

MWRA EMPLOYEES' RETIREMENT BOARD MEETING

AGENDA

Thursday, March 28, 2024 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, Member Brian Peña
 - ii. Human Resources Committee: Member Frank Zecha, Member Matthew Horan
 - iii. Special Committee, Stipend: Member James M. Fleming, Member Kevin McKenna
 - iv. Job Review Committee: Member James M. Fleming, Member Frank Zecha
- Item 3 Scheduling Manager Due Diligence Presentations

NEW BUSINESS

- Item 4 Actuarial Pre-Valuation Assumption Discussion
- Item 5 Appointment of Election Officer and Approval of Election Timeline – VOTE
- Item 6 Approval of FY2025 COLA 3% – VOTE
- Item 7 Approval of February 29, 2024 Minutes – VOTE
- Item 8 Approval of Warrant 3-2024 – VOTE
- Item 9 Approval of Monthly Transfers 3-2024 – VOTE
- Item 10 Acknowledgement of retirement applications under G.L. c 32 §5 – VOTE
- a) Michael Sheehan DOR 1/23/2024
 - b) Andrea Enos DOR 2/21/2024
 - c) John Porcello DOR 3/2/2024
 - d) Olivia Stots DOR 3/8/2024
- Item 11 Approval of 12(2)d Survivor Benefit re. Sharmila Fernandes, spouse of Damien Fernandes, DOD 1/19/2024 – VOTE
- Item 12 Approval of Shannon Matuschak's buyback of 4 months of MassDOT employment – VOTE
- Item 13 Acceptance of Section 7 Retirement Application re. Timothy Joslin – VOTE
- Item 14 Attendance at MACRS TEDS & Annual Conference, June 1 – June 5, 2024, Hyannis – VOTE

Item 15

NEPC

- a) Flash Report as of 2/29/2024
- b) Estimated Asset Allocation Rebalance Summary
- c) MSCI EAFE International Equity Index Search RFP – VOTE
- d) Global Equity Search RFP – VOTE
- e) Private Markets Pacing

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

Item 99-1

PERAC MEMO #10/2024 – Tobacco Company List

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, April 25, 2024, 10:00 a.m., Chelsea

**MASSACHUSETTS WATER RESOURCES AUTHORITY
EMPLOYEES' RETIREMENT BOARD
FEBRUARY 29, 2024**

A regular meeting of the MWRA Employees' Retirement Board was conducted in-person on Thursday, February 29, 2024. Remote access was provided to the public via Zoom, with call-in information provided on the official Meeting Notice posted to www.mwraretirement.com and the MA Secretary of State's website. Present at the in-person meeting were Board members Matthew Horan, Kevin McKenna, Brian Peña, and James Fleming, staff members Carolyn Russo, Julie McManus and Danielle DiRuzza, and Sebastian Grzejka and Michael Sullivan representing NEPC. Mr. Frank Zecha joined via remote participation. Members of the public also attended via remote access. Mr. Fleming called the meeting to order at 10:10 a.m.

- 1) Call the meeting to order-roll call of members: Mr. Horan, Mr. McKenna, Mr. Peña, Mr. Zecha, and Mr. Fleming present.

Mr. Fleming cautioned that Massachusetts is a two-party consent state for recordings, and stated that it is not permissible to record without the consent of the Chair.

- 2) Standing Committee Reports

- i. By-Laws Committee: No report
- ii. Human Resources Committee: No report
- iii. Special Committee, Stipend: No report
- iv. Job Review Committee: No report

- 3) Term of Consulting Services Agreement – VOTE

Mr. Fleming noted that the prior agreement was approved for three years with two options to extend for two years, for a total term not to exceed seven years.

On a motion by Mr. Horan and seconded by Mr. Peña:

VOTED

to set the term of the consulting services contract awarded to NEPC as three years, with two optional two-year extensions for a total term not to exceed seven years. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

- 4) Approval of Minutes – VOTE

- a) January 25, 2024
- b) January 25, 2024 Executive Session

- c) February 7, 2024

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

VOTED

to approve the Minutes of the meetings as listed. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

- 5) Approval of Warrants – VOTE

- a) Warrant 2-2024
b) Warrant 2A-2024 – Payroll

On an omnibus motion made by Mr. Horan and seconded by Mr. Peña:

VOTED

to approve Warrant 02-2024 and Warrant 02-2024A. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

- 6) Approval of Monthly Transfers 02-2024 – VOTE

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

VOTED

to approve the monthly transfers for February. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

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

- | | | |
|----|-------------------------|---------------|
| a) | Kieran McGrath | DOR 1/12/2024 |
| b) | Patricia Veiga-Phillips | DOR 1/28/2024 |
| c) | Stephen Buczko | DOR 1/20/2024 |
| d) | Vicki Mucci | DOR 1/24/2024 |
| e) | William Kurtz | DOR 2/3/2024 |
| f) | Richard Williams | DOR 2/3/2024 |
| g) | Marianne Ouellette | DOR 2/10/2024 |
| h) | Susan Viera | DOR 2/10/2024 |

On an omnibus motion made by Mr. Peña and seconded by Mr. Horan:

VOTED

to acknowledge the section 5 retirements as listed. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

8) Approval of January 2024 Bank Reconciliation – VOTE

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

VOTED

to approve the Bank of America reconciliation for January 2024. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

9) Approval of Renee Angelo's buyback of 9 months of MWRA contract employment – VOTE

Mr. Horan asked if there is a process by which employees with prior contract service are notified of their right to purchase this type of service. The Retirement Coordinator responded that the question is included on the Enrollment Form filled out when the employee becomes full-time permanent. When the employee lists prior service, Retirement Staff reaches out in regard to the ability to purchase the time and the payment options. Mr. McKenna asked if Staff tracks the payments to be sure the System receives buyback funds in full. The Retirement Coordinator responded that for those employees who do not pay by lump sum, the maximum repayment period is 5 years, and payments are tracked on a weekly basis.

On a motion made by Mr. Horan and seconded by Mr. Peña:

VOTED

to approve Renee Angelo's purchase of nine months of contract service. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

10) Acceptance of Section 7 Retirement Application re. Joseph Comeau – VOTE

Through the Chair, the Executive Director explained that the vote is whether to accept the application and forward it to PERAC for appointment of a medical panel. She reported that there had previously been a deficiency in the Physician's Statement which has now been sufficiently addressed, according to Board Counsel's assessment. Mr. McKenna stated that there appear to be four separate injuries in this case, and the Executive Director noted that potential issue was addressed in Board Counsel's communication, which was included in the Board packets.

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

VOTED

to accept the application of Joseph Comeau for accidental disability retirement and to submit the application to PERAC for the appointment of a medical panel. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

11) NEPC

- a) Flash Report as of 1/31/2024
- b) Asset Allocation Review & Outlook
- c) Rebalancing Recommendation – VOTE
- d) International Equity Structure Review

Mr. Grzejka began by thanking the Board for their continued confidence and stated that he appreciates the long-standing relationship. In regard to the Flash Report, Mr. Grzejka reported that January was flat. Only US Large Cap and Credit posted positive returns. February to date has been positive. The Large Cap portfolio has performed well vs. the index. Small Cap was negative. SEG beat their benchmark by 150 basis points for the month, while Baillie Gifford underperformed. Emerging Markets have seen headwinds, largely attributable to China. Axiom was hurt by the exposure. ABS is now positive over the one-year. Credit-oriented funds have been positive. Mr. Horan asked when the final 2023 numbers would be available. Mr. Grzejka stated that the private equity and some real estate funds have not yet reported, and could be up to 180 days. Mr. Horan asked if that is industry-standard, and Mr. Grzejka responded that a lot of Private Equity funds report 90 days after the close of a quarter, and some take up to 180 days for year-end reporting, which makes timely reporting difficult.

In regard to the asset allocation review, Mr. Grzejka referred the Board to page 2 of the presentation for themes. The goal is to outperform the 6.9% assumption. NEPC will be initiating a discussion with Segal following the Board vote in regard to the long-term expectations. NEPC will be looking to identify today's as well as forward-looking opportunities. The portfolio is generally well-positioned, and will just have some positions tweaked. Page 5 provides an overview of current markets. Better than expected unemployment and growth numbers pushed out rate cut expectations. The "Magnificent 7" were responsible for 70% of the S&P's returns. Mr. Horan asked whether the 7's performance, Meta's transition to paying dividends, and NVIDIA's sudden surge could precede a collapse of valuations. Mr. Grzejka concurred that valuations are "sky-high." Apple pays dividends, but it is not really common in the tech space. The "Magnificent 7" are quality companies, are cash-flush, are not highly leveraged, and have monopolies or near-monopolies in their specific areas. Value exposure helps de-risk the S&P exposure. We want some exposure in the portfolio, but it needs to be balanced. Mr. Sullivan noted that if you had dropped NVIDIA at year end, you would have missed its 70% price appreciation YTD. Mr. Horan asked whether the price is expected to stabilize. Mr. McKenna commented that it looks like the TIPS asset class is making a comeback, but Mr. Grzejka disagreed. Mr. McKenna asked if we've had a good run with the 7 and now should tilt toward value in Large Cap. Mr. Grzejka state we want purposeful differentiation, but we don't want a single manager holding 10% of the assets. Mr. Horan asked if there is a formal policy, and Mr. Grzejka responded that there is not, although there is one relative to single holdings. NEPC is recommending adding a formal strategic

cash position. The System is now cash flow negative, so we need to make sure there is cash on hand to pay benefits, expenses, and any capital calls. Mr. Fleming asked Mr. Grzejka the amount. Mr. McKenna responded \$3m. Mr. Grzejka stated expenses, calls and payroll come to about \$4m per month. Mr. Grzejka noted that if you had \$1 at the beginning of 2022, it would still be just \$1 at the end of 2023. You'd be in the same spot. There have been headwinds, so upside capture is important. The "higher longer" rate environment, including the associated higher cost of capital, has been acknowledged by the markets as here to stay, and there is no motivation for the Fed to move on rates. Geopolitical uncertainty is prevalent. Relatively low unemployment and wage growth may be an indication that there might be positive growth moving forward. Page 20 shows the current policy alongside two proposed asset allocation options. Mr. Grzejka began by stating that the portfolio is currently well-positioned to meet the return assumptions, with the two options presented offering small adjustments. Mr. McKenna asked what the additional risk would be to get to 7% over the ten-year. Mr. Grzejka suggested perhaps an increase to the Private Equity allocation, because Large Cap has not been helping long-term returns, but on average the current allocation will get the Board to target. The long-term expectation for large cap is 4.5% over the ten-year. A Global Equity allocation may help as well. Emerging Markets could be increased, but that comes with greater risk. Mr. Horan asked if the Actuary uses a period longer than ten years. Mr. Grzejka deferred to the Executive Director who responded that the focus is generally on the 20-year, but looking beyond the 20-year at both the shorter and longer-term expectations is still part of the Actuarial firm's modeling process. In regard to the two asset mix options, Mr. Grzejka noted that both options add a strategic allocation to cash. Rates have been positive, and the 2% position is recommended to ensure sufficient cash is available for benefits, expenses and capital calls. A reduction from 10% to 8% is recommended to Core Bonds, with the Multi-Sector Credit allocation remaining stable at 10%. Mix B adds a Global Equity component, where managers will have the flexibility to pivot on countries and sectors as necessary. Active management adds value. Some managers in the space will have "Magnificent 7" exposure, so that needs to be watched, but they are able to seek world-wide opportunities. Mr. Horan asked whether the options were stress tested, and Mr. Grzejka referred the Board to page 21 for protections offered over time in drawdown scenarios. The graphs on the bottom of the page show possible results assuming no action is taken over upside, initial shock, drawdown and bounce-back periods over five years. Page 22 provides a liquidity overview. Mr. Horan asked if page 20 assumes a recession of a certain duration, and Mr. Grzejka responded affirmatively, stating that in this scenario the first year of the recession would be the shock period with equities declining, followed by an expected rebound in the second or third year of the recession. Mr. Peña asked about Global Equity vs. Non-US. Mr. Grzejka responded that Global Equity can invest anywhere and use managers all over the world. Non-US refers generally to Europe and other developed countries. Approach matters. Mr. Sullivan added that Global lets all managers fish in all ponds. Mr. Fleming asked if the System

has mid-cap exposure. Mr. Grzejka commented that the large cap managers can reach down and the small cap managers can reach up, so that there is mid-cap exposure, for example in Loomis Sayles and Mesirow. Mr. McKenna asked if there will be an RFP for a Global Manager. Mr. Grzejka responded that there will be if mix B is voted by the Board. Mr. McKenna asked if overlap is a concern. Mr. Grzejka responded that some would be expected, but looking at how the manager is positioned would be part of the vetting process before the hire decision is made. Mr. McKenna asked if passive is available in this space. Mr. Grzejka reiterated that active management adds value within the Global Equity space. Mr. Horan asked why we do not currently have Global Equity in the portfolio, and Mr. Grzejka responded that it has to a large degree been a matter of time. We've done 25 searches over the last contract, including both mandatory discretionary RFPs, and Global Equity is an "evergreen opportunity." Mr. McKenna asked if Schrodgers and SEG's contracts are up. Mr. Grzejka stated that SEG's is, not Schrodgers', and we have to prioritize the mandatory searches for compliance reasons. We can do the International Equity Search, but mix B will require another RFP. Mr. Horan asked if the diversification benefit justifies the added work and expense of the added asset class. Mr. Sullivan responded that the Board should expect the Global Equity manager(s) to beat the benchmark to justify the addition. Mr. McKenna commented that the mixes dial back real estate exposure, and Mr. Grzejka concurred, stating that the already-scheduled redemptions from Morgan Stanley PRIME will get the Board to target. Mr. McKenna asked where the \$44m from Coho and Polen will go. Mr. Grzejka stated that the Board first has to finish discussing the asset mix and an exit strategy before that may be determined. Mr. Horan asked about whether a CD might be worthwhile in the cash allocation. Mr. Grzejka responded that it's possible, but that the 2% level of cash represents 3 months of outflows, and is necessary for known expenses and payroll as well as unanticipated capital calls. Mr. McKenna stated that we might have "buyer's remorse" if we sell off Coho and Polen and the Magnificent 7 continue to run. Mr. Grzejka stated that we are dialing back exposure, not eliminating it, and the Large Growth managers seem to be lowering exposure already. Page 24 shows trends among NEPC's 400+ clients. Most are passive in Large Cap, as the benefits of active management have dwindled with the advent of immediately available information. Of the ones with active management within the Large Cap space, most are split 70% passive/30% active. The approach the Board adopted recently with Rhumblin and Aristotle will suffice within this framework. If you look at the portfolio structure, it is comparatively overweight in passive. Mr. Horan commented that it is getting more difficult for managers to beat the index. Mr. Grzejka responded that the tracking was outside of expectations so the Board's best option is to select a manager that has shown consistency over time. Mr. Zecha asked where we stand with the Morgan Stanley Redemption, and Mr. Grzejka responded that it's in process with assets being monetized quarterly. Through the Chair, the Executive Director responded that so far we've received a small piece back (roughly \$350k), and added that another piece is scheduled to be distributed in March. Mr. Zecha asked if we should be getting in the queue for the rest of it,

and Mr. Grzejka responded we will be forcing property sales at rock bottom. The Board already requested a 30% redemption. Mr. Grzejka suspects that some of the office/retail properties will transition to housing and industrial. Mr. Horan asked if some of this will be student housing. Mr. Grzejka expects it will, and noted that the TA Core property did not have legacy office assets in the portfolio. Mr. Grzejka recommends that the Board adopt Mix B. Mr. McKenna asked if any money will stay in Coho and Polen, and Mr. Grzejka state it will for about a month. Mr. Horan made a motion to accept Mix B, with a second by Mr. McKenna.

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

VOTED

to accept asset allocation Mix B as recommended by NEPC. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

Mr. Grzejka then addressed the rebalance recommendations. He recommends exit from Coho and Polen. The Hedge Fund portfolio needs to be “right-sized” back to target, but the redemptions have some lead time. Mr. Zecha asked if any money will be left with Coho or Polen. Mr. Grzejka stated that it is not really a concern, we’re dollar cost averaging selling and buying at the same time, the funds will not be out of the market for long, and the redemptions will be done in two tranches, one now, and one in two weeks.

On a motion made by Mr. Zecha and seconded by Mr. Peña:

VOTED

to redeem all assets from Coho and Polen over two tranches, one immediate in the amounts recommended on the rebalance sheet, and one in two weeks’ time, to rebalance the proceeds to yield a 70% Passive/30% Active Value mix in the Large Cap Domestic Equity portfolio (Rhumbline S&P 500/Aristotle), and to implement now the other rebalance recommendations relative to the Hedge Fund portfolio and cash. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

Mr. Horan asked if the Board needs to increase the weighting to active, whether that may be done at any time, and Mr. Grzejka responded that it may, with the existing managers. Mr. McKenna commented that we need to use all of the tools in the toolbox.

Mr. Sullivan began the International Equity Portfolio Structure Review, referring the Board to page 4 of the presentation for an active/passive analysis, noting that an active piece would save on fees. The green box on Page 6 framing the Current Allocation column shows a growth bias in the portfolio, and NEPC recommends adding a passive component. The lowest tracking error would be Mix 3, Passive + Schrodgers, which would approximate a core allocation. Page 7

contains a graph showing tracking error. Page 14 presents two options: adding a passive piece to the current multi-manager approach, or move to a core + satellite manager approach. The second option would be more cost-effective, but would require an RFP for a passive strategy SEG alone charges a 1bps fee so there would be fee savings. Mr. McKenna asked if the recommendation is to acquire an International index product and divest from two of the current managers in the space, and Mr. Grzejka responded affirmatively. EAFE (Europe, Australasia and Far East Index) is an efficient way to go. Mr. Grzejka noted that SEG is a value manager that has done a good job, but has struggled recently. This is a way both to reduce tracking in the portfolio and to reduce fees without sacrificing on the upside. Schroders would remain, as would Baillie Gifford for a period of time, to allow them to recover. Baillie has high reward potential but also high tracking error. Mr. McKenna asked if this piece is in just EU and Japan, but Global can invest in the same regions plus everywhere else. Mr. Grzejka confirmed, but noted that the International Index skews toward value. Mr. Peña asked whether the recommendation is that Schroders be the satellite, and Mr. Grzejka responded that it would, but the Baillie Gifford timing can be discussed later prices have recovered. Baillie invests in good companies that have unfortunately been hurt by market conditions. NEPC will need approval to issue an RFP now for the passive manager. Mr. Horan asked if the PRIT International sleeve is a viable alternative, but Mr. Grzejka noted that consists of active management. An index search will be faster than the usual RFP process because the responses are simplified.

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

VOTED

to approve a core-satellite manager approach (Option 2 as appears on page 14 of the presentation) for the International Equity Portfolio as recommended by NEPC. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

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

VOTED

to request that NEPC begin the RFP process for a Passive International Equity Manager. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes.

On a motion made by Mr. Horan and seconded by Mr. Peña:

VOTED

to adjourn the February 29, 2024 meeting of the MWRA Employees' Retirement Board. 5-0, with Mr. Horan voting yes, Mr. McKenna voting yes, Mr. Peña voting yes, Mr. Zecha voting yes, and Mr. Fleming voting yes. The meeting was adjourned at 11:42 a.m.

The following communications were distributed to the Board for review:

PERAC MEMO #7/2024 – Buyback and Make-up Repayment Worksheets

PERAC MEMO #8/2024 – PROSPER COLA Submission is almost here!

PERAC MEMO #9/2024 – Actuarial Data

PERAC Pension News Flash February 15, 2024

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 regular Retirement Board meeting is Thursday, March 28, 2024 at 10:00 a.m., Chelsea, MA.

James M. Fleming, Chair

Matthew Horan Appointed Member

Kevin McKenna, Elected Member

Brian Peña, Ex Officio Member

Frank Zecha, Fifth Member

MONTHLY PERFORMANCE REPORT

**MWRA EMPLOYEES' RETIREMENT
SYSTEM**

FEBRUARY 29, 2024



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).

EXECUTIVE SUMMARY

	Market Value (\$)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	688,499,208	2.0	2.0	9.6	3.4	6.6	5.9	6.5	Feb-99
<i>Allocation Index</i>		2.1	1.7	10.6	4.2	7.2	6.5	5.8	
<i>Policy Index</i>		2.4	2.2	11.8	4.8	8.0	6.9	6.2	

20 years as of February 29, 2024				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
Composite	6.7	8.5	0.9	0.9
<i>Allocation Index</i>	6.4	8.0	0.9	0.9
<i>Policy Index</i>	6.7	8.6	0.9	0.9

Performance

- The Composite had a preliminary return of 2.0% (net) for the month, underperforming the Allocation Index of 2.1% and the Policy Index of 2.4%.
- In equities, the S&P 500 Index hit multiple milestones during the month: it surpassed 5000 and Nvidia set a record for the largest single-day market capitalization gain of \$277 billion; the S&P 500 gained 5.3% last month, pushing year-to-date returns to 7.1%. The portfolio's Domestic Equity composite returned 4.5% (net) and the Non-US Equity composite was up 4.2% (net).
- In fixed income, returns were pressured by rising yields: the 10- and 30-year Treasury yields added 29 and 17 basis points, respectively, resulting in a 1.3% monthly decline in the Bloomberg U.S. Treasury Index. Despite rising rates, lower-quality credit rallied, underscoring the robust economic backdrop. The Fixed Income composite returned -1.1% (net) for the month while the Bloomberg Agg and the Bloomberg US HY returned -1.4% and 0.3%, respectively.
- This brings the total plan return for the trailing one-year period to 9.6% (net), while the Allocation Index and Policy Index both returned 10.6% and 11.8%, respectively.

Returns for 20 years Risk/Return and Statistics Summary are gross of fees.
 Since inception return is 8.3% gross of fees. Prior to 1999, performance history does not capture separate net and gross returns.



TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Composite	688,499,208	100.0	100.0	2.0	2.0	9.6	3.4	6.6	5.9	6.7	Jan-86
Allocation Index				2.1	1.7	10.6	4.2	7.2	6.5		
Policy Index				2.4	2.2	11.8	4.8	8.0	6.9		
Total Balanced	3,909,864	0.6	0.0	1.9	1.9	10.4	5.9	7.1	4.7	5.0	Dec-10
PRIT Core Fund	3,909,864	0.6	0.0	1.9	1.9	10.4	5.9	8.2	7.6	6.9	Apr-99
60% S&P 500 / 40% Bloomberg Aggregate				2.6	3.6	19.0	5.9	9.2	8.3	6.4	
Total Domestic Equity	217,539,497	31.6	31.0	4.5	5.3	20.8	6.8	11.6	10.4	7.8	May-99
Russell 3000 Index				5.4	6.6	28.6	9.9	13.9	12.0	7.7	
Large Cap	166,518,506	24.2	24.0	4.1	6.3	25.6	8.4	12.8	11.4	12.8	Dec-10
Rhumblin Advisors S&P 500 Index Fund	69,528,479	10.1	10.0	5.3	7.1	30.3	11.9	14.7	12.6	9.4	Apr-97
S&P 500 Index				5.3	7.1	30.5	11.9	14.8	12.7	9.3	
Coho Relative Value Equity	51,829,142	7.5	7.0	2.2	3.1	6.3	7.0	8.9		9.8	Mar-16
Russell 1000 Value Index				3.7	3.8	14.0	8.4	9.4		10.7	
Polen Focused Growth	45,160,885	6.6	7.0	4.4	8.6	43.2	5.0	13.8		15.0	Feb-16
Russell 1000 Growth Index				6.8	9.5	45.9	12.5	18.8		18.3	
Small Cap	51,020,990	7.4	7.0	5.8	2.1	6.0	1.3	8.0	7.9	10.8	Dec-10
Loomis Sayles Small Cap Growth	26,389,729	3.8	3.5	7.8	5.3	10.3	-1.6	8.4	9.0	6.9	Jan-97
Russell 2000 Growth Index				8.1	4.7	14.2	-4.6	6.5	7.3	6.9	
Mesirow Small Cap Value Equity CIT - Founders Class	24,631,261	3.6	3.5	3.8	-1.1					6.8	Apr-23
Russell 2000 Value Index				3.3	-1.4					13.8	
Total Non-US Equity	115,756,033	16.8	19.0	4.2	2.6	9.2	-4.5	2.2	2.3	3.8	Mar-99
International Equity	76,289,475	11.1	12.0	4.1	3.4	10.1	-2.9	4.0	3.2	3.5	Sep-05
SEG Baxter Street	31,804,874	4.6	5.0	3.6	4.1	7.7	-2.9	3.6		6.2	May-16
MSCI AC World ex USA (Net)				2.5	1.5	12.5	1.3	5.4		6.1	
Schroder International Alpha Trust Class 1	30,782,058	4.5	4.0	3.3	2.8	12.9	1.9	8.4	5.7	6.8	Mar-12
MSCI AC World ex USA (Net)				2.5	1.5	12.5	1.3	5.4	4.0	4.9	
Baillie Gifford International Growth Fund Class K	13,702,543	2.0	3.0	7.0	3.1	9.6	-11.7			-4.9	Oct-20
MSCI AC World ex USA (Net)				2.5	1.5	12.5	1.3			6.6	

Since inception return is 6.7% Net 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 fund performance history.

Preliminary performance is subject to change once finalized.

UBS is preliminary.



TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Emerging Markets Equity	39,466,558	5.7	7.0	4.4	1.1	7.5	-9.3			-9.3	Mar-21
Axiom Emerging Markets Trust Class 2	18,919,824	2.7		5.2	2.6	5.8	-11.7			-11.7	Mar-21
<i>MSCI Emerging Markets (Net)</i>				4.8	-0.1	8.7	-6.3			-6.3	
ABS Emerging Markets MA Fund	20,546,734	3.0		3.7	-0.2	9.1				-6.0	Dec-21
<i>MSCI Emerging Markets (Net)</i>				4.8	-0.1	8.7				-4.9	
Total Fixed Income	136,019,611	19.8	20.0	-1.1	-1.2	4.5	-1.5	2.1	2.3	5.6	Mar-99
Garcia Hamilton Fixed Income Aggregate	29,987,088	4.4	6.0	-2.0	-2.4	1.6	-3.3	0.2		0.6	Apr-18
<i>Blmbg. U.S. Aggregate Index</i>				-1.4	-1.7	3.3	-3.2	0.6		0.9	
Lord Abbett Core Fixed Income	39,131,638	5.7	4.0	-1.3	-1.4	3.6	-3.0	0.9		1.1	Apr-18
<i>Blmbg. U.S. Aggregate Index</i>				-1.4	-1.7	3.3	-3.2	0.6		0.9	
Loomis Sayles Multisector Full Discretion Trust	52,416,441	7.6	8.0	-0.9	-0.7	6.0	-1.5	2.8	2.9	6.7	Mar-99
<i>Blmbg. U.S. Aggregate Index</i>				-1.4	-1.7	3.3	-3.2	0.6	1.4	3.8	
<i>Blmbg. U.S. Corp: High Yield Index</i>				0.3	0.3	11.0	1.8	4.2	4.3	6.3	
LMCG Serenitas Credit Gamma Offshore	14,469,258	2.1	2.0	0.2	0.6					3.1	Sep-23
<i>HFRI Relative Value (Total) Index</i>				0.8	1.4					4.5	
<i>Blmbg. U.S. Aggregate Index</i>				-1.4	-1.7					2.4	
Invesco Mortgage Recovery Loans Feeder Fund	15,185	0.0		0.0	0.0	-0.9	-0.1	-1.0	4.9	9.0	Apr-10
<i>Blmbg. U.S. Aggregate Index</i>				-1.4	-1.7	3.3	-3.2	0.6	1.4	2.2	
Total Hedge Fund	39,621,410	5.8	6.0	1.0	1.6	8.8	4.1	5.4	3.3	3.7	Oct-06
PRIM Portfolio Completion Strategies	12,511,805	1.8		1.3	1.5	9.4	4.8	4.9	4.0	4.1	Oct-06
Corbin Pinehurst Partners	14,643,171	2.1		1.6	3.3	12.5	3.6	6.3		6.3	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				1.9	2.7	7.5	2.4	4.9		4.9	
UBS Neutral Alpha Strategies	12,418,107	1.8		0.0	1.1	5.7	6.3	7.0		6.4	Nov-18
<i>HFRI Fund of Funds Composite Index</i>				1.9	2.7	7.5	2.4	4.9		4.9	
Entrust Peru Wind Down	48,326	0.0		-0.6	-1.1	-14.1	-59.9	-43.0		-36.9	Dec-17
<i>HFRI Fund of Funds Composite Index</i>				1.9	2.7	7.5	2.4	4.9		4.0	
Other	14,163,651	2.1	0.0	0.5	0.9	5.3	2.4	2.0	1.4	1.1	Dec-10
Cash Account	14,163,651	2.1		0.5	0.9	5.3	2.4	2.0	1.4	1.9	Feb-00
<i>90 Day U.S. Treasury Bill</i>				0.4	0.8	5.2	2.4	2.0	1.3	1.8	

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.

Preliminary performance is subject to change once finalized.

TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Real Estate	67,884,594	9.9	12.0	0.0	0.0	-3.7	9.1	7.1	9.0	7.8	Apr-99
<i>NCREIF Property Index</i>				0.0	0.0	-7.9	4.6	4.3	6.8	7.9	
Morgan Stanley Prime Property (\$2.8m commitment in '95)	24,247,435	3.5		0.0	0.0	-3.7	7.5	5.9	8.5	8.2	Sep-95
TA Realty Core Property Fund, LP (\$15m commitment in '19)	24,556,783	3.6		0.0	0.0	-3.6	10.8			8.8	Jun-19
Invesco Mortgage Recovery II (\$3M commitment in '15)	599,654	0.1		0.0	0.0	-32.7	-17.0	-21.2		-8.4	Oct-15
Landmark VI (\$2m commitment in '11)	6,021	0.0		0.0	0.0	-6.9	-3.8	-9.6	-2.3	1.4	Jul-11
Landmark VIII (\$4m commitment in '17)	2,212,119	0.3		0.0	0.0	-3.4	14.5	11.7		14.8	Nov-17
StepStone Real Estate Fund II (\$2m commitment in '11)	348,139	0.1		0.0	0.0	-2.4	-1.1	-3.3	2.6	1.4	May-12
Cerberus Institutional Real Estate Partners III (\$1.5m commitment in '12)	502,381	0.1		0.0	0.0	7.9	19.6	15.8	13.8	14.3	May-13
TerraCap Partners III, LP (\$2.6m commitment in '15)	1,580,920	0.2		0.0	0.0	-0.5	8.0	6.0		9.7	Jul-15
TerraCap Partners IV, LP (\$4m commitment in '17)	3,509,679	0.5		0.0	0.0	-4.4	6.2	7.0		7.9	Nov-17
TerraCap Partners V, LP (\$8m commitment in '22)	8,321,463	1.2		0.0	0.0	-2.2				4.1	Jun-22
TA Realty Value XIII	2,000,000	0.3		0.0	0.0					0.0	Dec-23
Total Private Equity and Debt	93,604,549	13.6	12.0	0.3	0.2	5.2	16.2	13.7	14.0	10.3	Apr-99
<i>CJA US All PE</i>				0.0	0.0	5.9	13.4	15.0	13.2	12.8	
<i>NASDAQ W/O Income</i>				6.1	7.2	40.5	6.8	16.4	14.1	7.8	
PRIM Vintage Year 2008 (\$3m commitment in '08)	877,155	0.1		0.0	0.0	23.4	20.1	15.2	18.3	10.6	Jun-08
PRIM Vintage Year 2009 (\$1m commitment in '09)	49,220	0.0		-0.3	-0.3	-0.6	14.0	23.6	22.8	12.5	Nov-09
PRIM Vintage Year 2010 (\$1m commitment in '10)	355,248	0.1		-0.2	-0.3	-21.3	4.1	7.5	14.6	8.6	Jun-10
PRIM Vintage Year 2011 (\$1.5m commitment in '11)	689,375	0.1		0.3	0.2	-2.5	24.9	18.5	21.5	8.8	May-11
PRIM Vintage Year 2012 (\$1m commitment in '12)	422,723	0.1		2.7	2.1	4.2	3.8	10.6	12.6	-8.1	Jun-12
PRIM Vintage Year 2014 (\$2m commitment in '14)	1,912,356	0.3		1.0	0.9	2.9	17.1	17.9		7.8	Jun-14
PRIM Vintage Year 2017 (\$2m commitment in '17)	2,615,428	0.4		0.5	-0.1	10.8	22.0	20.0		15.0	May-17
PRIM Vintage Year 2020 (\$5m commitment in '20)	4,635,241	0.7		1.6	1.2	9.9	15.7			13.6	Mar-20
PRIM Vintage Year 2021 (\$5m commitment in '21)	4,251,150	0.6		0.8	0.8	11.6	2.8			2.6	Dec-20
PRIM Vintage Year 2022 (\$7.5m commitment in '22)	2,321,759	0.3		3.4	2.8	10.0				1.9	Apr-22
PRIM Vintage Year 2023 (\$10m commitment in '23)	752,066	0.1		3.0	2.9					2.8	May-23
Alcentra European DLF (\$5m commitment in '14)	20,448	0.0		0.0	0.0	13.7	30.1	15.5		12.0	Jan-15
Ascent Fund IV-B (\$1m commitment in '16)	20,104	0.0		0.0	0.0	-2.1	-28.6	-29.0		-20.4	Jul-16
Ascent Fund V (\$2m commitment in '08)	1,299,603	0.2		0.0	0.0	3.0	2.0	-0.6	1.1	3.8	Oct-08
Ascent VI (\$3m commitment in '15)	3,119,079	0.5		0.0	0.0	-4.3	0.6	-1.5		0.4	Dec-15
CVI Credit Value Fund IV A LP (\$6m commitment in '17)	4,221,885	0.6		0.0	0.0	6.2	9.1	7.4		6.3	Dec-17
Invesco Fund VI (\$5m commitment in '13)	477,377	0.1		0.0	0.0	-29.3	-6.9	5.6	10.4	10.0	Jul-13

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.

Preliminary performance is subject to change once finalized.



TOTAL FUND PERFORMANCE DETAIL (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Kayne Energy Fund VII (\$5m commitment in '15)	2,765,200	0.4		0.0	0.0	11.1	36.0	-13.5		-2.5	Jan-16
Foundry 2007 (\$3m commitment in '07)	218,788	0.0		0.0	0.0	5.7	-10.2	-9.4	2.2	12.6	Dec-07
Foundry 2010 (\$3m commitment in '10)	3,830,853	0.6		0.0	0.0	-36.1	6.0	8.7	8.0	9.0	Feb-11
Foundry 2010 Annex (\$0.4m commitment in '15)	540,786	0.1		0.0	0.0	-50.9	13.3	33.7		24.4	Sep-15
Pinebridge PEP V (\$6.23m commitment in '07)	237,665	0.0		0.0	0.0	4.1	-2.4	3.9	6.1	6.7	Dec-10
Pinebridge (AIG) PEP V Asia (\$.55m commitment)	30,091	0.0		0.0	0.0	-5.2	-11.0	-12.6		-12.6	Oct-18
Pinebridge (AIG) PEP V Europe (\$1.6m commitment)	2,560	0.0		0.0	0.0	-2.3	-14.8	96.0		86.1	Oct-18
Pinebridge (AIG) PEP V Large Market US Buyout (\$.7m commitment)	50,760	0.0		0.0	0.0	32.9	9.9	16.1		12.2	Oct-18
Pinebridge (AIG) PEP V Preferred Participation Fund (\$.5m commitment)	59,357	0.0		0.0	0.0	-13.3	-16.6	-6.2		-7.3	Oct-18
Pinebridge (AIG) PEP V Secondary (\$.6m commitment)	14,546	0.0		0.0	0.0	-12.5	-16.4	-14.1		-11.4	Jan-17
Pinebridge (AIG) PEP V Small-Mid Market US Buyout (\$.9m commitment)	39,224	0.0		0.0	0.0	0.1	2.7	12.3		12.1	Oct-18
Pinebridge (AIG) PEP V US Venture (\$.48m commitment)	41,127	0.0		0.0	0.0	3.1	-4.0	-2.9		-4.6	Oct-18
Landmark XV (\$3m commitment in '13)	556,596	0.1		0.0	0.0	-4.8	-3.5	2.5	6.6	8.8	Nov-13
JFL Equity Investors IV, L.P. (\$6m commitment in '16)	2,816,100	0.4		0.0	0.0	54.7	40.3	40.0		38.6	Jan-17
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)	5,202,408	0.8		0.0	0.0	21.4	18.1	21.0		19.4	Feb-17
Park Square Credit Opportunities III (\$3m commitment in '17)	2,717,165	0.4		0.0	0.0	7.7	7.4	8.1		7.0	Feb-18
Ironsides Constitution Opportunities (\$3m commitment in '18)	1,453,256	0.2		0.0	0.0	8.4	9.4	11.6		10.8	Oct-18
HarbourVest Dover Street X (\$9m commitment in '20)	7,392,375	1.1		0.0	0.0	2.7	23.1			42.2	Jun-20
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)	6,890,855	1.0		0.0	0.0	2.0	18.6			23.2	Jul-20
Constitution Ironsides Co-Investment Fund VI (\$12m commitment in '21)	12,803,996	1.9		0.0	0.0	6.3				3.7	Nov-21
HarbourVest Co-Investment Fund VI (\$8m commitment in '21)	6,607,700	1.0		0.0	0.0	8.4					Jan-22
JFL Equity Investors V, L.P. (\$9m commitment in '20)	11,530,590	1.7		0.0	0.0	19.4	15.6			9.8	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.

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 6.7% for the current month.
- 4 - Preliminary Total Composite gross of fee since inception return is 8.3% 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% CJA US All PE.
- 8 - Allocation index consists of: Weighted index of underlying managers to their respective benchmark.
- 9 - All Private Market managers are final as of 9/30/23 and preliminary as of 12/31/23.

FEE SCHEDULE

Account Name	Fee Schedule	Market Value (\$)	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
PRIT Core Fund	0.49 % of Assets	3,909,864	0.57	19,158	0.49
Rhumblin Advisors S&P 500 Index Fund	0.04 % of Assets	69,528,479	10.10	27,811	0.04
Coho Relative Value Equity	0.50 % of First \$75 M 0.40 % of Next \$75 M 0.35 % Thereafter	51,829,142	7.53	259,146	0.50
Polen Focused Growth	0.65 % of Assets	45,160,885	6.56	293,546	0.65
Loomis Sayles Small Cap Growth	0.45 % of Assets Minimum Fee: \$45,000	26,389,729	3.83	118,754	0.45
SEG Baxter Street	1.00 % of Assets	31,804,874	4.62	318,049	1.00
Schroder International Alpha Trust Class 1	0.55 % of Assets	30,782,058	4.47	169,301	0.55
Baillie Gifford International Growth Fund Class K	0.60 % of Assets	13,702,543	1.99	82,215	0.60
Axiom Emerging Markets Trust Class 2	0.77 % of Assets	18,919,824	2.75	145,683	0.77
ABS Emerging Markets MA Fund	0.75 % of Assets	20,546,734	2.98	154,101	0.75
Garcia Hamilton Fixed Income Aggregate		29,987,088	4.36	37,484	0.13
Lord Abbett Core Fixed Income	0.19 % of Assets	39,131,638	5.68	74,350	0.19
Loomis Sayles Multisector Full Discretion Trust	0.39 % of First \$50 M 0.30 % Thereafter	52,416,441	7.61	202,249	0.39
Mesirow Small Cap Value Equity CIT - Founders Class	0.45 % of Assets	24,631,261	3.58	110,841	0.45
Invesco Mortgage Recovery Loans Feeder Fund		15,185	0.00		
PRIM Portfolio Completion Strategies		12,511,805	1.82		
Corbin Pinehurst Partners	0.85 % of Assets	14,643,171	2.13	124,467	0.85
UBS Neutral Alpha Strategies	0.90 % of Assets	12,418,107	1.80	111,763	0.90
Entrust Peru Wind Down	0.50 % of Assets	48,326	0.01	242	0.50
LMCG Serenitas Credit Gamma Offshore	Performance Based 1.50 % and 20.00 %	14,469,258	2.10	217,039	1.50
Cash Account		14,163,651	2.06		
Morgan Stanley Prime Property (\$2.8m commitment in '95)		24,247,435	3.52		
TA Realty Core Property Fund, LP (\$15m commitment in '19)		24,556,783	3.57		
TA Realty Value XIII		2,000,000	0.29		
Invesco Mortgage Recovery II (\$3M commitment in '15)		599,654	0.09		
Landmark VI (\$2m commitment in '11)		6,021	0.00		
Landmark VIII (\$4m commitment in '17)		2,212,119	0.32		
StepStone Real Estate Fund II (\$2m commitment in '11)		348,139	0.05		
Cerberus Institutional Real Estate Partners III (\$1.5m commitment in '12)		502,381	0.07		
TerraCap Partners III, LP (\$2.6m commitment in '15)		1,580,920	0.23		
TerraCap Partners IV, LP (\$4m commitment in '17)		3,509,679	0.51		
TerraCap Partners V, LP (\$8m commitment in '22)		8,321,463	1.21		
PRIM Vintage Year 2008 (\$3m commitment in '08)		877,155	0.13		
PRIM Vintage Year 2009 (\$1m commitment in '09)		49,220	0.01		

FEE SCHEDULE

Account Name	Fee Schedule	Market Value (\$)	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
PRIM Vintage Year 2010 (\$1m commitment in '10)		355,248	0.05		
PRIM Vintage Year 2011 (\$1.5m commitment in '11)		689,375	0.10		
PRIM Vintage Year 2012 (\$1m commitment in '12)		422,723	0.06		
PRIM Vintage Year 2014 (\$2m commitment in '14)		1,912,356	0.28		
PRIM Vintage Year 2017 (\$2m commitment in '17)		2,615,428	0.38		
PRIM Vintage Year 2020 (\$5m commitment in '20)		4,635,241	0.67		
PRIM Vintage Year 2021 (\$5m commitment in '21)		4,251,150	0.62		
PRIM Vintage Year 2022 (\$7.5m commitment in '22)		2,321,759	0.34		
PRIM Vintage Year 2023 (\$10m commitment in '23)		752,066	0.11		
Alcentra European DLF (\$5m commitment in '14)		20,448	0.00		
Ascent Fund IV-B (\$1m commitment in '16)		20,104	0.00		
Ascent Fund V (\$2m commitment in '08)		1,299,603	0.19		
Ascent VI (\$3m commitment in '15)		3,119,079	0.45		
CVI Credit Value Fund IV A LP (\$6m commitment in '17)		4,221,885	0.61		
Invesco Fund VI (\$5m commitment in '13)		477,377	0.07		
Kayne Energy Fund VII (\$5m commitment in '15)		2,765,200	0.40		
Foundry 2007 (\$3m commitment in '07)		218,788	0.03		
Foundry 2010 (\$3m commitment in '10)		3,830,853	0.56		
Foundry 2010 Annex (\$0.4m commitment in '15)		540,786	0.08		
Pinebridge (AIG) PEP V Asia (\$.55m commitment)		30,091	0.00		
Pinebridge (AIG) PEP V Europe (\$1.6m commitment)		2,560	0.00		
Pinebridge (AIG) PEP V Large Market US Buyout (\$.7m commitment)		50,760	0.01		
Pinebridge (AIG) PEP V Preferred Participation Fund (\$.5m commitment)		59,357	0.01		
Pinebridge (AIG) PEP V Secondary (\$.6m commitment)		14,546	0.00		
Pinebridge (AIG) PEP V Small-Mid Market US Buyout (\$.9m commitment)		39,224	0.01		
Pinebridge (AIG) PEP V US Venture (\$.48m commitment)		41,127	0.01		
Landmark XV (\$3m commitment in '13)		556,596	0.08		
JFL Equity Investors IV, L.P. (\$6m commitment in '16)		2,816,100	0.41		
Private Advisors Small Co. Coinvestment Fund, LP (\$4m commitment in '17)		5,202,408	0.76		
Park Square Credit Opportunities III (\$3m commitment in '17)		2,717,165	0.39		
Ironsides Constitution Opportunities (\$3m commitment in '18)		1,453,256	0.21		
HarbourVest Dover Street X (\$9m commitment in '20)		7,392,375	1.07		
Hamilton Lane Secondary Fund V LP (\$9m commitment in '20)		6,890,855	1.00		
Constitution Ironsides Co-Investment Fund VI (\$12m commitment in '21)		12,803,996	1.86		
JFL Equity Investors V, L.P. (\$9m commitment in '20)		11,530,590	1.67		
HarbourVest Co-Investment Fund VI (\$8m commitment in '21)		6,607,700	0.96		
Investment Management Fee		688,499,208	100.00	2,466,198	0.36

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

MWRA Employees' Retirement System

Estimated Asset Allocation Rebalance Summary

March 22, 2024

	Market Value	Weight in Fund	Target Weight	Recommendation	New Market Value	New Weight
Composite	\$692,584,991	100.0%	100.0%	\$0	\$692,584,991	100.0%
Total Balanced	\$3,909,864	0.6%	0.0%	\$0	\$3,909,864	0.6%
PRIT Core Fund	\$3,909,864	0.6%	0.0%	\$0	\$3,909,864	0.6%
Total Domestic Equity	\$217,899,667	31.5%	29.0%	-\$77,083	\$217,822,584	31.5%
Rhumblin Advisors S&P 500 Index Fund	\$94,528,479	13.6%	15.0%	\$22,000,000	\$116,528,479	16.8%
Aristotle Relative Value	\$30,259,366	4.4%	7.0%	\$20,000,000	\$50,259,366	7.3%
Coho Relative Value	\$22,033,830	3.2%	0.0%	-\$22,033,830	\$0	0.0%
Polen Focused Growth	\$20,043,253	2.9%	0.0%	-\$20,043,253	\$0	0.0%
Mesirow Smcall Cap Value	\$24,631,261	3.6%	3.5%	\$0	\$24,631,261	3.6%
Loomis Sayles Small Cap Growth	\$26,403,478	3.8%	3.5%	\$0	\$26,403,478	3.8%
Total International Equity	\$116,626,781	16.8%	13.0%	\$0	\$116,626,781	16.8%
SEG - Baxter Street Fund	\$31,804,874	4.6%		\$0	\$31,804,874	4.6%
Schroders International Alpha	\$31,462,341	4.5%	8.0%	\$0	\$31,462,341	4.5%
Baillie Gifford	\$13,893,008	2.0%		\$0	\$13,893,008	2.0%
Axiom Emerging Markets	\$18,919,824	2.7%	2.5%	\$0	\$18,919,824	2.7%
ABS Emerging Markets Strategic Portfolio	\$20,546,734	3.0%	2.5%	\$0	\$20,546,734	3.0%
Total Global Equity	\$0	0.0%	8.0%	\$0	\$0	0.0%
Global Equity TBD	\$0	0.0%	8.0%	\$0	\$0	0.0%
Total Equity	\$334,526,448	48.3%	50.0%	-\$77,083	\$334,449,365	48.3%
Total Fixed Income	\$136,937,665	19.8%	18.0%	\$0	\$136,937,665	19.8%
Garcia Hamilton	\$30,233,680	4.4%		\$0	\$30,233,680	4.4%
Lord Abbett	\$39,299,904	5.7%	8.0%	\$0	\$39,299,904	5.7%
Loomis Sayles Multi Sector Bonds	\$52,919,638	7.6%	8.0%	\$0	\$52,919,638	7.6%
LMCG Serenitas	\$14,469,258	2.1%	2.0%	\$0	\$14,469,258	2.1%
Invesco Mortgage Recovery	\$15,185	0.0%	0.0%	\$0	\$15,185	0.0%
Total Hedge Fund	\$39,621,676	5.7%	5.0%	-\$4,000,000	\$35,621,676	5.1%
PRIM Absolute Return Fund	\$12,511,805	1.8%		-\$2,000,000	\$10,511,805	1.5%
Corbin Pinehurst Partners	\$14,643,171	2.1%		-\$2,000,000	\$12,643,171	1.8%
UBS Neutral Alpha Strategies	\$12,418,107	1.8%		\$0	\$12,418,107	1.8%
Entrust Peru Winddown	\$48,593	0.0%		\$0	\$48,593	0.0%
Total Real Estate	\$67,884,594	9.8%	10.0%	\$0	\$67,884,594	9.8%
TA Realty Core	\$24,556,783	3.5%		\$0	\$24,556,783	3.5%
Morgan Stanley PPF	\$24,247,435	3.5%		\$0	\$24,247,435	3.5%
Total Private Equity & Debt	\$93,604,549	13.5%	15.0%	\$0	\$93,604,549	13.5%
Cash	\$16,100,195	2.3%	2.0%	\$4,077,083	\$20,177,278	2.9%
M&T Cash	\$16,100,195	2.3%	2.0%	\$4,077,083	\$20,177,278	2.9%



The MWRA Retirement System MSCI EAFE International Equity Index Search

The Massachusetts Water Resource Authority Retirement System (the "System") is accepting proposals from investment firms to manage an International Equity Index Fund mandate for the System's ~\$680 million, defined benefit, pension fund. To be considered, candidates must be offering a passive, MSCI EAFE Index strategy and benchmarked to the MSCI EAFE Index. Active strategies will not be considered. The System anticipates investing approximately \$30 million with the manager(s). In order to be considered, the candidates must meet the following criteria.

1. Candidates **must have familiarity with and agree to comply (in writing)** with Massachusetts G.L. Chapter 32 and Chapter 176 of the Acts of 2011. Additionally, candidates must have familiarity and agree to comply with the reporting and investment guidelines administered by PERAC. Guidelines can be found in the attached links.
<https://malegislature.gov/Laws/SessionLaws/Acts/2011/Chapter176>
<https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIV/Chapter32>
2. Candidates must read and agree to the attached side letter pertaining to mandatory contractual language, based on the guidelines above.
3. Candidates must be registered with the SEC or Massachusetts Secretary of State.
4. Preference will be given to candidates who have at least \$500 million in assets in the fund that is being suggested, however, this is subject to the Board's discretion.
5. Preference will be given to Funds that have a live track record of at least three years, however, this is subject to the Board's discretion.

By submitting a formal response to this RFP, the Manager acknowledges that the Investor, MWRA Employees' Retirement System, is bound by both Massachusetts Open Meeting Law as governed by Massachusetts General Laws Chapter 30A § 18-25 and 940 CMR 29.00, and the Massachusetts Public Records Law as governed by Massachusetts General Laws Chapter 66 and 950 CMR 32.00. Any document submitted by the Manager to the Investor or discussed in open session at a public meeting will be presumed to be a public record unless it otherwise qualifies under an exemption as specified in the statute.

If you are interested in participating in the search, please update eVestment through 4Q 2023 at www.evestment.com.

In addition, please provide NEPC with the following information:

1. A cover letter indicating your firm's interest in the search. Please include the vehicle you are proposing for this search and the fee schedule you are proposing for this mandate, as well as confirmation regarding the attached side letter.
2. An email copy of all eVestment information at the firm and product level for the proposed strategy. Please clearly indicate the product type category in which you classify your product. All historical information surrounding investment market capitalization must be included.
3. The completed Fund Summary template provided by NEPC for the strategy you are proposing.
4. Completion of the PERAC disclosure and verification forms (4), which are available on both the PERAC and NEPC website.

All questions should be directed via email to the following contact (no phone calls please). **Proposals must be submitted to MWRAsearch@nepc.com by 5:00 pm EDT, on April 8, 2024.** Proposals received after the deadline will not be considered.

MWRA Search
NEPC, LLC
MWRAsearch@nepc.com

The MWRA Retirement System Global Equity Search

The Massachusetts Water Resource Authority Retirement System (the "System") is accepting proposals from investment firms to manage a Global Equity Fund mandate for the System's \$670 million, defined benefit, pension fund. To be considered, candidates must be offering a long only Global Equity strategy, benchmarked to the MSCI World or MSCI ACWI Index. Strategies with more than 10% exposure to Emerging Markets will not be considered. The System anticipates investing approximately \$50 million with the manager(s). In order to be considered, the candidates must meet the following criteria.

1. Candidates **must have familiarity with and agree to comply (in writing)** with Massachusetts G.L. Chapter 32 and Chapter 176 of the Acts of 2011. Additionally, candidates must have familiarity and agree to comply with the reporting and investment guidelines administered by PERAC. Guidelines can be found in the attached links.
<https://malegislature.gov/Laws/SessionLaws/Acts/2011/Chapter176>
<https://malegislature.gov/Laws/GeneralLaws/PartI/TitleIV/Chapter32>
2. Candidates must read and agree to the attached side letter pertaining to mandatory contractual language, based on the guidelines above.
3. Candidates must be registered with the SEC or Massachusetts Secretary of State.
4. Preference will be given to candidates who have at least \$500 million in assets in the fund that is being suggested, however, this is subject to the Board's discretion.
5. Preference will be given to Funds that have a live track record of at least three years, however, this is subject to the Board's discretion.
6. Emerging markets exposure limited to 10%.

By submitting a formal response to this RFP, the Manager acknowledges that the Investor, MWRA Employees' Retirement System, is bound by both Massachusetts Open Meeting Law as governed by Massachusetts General Laws Chapter 30A § 18-25 and 940 CMR 29.00, and the Massachusetts Public Records Law as governed by Massachusetts General Laws Chapter 66 and 950 CMR 32.00. Any document submitted by the Manager to the Investor or discussed in open session at a public meeting will be presumed to be a public record unless it otherwise qualifies under an exemption as specified in the statute.

If you are interested in participating in the search, please update eVestment through 4Q 2023 at www.evestment.com.

In addition, please provide NEPC with the following information:

1. A cover letter indicating your firm's interest in the search. Please include the vehicle you are proposing for this search and the fee schedule you are proposing for this mandate, as well as confirmation regarding the attached side letter.
2. An email copy of all eVestment information at the firm and product level for the proposed strategy. Please clearly indicate the product type category in which you classify your product. All historical information surrounding investment market capitalization must be included.
3. The completed Fund Summary template provided by NEPC for the strategy you are proposing.
4. Completion of the PERAC disclosure and verification forms (4), which are available on both the PERAC and NEPC website.

All questions should be directed via email to the following contact (no phone calls please). **Proposals must be submitted to MWRAsearch@nepc.com by 5:00 pm EDT, on April 10th, 2024.** Proposals received after the deadline will not be considered.

MWRA Search
NEPC, LLC
MWRAsearch@nepc.com



PRIVATE MARKETS PACING

MWRA EMPLOYEES' RETIREMENT
SYSTEM

MARCH 28, 2024

Sebastian Grzejka
Michael Sullivan
Francesca LoVerde



PROPRIETARY & CONFIDENTIAL

OVERVIEW AND RECOMMENDATION

- **NEPC provides an annual review of MWRA's private markets allocations to determine the commitment budget for the upcoming year**
 - We consider: existing manager commitments and anticipated calls/distributions, adjustments to the target allocation and the forecasted net growth rate
 - An annual review provides an opportunity to make adjustments to any of the above factors and assess the program carefully so as to not over-allocate to illiquid investments

- **The strategy is to maintain an active commitment pace in each vintage year going forward, being mindful of liquidity needs**
 - Fund and manager recommendations are made in the context of the existing portfolio along with NEPC's market views
 - Our goal is to develop a program that will invest in various strategies and achieve returns in excess of public market returns
 - The MWRA Retirement System has a 15% target each to private equity and debt
 - Currently, the Plan experiences ~\$2.5 million in regular net outflows monthly tied to payroll and benefit payments

- **Based on the annual pacing, the System should commit up to \$24 million dollars to private markets, \$10 million of which has already been committed to PRIM VY 2024**
 - For the remaining \$14 million in commitments, NEPC recommends focusing on Secondaries strategies



NEPC PRIVATE EQUITY KEY THEMES

FREE CASHFLOW MATTERS

Theme: Strategies are shifting from growth at any cost to a balanced emphasis on growth with a keen focus on cash flow management

Risk: Leveraging is becoming costlier, necessitating companies to uphold sufficient cash reserves to meet interest expenses. Return expectations are anticipated to decrease.

Opportunity: Prioritizing managers with the skill set to generate returns without relying heavily on financial engineering

COMPETITIVE LANDSCAPE CONSOLIDATION

Theme: A shift toward quality, evident in a decline in the number of funds being raised from recent historic highs

Risk: Anticipated challenges for some managers in raising capital, especially high fundraising risk for newer entrants

Opportunity: Accessing high-quality managers as Limited Partners reduce their commitments. Reduced competition in the market is expected to drive lower valuations.

VALUATIONS ARE COMING BACK TO EARTH

Theme: Foresee continued downward pressure on both buyout and venture pricing throughout 2024

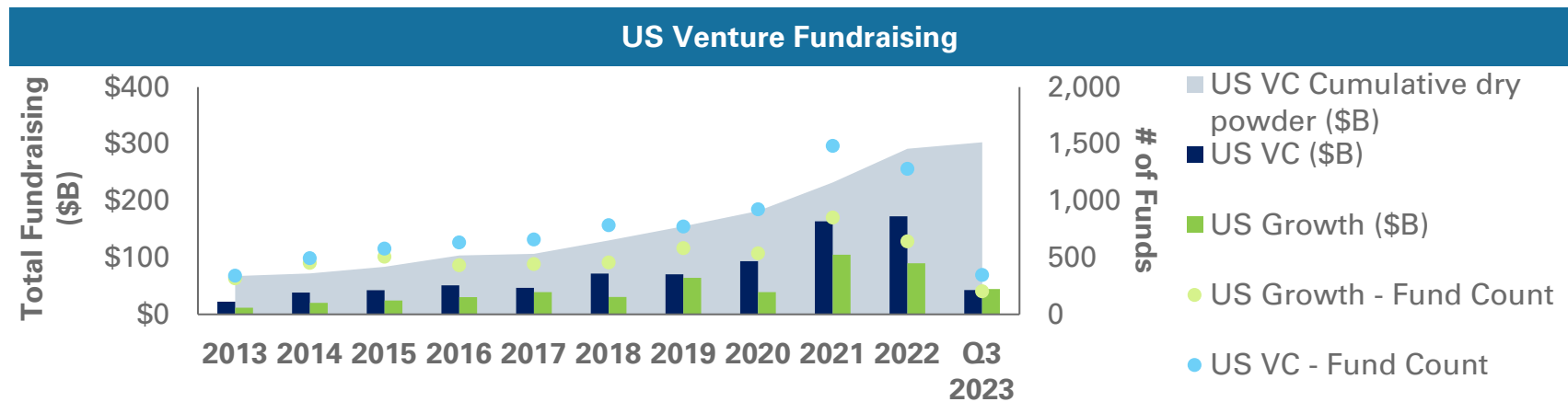
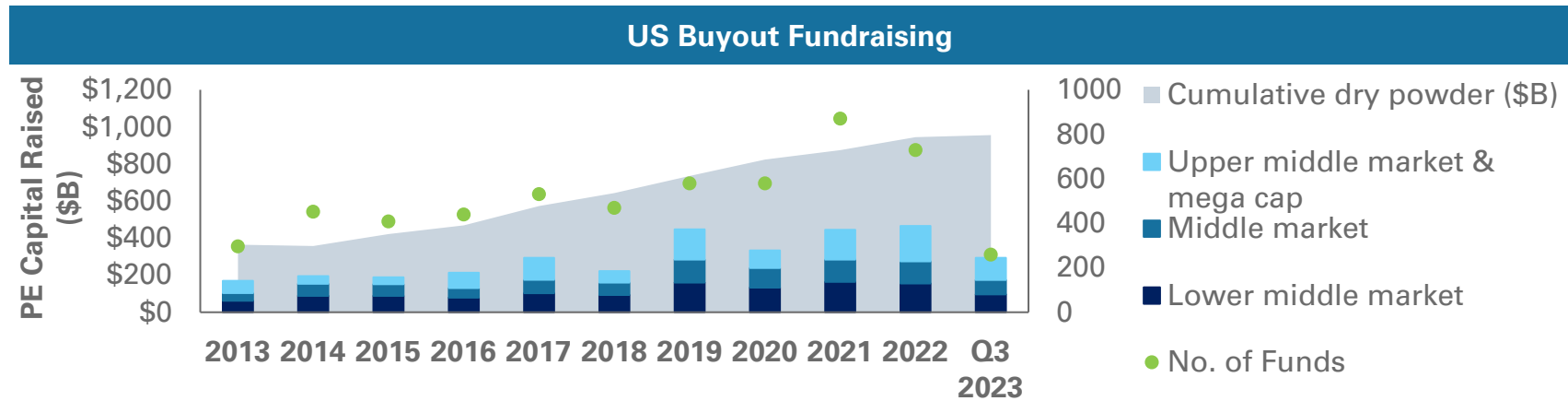
Risk: Anticipate devaluations for existing investments

Opportunity: General Partners have been scaling back their pace of deployment for the past 12 to 18 months. As companies deplete their cash reserves, management teams are likely to recognize that current valuations represent a significant discount compared to the previous 24 months.



PRIVATE EQUITY FUNDRAISING

FUNDRAISING DOWN FROM ITS PEAK IN 2021



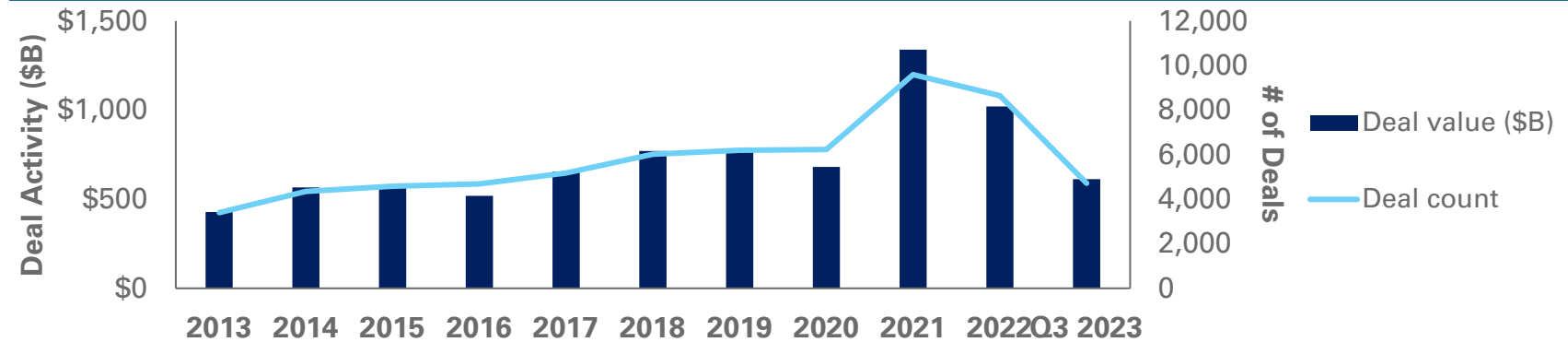
Source: Venture fundraising data from Q3 2023 Pitchbook NVCA Venture Monitor Report as of 09/30/2023. Venture dry powder data from Pitchbook Q3 2023 Pitchbook NVCA Venture Monitor Report as of 03/31/2023. Growth equity and buyout fundraising data from Pitchbook Q3 2023 US PE Breakdown Report as of 09/30/2023. Buyout dry powder data from Pitchbook Q3 2023 US PE Breakdown Report as of 03/31/2023.



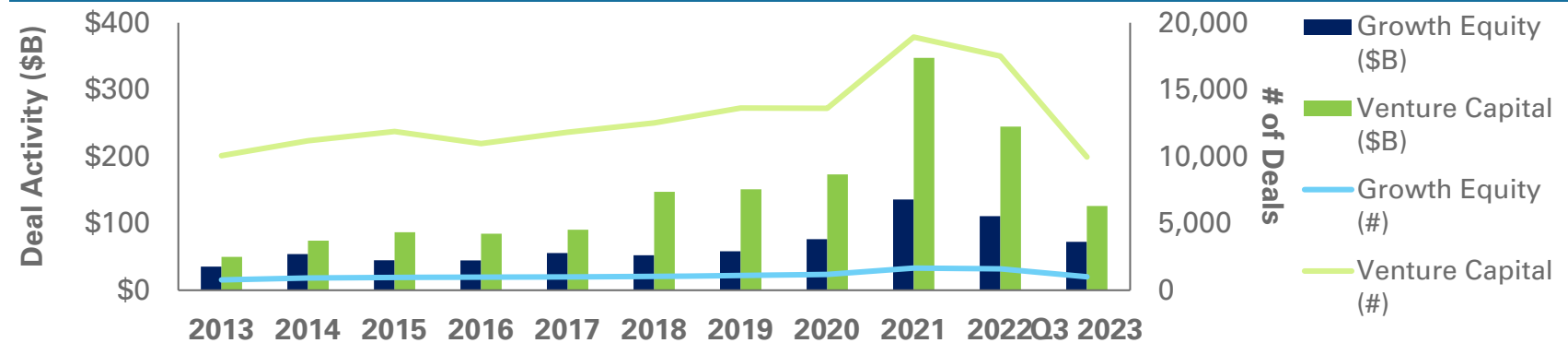
PRIVATE EQUITY DEAL ACTIVITY

PRIVATE EQUITY ACTIVITY HAS SLOWED MEANINGFULLY

US Buyout New Deal Activity



US Venture New Deal Activity



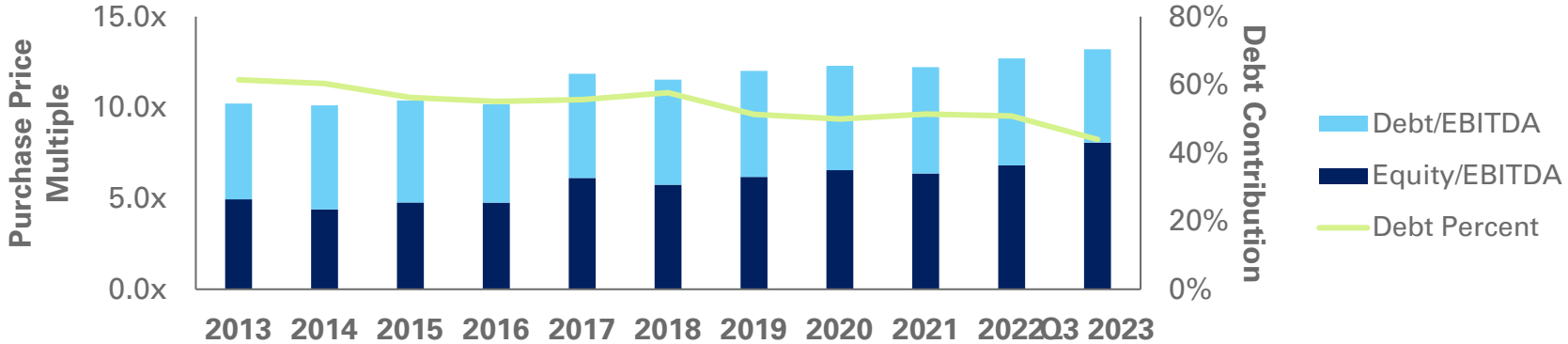
Source: Venture investment data from Q3 2023 Pitchbook NVCA Venture Monitor Report as of 09/30/2023. Growth equity and buyout investment data from Pitchbook Q3 2023 US PE Breakdown Report as of 09/30/2023.



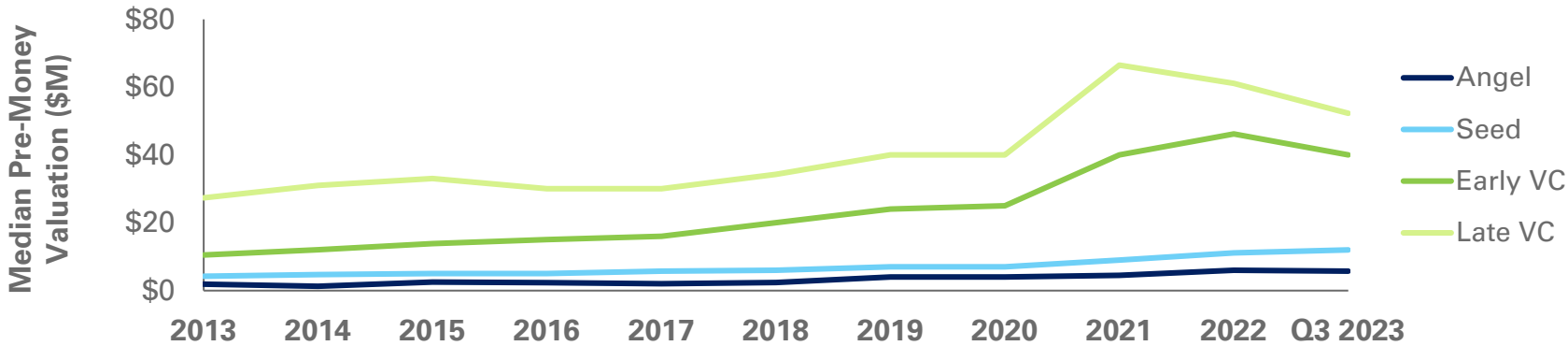
PRIVATE EQUITY VALUATIONS

VALUATIONS HAVE STALLED

US & Europe Buyout Valuations



US Venture Valuations

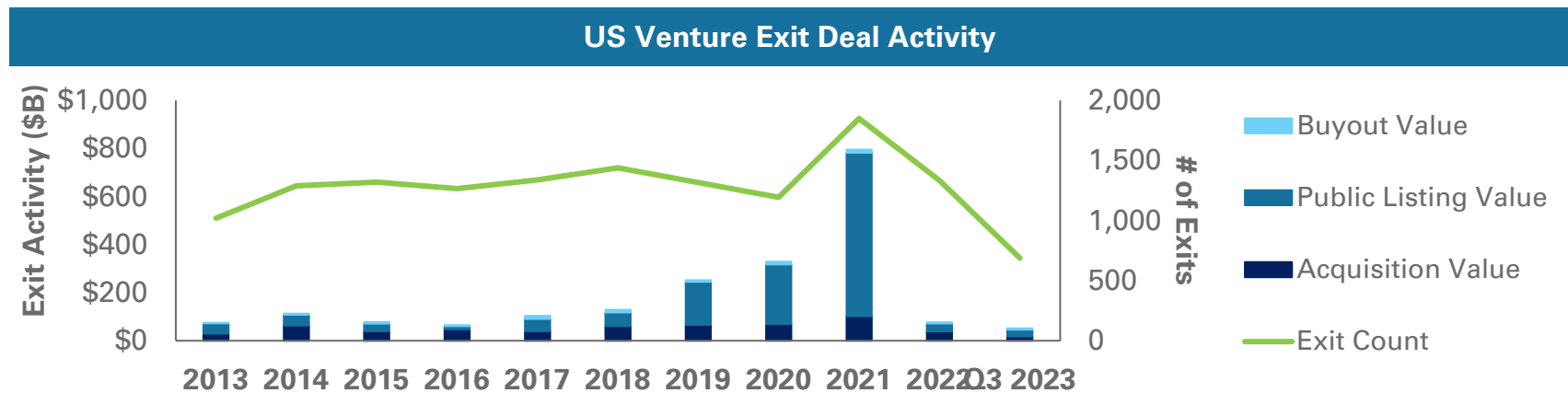
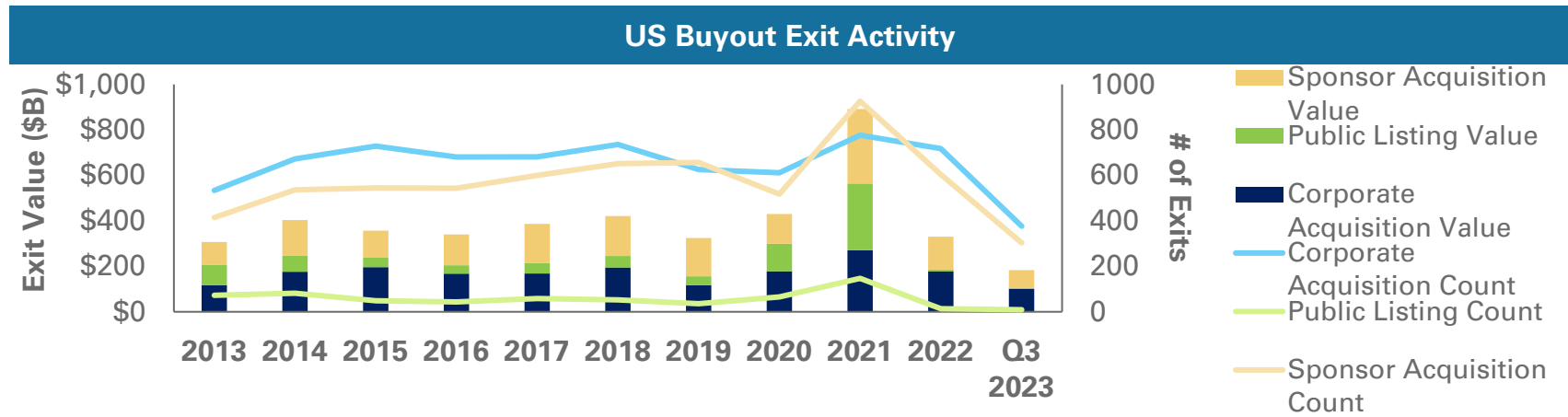


Source: Buyout valuation data from Pitchbook Q3 US PE Breakdown Report as of 09/30/2023.
 Venture valuation data from Q3 2023 Pitchbook NVCA Venture Monitor Report as of 09/30/2023.



PRIVATE EQUITY EXITS

EXIT ACTIVITY HAS PLUMMETED



Source: Buyout exit data from Pitchbook Q3 2023 US PE Breakdown Report as of 09/30/2023.
 Venture exit data from Q3 2023 Pitchbook NVCA Venture Monitor Report as of 09/30/2023.



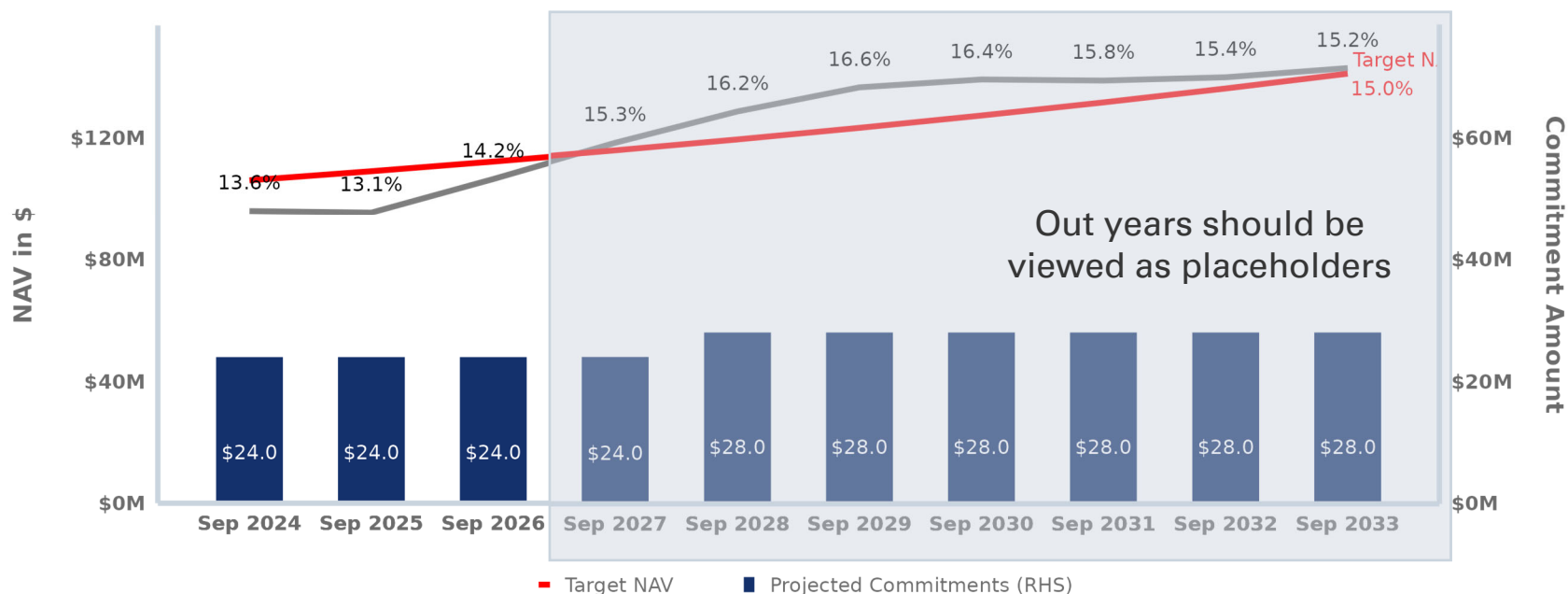
PRIVATE MARKETS PACING PLAN



PROPRIETARY & CONFIDENTIAL

COMMITMENTS & ALLOCATION PROJECTIONS

Private Markets Commitments by Vintage

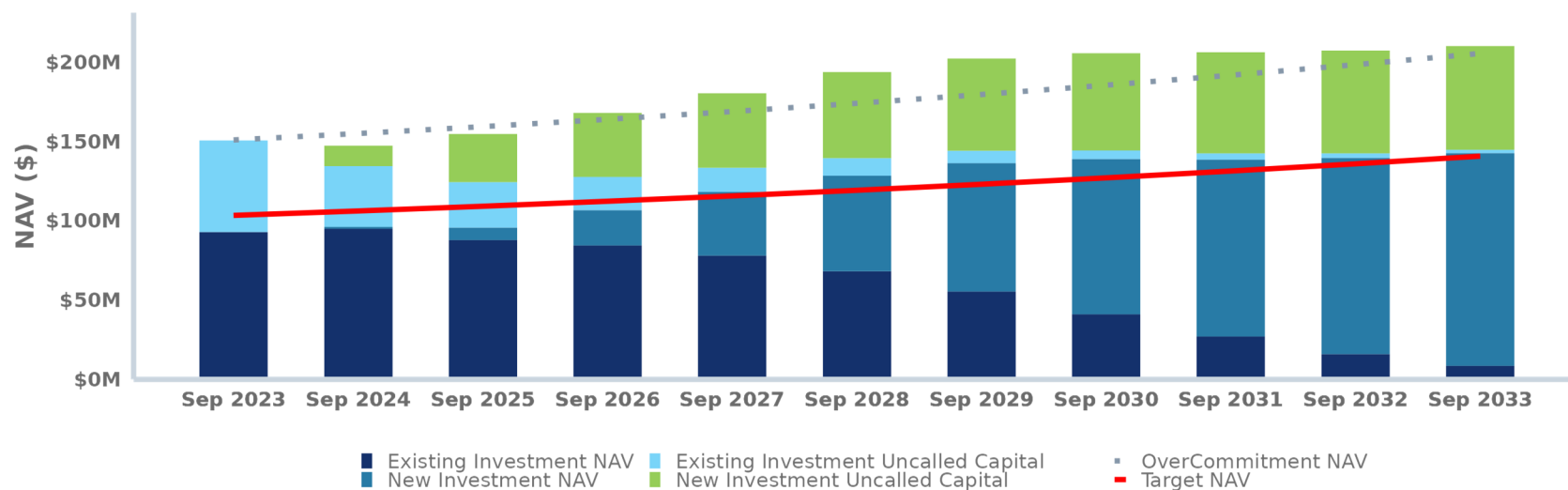


Description	More Certain					Less Certain				
	2024-09-30	2025-09-30	2026-09-30	2027-09-30	2028-09-30	2029-09-30	2030-09-30	2031-09-30	2032-09-30	2033-09-30
Total Commitments (\$M)	\$24.0	\$24.0	\$24.0	\$24.0	\$28.0	\$28.0	\$28.0	\$28.0	\$28.0	\$28.0
Target (%)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Projected NAV / Total Portfolio Assets	13.6%	13.1%	14.2%	15.3%	16.2%	16.6%	16.4%	15.8%	15.4%	15.2%



ASSET PROJECTIONS

Private Markets Portfolio Projections



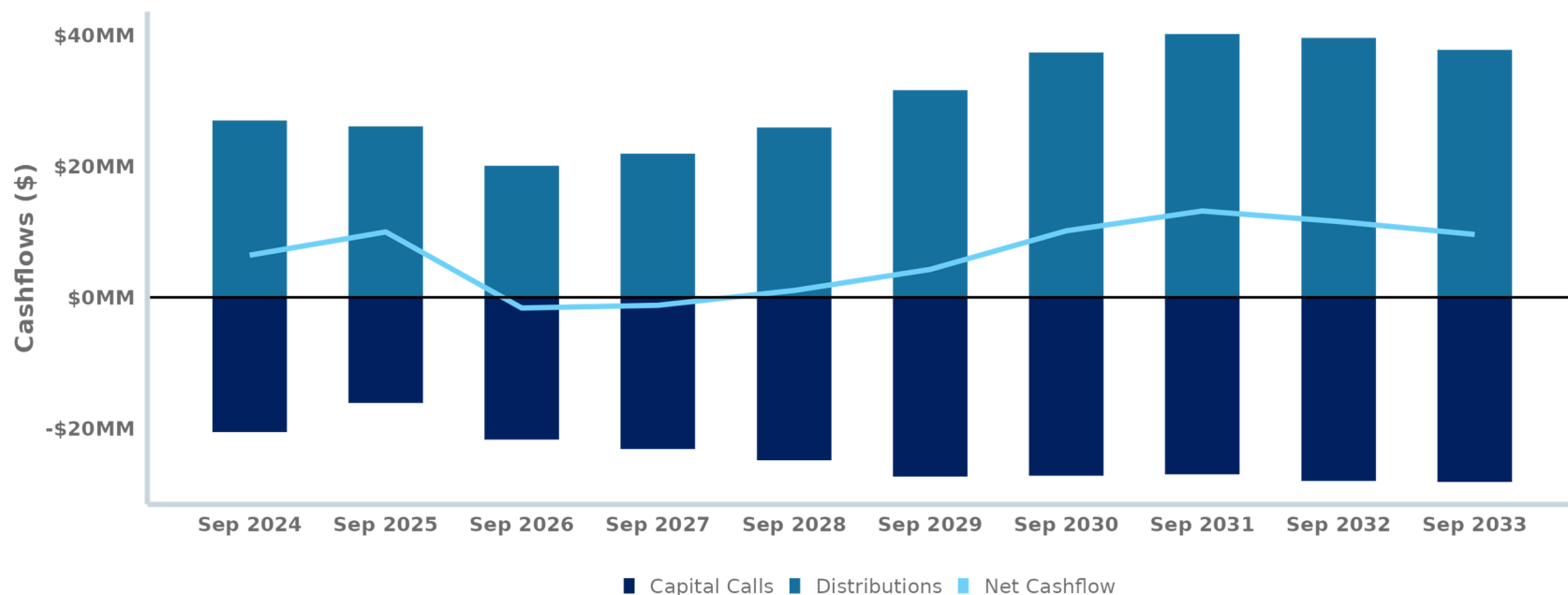
Projection Summary

Description	2023-09-30	2024-09-30	2025-09-30	2026-09-30	2027-09-30	2028-09-30	2029-09-30	2030-09-30	2031-09-30	2032-09-30	2033-09-30
Net Asset Value (NAV)	\$92.8	\$96.0	\$95.5	\$106.5	\$118.0	\$128.2	\$136.1	\$138.7	\$138.3	\$139.4	\$142.4
Uncalled Capital	\$57.7	\$51.2	\$59.0	\$61.3	\$62.2	\$65.3	\$65.9	\$66.7	\$67.7	\$67.7	\$67.5
NAV + Uncalled Capital	\$150.5	\$147.2	\$154.5	\$167.8	\$180.2	\$193.5	\$202.1	\$205.4	\$206.0	\$207.1	\$209.9
Target NAV	\$103.3	\$106.1	\$109.0	\$112.2	\$115.5	\$119.1	\$122.9	\$126.9	\$131.2	\$135.7	\$140.6
NAV (%)	13.5%	13.6%	13.1%	14.2%	15.3%	16.2%	16.6%	16.4%	15.8%	15.4%	15.2%
NAV + Uncalled Capital (%)	21.9%	20.8%	21.3%	22.4%	23.4%	24.4%	24.7%	24.3%	23.6%	22.9%	22.4%
Target Allocation (%)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%



CASH FLOW PROJECTIONS

Private Markets Projected Capital Calls & Distributions



Description	2024-09-30	2025-09-30	2026-09-30	2027-09-30	2028-09-30	2029-09-30	2030-09-30	2031-09-30	2032-09-30	2033-09-30
Capital Calls	-\$20.6	-\$16.1	-\$21.7	-\$23.2	-\$24.9	-\$27.4	-\$27.2	-\$27.0	-\$28.0	-\$28.2
Distributions	\$27.0	\$26.1	\$20.1	\$21.9	\$25.9	\$31.6	\$37.4	\$40.2	\$39.6	\$37.8
Net Cash Flow	\$6.4	\$10.0	-\$1.6	-\$1.2	\$1.1	\$4.3	\$10.2	\$13.2	\$11.6	\$9.6





APPENDIX



APPENDIX

Projection Summary

Description	2023-09-30	2024-09-30	2025-09-30	2026-09-30	2027-09-30	2028-09-30	2029-09-30	2030-09-30	2031-09-30	2032-09-30	2033-09-30
Net Asset Value (NAV)	\$92.8	\$96.0	\$95.5	\$106.5	\$118.0	\$128.2	\$136.1	\$138.7	\$138.3	\$139.4	\$142.4
Uncalled Capital	\$57.7	\$51.2	\$59.0	\$61.3	\$62.2	\$65.3	\$65.9	\$66.7	\$67.7	\$67.7	\$67.5
NAV + Uncalled Capital	\$150.5	\$147.2	\$154.5	\$167.8	\$180.2	\$193.5	\$202.1	\$205.4	\$206.0	\$207.1	\$209.9
Target NAV	\$103.3	\$106.1	\$109.0	\$112.2	\$115.5	\$119.1	\$122.9	\$126.9	\$131.2	\$135.7	\$140.6
OverCommitment Pace	1.46x	1.46x	1.46x	1.46x	1.46x	1.46x	1.46x	1.46x	1.46x	1.46x	1.46x
OverCommitment Target NAV	\$150.8	\$154.9	\$159.2	\$163.8	\$168.7	\$173.9	\$179.4	\$185.3	\$191.5	\$198.2	\$205.3
NAV (%)	13.5%	13.6%	13.1%	14.2%	15.3%	16.2%	16.6%	16.4%	15.8%	15.4%	15.2%
Uncalled Capital (%)	8.4%	7.2%	8.1%	8.2%	8.1%	8.2%	8.0%	7.9%	7.7%	7.5%	7.2%
NAV + Uncalled Capital (%)	21.9%	20.8%	21.3%	22.4%	23.4%	24.4%	24.7%	24.3%	23.6%	22.9%	22.4%
Target Allocation (%)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Plan NAV	\$688.5	\$707.1	\$726.8	\$747.8	\$770.2	\$793.9	\$819.2	\$846.1	\$874.6	\$905.0	\$937.3



PACING PLAN DISCLAIMERS

- **NEPC's private markets pacing analysis projects a potential level of future assets and cash flows for a single scenario based on a series of assumptions. This analysis is intended to help estimate future exposure levels. It is not a guarantee of future cash flows, appreciation or returns.**
- **The timing and amounts of projected future cash flows and market values of investments could vary significantly from the amounts projected in this pacing analysis due to manager-specific and industry-wide macroeconomic factors.**
- **Estimates of projected cash flows and market values for existing private markets commitments were made at the Fund level and do not incorporate any underlying portfolio company projections or analysis.**
- **The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.**
- **Data used to prepare this report was obtained directly from the investment managers and other third parties. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
- **This report may contain confidential or proprietary information and is intended only for the designated recipient(s). If you are not a designated recipient, you may not copy or distribute this document.**



ALTERNATIVE INVESTMENT DISCLOSURES

It is important that investors understand the following characteristics of non-traditional investment strategies including hedge funds and private equity:

1. Performance can be volatile and investors could lose all or a substantial portion of their investment
2. Leverage and other speculative practices may increase the risk of loss
3. Past performance may be revised due to the revaluation of investments
4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms
5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value
6. These funds are not subject to the same regulatory requirements as registered investment vehicles
7. Managers may not be required to provide periodic pricing or valuation information to investors
8. These funds may have complex tax structures and delays in distributing important tax information
9. These funds often charge high fees
10. Investment agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy

