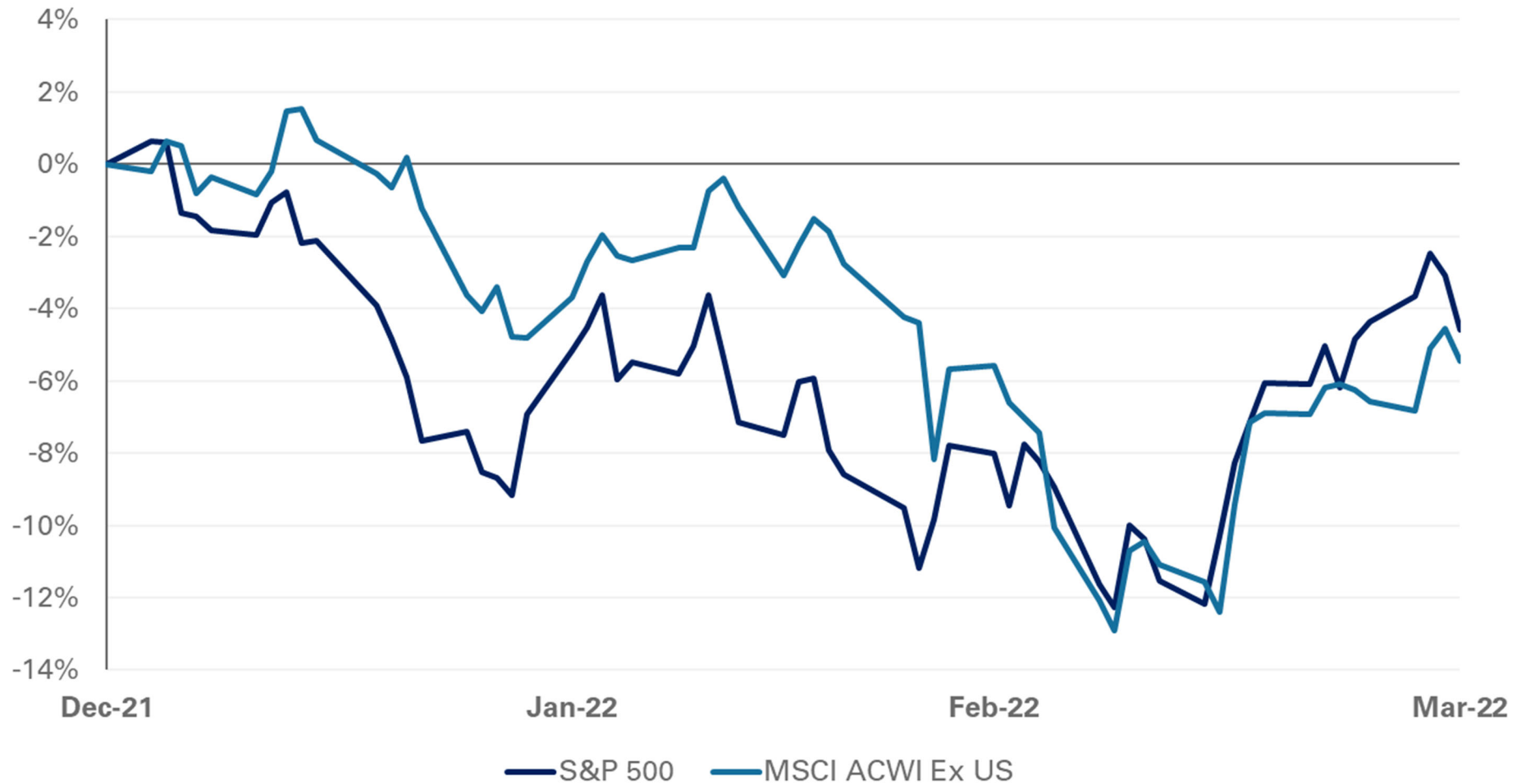


Source: MSCI, S&P, Russell, MSCI, Bloomberg, JPM, FactSet



# VOLATILE START TO THE YEAR FOR EQUITIES

## CUMULATIVE TOTAL RETURNS

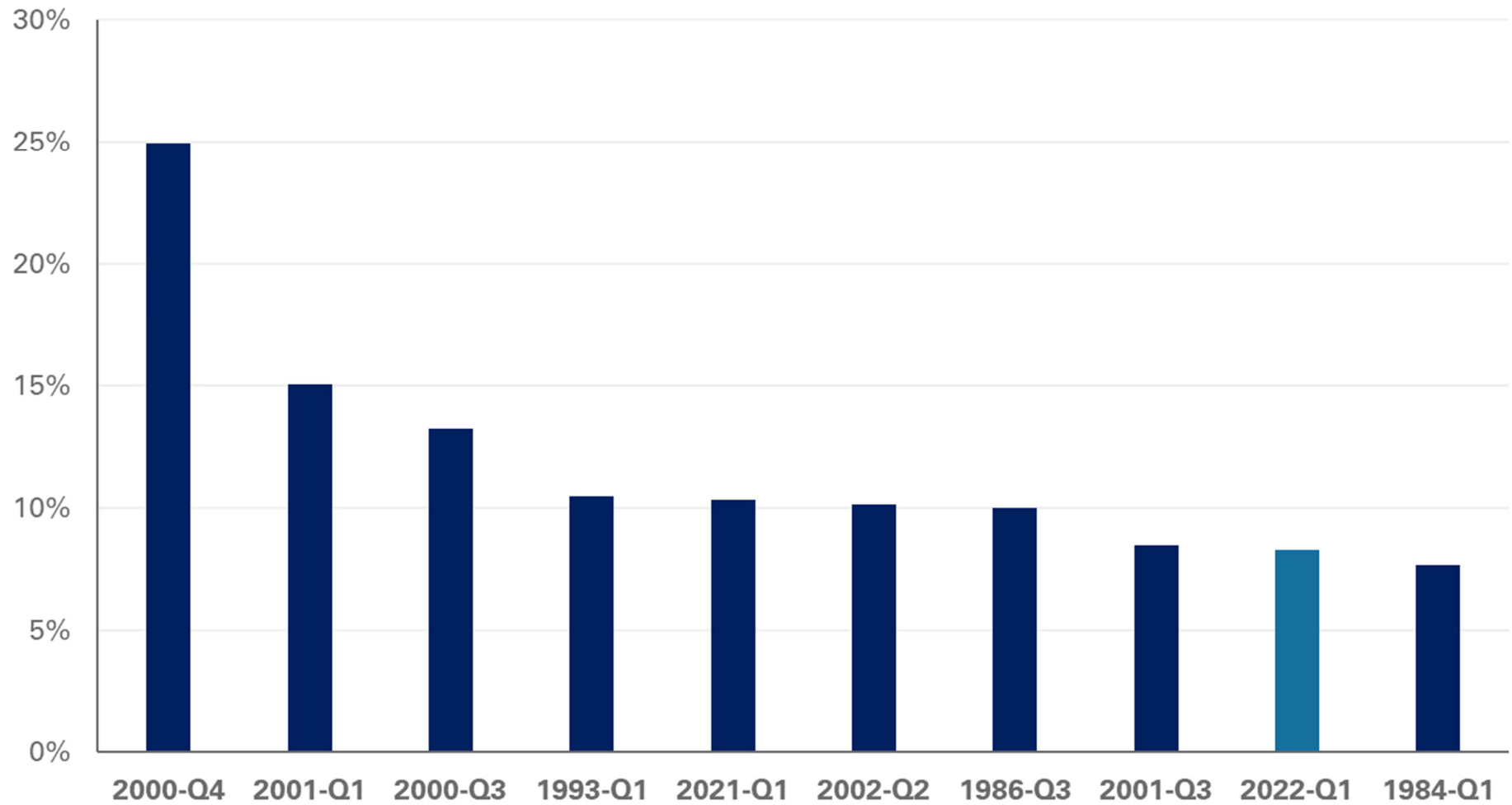


Source: S&P, MSCI, FactSet



# VALUE OUTPERFORMED GROWTH

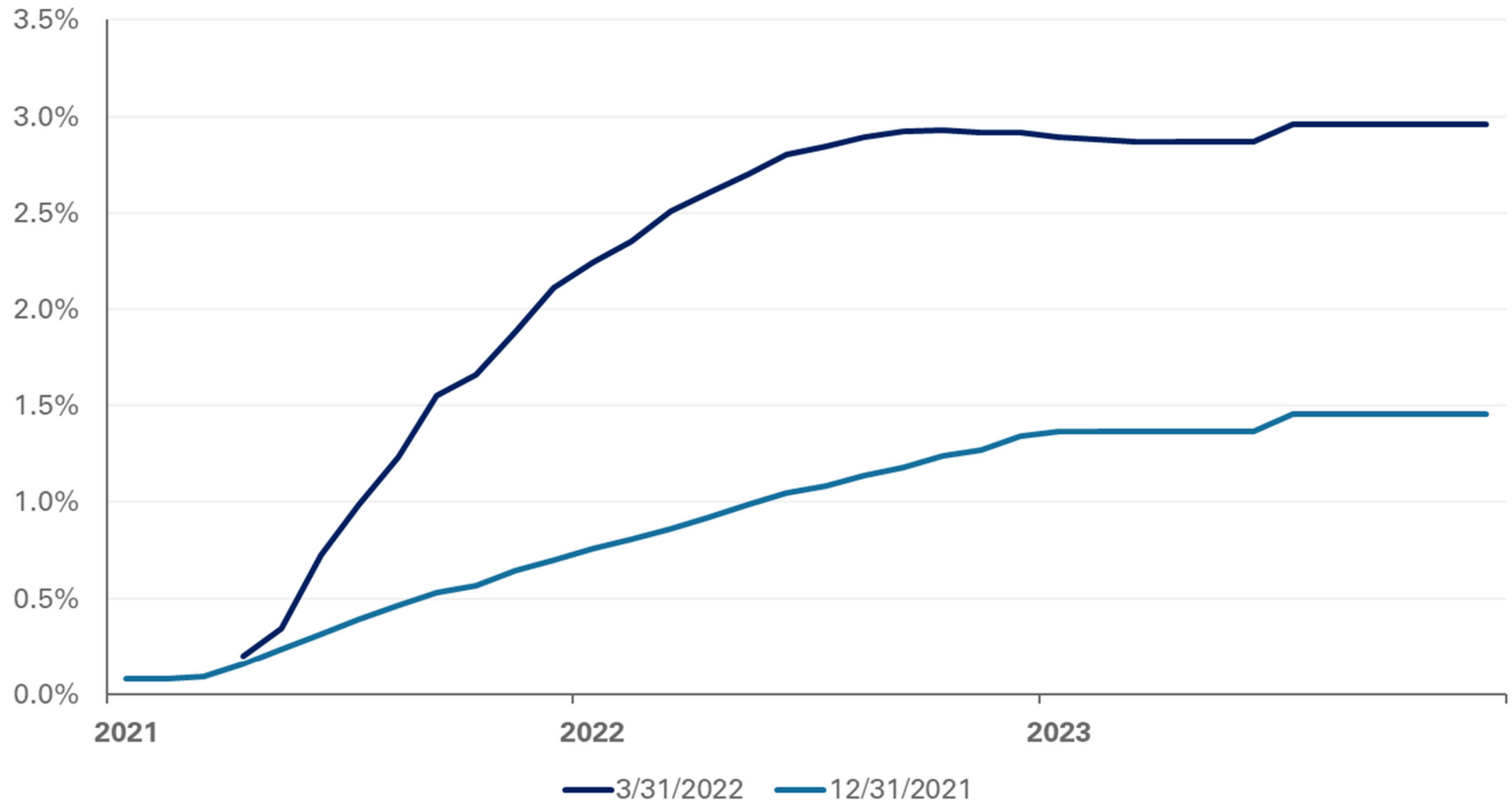
## TOP 10 RUSSELL 1000 VALUE – GROWTH TOTAL RETURN



Source: Russell, FactSet

# THE MARKET EXPECTS NINE RATE HIKES IN 2022

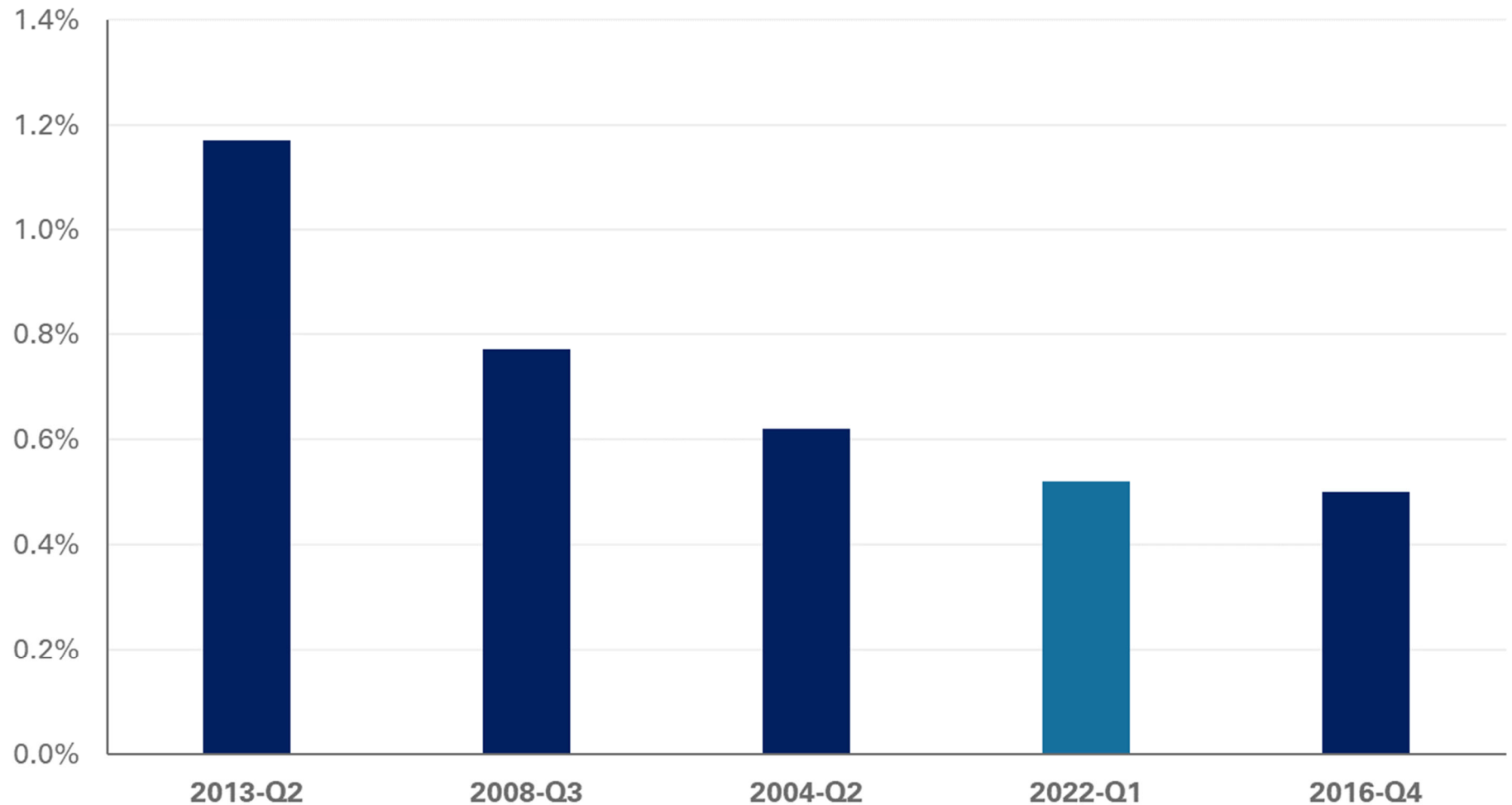
## FED FUNDS FUTURES



Source: FactSet

# REAL YIELDS SURGED DURING THE QUARTER

## TOP 5 QUARTERLY CHANGE IN 10-YEAR TIPS REAL YIELDS

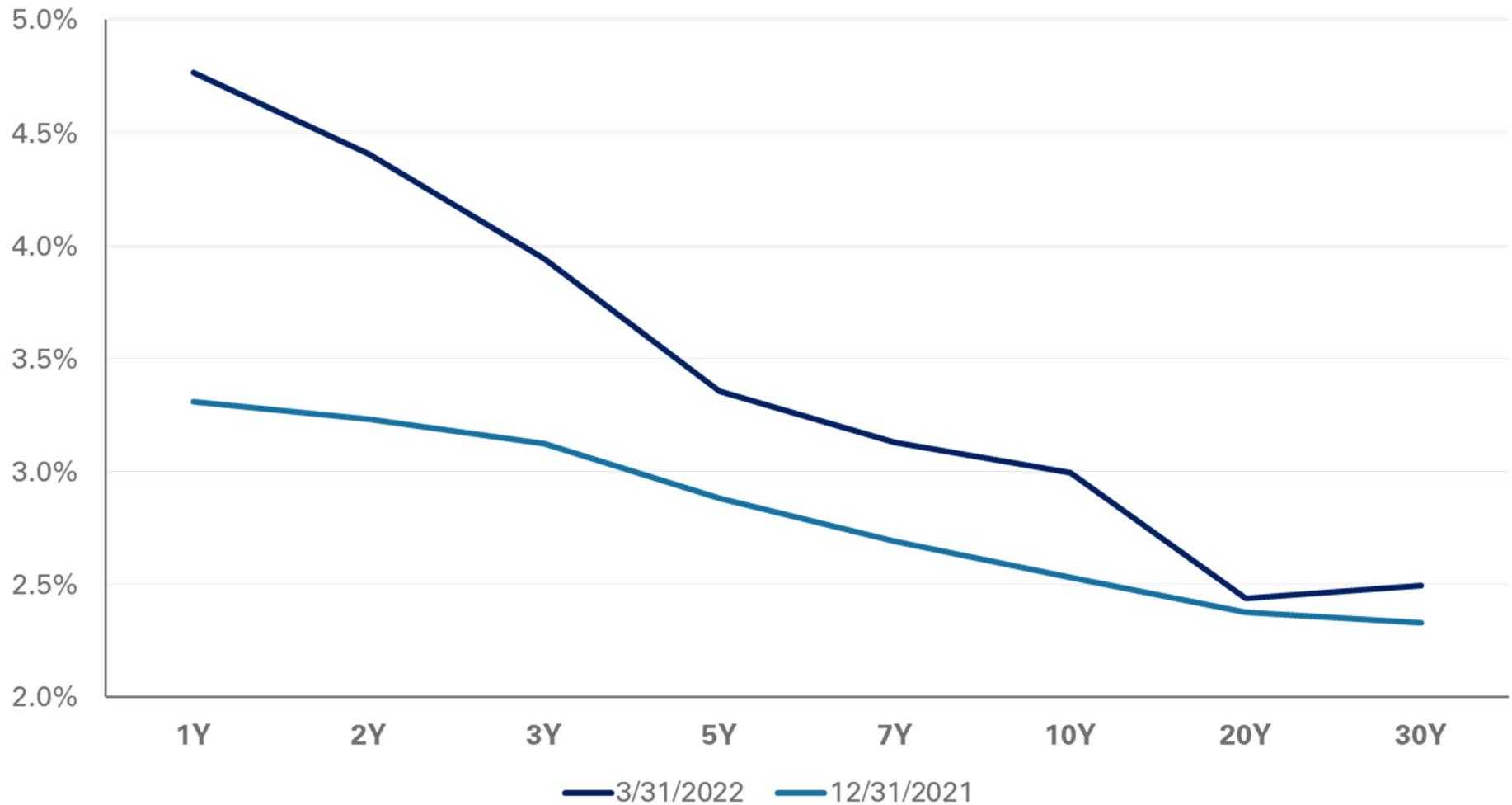


Calculated based on data between 12/31/2002 to 3/31/2022  
Source: FactSet



# NEAR-TERM INFLATION EXPECTATIONS ROSE

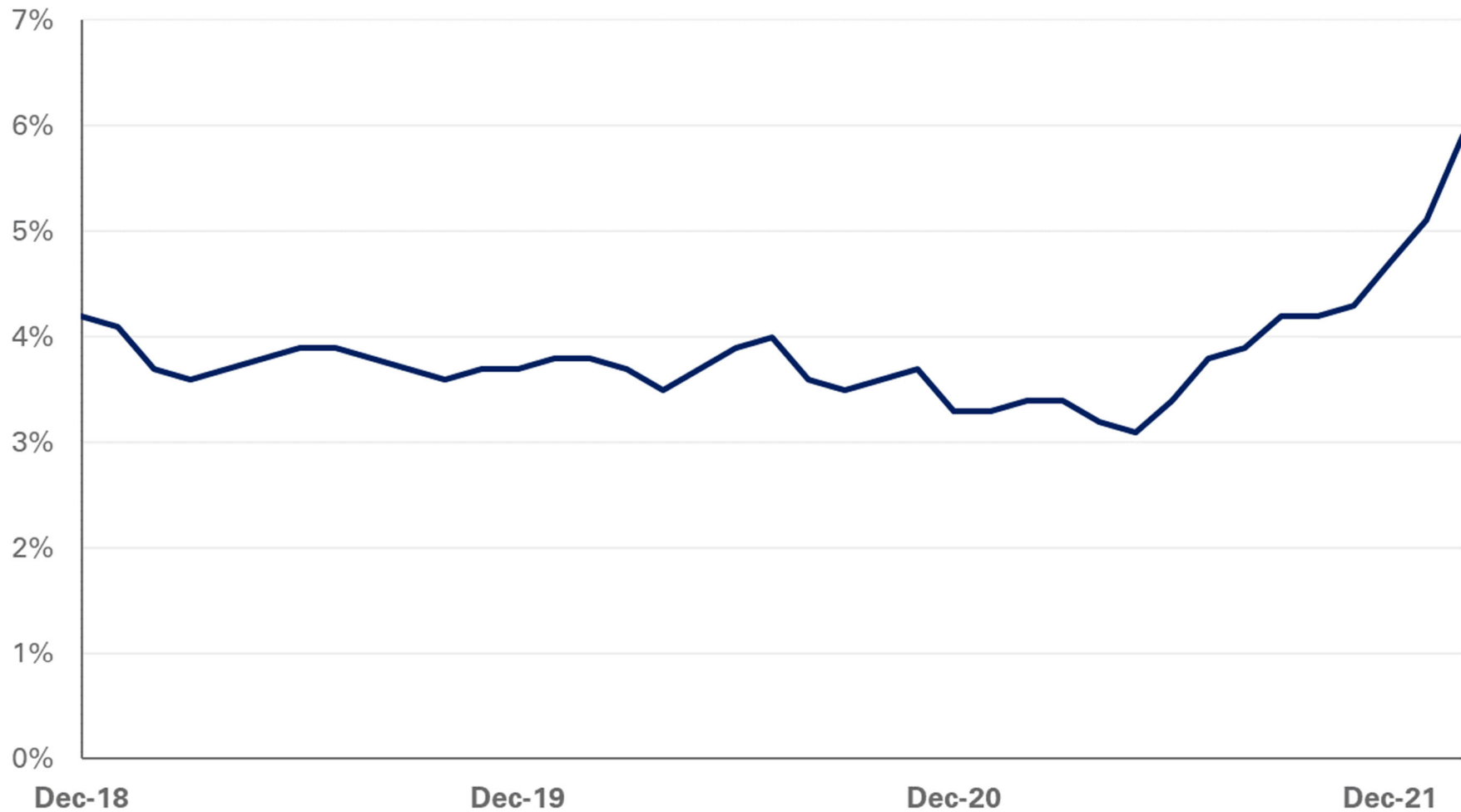
## U.S. BREAKEVEN INFLATION CURVE



Source: FactSet

# WAGE GROWTH CONTINUES TO ACCELERATE

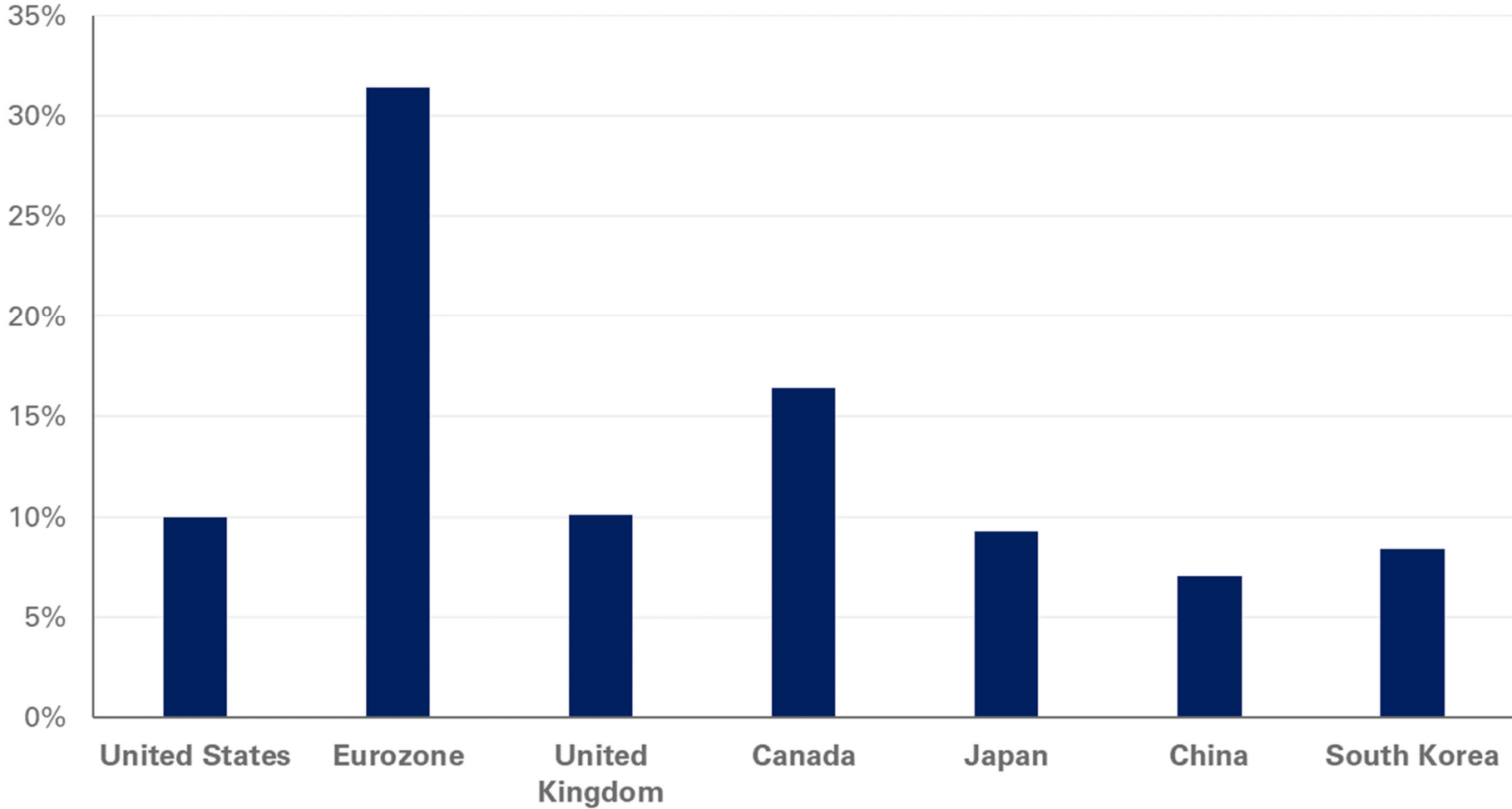
## 3-MONTH MOVING AVERAGE OF OVERALL WAGE GROWTH



Source: Federal Reserve of Atlanta, FactSet

# PRODUCER PRICES HAVE BROADLY INCREASED

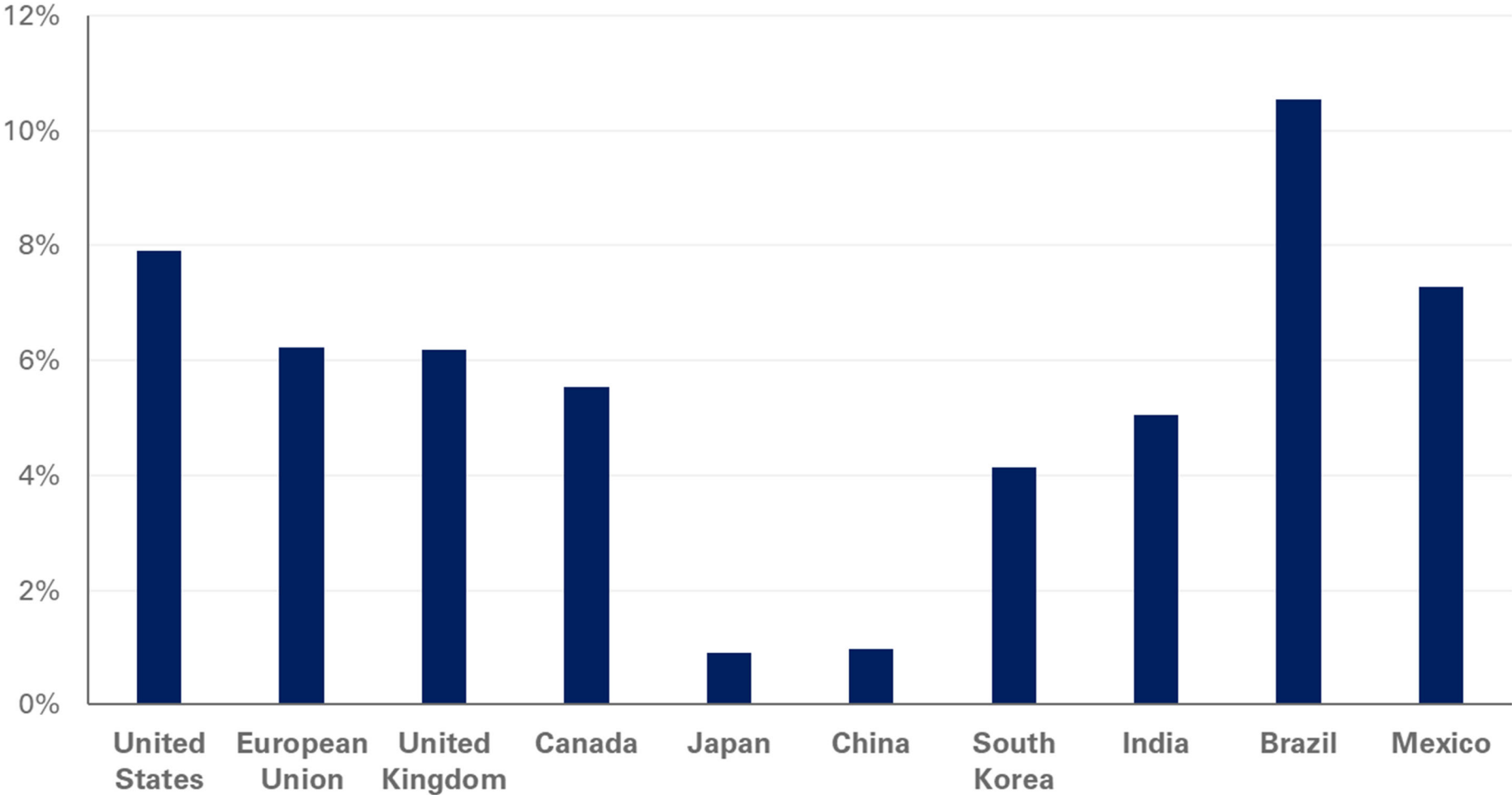
## ANNUAL CHANGE IN PRODUCER PRICE INDEX



Source: Eurostat, UK Official for National Statistics, Statistics Canada, Bank of Japan, National Bureau of Statistics China, Bank of Korea, FactSet

# MOST ECONOMIES PLAGUED BY HIGHER INFLATION

## ANNUAL CHANGE IN INFLATION

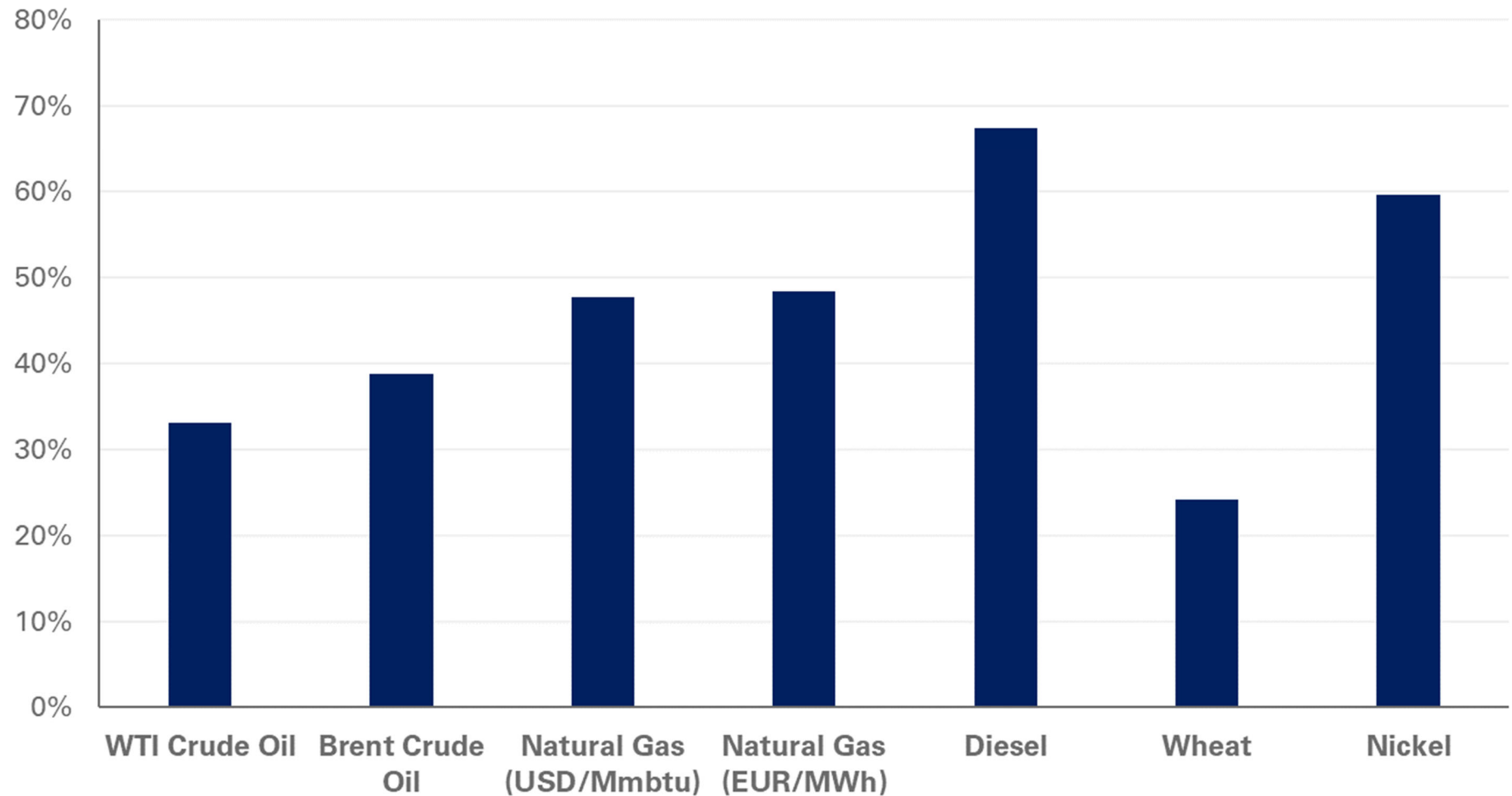


Data as of 2/28/2022; South Korea data as of 3/31/2022  
Source: FactSet



# RUSSIA'S INVASION STRESSED COMMODITIES

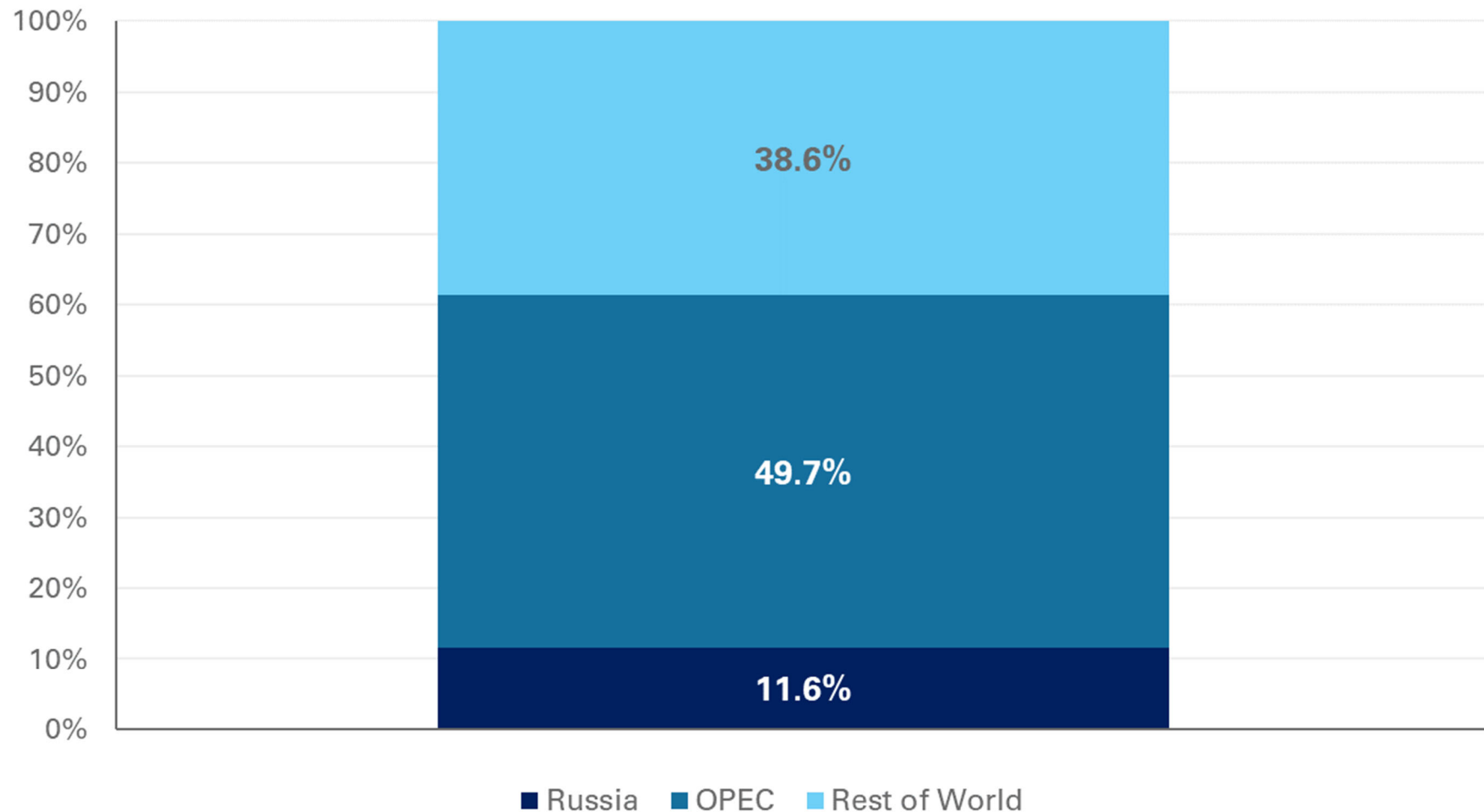
## QUARTERLY CHANGE IN SPOT PRICES





# RUSSIA IS A LARGE SUPPLIER OF OIL AND ENERGY

## PERCENTAGE OF TOTAL CRUDE OIL EXPORTS



Data as of 12/31/2019  
Source: OPEC, FactSet





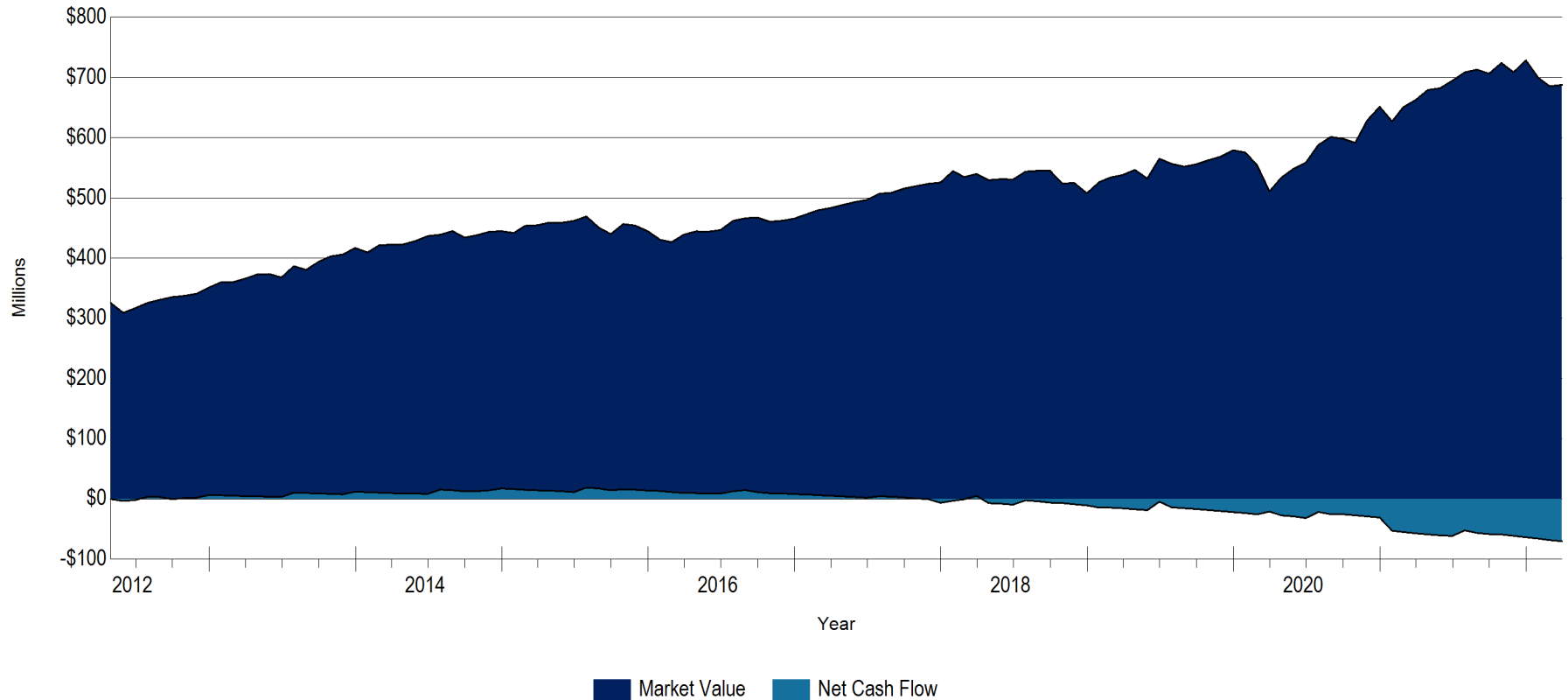
# FIRST QUARTER PLAN PERFORMANCE



# MWRA Employees' Retirement System

## TOTAL FUND ASSET GROWTH SUMMARY

10 Years Ending March 31, 2022



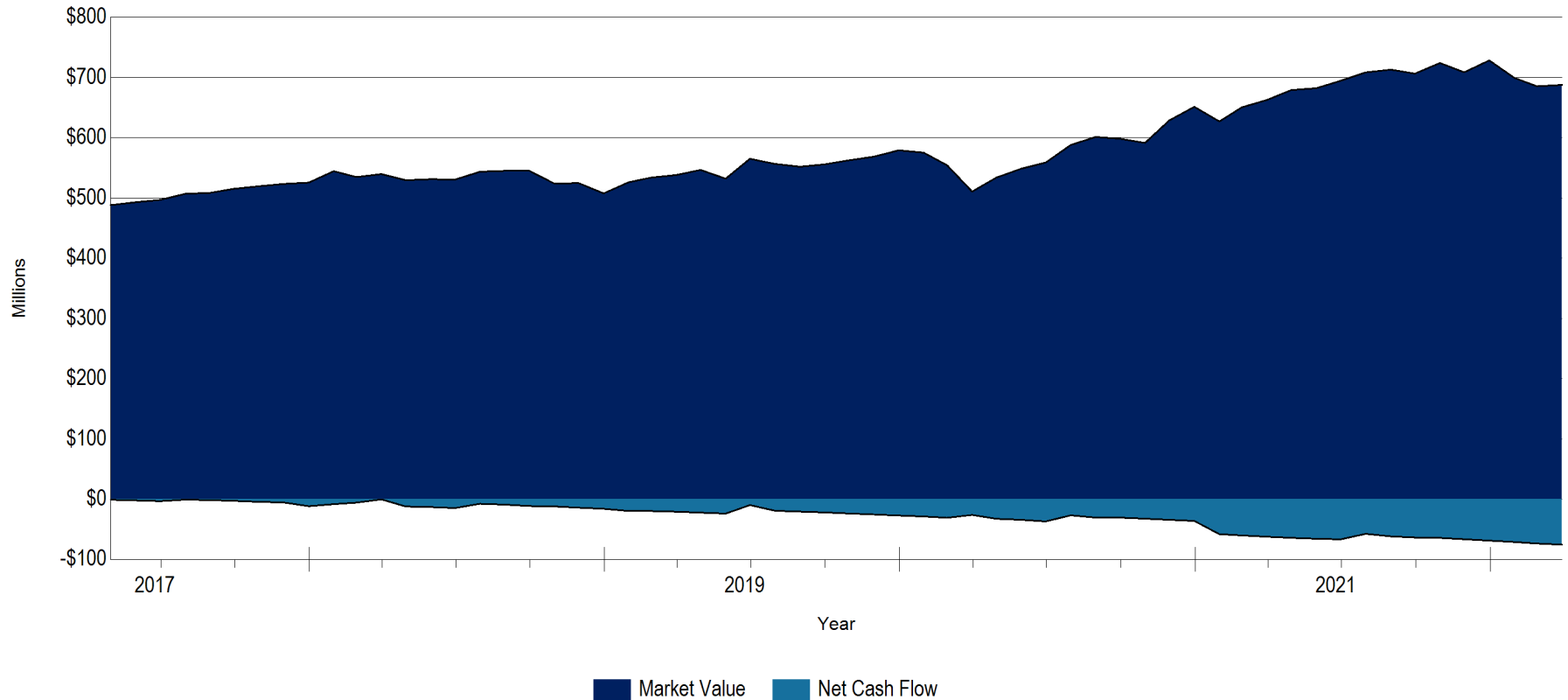
	Last Three Months	One Year	Three Years	Five Years	Seven Years	Ten Years
Beginning Market Value	\$728,500,342	\$662,888,187	\$538,228,861	\$483,168,760	\$454,642,860	\$325,820,834
Net Cash Flow	-\$6,638,430	-\$13,181,644	-\$54,667,535	-\$75,584,253	-\$84,533,637	-\$70,486,034
Net Investment Change	-\$34,042,854	\$38,112,515	\$204,257,732	\$280,234,551	\$317,709,835	\$432,484,258
Ending Market Value	\$687,819,058	\$687,819,058	\$687,819,058	\$687,819,058	\$687,819,058	\$687,819,058



# MWRA Employees' Retirement System

## TOTAL ASSET GROWTH SUMMARY-CALENDAR YEAR

5 Years Ending March 31, 2022

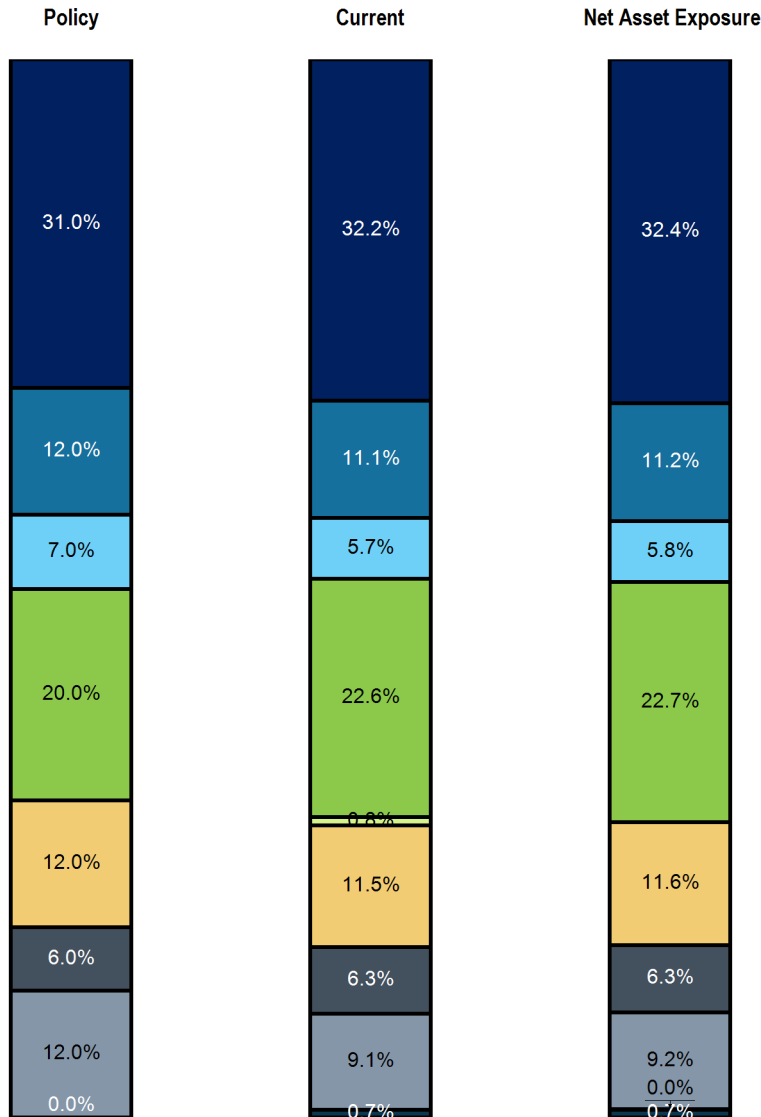


	2017	2018	2019	2020	2021
Beginning Market Value	\$465,451,611	\$525,597,128	\$507,653,878	\$579,228,207	\$651,404,918
Net Cash Flow	-\$14,389,228	-\$4,272,726	-\$11,215,192	-\$8,986,694	-\$32,721,618
Net Investment Change	\$74,534,744	-\$13,670,523	\$82,789,521	\$81,163,404	\$109,817,043
Ending Market Value	\$525,597,128	\$507,653,878	\$579,228,207	\$651,404,918	\$728,500,342



# MWRA Employees' Retirement System

## TOTAL FUND ASSET ALLOCATION vs. POLICY



Asset Allocation vs. Target			
	Policy	Current	Net Asset Exposure
Equity - Domestic	31.0%	32.2%	32.4%
Equity - International	12.0%	11.1%	11.2%
Emerging Equity	7.0%	5.7%	5.8%
Fixed Income	20.0%	22.6%	22.7%
Balanced	--	0.8%	--
Private Equity	12.0%	11.5%	11.6%
Hedge Funds	6.0%	6.3%	6.3%
Real Estate	12.0%	9.1%	9.2%
Real Assets	--	--	0.0%
Cash	0.0%	0.7%	0.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Asset class weights may not add up to 100% due to rounding.

Cash includes Other.

PIMCO All Asset reported on 1 Qtr. lag.

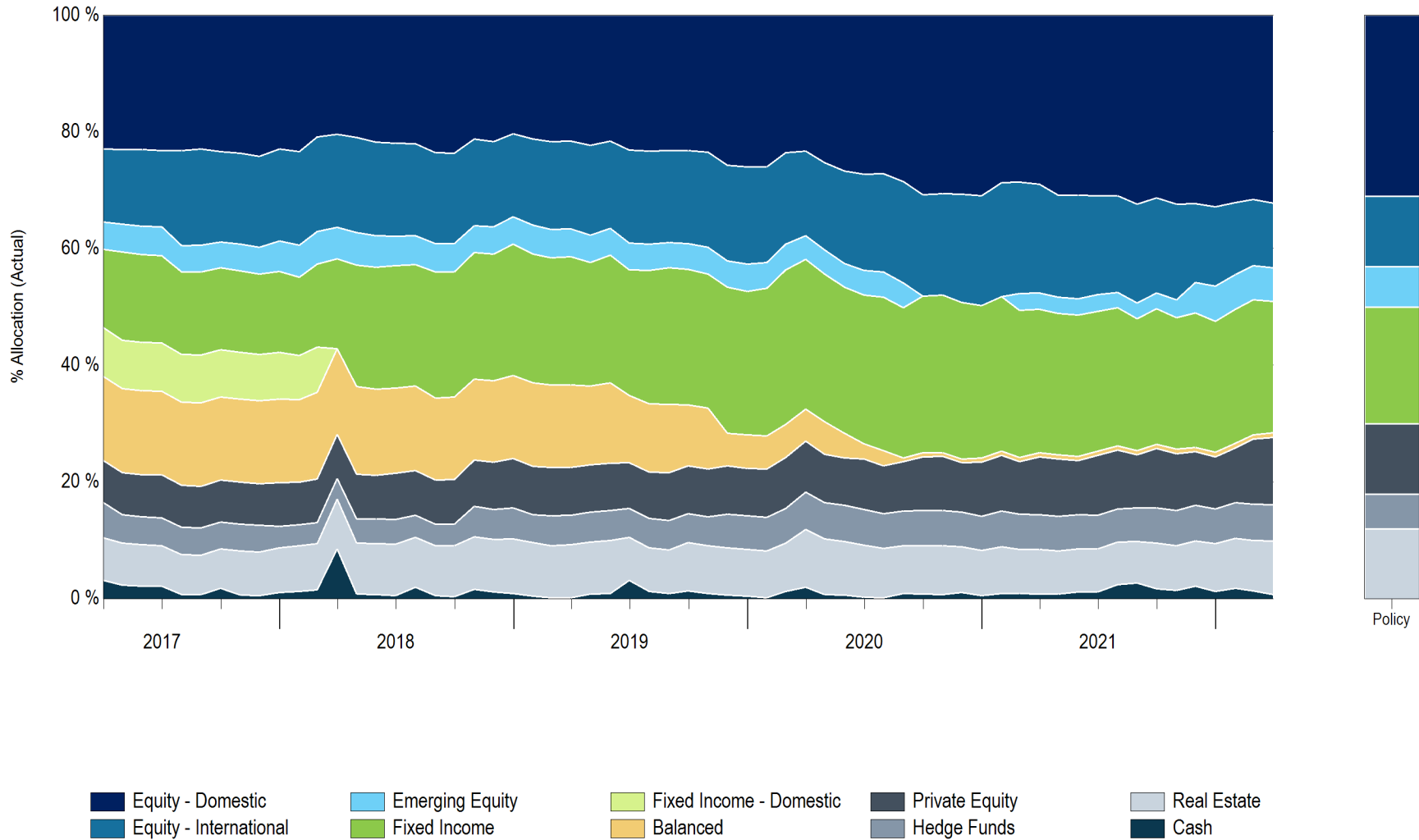
Policy Index Consists of: 24% S&P 500, 7% Russell 2000, 12% MSCI ACWI IMI , 7% MSCI Emerging Markets, 10% Bloomberg US Aggregate TR, 10% Bloomberg US Universal TR, 12% NCREIF Property Index, 12% C|A US All PE , 6% HFRI Fund of Funds Composite Index.



# MWRA Employees' Retirement System

## TOTAL FUND ASSET ALLOCATION HISTORY

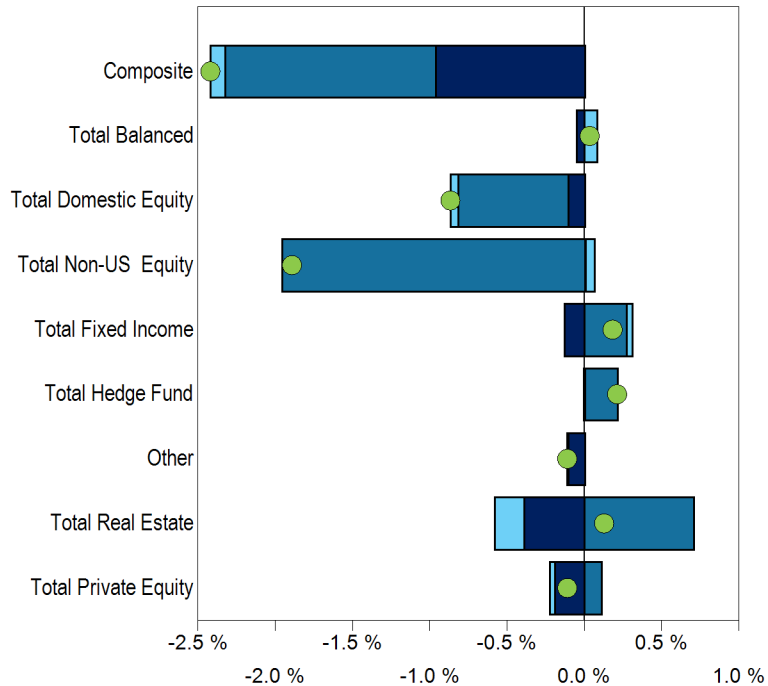
Asset Allocation History



# MWRA Employees' Retirement System

## TOTAL FUND ATTRIBUTION

### Attribution Effects 1 Year Ending March 31, 2022



■ Allocation Effect  
■ Selection Effect  
■ Interaction Effects  
● Total Effect

Attribution Summary 1 Year Ending March 31, 2022							
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Balanced	12.3%	1.2%	11.2%	0.0%	0.0%	0.1%	0.0%
Total Domestic Equity	8.1%	10.5%	-2.4%	-0.7%	-0.1%	0.0%	-0.9%
Total Non-US Equity	-9.9%	-0.5%	-9.4%	-2.0%	0.0%	0.1%	-1.9%
Total Fixed Income	-2.0%	-3.3%	1.3%	0.3%	-0.1%	0.0%	0.2%
Total Hedge Fund	4.8%	1.2%	3.5%	0.2%	0.0%	0.0%	0.2%
Other	0.0%	0.1%	-0.1%	0.0%	-0.1%	0.0%	-0.1%
Total Real Estate	29.5%	21.9%	7.6%	0.7%	-0.4%	-0.2%	0.1%
Total Private Equity	27.2%	25.9%	1.3%	0.1%	-0.2%	0.0%	-0.1%
<b>Total</b>	<b>5.0%</b>	<b>7.4%</b>	<b>-2.4%</b>	<b>-1.4%</b>	<b>-1.0%</b>	<b>-0.1%</b>	<b>-2.4%</b>

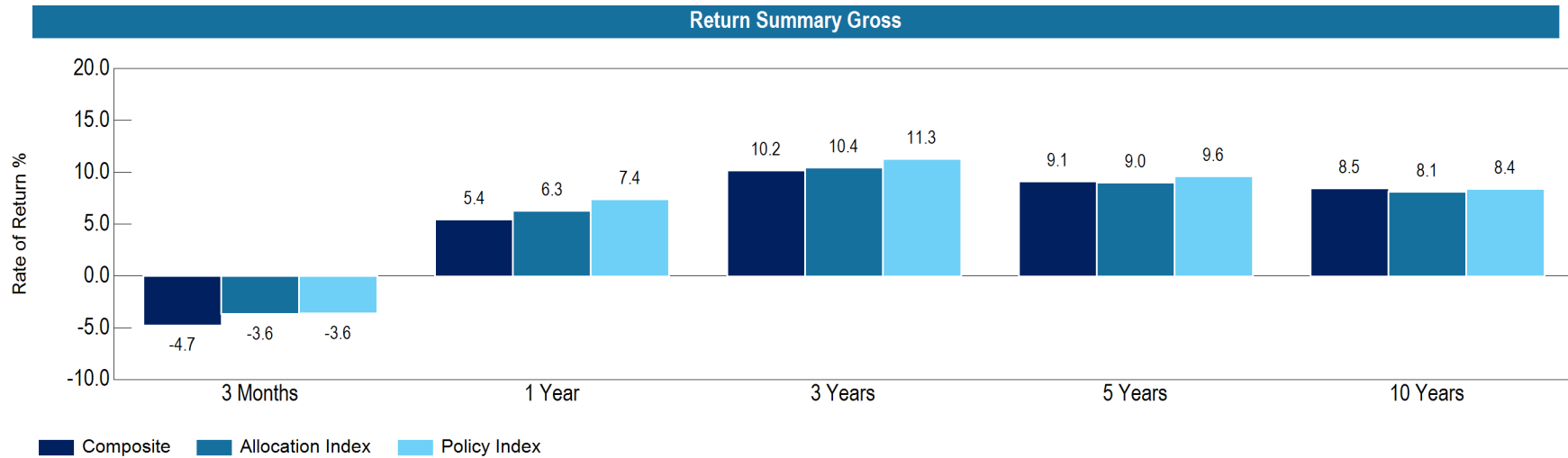
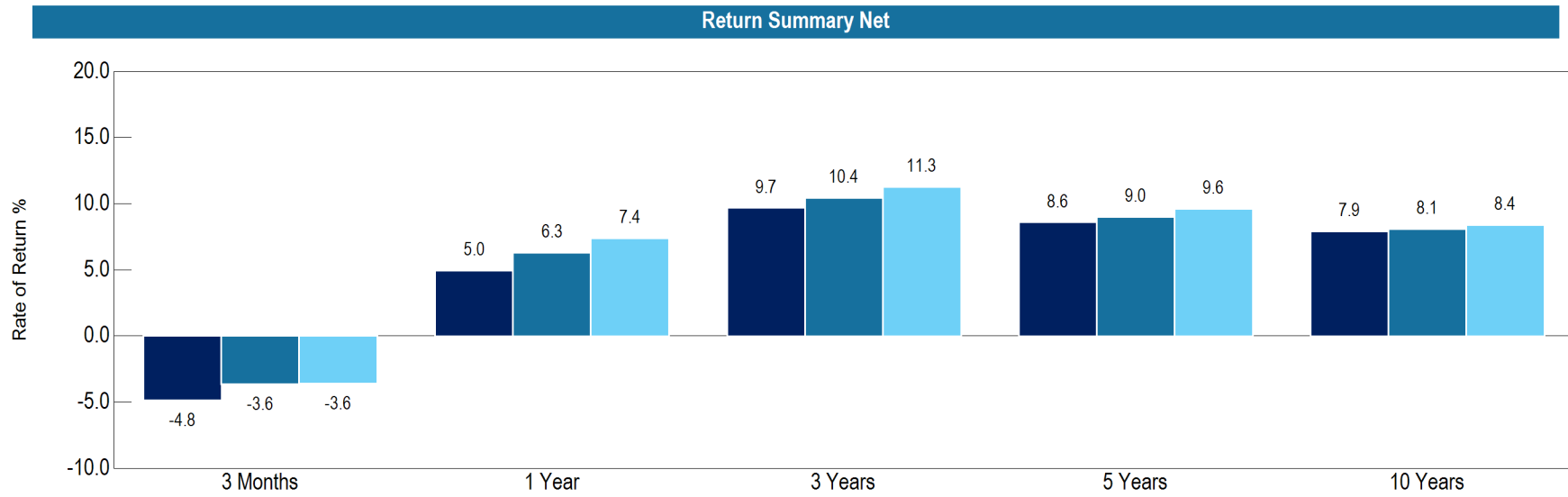
Note: Policy weights reflect the beginning of the period target weights.

Note: Plan attribution is a static, return based calculation and the results reflect the composites shown. As a result, the total returns shown may vary from the calculated returns shown on the performance summary.



# MWRA Employees' Retirement System

## TOTAL FUND RETURN SUMMARY

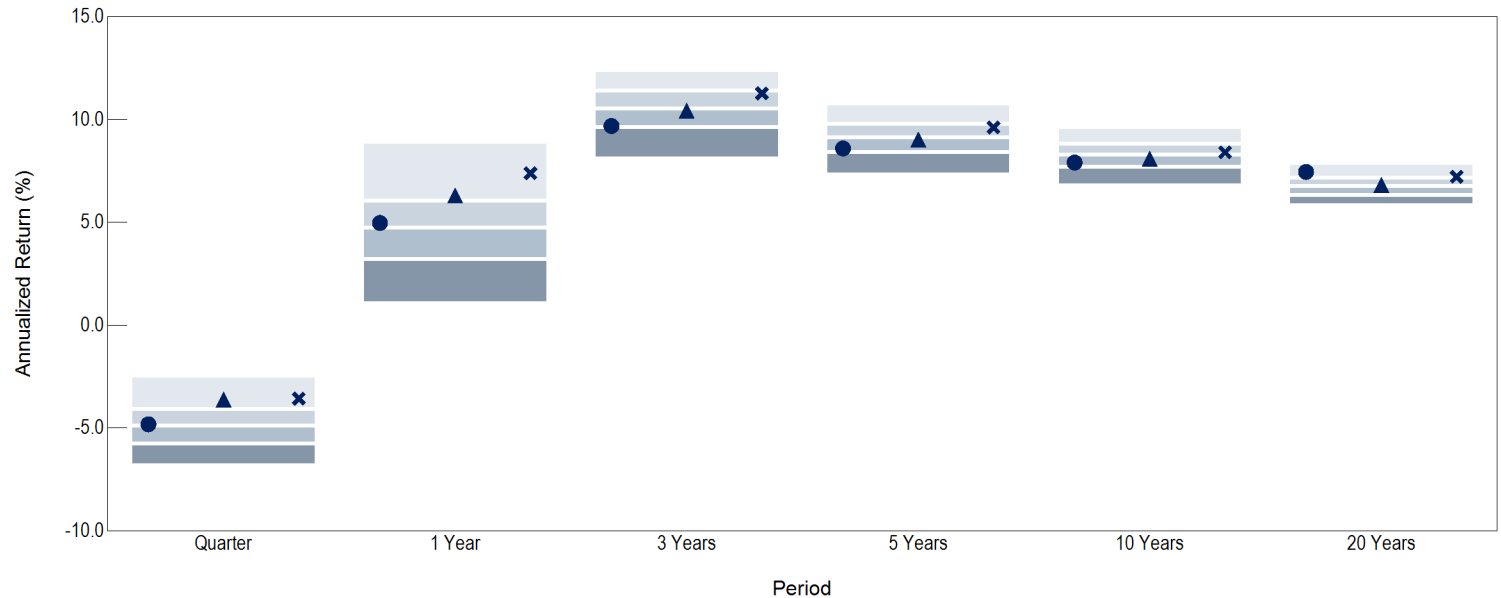




# MWRA Employees' Retirement System

## TOTAL FUND RETURN SUMMARY vs. PEER UNIVERSE

Composite vs. InvMetrics Public DB Net



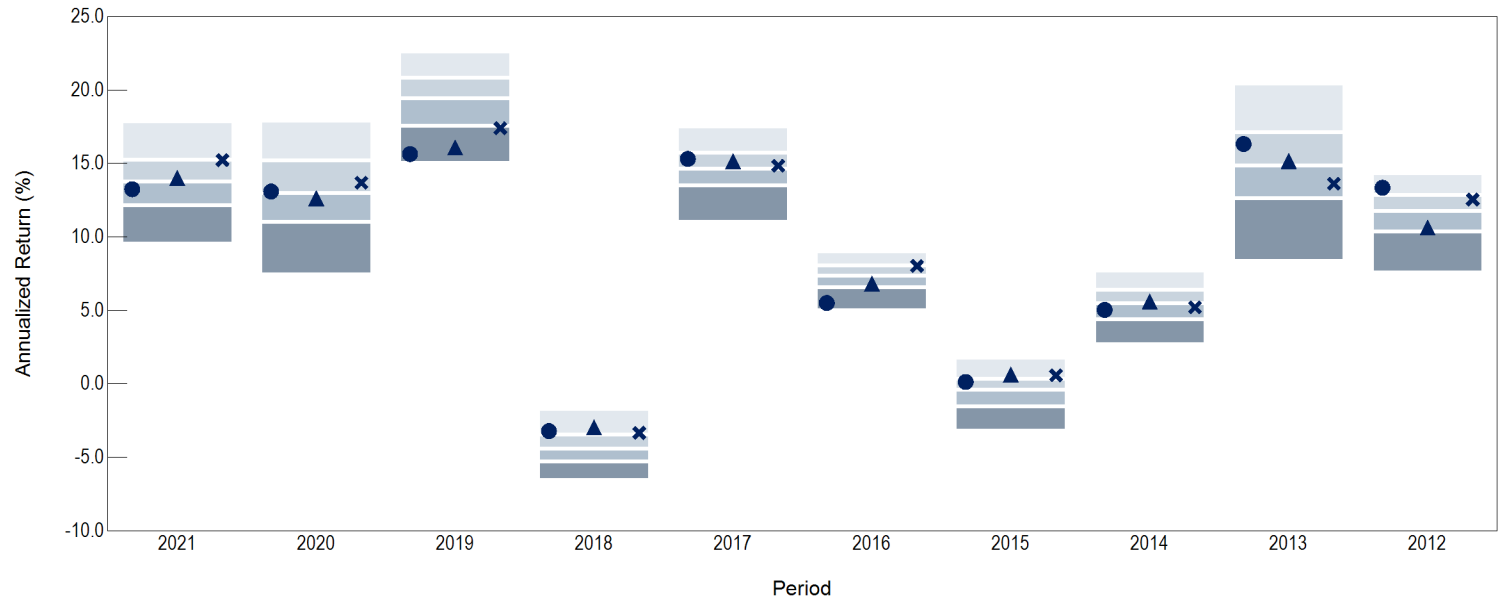
	Return (Rank)											
5th Percentile	-2.5		8.9		12.4		10.8		9.6		7.9	
25th Percentile	-4.1		6.1		11.4		9.8		8.8		7.2	
Median	-4.9		4.8		10.6		9.1		8.3		6.8	
75th Percentile	-5.7		3.2		9.7		8.4		7.7		6.4	
95th Percentile	-6.8		1.1		8.1		7.3		6.8		5.8	
# of Portfolios	557		551		545		518		428		182	
● Composite	-4.8	(49)	5.0	(46)	9.7	(75)	8.6	(71)	7.9	(67)	7.4	(16)
▲ Allocation Index	-3.6	(15)	6.3	(23)	10.4	(55)	9.0	(55)	8.1	(59)	6.8	(46)
× Policy Index	-3.6	(14)	7.4	(13)	11.3	(28)	9.6	(32)	8.4	(45)	7.2	(24)



# MWRA Employees' Retirement System

## TOTAL FUND SUMMARY vs. PEER UNIVERSE - CALENDAR YEAR

Composite vs. InvMetrics Public DB Net

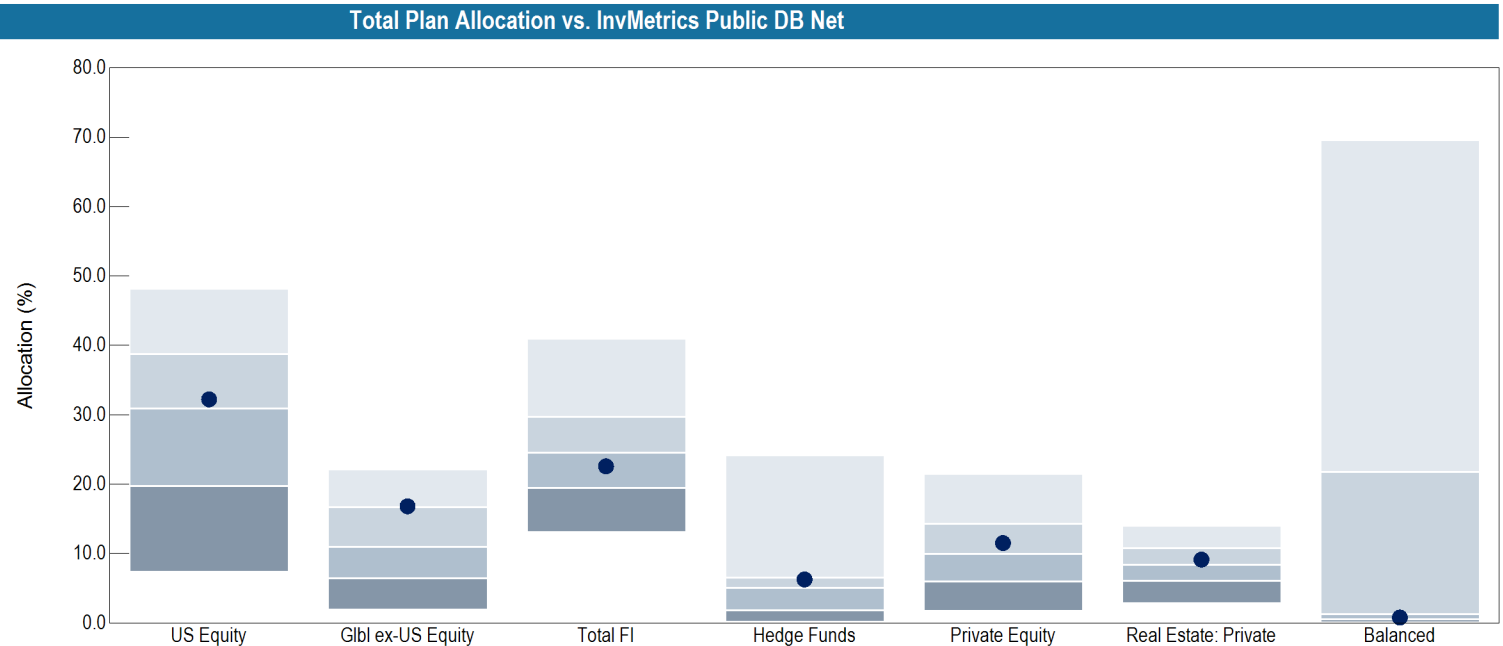


	Return (Rank)																			
5th Percentile	17.8	17.9	22.6	-1.7	17.5	9.0	1.7	7.7	20.4	14.3										
25th Percentile	15.3	15.3	20.8	-3.4	15.8	8.1	0.4	6.4	17.2	12.9										
Median	13.8	13.0	19.5	-4.4	14.7	7.4	-0.4	5.5	14.9	11.8										
75th Percentile	12.2	11.0	17.6	-5.2	13.6	6.6	-1.5	4.4	12.7	10.4										
95th Percentile	9.6	7.5	15.1	-6.5	11.1	5.0	-3.2	2.7	8.4	7.6										
# of Portfolios	559	596	550	496	269	269	262	210	191	159										
● Composite	13.2	(58)	13.1	(50)	15.6	(93)	-3.2	(21)	15.3	(36)	5.5	(92)	0.1	(31)	5.0	(62)	16.3	(36)	13.4	(16)
▲ Allocation Index	14.0	(44)	12.6	(55)	16.1	(91)	-3.0	(16)	15.1	(40)	6.8	(68)	0.6	(19)	5.6	(47)	15.2	(46)	10.6	(72)
× Policy Index	15.2	(26)	13.7	(43)	17.4	(77)	-3.3	(24)	14.8	(46)	8.0	(28)	0.6	(20)	5.2	(59)	13.6	(66)	12.6	(36)



# MWRA Employees' Retirement System

## TOTAL FUND ALLOCATIONS vs. PEER UNIVERSE



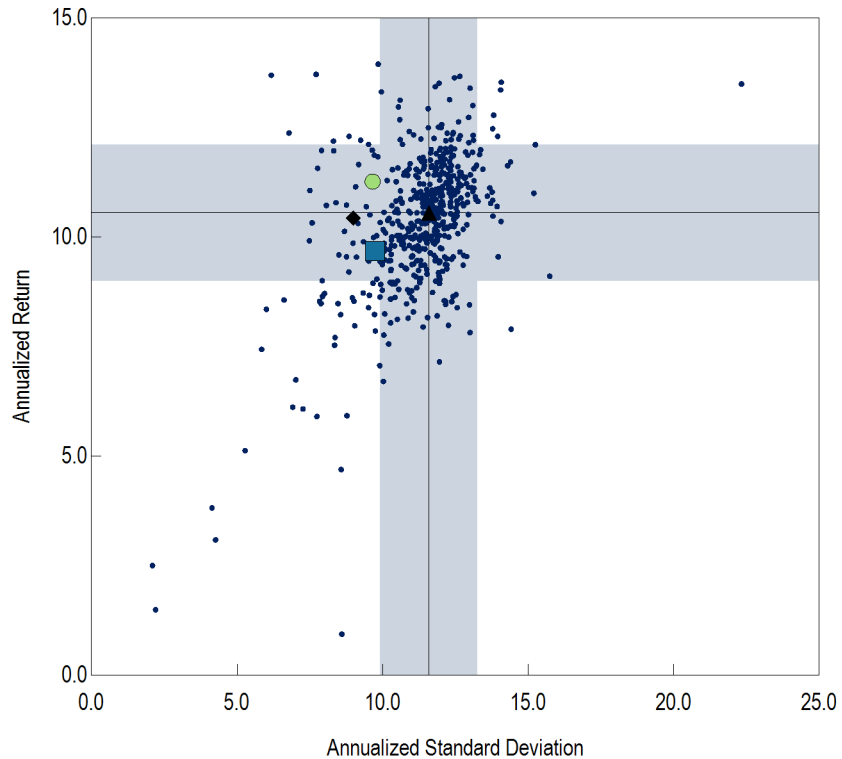
	Allocation (Rank)													
5th Percentile	48.1		22.2		40.9		24.1		21.5		14.0		69.6	
25th Percentile	38.8		16.7		29.8		6.7		14.4		10.8		21.8	
Median	31.0		11.1		24.6		5.2		10.0		8.5		1.4	
75th Percentile	19.9		6.6		19.6		1.9		6.1		6.1		0.6	
95th Percentile	7.5		2.0		13.2		0.3		1.8		3.0		0.2	
# of Portfolios	64		114		153		31		53		86		4	
● Composite	32.2	(47)	16.8	(25)	22.6	(58)	6.3	(27)	11.5	(43)	9.1	(41)	0.8	(67)



# MWRA Employees' Retirement System

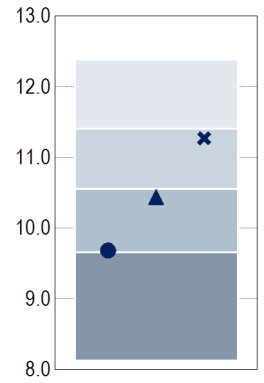
## TOTAL FUND RISK/RETURN - 3 YEARS

3 Years Ending March 31, 2022



- Composite
- ◆ Allocation Index
- Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

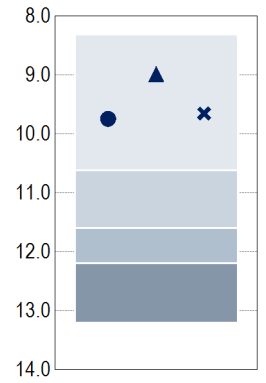
Annual Return



● Composite	Value	9.68
	Rank	75
▲ Allocation Index	Value	10.44
	Rank	55
× Policy Index	Value	11.27
	Rank	28

Universe	5th %tile	12.38
	25th %tile	11.41
	Median	10.56
	75th %tile	9.66
	95th %tile	8.13

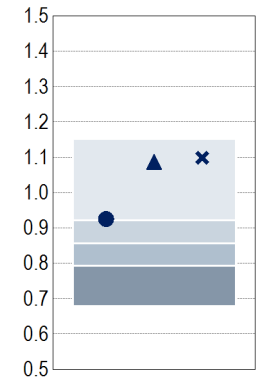
Annual Standard Deviation



● Composite	Value	9.75
	Rank	13
▲ Allocation Index	Value	8.99
	Rank	9
× Policy Index	Value	9.66
	Rank	12

Universe	5th %tile	8.31
	25th %tile	10.61
	Median	11.59
	75th %tile	12.19
	95th %tile	13.20

Sharpe Ratio



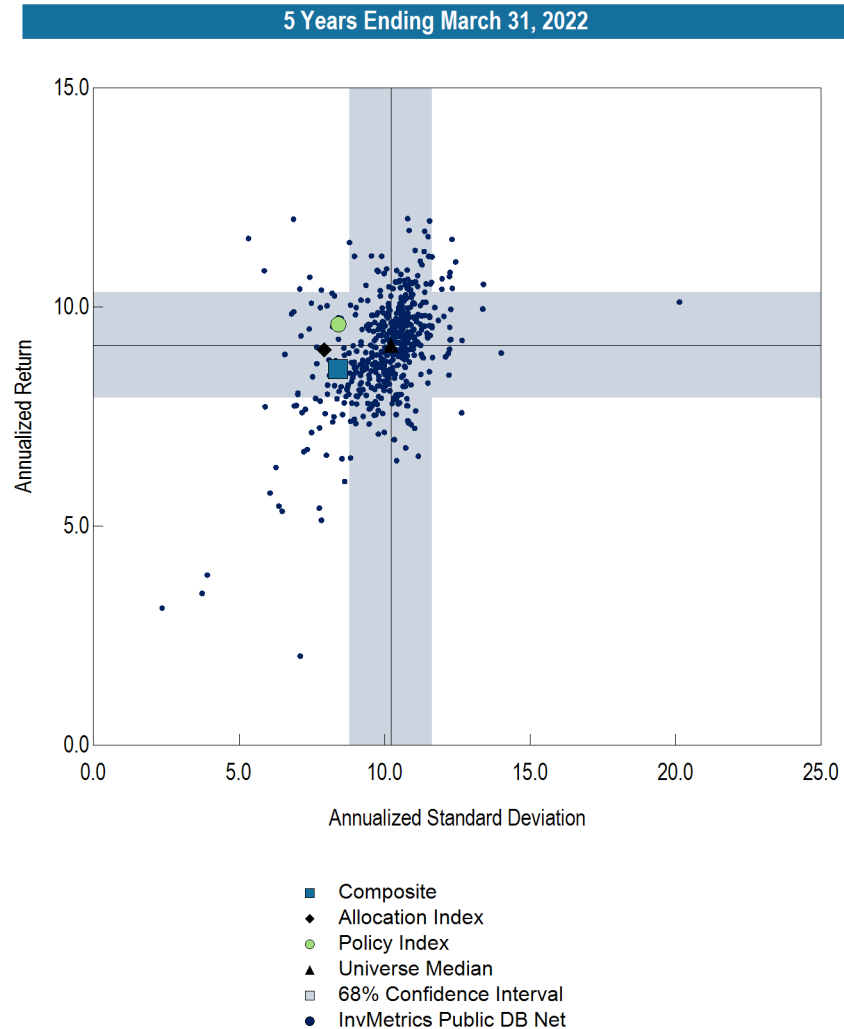
● Composite	Value	0.93
	Rank	25
▲ Allocation Index	Value	1.09
	Rank	6
× Policy Index	Value	1.10
	Rank	6

Universe	5th %tile	1.15
	25th %tile	0.92
	Median	0.86
	75th %tile	0.80
	95th %tile	0.68

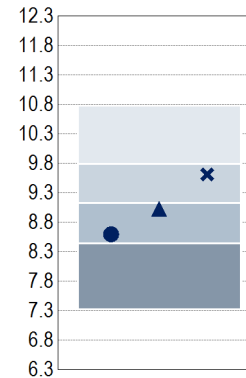


# MWRA Employees' Retirement System

## TOTAL FUND RISK/RETURN - 5 YEARS



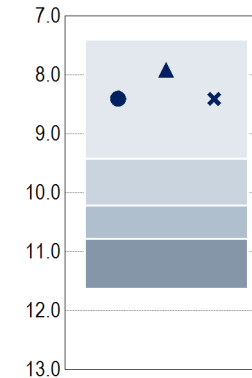
Anlzd Return



● Composite	Value	8.59
	Rank	71
▲ Allocation Index	Value	9.02
	Rank	55
× Policy Index	Value	9.61
	Rank	32

Universe	5th %tile	10.77
	25th %tile	9.80
	Median	9.13
	75th %tile	8.44
	95th %tile	7.33

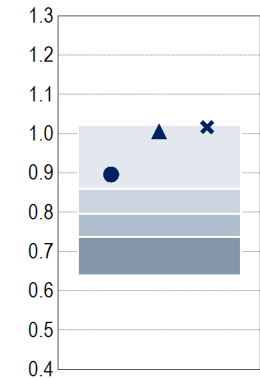
Anlzd Standard Deviation



● Composite	Value	8.41
	Rank	12
▲ Allocation Index	Value	7.92
	Rank	8
× Policy Index	Value	8.41
	Rank	12

Universe	5th %tile	7.40
	25th %tile	9.41
	Median	10.21
	75th %tile	10.78
	95th %tile	11.63

Sharpe Ratio



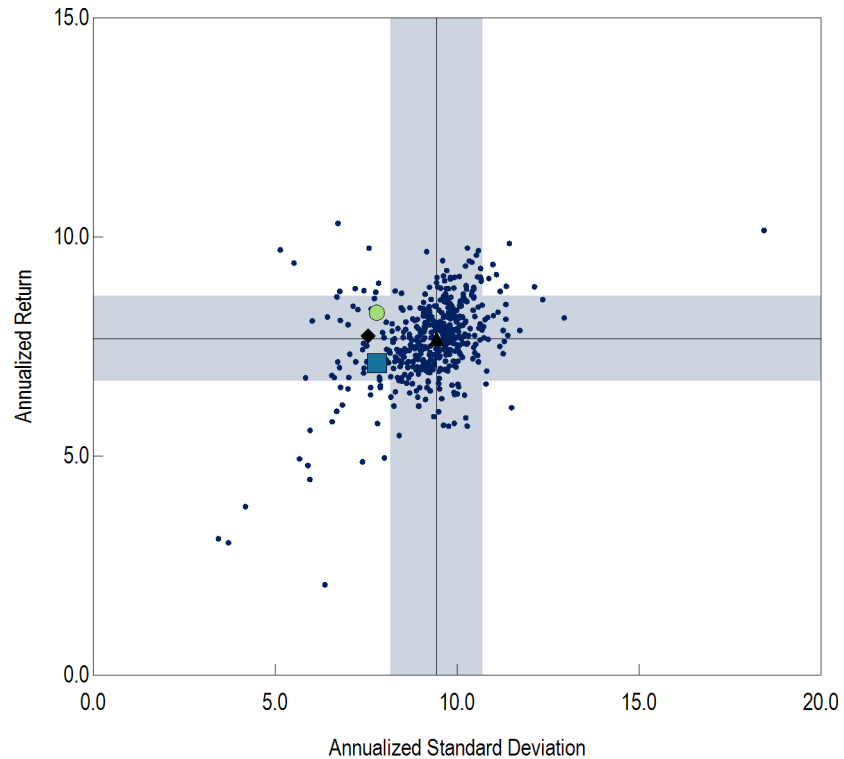
● Composite	Value	0.90
	Rank	17
▲ Allocation Index	Value	1.01
	Rank	7
× Policy Index	Value	1.02
	Rank	6

Universe	5th %tile	1.02
	25th %tile	0.86
	Median	0.80
	75th %tile	0.74
	95th %tile	0.64

# MWRA Employees' Retirement System

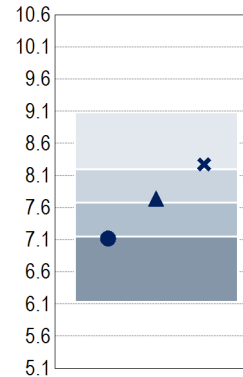
## TOTAL FUND RISK/RETURN - 7 YEARS

7 Years Ending March 31, 2022



- Composite
- ◆ Allocation Index
- Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

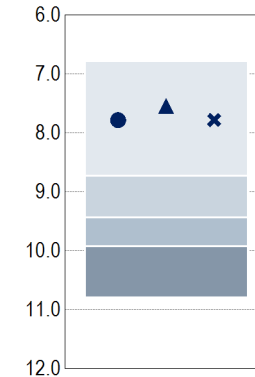
Anlzd Return



● Composite	Value	7.12
	Rank	77
▲ Allocation Index	Value	7.74
	Rank	48
× Policy Index	Value	8.27
	Rank	24

Universe	5th %tile	9.08
	25th %tile	8.20
	Median	7.69
	75th %tile	7.16
	95th %tile	6.15

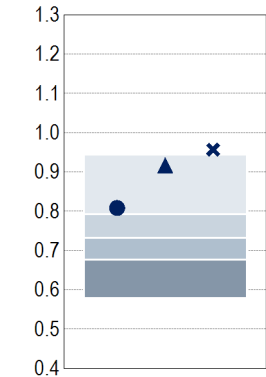
Anlzd Standard Deviation



● Composite	Value	7.79
	Rank	11
▲ Allocation Index	Value	7.55
	Rank	9
× Policy Index	Value	7.78
	Rank	11

Universe	5th %tile	6.79
	25th %tile	8.72
	Median	9.43
	75th %tile	9.92
	95th %tile	10.79

Sharpe Ratio



● Composite	Value	0.81
	Rank	23
▲ Allocation Index	Value	0.92
	Rank	6
× Policy Index	Value	0.96
	Rank	5

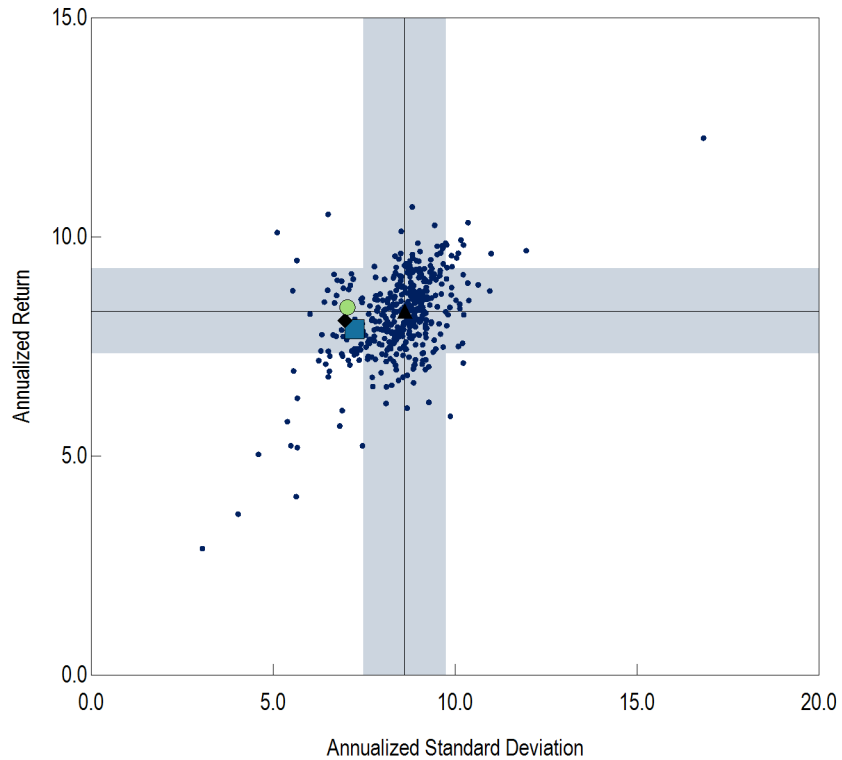
Universe	5th %tile	0.94
	25th %tile	0.79
	Median	0.73
	75th %tile	0.68
	95th %tile	0.58



# MWRA Employees' Retirement System

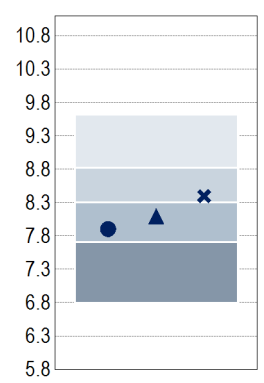
## TOTAL FUND RISK/RETURN - 10 YEARS

10 Years Ending March 31, 2022



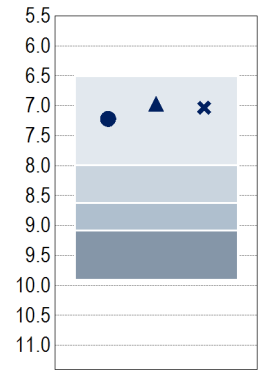
- Composite
- ◆ Allocation Index
- Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

Annual Return



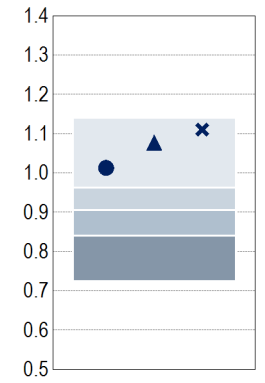
● Composite	Value	7.90
	Rank	67
▲ Allocation Index	Value	8.09
	Rank	59
× Policy Index	Value	8.40
	Rank	45
Universe	5th %tile	9.62
	25th %tile	8.83
	Median	8.31
	75th %tile	7.72
	95th %tile	6.80

Annual Standard Deviation



● Composite	Value	7.22
	Rank	13
▲ Allocation Index	Value	6.97
	Rank	10
× Policy Index	Value	7.03
	Rank	10
Universe	5th %tile	6.51
	25th %tile	7.98
	Median	8.61
	75th %tile	9.07
	95th %tile	9.90

Sharpe Ratio



● Composite	Value	1.01
	Rank	15
▲ Allocation Index	Value	1.08
	Rank	8
× Policy Index	Value	1.11
	Rank	6
Universe	5th %tile	1.14
	25th %tile	0.96
	Median	0.91
	75th %tile	0.84
	95th %tile	0.73



# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Composite</b>	<b>687,819,058</b>	<b>100.0</b>	<b>100.0</b>	<b>-4.8</b>	<b>49</b>	<b>5.0</b>	<b>46</b>	<b>9.7</b>	<b>75</b>	<b>8.6</b>	<b>71</b>	<b>7.9</b>	<b>67</b>	<b>7.4</b>	<b>16</b>	<b>7.0</b>	<b>Jan-86</b>
Allocation Index				-3.6	15	6.3	23	10.4	55	9.0	55	8.1	59	6.8	46	--	Jan-86
Policy Index				-3.6	14	7.4	13	11.3	28	9.6	32	8.4	45	7.2	24	--	Jan-86
InvMetrics Public DB Net Median				-4.9		4.8		10.6		9.1		8.3		6.8		8.5	Jan-86
<b>Composite</b>	<b>687,819,058</b>	<b>100.0</b>	<b>100.0</b>	<b>-4.8</b>	<b>49</b>	<b>5.0</b>	<b>46</b>	<b>9.7</b>	<b>75</b>	<b>8.6</b>	<b>71</b>	<b>7.9</b>	<b>67</b>	<b>7.4</b>	<b>16</b>	<b>7.0</b>	<b>Jan-86</b>
Allocation Index				-3.6	15	6.3	23	10.4	55	9.0	55	8.1	59	6.8	46	--	Jan-86
Policy Index				-3.6	14	7.4	13	11.3	28	9.6	32	8.4	45	7.2	24	--	Jan-86
InvMetrics Public DB Net Median				-4.9		4.8		10.6		9.1		8.3		6.8		8.5	Jan-86
<b>Total Balanced</b>	<b>5,359,043</b>	<b>0.8</b>	<b>0.0</b>	<b>-2.4</b>	<b>--</b>	<b>12.3</b>	<b>--</b>	<b>11.0</b>	<b>--</b>	<b>7.8</b>	<b>--</b>	<b>5.9</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.6</b>	<b>Dec-10</b>
PRIT Core Fund	5,359,043	0.8		-2.4	35	12.3	1	12.8	1	10.8	1	9.5	1	7.9	34	7.4	Apr-99
60% S&P 500 / 40% Bloomberg Aggregate				-5.1	49	7.5	20	12.1	1	10.6	2	9.8	1	7.4	50	6.6	Apr-99
<b>Total Domestic Equity</b>	<b>221,642,019</b>	<b>32.2</b>	<b>31.0</b>	<b>-6.7</b>	<b>57</b>	<b>8.1</b>	<b>49</b>	<b>16.6</b>	<b>37</b>	<b>15.0</b>	<b>33</b>	<b>13.4</b>	<b>35</b>	<b>9.5</b>	<b>54</b>	<b>8.1</b>	<b>May-99</b>
Russell 3000				-5.3	46	11.9	31	18.2	25	15.4	30	14.3	21	9.4	60	7.8	May-99
eV All US Equity Net Median				-5.9		7.9		15.2		12.6		12.5		9.6		9.5	May-99
<b>Large Cap</b>	<b>173,435,735</b>	<b>25.2</b>	<b>24.0</b>	<b>-6.4</b>	<b>55</b>	<b>10.9</b>	<b>36</b>	<b>17.6</b>	<b>29</b>	<b>16.2</b>	<b>23</b>	<b>14.0</b>	<b>26</b>	<b>--</b>	<b>--</b>	<b>14.1</b>	<b>Dec-10</b>
eV All US Equity Net Median				-5.9		7.9		15.2		12.6		12.5		9.6		12.7	Dec-10
Rhumblin Advisors S&P 500 Index Fund	70,668,502	10.3	10.0	-4.6	44	15.6	19	18.9	19	15.9	18	14.5	13	9.2	52	9.5	Apr-97
S&P 500				-4.6	44	15.6	18	18.9	18	16.0	17	14.6	10	9.3	52	9.4	Apr-97
eV US Large Cap Core Equity Net Median				-5.0		13.1		16.6		14.2		13.3		9.3		9.8	Apr-97
Coho Relative Value Equity	54,788,446	8.0	7.0	-2.0	70	9.6	79	13.7	59	12.5	27	--	--	--	--	12.4	Mar-16
Russell 1000 Value				-0.7	53	11.7	64	13.0	68	10.3	70	11.7	54	8.1	66	12.8	Mar-16
eV US Large Cap Value Equity Net Median				-0.6		12.8		14.2		11.2		11.8		8.5		13.2	Mar-16
Polen Focused Growth	47,978,788	7.0	7.0	-13.4	83	5.4	70	19.1	53	20.0	24	--	--	--	--	18.5	Feb-16
Russell 1000 Growth				-9.0	33	15.0	12	23.6	6	20.9	14	17.0	6	10.5	32	20.7	Feb-16
eV US Large Cap Growth Equity Net Median				-10.5		9.0		19.3		18.5		15.0		9.9		18.3	Feb-16

Notes:

1. Since inception return is 8.8% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns
2. In November 2019, Loomis Sayles and Schroders transitioned from a mutual fund to a CIT structure. Performance prior to the transition to the CIT investment vehicle is linked to mutual fund performance history.
3. Importantly, all returns in this report, including those of the private real estate managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.





# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Small Cap</b>	<b>48,206,284</b>	<b>7.0</b>	<b>7.0</b>	<b>-7.6</b>	<b>63</b>	<b>-1.0</b>	<b>82</b>	<b>13.5</b>	<b>68</b>	<b>11.8</b>	<b>58</b>	<b>12.0</b>	<b>60</b>	<b>--</b>	<b>--</b>	<b>12.4</b>	<b>Dec-10</b>
<i>eV All US Equity Net Median</i>				-5.9		7.9		15.2		12.6		12.5		9.6		12.7	Dec-10
Boston Partners Small Cap Value	25,468,492	3.7	3.5	-2.0	35	4.4	52	13.6	40	8.6	58	10.4	61	9.4	57	10.7	Feb-97
<i>Russell 2000 Value</i>				-2.4	39	3.3	62	12.7	53	8.6	58	10.5	58	8.5	82	9.3	Feb-97
<i>eV US Small Cap Value Equity Net Median</i>				-3.1		4.8		13.0		9.1		10.8		9.5		10.3	Feb-97
Loomis Sayles Small Cap Growth	22,737,792	3.3	3.5	-13.1	48	-6.8	39	12.6	73	14.4	61	13.2	59	9.6	78	7.2	Jan-97
<i>Russell 2000 Growth</i>				-12.6	46	-14.3	74	9.9	92	10.3	91	11.2	88	8.6	92	7.2	Jan-97
<i>eV US Small Cap Growth Equity Net Median</i>				-13.4		-9.1		14.8		15.5		13.4		10.4		10.4	Jan-97
<b>Total Non-US Equity</b>	<b>115,588,044</b>	<b>16.8</b>	<b>19.0</b>	<b>-11.5</b>	<b>68</b>	<b>-9.9</b>	<b>90</b>	<b>4.5</b>	<b>96</b>	<b>5.4</b>	<b>86</b>	<b>4.9</b>	<b>92</b>	<b>4.8</b>	<b>99</b>	<b>4.3</b>	<b>Mar-99</b>
<i>eV All ACWI ex-US Equity Net Median</i>				-8.9		-3.0		9.3		8.0		7.2		7.2		6.8	Mar-99
<b>International Equity</b>	<b>76,164,466</b>	<b>11.1</b>	<b>12.0</b>	<b>-12.0</b>	<b>82</b>	<b>-9.5</b>	<b>91</b>	<b>5.9</b>	<b>82</b>	<b>6.5</b>	<b>54</b>	<b>5.5</b>	<b>85</b>	<b>--</b>	<b>--</b>	<b>3.9</b>	<b>Sep-05</b>
<i>eV All EAFE Equity Net Median</i>				-6.7		-0.7		7.9		6.8		6.7		6.6		5.4	Sep-05
SEG Baxter Street	32,015,921	4.7	5.0	-11.5	68	-9.4	89	5.7	88	7.9	52	--	--	--	--	8.4	May-16
<i>MSCI ACWI ex USA</i>				-5.4	26	-1.5	38	7.5	70	6.8	71	5.6	83	6.4	84	7.4	May-16
<i>eV All ACWI ex-US Equity Net Median</i>				-8.9		-3.0		9.3		8.0		7.2		7.2		8.5	May-16
Schroder International Alpha Trust Class 1	29,189,883	4.2	4.0	-7.1	41	-0.3	31	12.3	22	10.5	20	7.8	36	--	--	7.7	Mar-12
<i>MSCI ACWI ex USA</i>				-5.4	26	-1.5	38	7.5	70	6.8	71	5.6	83	6.4	84	5.4	Mar-12
<i>eV All ACWI ex-US Equity Net Median</i>				-8.9		-3.0		9.3		8.0		7.2		7.2		7.1	Mar-12
Baillie Gifford International Growth Fund Class K	14,958,662	2.2	3.0	-21.8	98	-27.2	99	--	--	--	--	--	--	--	--	-9.8	Oct-20
<i>MSCI ACWI ex USA</i>				-5.4	26	-1.5	38	7.5	70	6.8	71	5.6	83	6.4	84	12.5	Oct-20
<i>eV All ACWI ex-US Equity Net Median</i>				-8.9		-3.0		9.3		8.0		7.2		7.2		10.8	Oct-20
<b>Emerging Markets Equity</b>	<b>39,423,578</b>	<b>5.7</b>	<b>7.0</b>	<b>-10.6</b>	<b>69</b>	<b>-13.5</b>	<b>63</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-15.1</b>	<b>Mar-21</b>
<i>eV Emg Mkts Equity Net Median</i>				-8.0		-10.1		6.0		6.1		3.9		8.9		-10.4	Mar-21
Axiom Emerging Markets Trust Class 2	19,269,482	2.8	7.0	-11.1	72	-14.4	66	--	--	--	--	--	--	--	--	-16.0	Mar-21
<i>MSCI Emerging Markets</i>				-7.0	45	-11.4	54	4.9	64	6.0	52	3.4	67	8.6	57	-11.8	Mar-21
<i>eV Emg Mkts Equity Net Median</i>				-8.0		-10.1		6.0		6.1		3.9		8.9		-10.4	Mar-21
ABS Emerging Markets MA Fund	20,154,096	2.9		-10.0	65	--	--	--	--	--	--	--	--	--	--	-8.1	Dec-21
<i>MSCI Emerging Markets</i>				-7.0	45	-11.4	54	4.9	64	6.0	52	3.4	67	8.6	57	-5.2	Dec-21
<i>eV Emg Mkts Equity Net Median</i>				-8.0		-10.1		6.0		6.1		3.9		8.9		-5.5	Dec-21

Note:

1. Importantly, all returns in this report, including those of the private real estate managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.



# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Total Fixed Income</b>	<b>155,236,728</b>	<b>22.6</b>	<b>20.0</b>	<b>-4.6</b>	<b>51</b>	<b>-2.0</b>	<b>33</b>	<b>3.6</b>	<b>27</b>	<b>3.3</b>	<b>32</b>	<b>3.9</b>	<b>29</b>	<b>6.2</b>	<b>18</b>	<b>6.1</b>	<b>Mar-99</b>
<i>eV All US Fixed Inc Net Median</i>				-4.6		-3.3		2.1		2.4		2.6		4.1		4.3	Mar-99
Garcia Hamilton Fixed Income Aggregate	37,202,045	5.4	6.0	-4.3	5	-3.3	12	1.7	77	--	--	--	--	--	--	2.3	Apr-18
<i>Bloomberg US Aggregate TR</i>				-5.9	61	-4.2	65	1.7	78	2.1	77	2.2	77	4.0	71	2.4	Apr-18
<i>eV US Core Fixed Inc Net Median</i>				-5.8		-4.0		2.0		2.4		2.5		4.2		2.6	Apr-18
Lord Abbett Core Fixed Income	36,220,431	5.3	4.0	-5.6	29	-3.8	33	2.2	30	--	--	--	--	--	--	2.7	Apr-18
<i>Bloomberg US Aggregate TR</i>				-5.9	61	-4.2	65	1.7	78	2.1	77	2.2	77	4.0	71	2.4	Apr-18
<i>eV US Core Fixed Inc Net Median</i>				-5.8		-4.0		2.0		2.4		2.5		4.2		2.6	Apr-18
Rhumblin TIPS	13,879,613	2.0	0.0	-3.0	77	4.2	39	6.2	60	4.4	52	--	--	--	--	4.0	Jun-16
<i>Bloomberg US TIPS TR</i>				-3.0	78	4.3	35	6.2	57	4.4	51	2.7	45	5.1	81	4.1	Jun-16
<i>eV US TIPS / Inflation Fixed Inc Net Median</i>				-2.6		4.1		6.3		4.4		2.7		5.3		4.3	Jun-16
Loomis Sayles Multisector Full Discretion Trust	53,694,877	7.8	8.0	-5.6	22	-3.1	7	4.5	1	4.2	1	4.7	1	7.8	1	7.3	Mar-99
<i>Bloomberg US Aggregate TR</i>				-5.9	61	-4.2	65	1.7	78	2.1	77	2.2	77	4.0	71	4.3	Mar-99
<i>Bloomberg US High Yield TR</i>				-4.8	10	-0.7	1	4.6	1	4.7	1	5.7	1	7.5	1	6.6	Mar-99
<i>eV US Core Fixed Inc Net Median</i>				-5.8		-4.0		2.0		2.4		2.5		4.2		4.6	Mar-99
Octagon Senior Secured Credit Cayman Fund Ltd. - Class L Acc, Series 1	14,186,024	2.1	2.0	-0.4	1	2.3	1	--	--	--	--	--	--	--	--	3.6	Aug-19
<i>Credit Suisse Leveraged Loan</i>				-0.1	1	3.2	1	4.1	1	4.1	1	4.5	1	4.7	13	3.7	Aug-19
<i>eV US Core Fixed Inc Net Median</i>				-5.8		-4.0		2.0		2.4		2.5		4.2		1.0	Aug-19
Invesco Mortgage Recovery Loans Feeder Fund	53,738	0.0		0.0	1	-1.5	4	-2.7	99	1.9	99	5.6	1	--	--	10.4	Apr-10
<i>Bloomberg US Aggregate TR</i>				-5.9	52	-4.2	82	1.7	96	2.1	95	2.2	99	4.0	98	2.9	Apr-10
<i>eV US Core Plus Fixed Inc Net Median</i>				-5.9		-3.6		2.5		2.8		3.1		4.8		3.9	Apr-10

Note:

1. Importantly, all returns in this report, including those of the private real estate managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.



# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Total Hedge Fund</b>	<b>43,106,006</b>	<b>6.3</b>	<b>6.0</b>	<b>-0.7</b>	<b>--</b>	<b>4.8</b>	<b>--</b>	<b>6.5</b>	<b>--</b>	<b>4.8</b>	<b>--</b>	<b>4.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.7</b>	<b>Oct-06</b>
PRIM Portfolio Completion Strategies	15,477,548	2.3		0.9	--	5.0	--	5.3	--	4.6	--	5.0	--	--	--	4.1	Oct-06
Corbin Pinehurst Partners	13,600,638	2.0		-3.7	--	3.2	--	8.0	--	--	--	--	--	--	--	7.6	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				-2.7	--	1.2	--	5.9	--	4.6	--	3.9	--	3.7	--	5.9	Nov-18
UBS Neutral Alpha Strategies	13,286,776	1.9		0.6	--	6.5	--	7.3	--	--	--	--	--	--	--	6.4	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				-2.7	--	1.2	--	5.9	--	4.6	--	3.9	--	3.7	--	5.9	Nov-18
Entrust Peru Wind Down	741,044	0.1		-0.5	--	-1.1	--	-2.7	--	--	--	--	--	--	--	-3.3	Dec-17
<i>HFRI Fund of Funds Composite Index</i>				-2.7	--	1.2	--	5.9	--	4.6	--	3.9	--	3.7	--	4.3	Dec-17
<b>Other</b>	<b>4,888,132</b>	<b>0.7</b>	<b>0.0</b>	<b>0.0</b>	<b>--</b>	<b>0.0</b>	<b>--</b>	<b>0.9</b>	<b>--</b>	<b>1.2</b>	<b>--</b>	<b>0.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.6</b>	<b>Dec-10</b>
Cash Account	4,888,132	0.7		0.0	43	0.0	23	0.9	23	1.2	20	0.7	51	1.4	14	1.7	Feb-00
91 Day T-Bills				0.0	7	0.1	8	0.7	73	1.1	70	0.6	65	1.2	65	1.5	Feb-00
eV US Cash Management Net Median				0.0		0.0		0.8		1.1		0.7		1.3		1.6	Feb-00

Note:

1. Importantly, all returns in this report, including those of the private real estate managers, are based on a time weighted return calculation and not based on IRRs, which can result in return differences.



# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Total Real Estate</b>	<b>62,797,076</b>	<b>9.1</b>	<b>12.0</b>	<b>6.5</b>	--	<b>29.5</b>	--	<b>12.4</b>	--	<b>11.0</b>	--	<b>11.9</b>	--	<b>8.6</b>	--	<b>8.6</b>	<b>Apr-99</b>
<i>NCREIF Property Index</i>				5.3	--	21.9	--	9.6	--	8.5	--	9.6	--	8.9	--	9.0	Apr-99
Morgan Stanley Prime Property (\$2.8m commitment in '95)	26,193,378	3.8		7.0	--	27.6	--	11.3	--	10.0	--	11.6	--	9.1	--	9.0	Sep-95
TA Realty Core Property Fund, LP (\$15m commitment in '19)	27,431,345	4.0		8.2	--	37.0	--	--	--	--	--	--	--	--	--	16.5	Jun-19
Invesco Mortgage Recovery II (\$3M commitment in '15)	980,203	0.1		0.0	--	7.1	--	-16.6	--	-5.0	--	--	--	--	--	-1.2	Oct-15
Landmark VI (\$2m commitment in '11)	93,801	0.0		0.0	--	14.8	--	-5.2	--	-4.9	--	3.1	--	--	--	4.1	Jul-11
Landmark VIII (\$4m commitment in '17)	1,654,367	0.2		0.0	--	33.7	--	12.8	--	--	--	--	--	--	--	18.5	Nov-17
StepStone Real Estate Fund II (\$2m commitment in '11)	561,793	0.1		0.0	--	3.6	--	-2.7	--	0.2	--	--	--	--	--	2.5	May-12
Cerberus Institutional Real Estate Partners III (\$1.5m commitment in '12)	718,666	0.1		10.6	--	81.9	--	30.6	--	19.8	--	--	--	--	--	18.6	May-13
TA Realty Fund X LP (\$3.5m commitment in '12)	2,823	0.0		0.0	--	-1.0	--	2.0	--	6.8	--	--	--	--	--	7.9	May-13
TerraCap Partners III, LP (\$2.6m commitment in '15)	1,496,857	0.2		0.0	--	1.8	--	2.7	--	5.0	--	--	--	--	--	9.1	Jul-15
TerraCap Partners IV, LP (\$4m commitment in '17)	3,663,842	0.5		0.0	--	12.2	--	11.6	--	--	--	--	--	--	--	11.2	Nov-17

Note:

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# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Total Private Equity</b>	<b>79,202,011</b>	<b>11.5</b>	<b>12.0</b>	<b>0.5</b>	<b>--</b>	<b>27.2</b>	<b>--</b>	<b>19.5</b>	<b>--</b>	<b>17.1</b>	<b>--</b>	<b>14.7</b>	<b>--</b>	<b>10.7</b>	<b>--</b>	<b>10.7</b>	<b>Apr-99</b>
CJA US All PE				0.0	--	25.9	--	22.2	--	19.1	--	15.8	--	14.5	--	13.7	Apr-99
NASDAQ W/O Income				-9.1	--	7.4	--	22.5	--	19.2	--	16.5	--	10.7	--	7.9	Apr-99
PRIM Vintage Year 2008 (\$3m commitment in '08)	870,389	0.1		5.9	--	38.6	--	20.1	--	20.7	--	20.2	--	--	--	10.8	Jun-08
PRIM Vintage Year 2009 (\$1m commitment in '09)	141,824	0.0		10.3	--	64.3	--	53.5	--	41.0	--	29.6	--	--	--	17.3	Nov-09
PRIM Vintage Year 2010 (\$1m commitment in '10)	698,751	0.1		-18.9	--	61.0	--	37.3	--	29.8	--	23.4	--	--	--	14.9	Jun-10
PRIM Vintage Year 2011 (\$1.5m commitment in '11)	1,061,603	0.2		7.2	--	95.9	--	40.5	--	31.3	--	22.9	--	--	--	11.9	May-11
PRIM Vintage Year 2012 (\$1m commitment in '12)	692,346	0.1		-3.4	--	21.2	--	30.1	--	24.4	--	--	--	--	--	-7.5	Jun-12
PRIM Vintage Year 2014 (\$2m commitment in '14)	2,551,415	0.4		7.7	--	50.4	--	34.5	--	30.1	--	--	--	--	--	10.5	Jun-14
PRIM Vintage Year 2017 (\$2m commitment in '17)	2,661,443	0.4		7.3	--	43.2	--	30.0	--	--	--	--	--	--	--	19.6	May-17
PRIM Vintage Year 2020 (\$5m commitment in '20)	3,077,158	0.4		10.0	--	38.0	--	--	--	--	--	--	--	--	--	26.1	Mar-20
PRIM Vintage Year 2021 (\$5m commitment in '21)	2,110,196	0.3		2.2	--	5.8	--	--	--	--	--	--	--	--	--	4.4	Dec-20
PRIM Vintage Year 2022 (\$7.5m commitment in '22)	110,821	0.0		--	--	--	--	--	--	--	--	--	--	--	--	-2.6	Mar-22
Alcentra European DLF (\$5m commitment in '14)	201,615	0.0		0.0	--	73.5	--	20.9	--	13.3	--	--	--	--	--	11.9	Jan-15
Ascent Fund IV (\$2m commitment in '04)	900	0.0		0.0	--	-15.5	--	-8.6	--	-38.4	--	-31.9	--	--	--	-21.0	Jul-04
Ascent Fund IV-B (\$1m commitment in '16)	53,007	0.0		0.0	--	-56.7	--	-39.4	--	-27.6	--	--	--	--	--	-24.0	Jul-16
Ascent Fund V (\$2m commitment in '08)	1,669,821	0.2		0.0	--	19.2	--	4.3	--	1.0	--	6.9	--	--	--	5.3	Oct-08
Ascent VI (\$3m commitment in '15)	3,366,212	0.5		0.0	--	11.8	--	1.2	--	4.9	--	--	--	--	--	2.2	Dec-15
CVI Credit Value Fund IV A LP (\$6m commitment in '17)	6,707,826	1.0		0.3	--	7.9	--	6.5	--	--	--	--	--	--	--	6.2	Dec-17
Invesco Fund VI (\$5m commitment in '13)	1,489,373	0.2		0.0	--	18.2	--	35.9	--	27.5	--	--	--	--	--	21.3	Jul-13
Kayne Energy Fund VII (\$5m commitment in '15)	1,962,050	0.3		0.0	--	25.9	--	-31.9	--	-16.0	--	--	--	--	--	-9.3	Jan-16
Foundry 2007 (\$3m commitment in '07)	533,967	0.1		0.0	--	14.2	--	20.1	--	5.5	--	9.7	--	--	--	21.3	Dec-07
Foundry 2010 (\$3m commitment in '10)	6,096,181	0.9		0.0	--	90.3	--	33.3	--	26.9	--	16.9	--	--	--	15.4	Jan-11
Foundry 2010 Annex (\$0.4m commitment in '15)	1,114,912	0.2		0.0	--	200.2	--	106.6	--	71.6	--	--	--	--	--	48.0	Sep-15
Pinebridge PEP V (\$6m commitment in '07)	521,010	0.1		0.0	--	3.9	--	10.0	--	6.0	--	9.5	--	--	--	--	Mar-08
Landmark XV (\$3m commitment in '13)	1,199,414	0.2		0.5	--	15.2	--	16.1	--	14.2	--	--	--	--	--	14.2	Nov-13
JFL Equity Investors IV, L.P. (\$6m commitment in '16)	2,050,729	0.3		-12.1	--	21.5	--	38.7	--	40.6	--	--	--	--	--	37.8	Jan-17
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)	5,133,914	0.7		0.0	--	14.7	--	23.5	--	21.4	--	--	--	--	--	21.2	Feb-17

Note:

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# MWRA Employees' Retirement System

## TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	Policy %	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	20 Yrs (%)	Rank	Inception (%)	Inception Date
Park Square Credit Opportunities III (\$3m commitment in '17)	2,822,936	0.4		0.0	--	6.5	--	8.2	--	--	--	--	--	--	--	7.0	Feb-18
Ironsides Constitution Opportunities (\$3m commitment in '18)	2,268,057	0.3		0.0	--	10.7	--	13.5	--	--	--	--	--	--	--	12.8	Oct-18
HarbourVest Dover Street X (\$9m commitment in '20)	5,774,507	0.8		0.0	--	41.9	--	--	--	--	--	--	--	--	--	83.6	Jun-20
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)	6,449,365	0.9		0.0	--	31.0	--	--	--	--	--	--	--	--	--	42.1	Jul-20
Constitution Ironsides Co-Investment Fund VI (\$12m commitment in '21)	10,771,012	1.6		--	--	--	--	--	--	--	--	--	--	--	--	0.0	Feb-22
JFL Equity Investors V, L.P. (\$9m commitment in '20)	5,039,257	0.7		0.0	--	5.7	--	--	--	--	--	--	--	--	--	-4.9	Sep-20
<i>Private Equity Benchmark (1 Qtr. Lag)</i>				5.4	--	38.7	--	24.2	--	20.0	--	16.4	--	14.5	--	48.4	Sep-20

**Note:**

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# MWRA Employees' Retirement System

## NOTES

- 1 - Results for periods longer than one year are annualized.
- 2 - Total Balances, Large Cap, Small Cap, and Other Composite performance starts 12/1/2010.
- 3 - Preliminary Total Composite net of fee since inception return is 7.0% for the current month.
- 4 - Preliminary Total Composite gross of fee since inception return is 8.6% for the current month.
- 5 - Targets, Allocation Index, and Policy Index have been updated to reflect new allocation of 02/01/2022.
- 6 - Policy Index changed from Nasdaq to Cambridge All PE to reflect as of 5/1/2012.
- 7 - Policy Index Consists of: 24% S&P 500, 7% Russell 2000, 12% MSCI ACWI IMI , 7% MSCI Emerging Markets, 10% Bloomberg US Aggregate TR, 10% Bloomberg US Universal TR, 12% NCREIF Property Index, 12% CJA US All PE , 6% HFRI Fund of Funds Composite Index.
- 8 - Allocation Index Consists of: Weighted index of underlying managers to their respective benchmark.



# DISCLAIMER

## Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other 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.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
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- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

## Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.





# QUARTERLY PERFORMANCE REPORT

## MWRA Employees' Retirement System

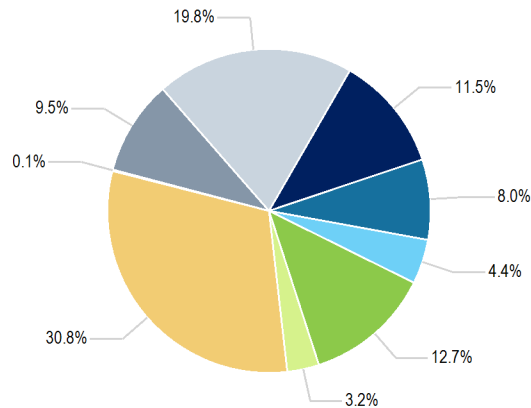
December 31, 2021



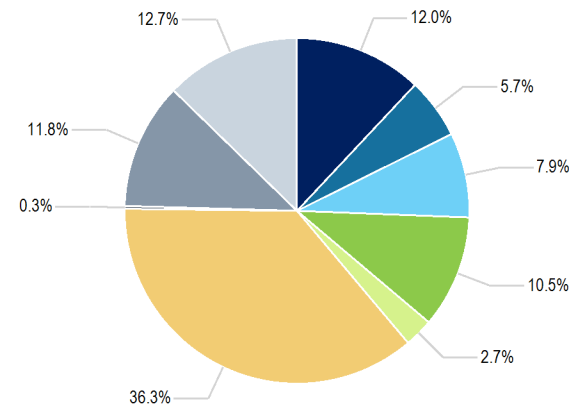
BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

# MWRA Employees' Retirement System ANALYSIS BY STRATEGY

Private Markets Valuation by Strategy



Private Markets Fund Exposure by Strategy



Buyout Direct Lending Energy Growth Equity Venture Capital  
Co-Investments Distressed Fund of Funds Secondaries

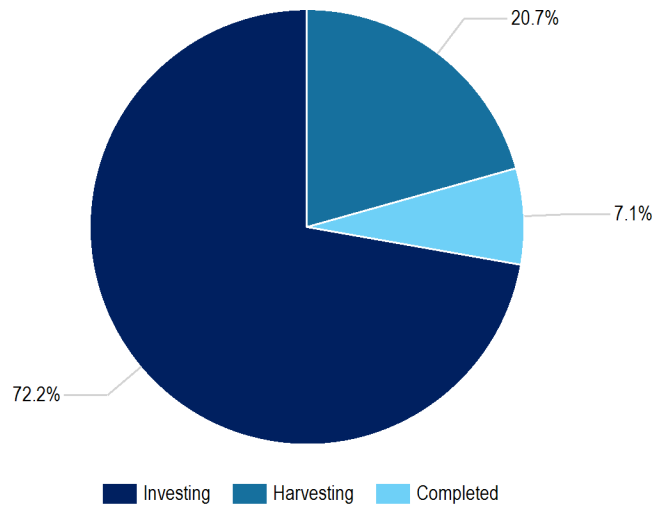
Buyout Direct Lending Energy Growth Equity Venture Capital  
Co-Investments Distressed Fund of Funds Secondaries

Investment Strategy	Commitments			Contributions & Distributions			Valuations				Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI	IRR
Total Buyout	\$18,409,914	\$5,056,373	0.73	\$13,353,542	\$114,412	\$16,378,646	\$7,509,634	\$23,888,280	\$10,420,327	\$12,566,006	1.22	1.77	14.74%
Total Co-Investments	\$4,900,000	\$719,422	0.85	\$4,180,578	\$46,833	\$2,640,666	\$5,223,187	\$7,863,853	\$3,636,442	\$5,942,609	0.62	1.86	12.33%
Total Direct Lending	\$8,000,000	\$5,426,833	0.32	\$2,573,167	\$26,581	\$1,593,420	\$2,894,980	\$4,488,400	\$1,888,652	\$8,321,813	0.61	1.73	7.73%
Total Distressed	\$9,000,000	\$2,770,927	0.69	\$6,229,073	\$10,063	\$95,524	\$8,271,457	\$8,366,981	\$2,127,846	\$11,042,385	0.02	1.34	9.87%
Total Energy	\$5,000,000	\$757,272	0.85	\$4,242,728	-\$40,917	\$984,075	\$2,075,064	\$3,059,139	-\$1,142,672	\$2,832,336	0.23	0.73	-9.06%
Total Fund of Funds	\$38,500,000	\$18,015,796	0.53	\$20,484,204	\$217,107	\$26,931,500	\$20,051,695	\$46,983,196	\$26,281,884	\$38,067,491	1.30	2.27	17.34%
Total Growth Equity	\$900,000	\$185,690	0.79	\$714,310	-\$9,254	\$1,267,194	\$92,082	\$1,359,276	\$654,220	\$277,772	1.80	1.93	9.73%
Total Secondaries	\$12,600,000	\$6,221,387	0.51	\$6,378,613	\$14,362	\$3,689,060	\$6,164,822	\$9,853,882	\$3,460,907	\$12,386,209	0.58	1.54	17.55%
Total Venture Capital	\$20,123,012	\$446,279	0.98	\$19,676,733	\$64,437	\$26,898,666	\$12,885,150	\$39,783,816	\$20,042,646	\$13,331,429	1.36	2.02	12.64%
<b>Total</b>	<b>\$117,432,926</b>	<b>\$39,599,979</b>	<b>0.66</b>	<b>\$77,832,947</b>	<b>\$443,624</b>	<b>\$80,478,752</b>	<b>\$65,168,071</b>	<b>\$145,646,822</b>	<b>\$67,370,251</b>	<b>\$104,768,050</b>	<b>1.03</b>	<b>1.86</b>	<b>13.59%</b>

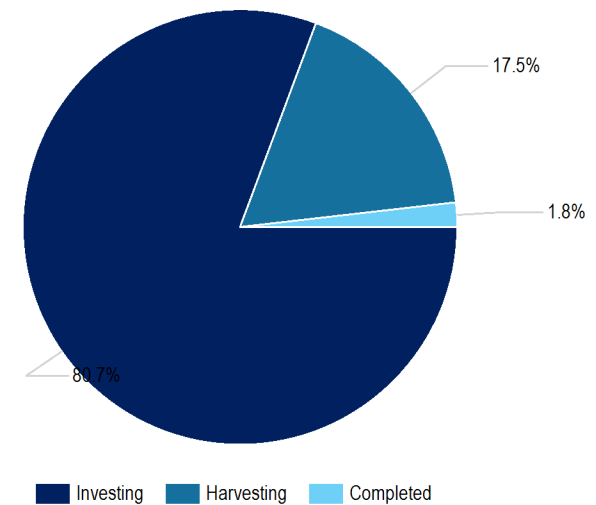


# MWRA Employees' Retirement System ANALYSIS BY LIFECYCLE

Commitment by Lifecycle



Unfunded Commitment by Lifecycle



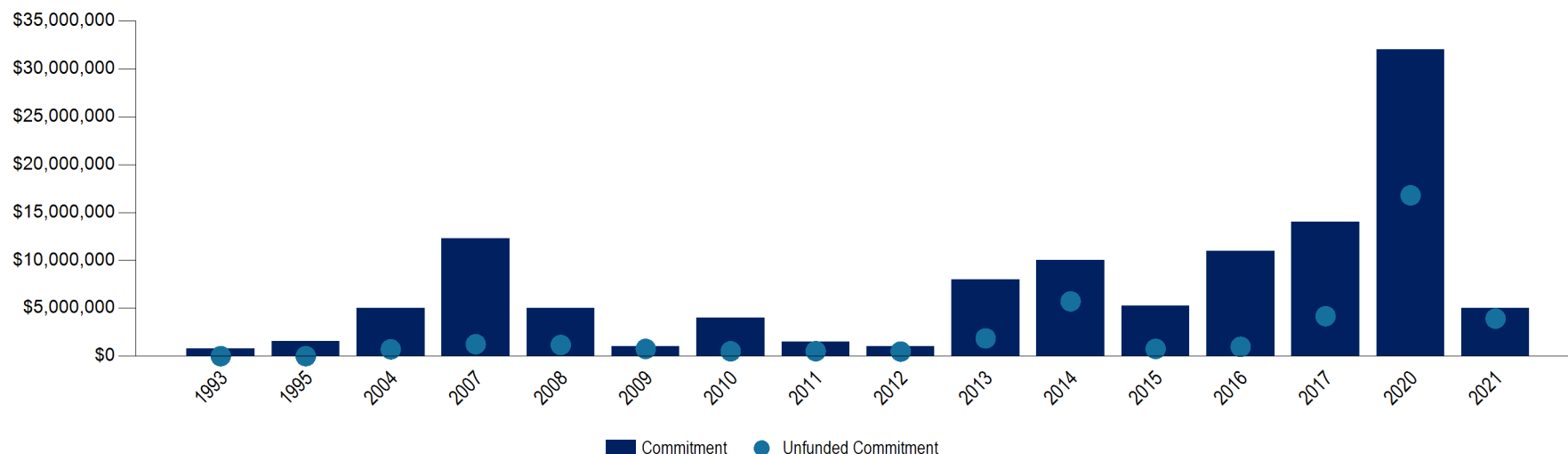
Lifecycle	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total Investing	\$84,768,205	\$31,951,258	0.62	\$52,816,947	\$35,378	\$40,041,918	\$54,883,044	\$94,924,963	\$42,072,637	0.76	1.80	19.58%
Total Harvesting	\$24,289,914	\$6,931,488	0.71	\$17,358,427	\$124,552	\$30,423,241	\$10,285,026	\$40,708,267	\$23,225,289	1.74	2.33	13.59%
Total Completed	\$8,374,807	\$717,234	0.91	\$7,657,573	\$283,694	\$10,013,593	\$0	\$10,013,593	\$2,072,325	1.26	1.26	6.22%
<b>Total</b>	<b>\$117,432,926</b>	<b>\$39,599,979</b>	<b>0.66</b>	<b>\$77,832,947</b>	<b>\$443,624</b>	<b>\$80,478,752</b>	<b>\$65,168,071</b>	<b>\$145,646,822</b>	<b>\$67,370,251</b>	<b>1.03</b>	<b>1.86</b>	<b>13.59%</b>



# MWRA Employees' Retirement System

## ANALYSIS BY VINTAGE YEAR

Commitments By Vintage Year



Vintage Year	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total 1993	\$800,000	\$0	1.00	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
Total 1995	\$1,574,807	\$0	1.00	\$1,574,807	\$0	\$3,116,593	\$0	\$3,116,593	\$1,541,786	1.98	1.98	13.46%
Total 2004	\$5,000,000	\$717,234	0.86	\$4,282,766	\$232,198	\$5,178,912	\$5,998	\$5,184,910	\$669,946	1.15	1.15	2.14%
Total 2007	\$12,289,914	\$1,247,515	0.90	\$11,042,399	\$158,583	\$22,652,382	\$1,054,977	\$23,707,358	\$12,506,376	2.02	2.12	14.44%
Total 2008	\$5,000,000	\$1,166,681	0.77	\$3,833,319	\$2,212	\$5,315,368	\$2,710,014	\$8,025,382	\$4,189,850	1.39	2.09	12.47%
Total 2009	\$1,000,000	\$756,264	0.24	\$243,736	\$109	\$613,451	\$161,001	\$774,452	\$530,607	2.52	3.18	21.27%
Total 2010	\$4,000,000	\$511,776	0.87	\$3,488,224	\$180	\$4,288,915	\$6,983,742	\$11,272,657	\$7,784,253	1.23	3.23	16.55%
Total 2011	\$1,500,000	\$517,547	0.65	\$982,453	\$159	\$1,955,977	\$1,108,210	\$3,064,187	\$2,081,575	1.99	3.12	21.48%
Total 2012	\$1,000,000	\$480,765	0.52	\$519,235	\$44	\$667,693	\$845,930	\$1,513,623	\$994,344	1.29	2.91	21.05%
Total 2013	\$8,000,000	\$1,861,151	0.77	\$6,138,849	-\$9,117	\$14,670,670	\$2,745,808	\$17,416,478	\$11,286,746	2.39	2.84	20.34%
Total 2014	\$10,000,000	\$5,718,475	0.43	\$4,281,525	\$26,581	\$2,546,900	\$6,075,734	\$8,622,635	\$4,314,529	0.59	2.00	10.76%
Total 2015	\$5,268,205	\$757,272	0.86	\$4,510,933	-\$40,917	\$1,391,327	\$3,189,976	\$4,581,303	\$111,287	0.31	1.02	0.68%



# MWRA Employees' Retirement System

## ANALYSIS BY VINTAGE YEAR

Commitments By Vintage Year



Vintage Year	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total 2016	\$11,000,000	\$979,524	0.91	\$10,020,476	\$75,121	\$15,223,395	\$7,450,771	\$22,674,166	\$12,578,569	1.51	2.25	29.53%
Total 2017	\$14,000,000	\$4,173,642	0.70	\$9,826,358	\$10,089	\$326,860	\$13,426,488	\$13,753,348	\$3,916,901	0.03	1.40	12.26%
Total 2020	\$32,000,000	\$16,791,901	0.48	\$15,208,099	-\$11,619	\$1,330,906	\$18,277,898	\$19,608,804	\$4,412,324	0.09	1.29	36.57%
Total 2021	\$5,000,000	\$3,920,232	0.22	\$1,079,768	\$0	\$0	\$1,131,525	\$1,131,525	\$51,756	0.00	1.05	9.00%
<b>Total</b>	<b>\$117,432,926</b>	<b>\$39,599,979</b>	<b>0.66</b>	<b>\$77,832,947</b>	<b>\$443,624</b>	<b>\$80,478,752</b>	<b>\$65,168,071</b>	<b>\$145,646,822</b>	<b>\$67,370,251</b>	<b>1.03</b>	<b>1.86</b>	<b>13.59%</b>



# APPENDIX

## MWRA Employees' Retirement System

December 31, 2021



# MWRA Employees' Retirement System

## RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %							Public Market Equivalent (PME)		
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR	IRR PME	KS PME	Benchmark
AIG PEP V Asia, L.P.	2007	\$549,557	0.00%	-9.20%	-9.20%	-13.04%	-8.92%	2.61%	1.48%	7.40%	0.78	MSCI ACWI
AIG PEP V Co-Investment, L.P.	2007	\$900,000	5.61%	34.03%	34.03%	18.97%	2.91%	6.35%	0.96%	9.07%	0.64	MSCI ACWI
AIG PEP V Europe, L.P.	2007	\$1,636,796	-2.32%	-14.89%	-14.89%	16.80%	23.32%	10.82%	2.36%	6.81%	0.80	MSCI ACWI
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	0.00%	12.22%	12.22%	18.94%	18.00%	15.32%	7.74%		1.26	MSCI ACWI
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	0.00%	-0.25%	-0.25%	7.64%	0.29%	17.95%	11.36%	8.19%	1.15	MSCI ACWI
AIG PEP V Secondary, L.P.	2007	\$600,000	0.00%	5.74%	5.74%	-5.42%	-3.59%	3.55%	6.77%	9.83%	0.90	MSCI ACWI
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	0.00%	12.02%	12.02%	18.03%	17.67%	13.71%	9.73%		1.40	MSCI ACWI
AIG PEP V US Venture, L.P.	2007	\$480,000	0.00%	0.32%	0.32%	-0.67%	0.99%	14.80%	13.07%		1.58	MSCI ACWI
Alcentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	2.66%	25.19%	25.19%	0.53%	5.66%		7.46%	7.21%	1.01	MSCI ACWI
Ascent Venture Partners II, L.P.	1995	\$774,807							26.71%			
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	-49.60%	-56.27%	-56.27%	-36.10%	-18.41%		-3.41%	8.57%	0.74	MSCI ACWI
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	-6.27%	-14.59%	-14.59%	-21.19%	-39.95%	-34.76%	-27.03%	8.29%	0.13	MSCI ACWI
Ascent Venture Partners V, L.P.	2008	\$2,000,000	-4.44%	20.67%	20.67%	3.45%	1.58%	8.24%	7.68%	10.51%	0.85	MSCI ACWI
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	9.22%	13.16%	13.16%	1.49%	4.58%		4.44%	13.67%	0.70	MSCI ACWI
Boston Capital Venture Fund III, L.P.	1993	\$800,000							8.87%			
Castile Ventures III, L.P.	2007	\$3,000,000							-36.97%	6.52%	0.27	MSCI ACWI
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	1.86%	14.37%	14.37%	8.89%			8.23%	18.60%	0.79	MSCI ACWI
Dover Street X, L.P.	2020	\$9,000,000	0.00%	51.17%	51.17%				70.91%	25.32%	1.31	MSCI ACWI
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	8.24%	66.36%	66.36%	11.80%	12.30%	26.94%	42.80%	15.06%	3.66	MSCI ACWI
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	-0.13%	181.13%	181.13%	93.35%	58.36%		40.50%	11.18%	3.06	MSCI ACWI
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	6.51%	88.04%	88.04%	32.14%	24.75%	16.41%	15.78%	10.64%	1.40	MSCI ACWI
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000	0.00%	32.71%	32.71%				50.43%	21.93%	1.19	MSCI ACWI
Invesco Fund IV, L.P.	2004	\$3,000,000							10.33%		1.36	MSCI ACWI
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	0.00%	74.31%	74.31%	34.80%	25.75%		21.47%	10.87%	1.71	MSCI ACWI
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	3.42%	14.72%	14.72%	15.13%			14.36%	17.34%	0.96	MSCI ACWI
JFL Equity Investors IV, L.P.	2016	\$6,000,000	5.64%	55.81%	55.81%	40.59%	42.08%		38.95%	12.92%	1.74	MSCI ACWI
JFL Equity Investors V, L.P.	2020	\$9,000,000	8.02%	6.61%	6.61%				0.92%	20.45%	0.86	MSCI ACWI
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	15.38%	67.96%	67.96%	-25.71%	-14.20%		-9.06%	14.75%	0.57	MSCI ACWI
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	1.07%	13.57%	13.57%	13.19%	14.25%		13.96%	10.25%	1.08	MSCI ACWI
Mass PRIM AIVY 2008	2008	\$3,000,000	6.88%	31.53%	31.53%	12.00%	18.27%	20.76%	17.57%	7.31%	1.45	MSCI ACWI



# MWRA Employees' Retirement System

## RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %							Public Market Equivalent (PME)		
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR	IRR PME	KS PME	Benchmark
Mass PRIM AIVY 2009	2009	\$1,000,000	14.07%	75.92%	75.92%	38.77%	28.37%	22.77%	21.27%	3.54%	1.79	MSCI ACWI
Mass PRIM AIVY 2010	2010	\$1,000,000	22.89%	124.42%	124.42%	30.93%	25.79%	22.77%	20.88%	8.46%	1.83	MSCI ACWI
Mass PRIM AIVY 2011	2011	\$1,500,000	8.34%	113.84%	113.84%	27.35%	24.79%	21.77%	21.48%	8.13%	1.76	MSCI ACWI
Mass PRIM AIVY 2012	2012	\$1,000,000	-0.08%	44.78%	44.78%	25.16%	23.50%		21.05%	8.90%	1.68	MSCI ACWI
Mass PRIM AIVY 2014	2014	\$2,000,000	13.04%	56.47%	56.47%	28.73%	29.61%		27.12%	11.44%	1.79	MSCI ACWI
Mass PRIM AIVY 2017	2017	\$2,000,000	6.64%	57.53%	57.53%	33.68%			33.10%	17.79%	1.34	MSCI ACWI
Mass PRIM AIVY 2020	2020	\$5,000,000	6.99%	36.14%	36.14%				33.60%	20.17%	1.06	MSCI ACWI
Mass PRIM AIVY 2021	2021	\$5,000,000	4.26%	5.28%	5.28%				9.00%	9.80%	1.00	MSCI ACWI
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	3.03%	8.74%	8.74%	8.96%			8.66%	18.57%	0.80	MSCI ACWI
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	-0.13%	27.57%	27.57%	30.73%			25.21%	14.07%	1.30	MSCI ACWI
Ticonderoga Concord Partners III, L.P.	1995	\$800,000							-8.06%			
<b>Total</b>		<b>\$117,432,926</b>	<b>4.10%</b>	<b>40.70%</b>	<b>40.70%</b>	<b>20.19%</b>	<b>17.45%</b>	<b>15.73%</b>	<b>13.59%</b>			





# MWRA Employees' Retirement System

## ANALYSIS BY FUND

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
AIG PEP V Asia, L.P.	2007	\$549,557	\$116,665	\$432,892	\$11,622	\$446,362	\$40,070	\$486,432	\$41,918	1.00	1.09	1.48%
AIG PEP V Co-Investment, L.P.	2007	\$900,000	\$22,644	\$877,356	\$32,765	\$885,186	\$89,273	\$974,459	\$64,338	0.97	1.07	0.96%
AIG PEP V Europe, L.P.	2007	\$1,636,796	\$551,462	\$1,085,334	\$25,194	\$1,292,083	\$22,011	\$1,314,094	\$203,566	1.16	1.18	2.36%
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	\$125,336	\$594,664	-\$11,616	\$935,635	\$91,895	\$1,027,530	\$444,482	1.60	1.76	7.74%
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	-\$42,778	\$546,339	\$28,158	\$1,036,752	\$106,747	\$1,143,499	\$569,002	1.80	1.99	11.36%
AIG PEP V Secondary, L.P.	2007	\$600,000	\$181,881	\$418,119	\$17,277	\$572,819	\$33,880	\$606,699	\$171,303	1.32	1.39	6.77%
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	\$185,690	\$714,310	-\$9,254	\$1,267,194	\$92,082	\$1,359,276	\$654,220	1.80	1.93	9.73%
AIG PEP V US Venture, L.P.	2007	\$480,000	\$61,615	\$418,385	\$12,941	\$857,246	\$45,052	\$902,298	\$470,972	1.99	2.09	13.07%
Alcentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	\$4,736,966	\$263,034	\$26,581	\$1,404,489	\$201,615	\$1,606,103	\$1,316,488	4.85	5.55	7.46%
Ascent Venture Partners II, L.P.	1995	\$774,807	\$0	\$774,807	\$0	\$2,571,916	\$0	\$2,571,916	\$1,797,109	3.32	3.32	26.71%
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	\$32,164	\$967,836	\$0	\$800,101	\$53,007	\$853,108	-\$114,728	0.83	0.88	-3.41%
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	\$0	\$2,000,000	\$0	\$334,111	\$5,998	\$340,109	-\$1,659,891	0.17	0.17	-27.03%
Ascent Venture Partners V, L.P.	2008	\$2,000,000	\$60,000	\$1,940,000	\$0	\$1,646,891	\$1,669,821	\$3,316,712	\$1,376,712	0.85	1.71	7.68%
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	\$180,000	\$2,820,000	\$0	\$0	\$3,366,212	\$3,366,212	\$546,212	0.00	1.19	4.44%
Boston Capital Venture Fund III, L.P.	1993	\$800,000	\$0	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
Castile Ventures III, L.P.	2007	\$3,000,000	\$0	\$3,000,000	\$51,496	\$852,796	\$0	\$852,796	-\$2,198,700	0.28	0.28	-36.97%
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	\$1,500,000	\$4,500,000	-\$1,229	\$0	\$5,791,881	\$5,791,881	\$1,293,110	0.00	1.29	8.23%
Dover Street X, L.P.	2020	\$9,000,000	\$5,220,000	\$3,780,000	\$6,202	\$1,056,042	\$4,874,507	\$5,930,549	\$2,144,347	0.28	1.57	70.91%
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	\$45,000	\$2,955,000	\$0	\$14,506,308	\$533,967	\$15,040,275	\$12,085,275	4.91	5.09	42.80%
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	\$0	\$268,205	\$0	\$407,252	\$1,114,912	\$1,522,164	\$1,253,959	1.52	5.68	40.50%
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	\$67,500	\$2,932,500	\$0	\$3,177,966	\$6,096,181	\$9,274,147	\$6,341,647	1.08	3.16	15.78%
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000	\$4,610,942	\$4,389,058	-\$17,882	\$274,864	\$5,968,116	\$6,242,980	\$1,871,804	0.06	1.43	50.43%
Invesco Fund IV, L.P.	2004	\$3,000,000	\$717,234	\$2,282,766	\$232,198	\$4,844,802	\$0	\$4,844,802	\$2,329,837	1.93	1.93	10.33%
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	\$1,041,645	\$3,958,355	\$0	\$12,610,471	\$1,489,373	\$14,099,844	\$10,141,489	3.19	3.56	21.47%
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	\$1,270,927	\$1,729,073	\$11,292	\$95,524	\$2,479,576	\$2,575,100	\$834,735	0.05	1.48	14.36%
JFL Equity Investors IV, L.P.	2016	\$6,000,000	\$250,581	\$5,749,419	\$61,053	\$12,667,814	\$2,263,850	\$14,931,664	\$9,121,192	2.18	2.57	38.95%
JFL Equity Investors V, L.P.	2020	\$9,000,000	\$4,055,106	\$4,944,894	\$0	\$0	\$4,985,061	\$4,985,061	\$40,167	0.00	1.01	0.92%
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	\$757,272	\$4,242,728	-\$40,917	\$984,075	\$2,075,064	\$3,059,139	-\$1,142,672	0.23	0.73	-9.06%
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	\$819,506	\$2,180,494	-\$9,117	\$2,060,199	\$1,256,435	\$3,316,634	\$1,145,257	0.95	1.53	13.96%
Mass PRIM AIVY 2008	2008	\$3,000,000	\$1,106,681	\$1,893,319	\$2,212	\$3,668,477	\$1,040,193	\$4,708,670	\$2,813,138	1.94	2.48	17.57%



# MWRA Employees' Retirement System

## ANALYSIS BY FUND

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
Mass PRIM AIVY 2009	2009	\$1,000,000	\$756,264	\$243,736	\$109	\$613,451	\$161,001	\$774,452	\$530,607	2.52	3.18	21.27%
Mass PRIM AIVY 2010	2010	\$1,000,000	\$444,276	\$555,724	\$180	\$1,110,950	\$887,561	\$1,998,511	\$1,442,606	2.00	3.60	20.88%
Mass PRIM AIVY 2011	2011	\$1,500,000	\$517,547	\$982,453	\$159	\$1,955,977	\$1,108,210	\$3,064,187	\$2,081,575	1.99	3.12	21.48%
Mass PRIM AIVY 2012	2012	\$1,000,000	\$480,765	\$519,235	\$44	\$667,693	\$845,930	\$1,513,623	\$994,344	1.29	2.91	21.05%
Mass PRIM AIVY 2014	2014	\$2,000,000	\$801,509	\$1,198,491	\$0	\$1,142,412	\$2,507,907	\$3,650,319	\$2,451,828	0.95	3.05	27.12%
Mass PRIM AIVY 2017	2017	\$2,000,000	\$712,848	\$1,287,152	\$26	\$42,404	\$2,461,665	\$2,504,070	\$1,216,892	0.03	1.95	33.10%
Mass PRIM AIVY 2020	2020	\$5,000,000	\$2,905,853	\$2,094,147	\$61	\$0	\$2,450,214	\$2,450,214	\$356,006	0.00	1.17	33.60%
Mass PRIM AIVY 2021	2021	\$5,000,000	\$3,920,232	\$1,079,768	\$0	\$0	\$1,131,525	\$1,131,525	\$51,756	0.00	1.05	9.00%
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	\$689,867	\$2,310,133	\$0	\$188,932	\$2,693,365	\$2,882,297	\$572,164	0.08	1.25	8.66%
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	\$696,778	\$3,303,222	\$14,068	\$1,755,480	\$5,133,914	\$6,889,394	\$3,572,104	0.53	2.08	25.21%
Ticonderoga Concord Partners III, L.P.	1995	\$800,000	\$0	\$800,000	\$0	\$544,677	\$0	\$544,677	-\$255,323	0.68	0.68	-8.06%
<b>Total</b>		<b>\$117,432,926</b>	<b>\$39,599,979</b>	<b>\$77,832,947</b>	<b>\$443,624</b>	<b>\$80,478,752</b>	<b>\$65,168,071</b>	<b>\$145,646,822</b>	<b>\$67,370,251</b>	<b>1.03</b>	<b>1.86</b>	<b>13.59%</b>



# MWRA Employees' Retirement System

## ANALYSIS BY LIFECYCLE

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
<b>Investing</b>												
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	\$32,164	\$967,836	\$0	\$800,101	\$53,007	\$853,108	-\$114,728	0.83	0.88	-3.41%
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	\$180,000	\$2,820,000	\$0	\$0	\$3,366,212	\$3,366,212	\$546,212	0.00	1.19	4.44%
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	\$1,500,000	\$4,500,000	-\$1,229	\$0	\$5,791,881	\$5,791,881	\$1,293,110	0.00	1.29	8.23%
Dover Street X, L.P.	2020	\$9,000,000	\$5,220,000	\$3,780,000	\$6,202	\$1,056,042	\$4,874,507	\$5,930,549	\$2,144,347	0.28	1.57	70.91%
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	\$0	\$268,205	\$0	\$407,252	\$1,114,912	\$1,522,164	\$1,253,959	1.52	5.68	40.50%
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000	\$4,610,942	\$4,389,058	-\$17,882	\$274,864	\$5,968,116	\$6,242,980	\$1,871,804	0.06	1.43	50.43%
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	\$1,041,645	\$3,958,355	\$0	\$12,610,471	\$1,489,373	\$14,099,844	\$10,141,489	3.19	3.56	21.47%
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	\$1,270,927	\$1,729,073	\$11,292	\$95,524	\$2,479,576	\$2,575,100	\$834,735	0.05	1.48	14.36%
JFL Equity Investors IV, L.P.	2016	\$6,000,000	\$250,581	\$5,749,419	\$61,053	\$12,667,814	\$2,263,850	\$14,931,664	\$9,121,192	2.18	2.57	38.95%
JFL Equity Investors V, L.P.	2020	\$9,000,000	\$4,055,106	\$4,944,894	\$0	\$0	\$4,985,061	\$4,985,061	\$40,167	0.00	1.01	0.92%
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	\$757,272	\$4,242,728	-\$40,917	\$984,075	\$2,075,064	\$3,059,139	-\$1,142,672	0.23	0.73	-9.06%
Mass PRIM AIVY 2008	2008	\$3,000,000	\$1,106,681	\$1,893,319	\$2,212	\$3,668,477	\$1,040,193	\$4,708,670	\$2,813,138	1.94	2.48	17.57%
Mass PRIM AIVY 2009	2009	\$1,000,000	\$756,264	\$243,736	\$109	\$613,451	\$161,001	\$774,452	\$530,607	2.52	3.18	21.27%
Mass PRIM AIVY 2010	2010	\$1,000,000	\$444,276	\$555,724	\$180	\$1,110,950	\$887,561	\$1,998,511	\$1,442,606	2.00	3.60	20.88%
Mass PRIM AIVY 2011	2011	\$1,500,000	\$517,547	\$982,453	\$159	\$1,955,977	\$1,108,210	\$3,064,187	\$2,081,575	1.99	3.12	21.48%
Mass PRIM AIVY 2012	2012	\$1,000,000	\$480,765	\$519,235	\$44	\$667,693	\$845,930	\$1,513,623	\$994,344	1.29	2.91	21.05%
Mass PRIM AIVY 2014	2014	\$2,000,000	\$801,509	\$1,198,491	\$0	\$1,142,412	\$2,507,907	\$3,650,319	\$2,451,828	0.95	3.05	27.12%
Mass PRIM AIVY 2017	2017	\$2,000,000	\$712,848	\$1,287,152	\$26	\$42,404	\$2,461,665	\$2,504,070	\$1,216,892	0.03	1.95	33.10%
Mass PRIM AIVY 2020	2020	\$5,000,000	\$2,905,853	\$2,094,147	\$61	\$0	\$2,450,214	\$2,450,214	\$356,006	0.00	1.17	33.60%
Mass PRIM AIVY 2021	2021	\$5,000,000	\$3,920,232	\$1,079,768	\$0	\$0	\$1,131,525	\$1,131,525	\$51,756	0.00	1.05	9.00%
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	\$689,867	\$2,310,133	\$0	\$188,932	\$2,693,365	\$2,882,297	\$572,164	0.08	1.25	8.66%
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	\$696,778	\$3,303,222	\$14,068	\$1,755,480	\$5,133,914	\$6,889,394	\$3,572,104	0.53	2.08	25.21%
<b>Total Investing</b>		<b>\$84,768,205</b>	<b>\$31,951,258</b>	<b>\$52,816,947</b>	<b>\$35,378</b>	<b>\$40,041,918</b>	<b>\$54,883,044</b>	<b>\$94,924,963</b>	<b>\$42,072,637</b>	<b>0.76</b>	<b>1.80</b>	<b>19.58%</b>
<b>Harvesting</b>												
AIG PEP V Asia, L.P.	2007	\$549,557	\$116,665	\$432,892	\$11,622	\$446,362	\$40,070	\$486,432	\$41,918	1.00	1.09	1.48%
AIG PEP V Co-Investment, L.P.	2007	\$900,000	\$22,644	\$877,356	\$32,765	\$885,186	\$89,273	\$974,459	\$64,338	0.97	1.07	0.96%
AIG PEP V Europe, L.P.	2007	\$1,636,796	\$551,462	\$1,085,334	\$25,194	\$1,292,083	\$22,011	\$1,314,094	\$203,566	1.16	1.18	2.36%
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	\$125,336	\$594,664	-\$11,616	\$935,635	\$91,895	\$1,027,530	\$444,482	1.60	1.76	7.74%
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	-\$42,778	\$546,339	\$28,158	\$1,036,752	\$106,747	\$1,143,499	\$569,002	1.80	1.99	11.36%
AIG PEP V Secondary, L.P.	2007	\$600,000	\$181,881	\$418,119	\$17,277	\$572,819	\$33,880	\$606,699	\$171,303	1.32	1.39	6.77%
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	\$185,690	\$714,310	-\$9,254	\$1,267,194	\$92,082	\$1,359,276	\$654,220	1.80	1.93	9.73%



# MWRA Employees' Retirement System

## ANALYSIS BY LIFECYCLE

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
AIG PEP V US Venture, L.P.	2007	\$480,000	\$61,615	\$418,385	\$12,941	\$857,246	\$45,052	\$902,298	\$470,972	1.99	2.09	13.07%
Alcentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	\$4,736,966	\$263,034	\$26,581	\$1,404,489	\$201,615	\$1,606,103	\$1,316,488	4.85	5.55	7.46%
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	\$0	\$2,000,000	\$0	\$334,111	\$5,998	\$340,109	-\$1,659,891	0.17	0.17	-27.03%
Ascent Venture Partners V, L.P.	2008	\$2,000,000	\$60,000	\$1,940,000	\$0	\$1,646,891	\$1,669,821	\$3,316,712	\$1,376,712	0.85	1.71	7.68%
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	\$45,000	\$2,955,000	\$0	\$14,506,308	\$533,967	\$15,040,275	\$12,085,275	4.91	5.09	42.80%
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	\$67,500	\$2,932,500	\$0	\$3,177,966	\$6,096,181	\$9,274,147	\$6,341,647	1.08	3.16	15.78%
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	\$819,506	\$2,180,494	-\$9,117	\$2,060,199	\$1,256,435	\$3,316,634	\$1,145,257	0.95	1.53	13.96%
<b>Total Harvesting</b>		<b>\$24,289,914</b>	<b>\$6,931,488</b>	<b>\$17,358,427</b>	<b>\$124,552</b>	<b>\$30,423,241</b>	<b>\$10,285,026</b>	<b>\$40,708,267</b>	<b>\$23,225,289</b>	<b>1.74</b>	<b>2.33</b>	<b>13.59%</b>
<b>Completed</b>												
Ascent Venture Partners II, L.P.	1995	\$774,807	\$0	\$774,807	\$0	\$2,571,916	\$0	\$2,571,916	\$1,797,109	3.32	3.32	26.71%
Boston Capital Venture Fund III, L.P.	1993	\$800,000	\$0	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
Castile Ventures III, L.P.	2007	\$3,000,000	\$0	\$3,000,000	\$51,496	\$852,796	\$0	\$852,796	-\$2,198,700	0.28	0.28	-36.97%
Invesco Fund IV, L.P.	2004	\$3,000,000	\$717,234	\$2,282,766	\$232,198	\$4,844,802	\$0	\$4,844,802	\$2,329,837	1.93	1.93	10.33%
Ticonderoga Concord Partners III, L.P.	1995	\$800,000	\$0	\$800,000	\$0	\$544,677	\$0	\$544,677	-\$255,323	0.68	0.68	-8.06%
<b>Total Completed</b>		<b>\$8,374,807</b>	<b>\$717,234</b>	<b>\$7,657,573</b>	<b>\$283,694</b>	<b>\$10,013,593</b>	<b>\$0</b>	<b>\$10,013,593</b>	<b>\$2,072,325</b>	<b>1.26</b>	<b>1.26</b>	<b>6.22%</b>
<b>Total</b>		<b>\$117,432,926</b>	<b>\$39,599,979</b>	<b>\$77,832,947</b>	<b>\$443,624</b>	<b>\$80,478,752</b>	<b>\$65,168,071</b>	<b>\$145,646,822</b>	<b>\$67,370,251</b>	<b>1.03</b>	<b>1.86</b>	<b>13.59%</b>



# MWRA Employees' Retirement System

## 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
<b>1993</b>												
Boston Capital Venture Fund III, L.P.	1993	\$800,000	\$0	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
<b>Total 1993</b>		<b>\$800,000</b>	<b>\$0</b>	<b>\$800,000</b>	<b>\$0</b>	<b>\$1,199,402</b>	<b>\$0</b>	<b>\$1,199,402</b>	<b>\$399,402</b>	<b>1.50</b>	<b>1.50</b>	<b>8.87%</b>
<b>1995</b>												
Ascent Venture Partners II, L.P.	1995	\$774,807	\$0	\$774,807	\$0	\$2,571,916	\$0	\$2,571,916	\$1,797,109	3.32	3.32	26.71%
Ticonderoga Concord Partners III, L.P.	1995	\$800,000	\$0	\$800,000	\$0	\$544,677	\$0	\$544,677	-\$255,323	0.68	0.68	-8.06%
<b>Total 1995</b>		<b>\$1,574,807</b>	<b>\$0</b>	<b>\$1,574,807</b>	<b>\$0</b>	<b>\$3,116,593</b>	<b>\$0</b>	<b>\$3,116,593</b>	<b>\$1,541,786</b>	<b>1.98</b>	<b>1.98</b>	<b>13.46%</b>
<b>2004</b>												
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	\$0	\$2,000,000	\$0	\$334,111	\$5,998	\$340,109	-\$1,659,891	0.17	0.17	-27.03%
Invesco Fund IV, L.P.	2004	\$3,000,000	\$717,234	\$2,282,766	\$232,198	\$4,844,802	\$0	\$4,844,802	\$2,329,837	1.93	1.93	10.33%
<b>Total 2004</b>		<b>\$5,000,000</b>	<b>\$717,234</b>	<b>\$4,282,766</b>	<b>\$232,198</b>	<b>\$5,178,912</b>	<b>\$5,998</b>	<b>\$5,184,910</b>	<b>\$669,946</b>	<b>1.15</b>	<b>1.15</b>	<b>2.14%</b>
<b>2007</b>												
AIG PEP V Asia, L.P.	2007	\$549,557	\$116,665	\$432,892	\$11,622	\$446,362	\$40,070	\$486,432	\$41,918	1.00	1.09	1.48%
AIG PEP V Co-Investment, L.P.	2007	\$900,000	\$22,644	\$877,356	\$32,765	\$885,186	\$89,273	\$974,459	\$64,338	0.97	1.07	0.96%
AIG PEP V Europe, L.P.	2007	\$1,636,796	\$551,462	\$1,085,334	\$25,194	\$1,292,083	\$22,011	\$1,314,094	\$203,566	1.16	1.18	2.36%
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	\$125,336	\$594,664	-\$11,616	\$935,635	\$91,895	\$1,027,530	\$444,482	1.60	1.76	7.74%
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	-\$42,778	\$546,339	\$28,158	\$1,036,752	\$106,747	\$1,143,499	\$569,002	1.80	1.99	11.36%
AIG PEP V Secondary, L.P.	2007	\$600,000	\$181,881	\$418,119	\$17,277	\$572,819	\$33,880	\$606,699	\$171,303	1.32	1.39	6.77%
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	\$185,690	\$714,310	-\$9,254	\$1,267,194	\$92,082	\$1,359,276	\$654,220	1.80	1.93	9.73%
AIG PEP V US Venture, L.P.	2007	\$480,000	\$61,615	\$418,385	\$12,941	\$857,246	\$45,052	\$902,298	\$470,972	1.99	2.09	13.07%
Castile Ventures III, L.P.	2007	\$3,000,000	\$0	\$3,000,000	\$51,496	\$852,796	\$0	\$852,796	-\$2,198,700	0.28	0.28	-36.97%
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	\$45,000	\$2,955,000	\$0	\$14,506,308	\$533,967	\$15,040,275	\$12,085,275	4.91	5.09	42.80%
<b>Total 2007</b>		<b>\$12,289,914</b>	<b>\$1,247,515</b>	<b>\$11,042,399</b>	<b>\$158,583</b>	<b>\$22,652,382</b>	<b>\$1,054,977</b>	<b>\$23,707,358</b>	<b>\$12,506,376</b>	<b>2.02</b>	<b>2.12</b>	<b>14.44%</b>
<b>2008</b>												
Ascent Venture Partners V, L.P.	2008	\$2,000,000	\$60,000	\$1,940,000	\$0	\$1,646,891	\$1,669,821	\$3,316,712	\$1,376,712	0.85	1.71	7.68%
Mass PRIM AIVY 2008	2008	\$3,000,000	\$1,106,681	\$1,893,319	\$2,212	\$3,668,477	\$1,040,193	\$4,708,670	\$2,813,138	1.94	2.48	17.57%
<b>Total 2008</b>		<b>\$5,000,000</b>	<b>\$1,166,681</b>	<b>\$3,833,319</b>	<b>\$2,212</b>	<b>\$5,315,368</b>	<b>\$2,710,014</b>	<b>\$8,025,382</b>	<b>\$4,189,850</b>	<b>1.39</b>	<b>2.09</b>	<b>12.47%</b>
<b>2009</b>												
Mass PRIM AIVY 2009	2009	\$1,000,000	\$756,264	\$243,736	\$109	\$613,451	\$161,001	\$774,452	\$530,607	2.52	3.18	21.27%
<b>Total 2009</b>		<b>\$1,000,000</b>	<b>\$756,264</b>	<b>\$243,736</b>	<b>\$109</b>	<b>\$613,451</b>	<b>\$161,001</b>	<b>\$774,452</b>	<b>\$530,607</b>	<b>2.52</b>	<b>3.18</b>	<b>21.27%</b>



# MWRA Employees' Retirement System

## 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
<b>2010</b>												
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	\$67,500	\$2,932,500	\$0	\$3,177,966	\$6,096,181	\$9,274,147	\$6,341,647	1.08	3.16	15.78%
Mass PRIM AIVY 2010	2010	\$1,000,000	\$444,276	\$555,724	\$180	\$1,110,950	\$887,561	\$1,998,511	\$1,442,606	2.00	3.60	20.88%
<b>Total 2010</b>		<b>\$4,000,000</b>	<b>\$511,776</b>	<b>\$3,488,224</b>	<b>\$180</b>	<b>\$4,288,915</b>	<b>\$6,983,742</b>	<b>\$11,272,657</b>	<b>\$7,784,253</b>	<b>1.23</b>	<b>3.23</b>	<b>16.55%</b>
<b>2011</b>												
Mass PRIM AIVY 2011	2011	\$1,500,000	\$517,547	\$982,453	\$159	\$1,955,977	\$1,108,210	\$3,064,187	\$2,081,575	1.99	3.12	21.48%
<b>Total 2011</b>		<b>\$1,500,000</b>	<b>\$517,547</b>	<b>\$982,453</b>	<b>\$159</b>	<b>\$1,955,977</b>	<b>\$1,108,210</b>	<b>\$3,064,187</b>	<b>\$2,081,575</b>	<b>1.99</b>	<b>3.12</b>	<b>21.48%</b>
<b>2012</b>												
Mass PRIM AIVY 2012	2012	\$1,000,000	\$480,765	\$519,235	\$44	\$667,693	\$845,930	\$1,513,623	\$994,344	1.29	2.91	21.05%
<b>Total 2012</b>		<b>\$1,000,000</b>	<b>\$480,765</b>	<b>\$519,235</b>	<b>\$44</b>	<b>\$667,693</b>	<b>\$845,930</b>	<b>\$1,513,623</b>	<b>\$994,344</b>	<b>1.29</b>	<b>2.91</b>	<b>21.05%</b>
<b>2013</b>												
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	\$1,041,645	\$3,958,355	\$0	\$12,610,471	\$1,489,373	\$14,099,844	\$10,141,489	3.19	3.56	21.47%
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	\$819,506	\$2,180,494	-\$9,117	\$2,060,199	\$1,256,435	\$3,316,634	\$1,145,257	0.95	1.53	13.96%
<b>Total 2013</b>		<b>\$8,000,000</b>	<b>\$1,861,151</b>	<b>\$6,138,849</b>	<b>-\$9,117</b>	<b>\$14,670,670</b>	<b>\$2,745,808</b>	<b>\$17,416,478</b>	<b>\$11,286,746</b>	<b>2.39</b>	<b>2.84</b>	<b>20.34%</b>
<b>2014</b>												
Alcentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	\$4,736,966	\$263,034	\$26,581	\$1,404,489	\$201,615	\$1,606,103	\$1,316,488	4.85	5.55	7.46%
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	\$180,000	\$2,820,000	\$0	\$0	\$3,366,212	\$3,366,212	\$546,212	0.00	1.19	4.44%
Mass PRIM AIVY 2014	2014	\$2,000,000	\$801,509	\$1,198,491	\$0	\$1,142,412	\$2,507,907	\$3,650,319	\$2,451,828	0.95	3.05	27.12%
<b>Total 2014</b>		<b>\$10,000,000</b>	<b>\$5,718,475</b>	<b>\$4,281,525</b>	<b>\$26,581</b>	<b>\$2,546,900</b>	<b>\$6,075,734</b>	<b>\$8,622,635</b>	<b>\$4,314,529</b>	<b>0.59</b>	<b>2.00</b>	<b>10.76%</b>
<b>2015</b>												
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	\$0	\$268,205	\$0	\$407,252	\$1,114,912	\$1,522,164	\$1,253,959	1.52	5.68	40.50%
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	\$757,272	\$4,242,728	-\$40,917	\$984,075	\$2,075,064	\$3,059,139	-\$1,142,672	0.23	0.73	-9.06%
<b>Total 2015</b>		<b>\$5,268,205</b>	<b>\$757,272</b>	<b>\$4,510,933</b>	<b>-\$40,917</b>	<b>\$1,391,327</b>	<b>\$3,189,976</b>	<b>\$4,581,303</b>	<b>\$111,287</b>	<b>0.31</b>	<b>1.02</b>	<b>0.68%</b>
<b>2016</b>												
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	\$32,164	\$967,836	\$0	\$800,101	\$53,007	\$853,108	-\$114,728	0.83	0.88	-3.41%
JFL Equity Investors IV, L.P.	2016	\$6,000,000	\$250,581	\$5,749,419	\$61,053	\$12,667,814	\$2,263,850	\$14,931,664	\$9,121,192	2.18	2.57	38.95%
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	\$696,778	\$3,303,222	\$14,068	\$1,755,480	\$5,133,914	\$6,889,394	\$3,572,104	0.53	2.08	25.21%
<b>Total 2016</b>		<b>\$11,000,000</b>	<b>\$979,524</b>	<b>\$10,020,476</b>	<b>\$75,121</b>	<b>\$15,223,395</b>	<b>\$7,450,771</b>	<b>\$22,674,166</b>	<b>\$12,578,569</b>	<b>1.51</b>	<b>2.25</b>	<b>29.53%</b>



# MWRA Employees' Retirement System

## 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
<b>2017</b>												
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	\$1,500,000	\$4,500,000	-\$1,229	\$0	\$5,791,881	\$5,791,881	\$1,293,110	0.00	1.29	8.23%
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	\$1,270,927	\$1,729,073	\$11,292	\$95,524	\$2,479,576	\$2,575,100	\$834,735	0.05	1.48	14.36%
Mass PRIM AIVY 2017	2017	\$2,000,000	\$712,848	\$1,287,152	\$26	\$42,404	\$2,461,665	\$2,504,070	\$1,216,892	0.03	1.95	33.10%
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	\$689,867	\$2,310,133	\$0	\$188,932	\$2,693,365	\$2,882,297	\$572,164	0.08	1.25	8.66%
<b>Total 2017</b>		<b>\$14,000,000</b>	<b>\$4,173,642</b>	<b>\$9,826,358</b>	<b>\$10,089</b>	<b>\$326,860</b>	<b>\$13,426,488</b>	<b>\$13,753,348</b>	<b>\$3,916,901</b>	<b>0.03</b>	<b>1.40</b>	<b>12.26%</b>
<b>2020</b>												
Dover Street X, L.P.	2020	\$9,000,000	\$5,220,000	\$3,780,000	\$6,202	\$1,056,042	\$4,874,507	\$5,930,549	\$2,144,347	0.28	1.57	70.91%
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000	\$4,610,942	\$4,389,058	-\$17,882	\$274,864	\$5,968,116	\$6,242,980	\$1,871,804	0.06	1.43	50.43%
JFL Equity Investors V, L.P.	2020	\$9,000,000	\$4,055,106	\$4,944,894	\$0	\$0	\$4,985,061	\$4,985,061	\$40,167	0.00	1.01	0.92%
Mass PRIM AIVY 2020	2020	\$5,000,000	\$2,905,853	\$2,094,147	\$61	\$0	\$2,450,214	\$2,450,214	\$356,006	0.00	1.17	33.60%
<b>Total 2020</b>		<b>\$32,000,000</b>	<b>\$16,791,901</b>	<b>\$15,208,099</b>	<b>-\$11,619</b>	<b>\$1,330,906</b>	<b>\$18,277,898</b>	<b>\$19,608,804</b>	<b>\$4,412,324</b>	<b>0.09</b>	<b>1.29</b>	<b>36.57%</b>
<b>2021</b>												
Mass PRIM AIVY 2021	2021	\$5,000,000	\$3,920,232	\$1,079,768	\$0	\$0	\$1,131,525	\$1,131,525	\$51,756	0.00	1.05	9.00%
<b>Total 2021</b>		<b>\$5,000,000</b>	<b>\$3,920,232</b>	<b>\$1,079,768</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,131,525</b>	<b>\$1,131,525</b>	<b>\$51,756</b>	<b>0.00</b>	<b>1.05</b>	<b>9.00%</b>
<b>Total</b>		<b>\$117,432,926</b>	<b>\$39,599,979</b>	<b>\$77,832,947</b>	<b>\$443,624</b>	<b>\$80,478,752</b>	<b>\$65,168,071</b>	<b>\$145,646,822</b>	<b>\$67,370,251</b>	<b>1.03</b>	<b>1.86</b>	<b>13.59%</b>



# MWRA Employees' Retirement System

## ANALYSIS BY INVESTMENT STRATEGY

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
<b>Buyout</b>												
AIG PEP V Asia, L.P.	2007	\$549,557	\$116,665	\$432,892	\$11,622	\$446,362	\$40,070	\$486,432	\$41,918	1.00	1.09	1.48%
AIG PEP V Europe, L.P.	2007	\$1,636,796	\$551,462	\$1,085,334	\$25,194	\$1,292,083	\$22,011	\$1,314,094	\$203,566	1.16	1.18	2.36%
AIG PEP V Large Market U.S. Buyout, L.P.	2007	\$720,000	\$125,336	\$594,664	-\$11,616	\$935,635	\$91,895	\$1,027,530	\$444,482	1.60	1.76	7.74%
AIG PEP V Preferred Participation Fund, L.P.	2007	\$503,561	-\$42,778	\$546,339	\$28,158	\$1,036,752	\$106,747	\$1,143,499	\$569,002	1.80	1.99	11.36%
JFL Equity Investors IV, L.P.	2016	\$6,000,000	\$250,581	\$5,749,419	\$61,053	\$12,667,814	\$2,263,850	\$14,931,664	\$9,121,192	2.18	2.57	38.95%
JFL Equity Investors V, L.P.	2020	\$9,000,000	\$4,055,106	\$4,944,894	\$0	\$0	\$4,985,061	\$4,985,061	\$40,167	0.00	1.01	0.92%
<b>Total Buyout</b>		<b>\$18,409,914</b>	<b>\$5,056,373</b>	<b>\$13,353,542</b>	<b>\$114,412</b>	<b>\$16,378,646</b>	<b>\$7,509,634</b>	<b>\$23,888,280</b>	<b>\$10,420,327</b>	<b>1.22</b>	<b>1.77</b>	<b>14.74%</b>
<b>Co-Investments</b>												
AIG PEP V Co-Investment, L.P.	2007	\$900,000	\$22,644	\$877,356	\$32,765	\$885,186	\$89,273	\$974,459	\$64,338	0.97	1.07	0.96%
Private Advisors Small Co Coinvestment Fund, L.P.	2016	\$4,000,000	\$696,778	\$3,303,222	\$14,068	\$1,755,480	\$5,133,914	\$6,889,394	\$3,572,104	0.53	2.08	25.21%
<b>Total Co-Investments</b>		<b>\$4,900,000</b>	<b>\$719,422</b>	<b>\$4,180,578</b>	<b>\$46,833</b>	<b>\$2,640,666</b>	<b>\$5,223,187</b>	<b>\$7,863,853</b>	<b>\$3,636,442</b>	<b>0.62</b>	<b>1.86</b>	<b>12.33%</b>
<b>Direct Lending</b>												
Aicentra European Direct Lending Fund I, L.P.	2014	\$5,000,000	\$4,736,966	\$263,034	\$26,581	\$1,404,489	\$201,615	\$1,606,103	\$1,316,488	4.85	5.55	7.46%
Park Square Capital Credit Opportunities III (USD), L.P.	2017	\$3,000,000	\$689,867	\$2,310,133	\$0	\$188,932	\$2,693,365	\$2,882,297	\$572,164	0.08	1.25	8.66%
<b>Total Direct Lending</b>		<b>\$8,000,000</b>	<b>\$5,426,833</b>	<b>\$2,573,167</b>	<b>\$26,581</b>	<b>\$1,593,420</b>	<b>\$2,894,980</b>	<b>\$4,488,400</b>	<b>\$1,888,652</b>	<b>0.61</b>	<b>1.73</b>	<b>7.73%</b>
<b>Distressed</b>												
CVI Credit Value Fund A IV, L.P.	2017	\$6,000,000	\$1,500,000	\$4,500,000	-\$1,229	\$0	\$5,791,881	\$5,791,881	\$1,293,110	0.00	1.29	8.23%
Ironsides Opportunities Fund, L.P.	2017	\$3,000,000	\$1,270,927	\$1,729,073	\$11,292	\$95,524	\$2,479,576	\$2,575,100	\$834,735	0.05	1.48	14.36%
<b>Total Distressed</b>		<b>\$9,000,000</b>	<b>\$2,770,927</b>	<b>\$6,229,073</b>	<b>\$10,063</b>	<b>\$95,524</b>	<b>\$8,271,457</b>	<b>\$8,366,981</b>	<b>\$2,127,846</b>	<b>0.02</b>	<b>1.34</b>	<b>9.87%</b>
<b>Energy</b>												
Kayne Anderson Energy Fund VII, L.P.	2015	\$5,000,000	\$757,272	\$4,242,728	-\$40,917	\$984,075	\$2,075,064	\$3,059,139	-\$1,142,672	0.23	0.73	-9.06%
<b>Total Energy</b>		<b>\$5,000,000</b>	<b>\$757,272</b>	<b>\$4,242,728</b>	<b>-\$40,917</b>	<b>\$984,075</b>	<b>\$2,075,064</b>	<b>\$3,059,139</b>	<b>-\$1,142,672</b>	<b>0.23</b>	<b>0.73</b>	<b>-9.06%</b>
<b>Fund of Funds</b>												
Hamilton Lane Secondary Fund V, L.P.	2020	\$9,000,000	\$4,610,942	\$4,389,058	-\$17,882	\$274,864	\$5,968,116	\$6,242,980	\$1,871,804	0.06	1.43	50.43%
Invesco Fund IV, L.P.	2004	\$3,000,000	\$717,234	\$2,282,766	\$232,198	\$4,844,802	\$0	\$4,844,802	\$2,329,837	1.93	1.93	10.33%
Invesco Partnership Fund VI, L.P.	2013	\$5,000,000	\$1,041,645	\$3,958,355	\$0	\$12,610,471	\$1,489,373	\$14,099,844	\$10,141,489	3.19	3.56	21.47%
Mass PRIM AIVY 2008	2008	\$3,000,000	\$1,106,681	\$1,893,319	\$2,212	\$3,668,477	\$1,040,193	\$4,708,670	\$2,813,138	1.94	2.48	17.57%
Mass PRIM AIVY 2009	2009	\$1,000,000	\$756,264	\$243,736	\$109	\$613,451	\$161,001	\$774,452	\$530,607	2.52	3.18	21.27%
Mass PRIM AIVY 2010	2010	\$1,000,000	\$444,276	\$555,724	\$180	\$1,110,950	\$887,561	\$1,998,511	\$1,442,606	2.00	3.60	20.88%
Mass PRIM AIVY 2011	2011	\$1,500,000	\$517,547	\$982,453	\$159	\$1,955,977	\$1,108,210	\$3,064,187	\$2,081,575	1.99	3.12	21.48%





# MWRA Employees' Retirement System

## ANALYSIS BY INVESTMENT STRATEGY

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
Mass PRIM AIVY 2012	2012	\$1,000,000	\$480,765	\$519,235	\$44	\$667,693	\$845,930	\$1,513,623	\$994,344	1.29	2.91	21.05%
Mass PRIM AIVY 2014	2014	\$2,000,000	\$801,509	\$1,198,491	\$0	\$1,142,412	\$2,507,907	\$3,650,319	\$2,451,828	0.95	3.05	27.12%
Mass PRIM AIVY 2017	2017	\$2,000,000	\$712,848	\$1,287,152	\$26	\$42,404	\$2,461,665	\$2,504,070	\$1,216,892	0.03	1.95	33.10%
Mass PRIM AIVY 2020	2020	\$5,000,000	\$2,905,853	\$2,094,147	\$61	\$0	\$2,450,214	\$2,450,214	\$356,006	0.00	1.17	33.60%
Mass PRIM AIVY 2021	2021	\$5,000,000	\$3,920,232	\$1,079,768	\$0	\$0	\$1,131,525	\$1,131,525	\$51,756	0.00	1.05	9.00%
<b>Total Fund of Funds</b>		<b>\$38,500,000</b>	<b>\$18,015,796</b>	<b>\$20,484,204</b>	<b>\$217,107</b>	<b>\$26,931,500</b>	<b>\$20,051,695</b>	<b>\$46,983,196</b>	<b>\$26,281,884</b>	<b>1.30</b>	<b>2.27</b>	<b>17.34%</b>
<b>Growth Equity</b>												
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	2007	\$900,000	\$185,690	\$714,310	-\$9,254	\$1,267,194	\$92,082	\$1,359,276	\$654,220	1.80	1.93	9.73%
<b>Total Growth Equity</b>		<b>\$900,000</b>	<b>\$185,690</b>	<b>\$714,310</b>	<b>-\$9,254</b>	<b>\$1,267,194</b>	<b>\$92,082</b>	<b>\$1,359,276</b>	<b>\$654,220</b>	<b>1.80</b>	<b>1.93</b>	<b>9.73%</b>
<b>Secondaries</b>												
AIG PEP V Secondary, L.P.	2007	\$600,000	\$181,881	\$418,119	\$17,277	\$572,819	\$33,880	\$606,699	\$171,303	1.32	1.39	6.77%
Dover Street X, L.P.	2020	\$9,000,000	\$5,220,000	\$3,780,000	\$6,202	\$1,056,042	\$4,874,507	\$5,930,549	\$2,144,347	0.28	1.57	70.91%
Landmark Equity Partners XV, L.P.	2013	\$3,000,000	\$819,506	\$2,180,494	-\$9,117	\$2,060,199	\$1,256,435	\$3,316,634	\$1,145,257	0.95	1.53	13.96%
<b>Total Secondaries</b>		<b>\$12,600,000</b>	<b>\$6,221,387</b>	<b>\$6,378,613</b>	<b>\$14,362</b>	<b>\$3,689,060</b>	<b>\$6,164,822</b>	<b>\$9,853,882</b>	<b>\$3,460,907</b>	<b>0.58</b>	<b>1.54</b>	<b>17.55%</b>
<b>Venture Capital</b>												
AIG PEP V US Venture, L.P.	2007	\$480,000	\$61,615	\$418,385	\$12,941	\$857,246	\$45,052	\$902,298	\$470,972	1.99	2.09	13.07%
Ascent Venture Partners II, L.P.	1995	\$774,807	\$0	\$774,807	\$0	\$2,571,916	\$0	\$2,571,916	\$1,797,109	3.32	3.32	26.71%
Ascent Venture Partners IV(B), L.P.	2016	\$1,000,000	\$32,164	\$967,836	\$0	\$800,101	\$53,007	\$853,108	-\$114,728	0.83	0.88	-3.41%
Ascent Venture Partners IV, L.P.	2004	\$2,000,000	\$0	\$2,000,000	\$0	\$334,111	\$5,998	\$340,109	-\$1,659,891	0.17	0.17	-27.03%
Ascent Venture Partners V, L.P.	2008	\$2,000,000	\$60,000	\$1,940,000	\$0	\$1,646,891	\$1,669,821	\$3,316,712	\$1,376,712	0.85	1.71	7.68%
Ascent Venture Partners VI, L.P.	2014	\$3,000,000	\$180,000	\$2,820,000	\$0	\$0	\$3,366,212	\$3,366,212	\$546,212	0.00	1.19	4.44%
Boston Capital Venture Fund III, L.P.	1993	\$800,000	\$0	\$800,000	\$0	\$1,199,402	\$0	\$1,199,402	\$399,402	1.50	1.50	8.87%
Castile Ventures III, L.P.	2007	\$3,000,000	\$0	\$3,000,000	\$51,496	\$852,796	\$0	\$852,796	-\$2,198,700	0.28	0.28	-36.97%
Foundry Venture Capital 2007, L.P.	2007	\$3,000,000	\$45,000	\$2,955,000	\$0	\$14,506,308	\$533,967	\$15,040,275	\$12,085,275	4.91	5.09	42.80%
Foundry Venture Capital 2010 Annex, L.P.	2015	\$268,205	\$0	\$268,205	\$0	\$407,252	\$1,114,912	\$1,522,164	\$1,253,959	1.52	5.68	40.50%
Foundry Venture Capital 2010, L.P.	2010	\$3,000,000	\$67,500	\$2,932,500	\$0	\$3,177,966	\$6,096,181	\$9,274,147	\$6,341,647	1.08	3.16	15.78%
Ticonderoga Concord Partners III, L.P.	1995	\$800,000	\$0	\$800,000	\$0	\$544,677	\$0	\$544,677	-\$255,323	0.68	0.68	-8.06%
<b>Total Venture Capital</b>		<b>\$20,123,012</b>	<b>\$446,279</b>	<b>\$19,676,733</b>	<b>\$64,437</b>	<b>\$26,898,666</b>	<b>\$12,885,150</b>	<b>\$39,783,816</b>	<b>\$20,042,646</b>	<b>1.36</b>	<b>2.02</b>	<b>12.64%</b>
<b>Total</b>		<b>\$117,432,926</b>	<b>\$39,599,979</b>	<b>\$77,832,947</b>	<b>\$443,624</b>	<b>\$80,478,752</b>	<b>\$65,168,071</b>	<b>\$145,646,822</b>	<b>\$67,370,251</b>	<b>1.03</b>	<b>1.86</b>	<b>13.59%</b>



# MWRA Employees' Retirement System

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
AIG PEP V Asia, L.P.	12/31/2021	6,330		-190	-20,707	-14,567
<b>Total: AIG PEP V Asia, L.P.</b>		<b>6,330</b>		<b>-190</b>	<b>-20,707</b>	<b>-14,567</b>
AIG PEP V Large Market U.S. Buyout, L.P.	12/31/2021	7,500		-942	-73,363	-66,805
<b>Total: AIG PEP V Large Market U.S. Buyout, L.P.</b>		<b>7,500</b>		<b>-942</b>	<b>-73,363</b>	<b>-66,805</b>
AIG PEP V Preferred Participation Fund, L.P.	12/31/2021	46,677			-258,099	-211,422
<b>Total: AIG PEP V Preferred Participation Fund, L.P.</b>		<b>46,677</b>			<b>-258,099</b>	<b>-211,422</b>
AIG PEP V Secondary, L.P.	12/31/2021	9,828			-12,963	-3,135
<b>Total: AIG PEP V Secondary, L.P.</b>		<b>9,828</b>			<b>-12,963</b>	<b>-3,135</b>
AIG PEP V Small-Mid Market U.S. Buyout, L.P.	12/31/2021	8,766		-53	-32,079	-23,366
<b>Total: AIG PEP V Small-Mid Market U.S. Buyout, L.P.</b>		<b>8,766</b>		<b>-53</b>	<b>-32,079</b>	<b>-23,366</b>
AIG PEP V US Venture, L.P.	12/31/2021	10,249			-68,559	-58,310
<b>Total: AIG PEP V US Venture, L.P.</b>		<b>10,249</b>			<b>-68,559</b>	<b>-58,310</b>
Alcentra European Direct Lending Fund I, L.P.	12/31/2021				-27,669	-27,669
<b>Total: Alcentra European Direct Lending Fund I, L.P.</b>					<b>-27,669</b>	<b>-27,669</b>
Ascent Venture Partners IV(B), L.P.	12/31/2021				-5,152	-5,152
<b>Total: Ascent Venture Partners IV(B), L.P.</b>					<b>-5,152</b>	<b>-5,152</b>
Ascent Venture Partners V, L.P.	12/31/2021				-348,680	-348,680
<b>Total: Ascent Venture Partners V, L.P.</b>					<b>-348,680</b>	<b>-348,680</b>
CVI Credit Value Fund A IV, L.P.	10/31/2021			-300,000		-300,000
<b>Total: CVI Credit Value Fund A IV, L.P.</b>				<b>-300,000</b>		<b>-300,000</b>



# MWRA Employees' Retirement System

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
Dover Street X, L.P.	12/31/2021	450,000			-385,627	64,373
<b>Total: Dover Street X, L.P.</b>		<b>450,000</b>			<b>-385,627</b>	<b>64,373</b>
Foundry Venture Capital 2010 Annex, L.P.	12/31/2021				-75,236	-75,236
<b>Total: Foundry Venture Capital 2010 Annex, L.P.</b>					<b>-75,236</b>	<b>-75,236</b>
Foundry Venture Capital 2010, L.P.	12/31/2021				-973,301	-973,301
<b>Total: Foundry Venture Capital 2010, L.P.</b>					<b>-973,301</b>	<b>-973,301</b>
Hamilton Lane Secondary Fund V, L.P.	10/31/2021	515,371				515,371
	12/31/2021				-274,864	-274,864
<b>Total: Hamilton Lane Secondary Fund V, L.P.</b>		<b>515,371</b>			<b>-274,864</b>	<b>240,507</b>
Invesco Partnership Fund VI, L.P.	10/31/2021				-823,972	-823,972
	11/30/2021				-1,521,179	-1,521,179
<b>Total: Invesco Partnership Fund VI, L.P.</b>					<b>-2,345,151</b>	<b>-2,345,151</b>
Ironsides Opportunities Fund, L.P.	10/31/2021	87,829		-205,198	9,411	-107,958
<b>Total: Ironsides Opportunities Fund, L.P.</b>		<b>87,829</b>		<b>-205,198</b>	<b>9,411</b>	<b>-107,958</b>
JFL Equity Investors IV, L.P.	11/30/2021				-4,900,324	-4,900,324
<b>Total: JFL Equity Investors IV, L.P.</b>					<b>-4,900,324</b>	<b>-4,900,324</b>
Landmark Equity Partners XV, L.P.	10/31/2021				-88,847	-88,847
	11/30/2021				-16,604	-16,604
	12/31/2021				-191,494	-191,494
<b>Total: Landmark Equity Partners XV, L.P.</b>					<b>-296,945</b>	<b>-296,945</b>
Mass PRIM AIVY 2008	10/31/2021				-34,432	-34,432



# MWRA Employees' Retirement System

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
	11/30/2021				-15,461	-15,461
	12/31/2021				-42,539	-42,539
<b>Total: Mass PRIM AIVY 2008</b>					<b>-92,432</b>	<b>-92,432</b>
Mass PRIM AIVY 2009	10/31/2021				-1,752	-1,752
	11/30/2021				-7,370	-7,370
	12/31/2021				-1,276	-1,276
<b>Total: Mass PRIM AIVY 2009</b>					<b>-10,398</b>	<b>-10,398</b>
Mass PRIM AIVY 2010	10/31/2021				-70,092	-70,092
	11/30/2021				-21,901	-21,901
	12/31/2021	1,680				1,680
<b>Total: Mass PRIM AIVY 2010</b>		<b>1,680</b>			<b>-91,994</b>	<b>-90,314</b>
Mass PRIM AIVY 2011	10/31/2021				-46,471	-46,471
	11/30/2021				-39,933	-39,933
	12/31/2021				-8,974	-8,974
<b>Total: Mass PRIM AIVY 2011</b>					<b>-95,378</b>	<b>-95,378</b>
Mass PRIM AIVY 2012	10/31/2021				-7,900	-7,900
	11/30/2021				-28,339	-28,339
	12/31/2021				-13,051	-13,051
<b>Total: Mass PRIM AIVY 2012</b>					<b>-49,289</b>	<b>-49,289</b>
Mass PRIM AIVY 2014	10/31/2021				-73,446	-73,446
	11/30/2021				-124,616	-124,616
	12/31/2021				-12,654	-12,654
<b>Total: Mass PRIM AIVY 2014</b>					<b>-210,717</b>	<b>-210,717</b>
Mass PRIM AIVY 2017	10/31/2021	5,731				5,731



# MWRA Employees' Retirement System

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
	11/30/2021	32,662				32,662
	12/31/2021	1,052				1,052
<b>Total: Mass PRIM AIVY 2017</b>		<b>39,445</b>				<b>39,445</b>
Mass PRIM AIVY 2020	10/31/2021	122,004				122,004
	11/30/2021	340,307				340,307
	12/31/2021	342,112				342,112
<b>Total: Mass PRIM AIVY 2020</b>		<b>804,423</b>				<b>804,423</b>
Mass PRIM AIVY 2021	10/31/2021	96,173				96,173
	11/30/2021	161,155				161,155
	12/31/2021	110,339				110,339
<b>Total: Mass PRIM AIVY 2021</b>		<b>367,668</b>				<b>367,668</b>
Park Square Capital Credit Opportunities III (USD), L.P.	11/30/2021				-45,185	-45,185
<b>Total: Park Square Capital Credit Opportunities III (USD), L.P.</b>					<b>-45,185</b>	<b>-45,185</b>
Private Advisors Small Co Coinvestment Fund, L.P.	10/31/2021	81,315			-436,840	-355,524
<b>Total: Private Advisors Small Co Coinvestment Fund, L.P.</b>		<b>81,315</b>			<b>-436,840</b>	<b>-355,524</b>
<b>Grand Total</b>		<b>2,437,082</b>		<b>-506,383</b>	<b>-11,121,540</b>	<b>-9,190,841</b>



# GLOSSARY OF TERMS

- **Commitment Amount** – The amount an investor has committed to invest with the General Partner
- **Paid In Capital** – The amount an investor has contributed for investments and management fees
- **Capital to be Funded** – The remaining amount an investor contractually has left to fund its commitments
- **Additional Fees** – Fees that are outside the capital commitment, also includes interest paid/received due from subsequent closings of the fund
- **Cumulative Distributions** – The amount an investor has received from realized and partially realized investments
- **Valuation** – Sum of the fair market value of all investments plus cash
- **Call Ratio** – Calculated by dividing Amount Funded by Capital Committed
- **DPI Ratio** - Calculated by dividing Amount Distributed by Amount Funded
- **Market Exposure** – Calculated by adding Reported Value plus Unfunded Commitments
- **Total Value** – Calculated by adding Amount Distributed and Reported Value. Represents the total amount an investor should expect to receive from their investments
- **Net Benefit** – Calculated by subtracting Total Value by Capital to be Funded plus Additional Fees
- **Total Value to Paid In Capital Ratio** – Calculated by dividing Total Value by Amount Funded. Represents the multiple of the overall cash invested that an investor is expected to receive
- **IRR** - The calculation of the IRR (Internal Rate of Return) takes into consideration the timing of cash contributions and distributions to and from the partnerships, the length of time the investments have been held and the sum of the Reported Value
- **Index Comparison Method (ICM)** – represents the hypothetical IRR of a private investment program that is computed by assuming the fund flows were invested in and out of a publicly traded index. The resulting hypothetical market value of the program is then used with the program’s actual cash flows to compute a hypothetical IRR. This hypothetical IRR can be compared with the actual IRR to determine whether the private investment program outperformed the publicly traded index
- **Valuation ICM** – The valuation equivalent that ICM calculates for the public market is called valuation ICM
- **KS PME** – The Kaplan Schoar Public Markets Equivalent is a ratio of the future value of all distributions divided by the future value of all contributions using the index return as the discount rate. The ending valuation is treated as a distribution in this method
- **IRR ICM** – The IRR equivalent that ICM calculates for the public market is called IRR ICM



# QUARTERLY PERFORMANCE REPORT

## MWRA Employees' Retirement System

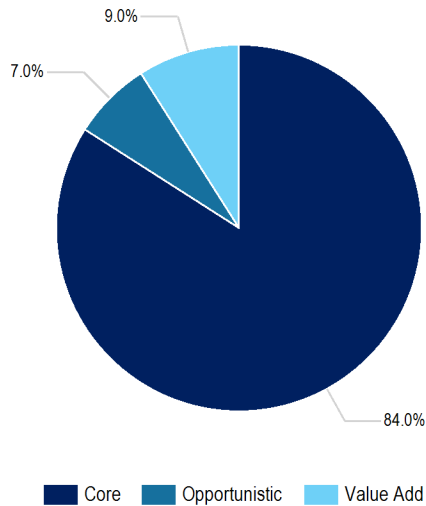
December 31, 2021



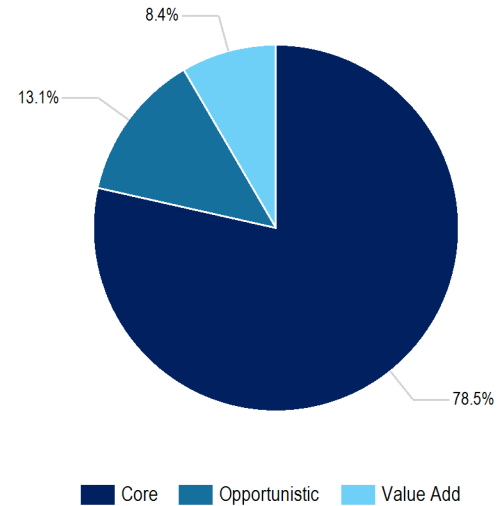
BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

# MWRA Employees' Retirement System ANALYSIS BY STRATEGY

Private Markets Valuation by Strategy



Private Markets Fund Exposure by Strategy



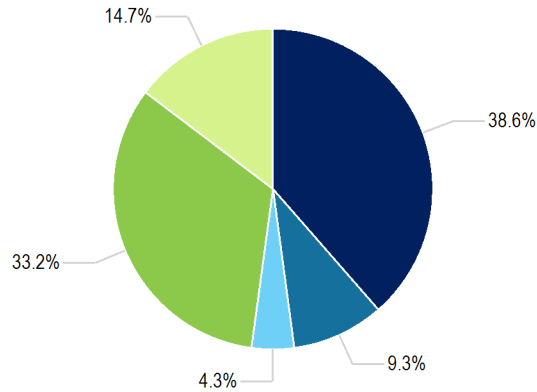
Investments	Commitments			Contributions & Distributions			Valuations				Performance		
	Investment Strategy	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI
Total Core	\$52,587,180	\$0	1.00	\$52,587,180	\$38,018	\$36,280,006	\$50,087,285	\$86,367,292	\$33,742,094	\$50,087,285	0.69	1.64	11.16%
Total Opportunistic	\$14,500,000	\$4,186,924	0.71	\$10,313,076	\$4,898	\$9,288,704	\$4,145,350	\$13,434,055	\$3,116,081	\$8,332,275	0.90	1.30	5.45%
Total Value Add	\$14,610,264	\$0	1.00	\$14,610,264	\$3,600	\$16,036,712	\$5,371,721	\$21,408,433	\$6,794,569	\$5,371,721	1.10	1.46	9.94%
<b>Total</b>	<b>\$81,697,444</b>	<b>\$4,186,924</b>	<b>0.95</b>	<b>\$77,510,520</b>	<b>\$46,516</b>	<b>\$61,605,423</b>	<b>\$59,604,357</b>	<b>\$121,209,780</b>	<b>\$43,652,745</b>	<b>\$63,791,281</b>	<b>0.79</b>	<b>1.56</b>	<b>10.13%</b>





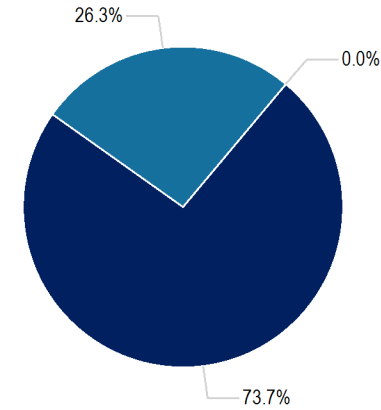
# MWRA Employees' Retirement System ANALYSIS BY LIFECYCLE

Commitment by Lifecycle



Investing Harvesting Liquidating Completed Open End

Unfunded Commitment by Lifecycle



Investing Harvesting Completed

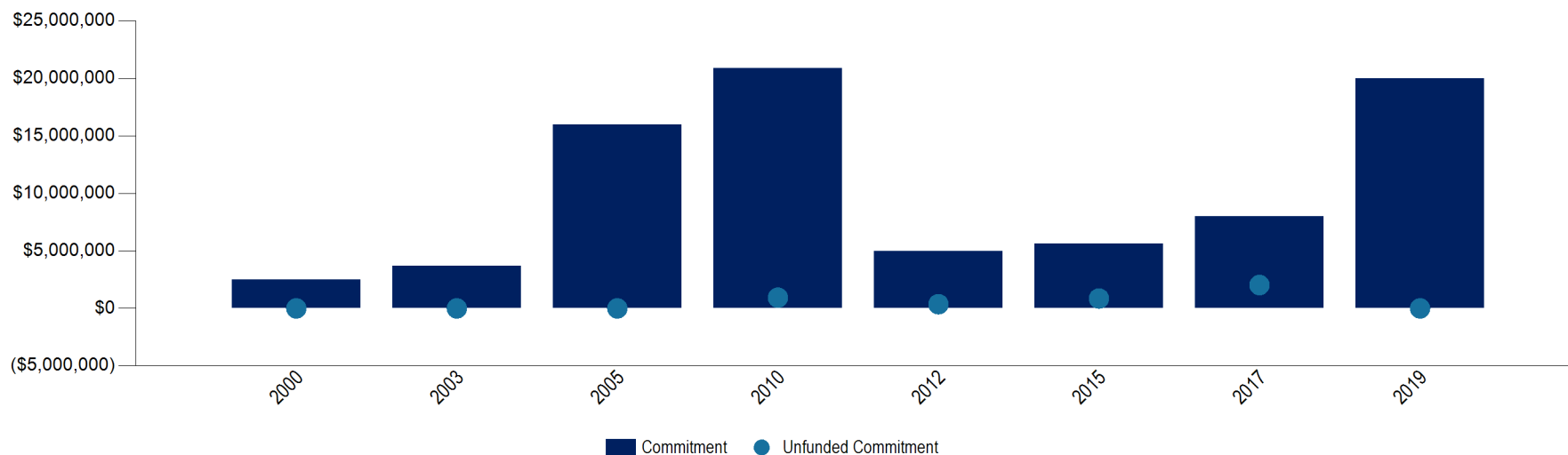
Lifecycle	Commitments			Contributions & Distributions			Valuations			Performance			
	Investments	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total Investing		\$31,500,000	\$3,085,658	0.90	\$28,414,342	\$58,505	\$7,659,997	\$32,431,062	\$40,091,058	\$11,618,212	0.27	1.41	12.88%
Total Harvesting		\$7,610,264	\$1,101,266	0.86	\$6,508,998	-\$22,921	\$6,682,984	\$2,665,701	\$9,348,685	\$2,862,608	1.03	1.44	11.47%
Total Liquidating		\$3,500,000	\$0	1.00	\$3,500,000	\$10,932	\$5,577,112	\$29,839	\$5,606,951	\$2,096,019	1.59	1.60	12.51%
Total Completed		\$27,087,180	\$0	1.00	\$27,087,180	\$0	\$41,685,330	\$0	\$41,685,330	\$14,598,150	1.54	1.54	8.20%
Total Open End		\$12,000,000	\$0	1.00	\$12,000,000	\$0	\$0	\$24,477,755	\$24,477,755	\$12,477,755	0.00	2.04	13.14%
<b>Total</b>		<b>\$81,697,444</b>	<b>\$4,186,924</b>	<b>0.95</b>	<b>\$77,510,520</b>	<b>\$46,516</b>	<b>\$61,605,423</b>	<b>\$59,604,357</b>	<b>\$121,209,780</b>	<b>\$43,652,745</b>	<b>0.79</b>	<b>1.56</b>	<b>10.13%</b>



# MWRA Employees' Retirement System

## ANALYSIS BY VINTAGE YEAR

Commitments By Vintage Year



Vintage Year	Commitments			Contributions & Distributions			Valuations			Performance		
	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total 2000	\$2,500,000	\$0	1.00	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
Total 2003	\$3,687,180	\$0	1.00	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
Total 2005	\$16,000,000	\$0	1.00	\$16,000,000	\$0	\$2,442,038	\$24,477,755	\$26,919,793	\$10,919,793	0.15	1.68	7.43%
Total 2010	\$20,900,000	\$935,470	0.96	\$19,964,530	-\$1,167	\$31,248,024	\$655,594	\$31,903,618	\$11,940,255	1.57	1.60	10.22%
Total 2012	\$5,000,000	\$365,369	0.93	\$4,634,631	\$10,932	\$7,277,502	\$679,424	\$7,956,926	\$3,311,363	1.57	1.71	12.96%
Total 2015	\$5,610,264	\$855,796	0.85	\$4,754,468	-\$27,350	\$4,046,967	\$2,571,900	\$6,618,867	\$1,891,749	0.86	1.40	8.74%
Total 2017	\$8,000,000	\$2,030,290	0.75	\$5,969,710	\$26,083	\$2,866,462	\$5,610,153	\$8,476,615	\$2,480,821	0.48	1.41	11.58%
Total 2019	\$20,000,000	\$0	1.00	\$20,000,000	\$38,018	\$1,851,470	\$25,609,530	\$27,461,000	\$7,422,983	0.09	1.37	15.12%
<b>Total</b>	<b>\$81,697,444</b>	<b>\$4,186,924</b>	<b>0.95</b>	<b>\$77,510,520</b>	<b>\$46,516</b>	<b>\$61,605,423</b>	<b>\$59,604,357</b>	<b>\$121,209,780</b>	<b>\$43,652,745</b>	<b>0.79</b>	<b>1.56</b>	<b>10.13%</b>



# APPENDIX

## MWRA Employees' Retirement System

December 31, 2021



# MWRA Employees' Retirement System

## RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %						
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000							16.26%
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000							-9.85%
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	11.80%	64.31%	64.31%	20.70%	11.35%		13.90%
Corporate Property Associates 15 Incorporated	2003	\$3,687,180							9.08%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000							-6.40%
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	-0.04%	10.07%	10.07%	-9.88%	3.02%		6.51%
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	18.63%	13.65%	13.65%	-10.41%	-3.76%	12.74%	19.67%
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	9.04%	30.85%	30.85%	15.66%			18.46%
Mass PRIM Real Estate 2010	2010	\$16,900,000							10.01%
Prime Property Fund, LLC	2005	\$12,000,000	9.60%	21.48%	21.48%	9.66%	9.31%	10.80%	13.14%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	0.00%	4.45%	4.45%	-3.10%	1.70%		6.03%
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	-0.89%	3.01%	3.01%	14.59%	13.18%		12.51%
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	8.33%	29.26%	29.26%				15.12%
TerraCap Partners III, L.P.	2015	\$2,610,264	-0.57%	1.87%	1.87%	2.21%	8.33%		9.89%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	11.33%	17.38%	17.38%	10.00%			10.05%
<b>Total</b>		<b>\$81,697,444</b>	<b>8.58%</b>	<b>23.96%</b>	<b>23.96%</b>	<b>10.90%</b>	<b>9.92%</b>	<b>11.23%</b>	<b>10.13%</b>



# MWRA Employees' Retirement System

## ANALYSIS BY FUND

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
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000	\$0	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,236,567	\$0	\$1,236,567	-\$763,433	0.62	0.62	-9.85%
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	\$365,369	\$1,134,631	\$0	\$1,700,390	\$649,585	\$2,349,975	\$1,215,344	1.50	2.07	13.90%
Corporate Property Associates 15 Incorporated	2003	\$3,687,180	\$0	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,205,471	\$0	\$1,205,471	-\$794,529	0.60	0.60	-6.40%
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	\$855,796	\$2,144,204	\$0	\$1,635,229	\$980,203	\$2,615,432	\$471,228	0.76	1.22	6.51%
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	\$245,470	\$1,754,530	\$4,429	\$2,636,017	\$93,801	\$2,729,818	\$970,859	1.50	1.55	19.67%
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	\$2,030,290	\$1,969,710	\$6,065	\$869,923	\$1,859,968	\$2,729,891	\$754,115	0.44	1.38	18.46%
Mass PRIM Real Estate 2010	2010	\$16,900,000	\$0	\$16,900,000	\$0	\$27,370,332	\$0	\$27,370,332	\$10,470,332	1.62	1.62	10.01%
Prime Property Fund, LLC	2005	\$12,000,000	\$0	\$12,000,000	\$0	\$0	\$24,477,755	\$24,477,755	\$12,477,755	0.00	2.04	13.14%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	\$690,000	\$1,310,000	-\$5,596	\$1,241,675	\$561,793	\$1,803,468	\$499,064	0.95	1.38	6.03%
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	\$0	\$3,500,000	\$10,932	\$5,577,112	\$29,839	\$5,606,951	\$2,096,019	1.59	1.60	12.51%
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	\$0	\$20,000,000	\$38,018	\$1,851,470	\$25,609,530	\$27,461,000	\$7,422,983	0.09	1.37	15.12%
TerraCap Partners III, L.P.	2015	\$2,610,264	\$0	\$2,610,264	-\$27,350	\$2,411,738	\$1,591,697	\$4,003,435	\$1,420,521	0.93	1.55	9.89%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	\$0	\$4,000,000	\$20,018	\$1,996,539	\$3,750,185	\$5,746,724	\$1,726,706	0.50	1.43	10.05%
<b>Total</b>		<b>\$81,697,444</b>	<b>\$4,186,924</b>	<b>\$77,510,520</b>	<b>\$46,516</b>	<b>\$61,605,423</b>	<b>\$59,604,357</b>	<b>\$121,209,780</b>	<b>\$43,652,745</b>	<b>0.79</b>	<b>1.56</b>	<b>10.13%</b>



# MWRA Employees' Retirement System

## ANALYSIS BY LIFECYCLE

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
<b>Investing</b>												
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	\$365,369	\$1,134,631	\$0	\$1,700,390	\$649,585	\$2,349,975	\$1,215,344	1.50	2.07	13.90%
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	\$2,030,290	\$1,969,710	\$6,065	\$869,923	\$1,859,968	\$2,729,891	\$754,115	0.44	1.38	18.46%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	\$690,000	\$1,310,000	-\$5,596	\$1,241,675	\$561,793	\$1,803,468	\$499,064	0.95	1.38	6.03%
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	\$0	\$20,000,000	\$38,018	\$1,851,470	\$25,609,530	\$27,461,000	\$7,422,983	0.09	1.37	15.12%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	\$0	\$4,000,000	\$20,018	\$1,996,539	\$3,750,185	\$5,746,724	\$1,726,706	0.50	1.43	10.05%
<b>Total Investing</b>		<b>\$31,500,000</b>	<b>\$3,085,658</b>	<b>\$28,414,342</b>	<b>\$58,505</b>	<b>\$7,659,997</b>	<b>\$32,431,062</b>	<b>\$40,091,058</b>	<b>\$11,618,212</b>	<b>0.27</b>	<b>1.41</b>	<b>12.88%</b>
<b>Harvesting</b>												
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	\$855,796	\$2,144,204	\$0	\$1,635,229	\$980,203	\$2,615,432	\$471,228	0.76	1.22	6.51%
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	\$245,470	\$1,754,530	\$4,429	\$2,636,017	\$93,801	\$2,729,818	\$970,859	1.50	1.55	19.67%
TerraCap Partners III, L.P.	2015	\$2,610,264	\$0	\$2,610,264	-\$27,350	\$2,411,738	\$1,591,697	\$4,003,435	\$1,420,521	0.93	1.55	9.89%
<b>Total Harvesting</b>		<b>\$7,610,264</b>	<b>\$1,101,266</b>	<b>\$6,508,998</b>	<b>-\$22,921</b>	<b>\$6,682,984</b>	<b>\$2,665,701</b>	<b>\$9,348,685</b>	<b>\$2,862,608</b>	<b>1.03</b>	<b>1.44</b>	<b>11.47%</b>
<b>Liquidating</b>												
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	\$0	\$3,500,000	\$10,932	\$5,577,112	\$29,839	\$5,606,951	\$2,096,019	1.59	1.60	12.51%
<b>Total Liquidating</b>		<b>\$3,500,000</b>	<b>\$0</b>	<b>\$3,500,000</b>	<b>\$10,932</b>	<b>\$5,577,112</b>	<b>\$29,839</b>	<b>\$5,606,951</b>	<b>\$2,096,019</b>	<b>1.59</b>	<b>1.60</b>	<b>12.51%</b>
<b>Completed</b>												
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000	\$0	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,236,567	\$0	\$1,236,567	-\$763,433	0.62	0.62	-9.85%
Corporate Property Associates 15 Incorporated	2003	\$3,687,180	\$0	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,205,471	\$0	\$1,205,471	-\$794,529	0.60	0.60	-6.40%
Mass PRIM Real Estate 2010	2010	\$16,900,000	\$0	\$16,900,000	\$0	\$27,370,332	\$0	\$27,370,332	\$10,470,332	1.62	1.62	10.01%
<b>Total Completed</b>		<b>\$27,087,180</b>	<b>\$0</b>	<b>\$27,087,180</b>	<b>\$0</b>	<b>\$41,685,330</b>	<b>\$0</b>	<b>\$41,685,330</b>	<b>\$14,598,150</b>	<b>1.54</b>	<b>1.54</b>	<b>8.20%</b>
<b>Open End</b>												
Prime Property Fund, LLC	2005	\$12,000,000	\$0	\$12,000,000	\$0	\$0	\$24,477,755	\$24,477,755	\$12,477,755	0.00	2.04	13.14%
<b>Total Open End</b>		<b>\$12,000,000</b>	<b>\$0</b>	<b>\$12,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$24,477,755</b>	<b>\$24,477,755</b>	<b>\$12,477,755</b>	<b>0.00</b>	<b>2.04</b>	<b>13.14%</b>
<b>Total</b>		<b>\$81,697,444</b>	<b>\$4,186,924</b>	<b>\$77,510,520</b>	<b>\$46,516</b>	<b>\$61,605,423</b>	<b>\$59,604,357</b>	<b>\$121,209,780</b>	<b>\$43,652,745</b>	<b>0.79</b>	<b>1.56</b>	<b>10.13%</b>



# MWRA Employees' Retirement System

## 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
<b>2000</b>												
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000	\$0	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
<b>Total 2000</b>		<b>\$2,500,000</b>	<b>\$0</b>	<b>\$2,500,000</b>	<b>\$0</b>	<b>\$4,814,756</b>	<b>\$0</b>	<b>\$4,814,756</b>	<b>\$2,314,756</b>	<b>1.93</b>	<b>1.93</b>	<b>16.26%</b>
<b>2003</b>												
Corporate Property Associates 15 Incorporated	2003	\$3,687,180	\$0	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
<b>Total 2003</b>		<b>\$3,687,180</b>	<b>\$0</b>	<b>\$3,687,180</b>	<b>\$0</b>	<b>\$7,058,204</b>	<b>\$0</b>	<b>\$7,058,204</b>	<b>\$3,371,024</b>	<b>1.91</b>	<b>1.91</b>	<b>9.08%</b>
<b>2005</b>												
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,236,567	\$0	\$1,236,567	-\$763,433	0.62	0.62	-9.85%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,205,471	\$0	\$1,205,471	-\$794,529	0.60	0.60	-6.40%
Prime Property Fund, LLC	2005	\$12,000,000	\$0	\$12,000,000	\$0	\$0	\$24,477,755	\$24,477,755	\$12,477,755	0.00	2.04	13.14%
<b>Total 2005</b>		<b>\$16,000,000</b>	<b>\$0</b>	<b>\$16,000,000</b>	<b>\$0</b>	<b>\$2,442,038</b>	<b>\$24,477,755</b>	<b>\$26,919,793</b>	<b>\$10,919,793</b>	<b>0.15</b>	<b>1.68</b>	<b>7.43%</b>
<b>2010</b>												
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	\$245,470	\$1,754,530	\$4,429	\$2,636,017	\$93,801	\$2,729,818	\$970,859	1.50	1.55	19.67%
Mass PRIM Real Estate 2010	2010	\$16,900,000	\$0	\$16,900,000	\$0	\$27,370,332	\$0	\$27,370,332	\$10,470,332	1.62	1.62	10.01%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	\$690,000	\$1,310,000	-\$5,596	\$1,241,675	\$561,793	\$1,803,468	\$499,064	0.95	1.38	6.03%
<b>Total 2010</b>		<b>\$20,900,000</b>	<b>\$935,470</b>	<b>\$19,964,530</b>	<b>-\$1,167</b>	<b>\$31,248,024</b>	<b>\$655,594</b>	<b>\$31,903,618</b>	<b>\$11,940,255</b>	<b>1.57</b>	<b>1.60</b>	<b>10.22%</b>
<b>2012</b>												
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	\$365,369	\$1,134,631	\$0	\$1,700,390	\$649,585	\$2,349,975	\$1,215,344	1.50	2.07	13.90%
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	\$0	\$3,500,000	\$10,932	\$5,577,112	\$29,839	\$5,606,951	\$2,096,019	1.59	1.60	12.51%
<b>Total 2012</b>		<b>\$5,000,000</b>	<b>\$365,369</b>	<b>\$4,634,631</b>	<b>\$10,932</b>	<b>\$7,277,502</b>	<b>\$679,424</b>	<b>\$7,956,926</b>	<b>\$3,311,363</b>	<b>1.57</b>	<b>1.71</b>	<b>12.96%</b>
<b>2015</b>												
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	\$855,796	\$2,144,204	\$0	\$1,635,229	\$980,203	\$2,615,432	\$471,228	0.76	1.22	6.51%
TerraCap Partners III, L.P.	2015	\$2,610,264	\$0	\$2,610,264	-\$27,350	\$2,411,738	\$1,591,697	\$4,003,435	\$1,420,521	0.93	1.55	9.89%
<b>Total 2015</b>		<b>\$5,610,264</b>	<b>\$855,796</b>	<b>\$4,754,468</b>	<b>-\$27,350</b>	<b>\$4,046,967</b>	<b>\$2,571,900</b>	<b>\$6,618,867</b>	<b>\$1,891,749</b>	<b>0.86</b>	<b>1.40</b>	<b>8.74%</b>
<b>2017</b>												
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	\$2,030,290	\$1,969,710	\$6,065	\$869,923	\$1,859,968	\$2,729,891	\$754,115	0.44	1.38	18.46%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	\$0	\$4,000,000	\$20,018	\$1,996,539	\$3,750,185	\$5,746,724	\$1,726,706	0.50	1.43	10.05%
<b>Total 2017</b>		<b>\$8,000,000</b>	<b>\$2,030,290</b>	<b>\$5,969,710</b>	<b>\$26,083</b>	<b>\$2,866,462</b>	<b>\$5,610,153</b>	<b>\$8,476,615</b>	<b>\$2,480,821</b>	<b>0.48</b>	<b>1.41</b>	<b>11.58%</b>



# MWRA Employees' Retirement System

## 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
<b>2019</b>												
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	\$0	\$20,000,000	\$38,018	\$1,851,470	\$25,609,530	\$27,461,000	\$7,422,983	0.09	1.37	15.12%
<b>Total 2019</b>		<b>\$20,000,000</b>	<b>\$0</b>	<b>\$20,000,000</b>	<b>\$38,018</b>	<b>\$1,851,470</b>	<b>\$25,609,530</b>	<b>\$27,461,000</b>	<b>\$7,422,983</b>	<b>0.09</b>	<b>1.37</b>	<b>15.12%</b>
<b>Total</b>		<b>\$81,697,444</b>	<b>\$4,186,924</b>	<b>\$77,510,520</b>	<b>\$46,516</b>	<b>\$61,605,423</b>	<b>\$59,604,357</b>	<b>\$121,209,780</b>	<b>\$43,652,745</b>	<b>0.79</b>	<b>1.56</b>	<b>10.13%</b>





# MWRA Employees' Retirement System

## ANALYSIS BY INVESTMENT STRATEGY

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
<b>Core</b>												
Corporate Property Associates 15 Incorporated	2003	\$3,687,180	\$0	\$3,687,180	\$0	\$7,058,204	\$0	\$7,058,204	\$3,371,024	1.91	1.91	9.08%
Mass PRIM Real Estate 2010	2010	\$16,900,000	\$0	\$16,900,000	\$0	\$27,370,332	\$0	\$27,370,332	\$10,470,332	1.62	1.62	10.01%
Prime Property Fund, LLC	2005	\$12,000,000	\$0	\$12,000,000	\$0	\$0	\$24,477,755	\$24,477,755	\$12,477,755	0.00	2.04	13.14%
TA Realty Core Property Fund, L.P.	2019	\$20,000,000	\$0	\$20,000,000	\$38,018	\$1,851,470	\$25,609,530	\$27,461,000	\$7,422,983	0.09	1.37	15.12%
<b>Total Core</b>		<b>\$52,587,180</b>	<b>\$0</b>	<b>\$52,587,180</b>	<b>\$38,018</b>	<b>\$36,280,006</b>	<b>\$50,087,285</b>	<b>\$86,367,292</b>	<b>\$33,742,094</b>	<b>0.69</b>	<b>1.64</b>	<b>11.16%</b>
<b>Opportunistic</b>												
Cerberus Institutional Real Estate Partners III, L.P.	2012	\$1,500,000	\$365,369	\$1,134,631	\$0	\$1,700,390	\$649,585	\$2,349,975	\$1,215,344	1.50	2.07	13.90%
Intercontinental Real Estate Investment Fund IV, L.P.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,205,471	\$0	\$1,205,471	-\$794,529	0.60	0.60	-6.40%
Invesco Mortgage Recovery Fund II, L.P.	2015	\$3,000,000	\$855,796	\$2,144,204	\$0	\$1,635,229	\$980,203	\$2,615,432	\$471,228	0.76	1.22	6.51%
Landmark Real Estate Fund VI, L.P.	2010	\$2,000,000	\$245,470	\$1,754,530	\$4,429	\$2,636,017	\$93,801	\$2,729,818	\$970,859	1.50	1.55	19.67%
Landmark Real Estate Partners VIII, L.P.	2017	\$4,000,000	\$2,030,290	\$1,969,710	\$6,065	\$869,923	\$1,859,968	\$2,729,891	\$754,115	0.44	1.38	18.46%
Real Estate Global Partnership Fund II, L.P.	2010	\$2,000,000	\$690,000	\$1,310,000	-\$5,596	\$1,241,675	\$561,793	\$1,803,468	\$499,064	0.95	1.38	6.03%
<b>Total Opportunistic</b>		<b>\$14,500,000</b>	<b>\$4,186,924</b>	<b>\$10,313,076</b>	<b>\$4,898</b>	<b>\$9,288,704</b>	<b>\$4,145,350</b>	<b>\$13,434,055</b>	<b>\$3,116,081</b>	<b>0.90</b>	<b>1.30</b>	<b>5.45%</b>
<b>Value Add</b>												
BlackRock Apartment Value Fund II, L.P.	2000	\$2,500,000	\$0	\$2,500,000	\$0	\$4,814,756	\$0	\$4,814,756	\$2,314,756	1.93	1.93	16.26%
BlackRock Apartment Value Fund III, Inc.	2005	\$2,000,000	\$0	\$2,000,000	\$0	\$1,236,567	\$0	\$1,236,567	-\$763,433	0.62	0.62	-9.85%
TA Associates Realty Fund X, L.P.	2012	\$3,500,000	\$0	\$3,500,000	\$10,932	\$5,577,112	\$29,839	\$5,606,951	\$2,096,019	1.59	1.60	12.51%
TerraCap Partners III, L.P.	2015	\$2,610,264	\$0	\$2,610,264	-\$27,350	\$2,411,738	\$1,591,697	\$4,003,435	\$1,420,521	0.93	1.55	9.89%
TerraCap Partners IV (Institutional), L.P.	2017	\$4,000,000	\$0	\$4,000,000	\$20,018	\$1,996,539	\$3,750,185	\$5,746,724	\$1,726,706	0.50	1.43	10.05%
<b>Total Value Add</b>		<b>\$14,610,264</b>	<b>\$0</b>	<b>\$14,610,264</b>	<b>\$3,600</b>	<b>\$16,036,712</b>	<b>\$5,371,721</b>	<b>\$21,408,433</b>	<b>\$6,794,569</b>	<b>1.10</b>	<b>1.46</b>	<b>9.94%</b>
<b>Total</b>		<b>\$81,697,444</b>	<b>\$4,186,924</b>	<b>\$77,510,520</b>	<b>\$46,516</b>	<b>\$61,605,423</b>	<b>\$59,604,357</b>	<b>\$121,209,780</b>	<b>\$43,652,745</b>	<b>0.79</b>	<b>1.56</b>	<b>10.13%</b>



# MWRA Employees' Retirement System

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
Cerberus Institutional Real Estate Partners III, L.P.	11/30/2021				-234,803	-234,803
<b>Total: Cerberus Institutional Real Estate Partners III, L.P.</b>					<b>-234,803</b>	<b>-234,803</b>
Landmark Real Estate Partners VIII, L.P.	12/31/2021	199,559				199,559
<b>Total: Landmark Real Estate Partners VIII, L.P.</b>		<b>199,559</b>				<b>199,559</b>
Real Estate Global Partnership Fund II, L.P.	12/31/2021				-80,000	-80,000
<b>Total: Real Estate Global Partnership Fund II, L.P.</b>					<b>-80,000</b>	<b>-80,000</b>
TA Associates Realty Fund X, L.P.	10/31/2021				-48,396	-48,396
	12/31/2021				-106,996	-106,996
<b>Total: TA Associates Realty Fund X, L.P.</b>					<b>-155,392</b>	<b>-155,392</b>
TA Realty Core Property Fund, L.P.	11/30/2021				-238,706	-238,706
<b>Total: TA Realty Core Property Fund, L.P.</b>					<b>-238,706</b>	<b>-238,706</b>
TerraCap Partners IV (Institutional), L.P.	12/31/2021				-84,887	-84,887
<b>Total: TerraCap Partners IV (Institutional), L.P.</b>					<b>-84,887</b>	<b>-84,887</b>
<b>Grand Total</b>		<b>199,559</b>			<b>-793,789</b>	<b>-594,230</b>



# GLOSSARY OF TERMS

- **Commitment Amount** – The amount an investor has committed to invest with the General Partner
- **Paid In Capital** – The amount an investor has contributed for investments and management fees
- **Capital to be Funded** – The remaining amount an investor contractually has left to fund its commitments
- **Additional Fees** – Fees that are outside the capital commitment, also includes interest paid/received due from subsequent closings of the fund
- **Cumulative Distributions** – The amount an investor has received from realized and partially realized investments
- **Valuation** – Sum of the fair market value of all investments plus cash
- **Call Ratio** – Calculated by dividing Amount Funded by Capital Committed
- **DPI Ratio** - Calculated by dividing Amount Distributed by Amount Funded
- **Market Exposure** – Calculated by adding Reported Value plus Unfunded Commitments
- **Total Value** – Calculated by adding Amount Distributed and Reported Value. Represents the total amount an investor should expect to receive from their investments
- **Net Benefit** – Calculated by subtracting Total Value by Capital to be Funded plus Additional Fees
- **Total Value to Paid In Capital Ratio** – Calculated by dividing Total Value by Amount Funded. Represents the multiple of the overall cash invested that an investor is expected to receive
- **IRR** - The calculation of the IRR (Internal Rate of Return) takes into consideration the timing of cash contributions and distributions to and from the partnerships, the length of time the investments have been held and the sum of the Reported Value



# QUARTERLY PERFORMANCE REPORT

## MWRA Employees' Retirement System

December 31, 2021



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

# MWRA Employees' Retirement System

## RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %							Public Market Equivalent (PME)		
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR	IRR PME	KS PME	Benchmark
Invesco Mortgage Recovery Fund, L.P.	2010	\$4,000,000	-2.52%	-2.01%	-2.01%	-1.70%	1.61%	11.71%	13.35%	6.13%	1.16	Bloomberg US Aggregate TR
<b>Total</b>		<b>\$4,000,000</b>	<b>-2.52%</b>	<b>-2.01%</b>	<b>-2.01%</b>	<b>-1.70%</b>	<b>1.61%</b>	<b>11.71%</b>	<b>13.35%</b>	<b>6.13%</b>	<b>1.16</b>	



# MWRA Employees' Retirement System

## ANALYSIS BY FUND

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
Invesco Mortgage Recovery Fund, L.P.	2010	\$4,000,000	\$114,794	\$3,885,206	\$4,506	\$5,202,154	\$53,738	\$5,255,892	\$1,366,180	1.34	1.35	13.35%
<b>Total</b>		<b>\$4,000,000</b>	<b>\$114,794</b>	<b>\$3,885,206</b>	<b>\$4,506</b>	<b>\$5,202,154</b>	<b>\$53,738</b>	<b>\$5,255,892</b>	<b>\$1,366,180</b>	<b>1.34</b>	<b>1.35</b>	<b>13.35%</b>



# MWRA Employees' Retirement System

## ANALYSIS BY LIFECYCLE

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
<b>Harvesting</b>												
Invesco Mortgage Recovery Fund, L.P.	2010	\$4,000,000	\$114,794	\$3,885,206	\$4,506	\$5,202,154	\$53,738	\$5,255,892	\$1,366,180	1.34	1.35	13.35%
<b>Total Harvesting</b>		<b>\$4,000,000</b>	<b>\$114,794</b>	<b>\$3,885,206</b>	<b>\$4,506</b>	<b>\$5,202,154</b>	<b>\$53,738</b>	<b>\$5,255,892</b>	<b>\$1,366,180</b>	<b>1.34</b>	<b>1.35</b>	<b>13.35%</b>
<b>Total</b>		<b>\$4,000,000</b>	<b>\$114,794</b>	<b>\$3,885,206</b>	<b>\$4,506</b>	<b>\$5,202,154</b>	<b>\$53,738</b>	<b>\$5,255,892</b>	<b>\$1,366,180</b>	<b>1.34</b>	<b>1.35</b>	<b>13.35%</b>



# MWRA Employees' Retirement System

## 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
<b>2010</b>												
Invesco Mortgage Recovery Fund, L.P.	2010	\$4,000,000	\$114,794	\$3,885,206	\$4,506	\$5,202,154	\$53,738	\$5,255,892	\$1,366,180	1.34	1.35	13.35%
<b>Total 2010</b>		<b>\$4,000,000</b>	<b>\$114,794</b>	<b>\$3,885,206</b>	<b>\$4,506</b>	<b>\$5,202,154</b>	<b>\$53,738</b>	<b>\$5,255,892</b>	<b>\$1,366,180</b>	<b>1.34</b>	<b>1.35</b>	<b>13.35%</b>
<b>Total</b>		<b>\$4,000,000</b>	<b>\$114,794</b>	<b>\$3,885,206</b>	<b>\$4,506</b>	<b>\$5,202,154</b>	<b>\$53,738</b>	<b>\$5,255,892</b>	<b>\$1,366,180</b>	<b>1.34</b>	<b>1.35</b>	<b>13.35%</b>





# MWRA Employees' Retirement System

## ANALYSIS BY INVESTMENT STRATEGY

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
<b>Distressed</b>												
Invesco Mortgage Recovery Fund, L.P.	2010	\$4,000,000	\$114,794	\$3,885,206	\$4,506	\$5,202,154	\$53,738	\$5,255,892	\$1,366,180	1.34	1.35	13.35%
<b>Total Distressed</b>		<b>\$4,000,000</b>	<b>\$114,794</b>	<b>\$3,885,206</b>	<b>\$4,506</b>	<b>\$5,202,154</b>	<b>\$53,738</b>	<b>\$5,255,892</b>	<b>\$1,366,180</b>	<b>1.34</b>	<b>1.35</b>	<b>13.35%</b>
<b>Total</b>		<b>\$4,000,000</b>	<b>\$114,794</b>	<b>\$3,885,206</b>	<b>\$4,506</b>	<b>\$5,202,154</b>	<b>\$53,738</b>	<b>\$5,255,892</b>	<b>\$1,366,180</b>	<b>1.34</b>	<b>1.35</b>	<b>13.35%</b>



# MWRA Employees' Retirement System

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
<b>Grand Total</b>						<b>0</b>



# GLOSSARY OF TERMS

- **Commitment Amount** – The amount an investor has committed to invest with the General Partner
- **Paid In Capital** – The amount an investor has contributed for investments and management fees
- **Capital to be Funded** – The remaining amount an investor contractually has left to fund its commitments
- **Additional Fees** – Fees that are outside the capital commitment, also includes interest paid/received due from subsequent closings of the fund
- **Cumulative Distributions** – The amount an investor has received from realized and partially realized investments
- **Valuation** – Sum of the fair market value of all investments plus cash
- **Call Ratio** – Calculated by dividing Amount Funded by Capital Committed
- **DPI Ratio** - Calculated by dividing Amount Distributed by Amount Funded
- **Market Exposure** – Calculated by adding Reported Value plus Unfunded Commitments
- **Total Value** – Calculated by adding Amount Distributed and Reported Value. Represents the total amount an investor should expect to receive from their investments
- **Net Benefit** – Calculated by subtracting Total Value by Capital to be Funded plus Additional Fees
- **Total Value to Paid In Capital Ratio** – Calculated by dividing Total Value by Amount Funded. Represents the multiple of the overall cash invested that an investor is expected to receive
- **IRR** - The calculation of the IRR (Internal Rate of Return) takes into consideration the timing of cash contributions and distributions to and from the partnerships, the length of time the investments have been held and the sum of the Reported Value

