

Investment Board Meeting Agenda

Friday, December 6, 2024

10:30 a.m. – 1:45 p.m.

IPERS Board Room, 7401 Register Drive, Des Moines, IA

Conference Telephone Number: 646-931-3860

Meeting ID: 821-0478-7075

- 10:30 a.m. Call to Order**
- 10:30 a.m. Approval of Minutes from Previous Board Meetings**
- September 25, 2024, Meeting
 - September 26, 2024, Meeting
- 10:35 a.m. 2024 Actuarial Valuation Report**
Patrice Beckham, Brent Banister and Bryan Hoge, *Cavanaugh Macdonald Consulting, LLC*
- 11:35 a.m. CEO Report**
Greg Samorajski, *IPERS*
- 11:50 a.m. Administrative Rules**
Elizabeth Hennessey, *IPERS*
- 12:00 p.m. Lunch Break**
- 12:15 p.m. CY2025 Private Markets Commitments**
Pat Reinhardt and Marcus Dong, *IPERS*
- 12:45 p.m. Absolute Return Search Manager Hiring Recommendations**
John Fujiwara, *IPERS*
- 1:00 p.m. IPERS Investment Staff Reports**
- Beta Report – Sriram Lakshminarayanan
 - Alpha Report – Investment Team
 - Private Market Program – Investment Team
 - Risk Report – Sriram Lakshminarayanan
 - FY2024 Investment Management Expenses – Keith Scholten
 - CIO Updates – Sriram Lakshminarayanan
- 1:30 p.m. Other Business**
- 1:35 p.m. Public Comments**
- 1:40 p.m. Other Business**
- Confirm Next Meeting – Friday, March 28, 2025
 - Next BAC Meeting – Monday, January 27, 2025
- 1:45 p.m. Adjourn**



INVESTMENT BOARD MEETING MINUTES

IPERS Board Room

7401 Register Drive, Des Moines, Iowa

September 25, 2024

The following people participated in the IPERS Investment Board Meeting held in the IPERS Board Room on Wednesday, September 25, 2024.

Members of the Board - Present

Justin Kirchhoff, Chair

State Treasurer Roby Smith

Tami Loge

Kris Rowley

Matt Watters

Representative Martin Graber

Senator Molly Donahue

Senator Mark Lofgren

Members of the Board - Absent

Bill Bemis, Vice Chair

Representative Amy Nielsen

Administration and Staff

Greg Samorajski, CEO

Sriram Lakshminarayanan, CIO

John Fujiwara, Head of Strategy

Sheldon Lien, Senior Investment Officer

Pat Reinhardt, Senior Investment Officer

Keith Scholten, Senior Investment Officer

Marcus Dong, Retirement Investment Officer

Kate Fishman, Retirement Investment Officer

Ankit Saw, Retirement Investment Officer

Melinda McElroy, Executive Assistant

Rick Hindman, Deputy Executive Director

Elizabeth Hennessey, General Counsel

Wilshire

Thomas Toth

Ned McGuire

Ali Kazemi

Presenters

Cynthia Lande, BrownWinick Law

Caleb Brus, BrownWinick Law

Proceedings

Chairperson Justin Kirchhoff called the meeting to order at 1:00 p.m.

Investment Board Governance and Fiduciary Training

Cynthia Lande and Caleb Brus of BrownWinnick Law provided the Board with an educational session that reviewed the following: legal standards as defined by the Internal Revenue Code, Iowa Code Chapter 97B, Iowa Trust Code and Employee Retirement Income Security Act (ERISA); IPERS' structure and governance including key roles; fiduciary duties and who are IPERS' fiduciaries; and best practices.

Asset Allocation Education and Assumptions Update

Thomas Toth and Ned McGuire of Wilshire provided the Board with an educational session featuring an update on capital markets and a review of the risk and returns assumptions. Wilshire explained all the factors considered by their firm in determining appropriate return, risk and drawdown assumptions over the long term for capital markets.

Absolute Return Strategies

IPERS Investment staff members John Fujiwara and Sheldon Lien provided a brief presentation to the Board on staff's rationale for looking for un-correlated absolute return strategies. They explained the impact of successfully diversifying the sources of excess returns will lead to a larger terminal value of the total fund if all assumptions are met.

Adjournment

The meeting adjourned at 3:35 p.m.



INVESTMENT BOARD MEETING MINUTES

IPERS Headquarters

7401 Register Drive, Des Moines, Iowa

September 26, 2024

The following people participated in the IPERS Investment Board meeting held on Thursday, September 26, 2024.

Members of the Board – Present

Justin Kirchhoff, Chair

Bill Bemis, Vice Chair

State Treasurer Roby Smith

Tami Loge

Kris Rowley

Matt Watters

Representative Martin Graber

Senator Molly Donahue

Members of the Board – Absent

Representative Amy Nielsen

Senator Mark Lofgren

Administration and Staff

Greg Samorajski, CEO

Sriram Lakshminarayanan, CIO

John Fujiwara, Head of Strategy

Sheldon Lien, Senior Investment Officer

Keith Scholten, Senior Investment Officer

Marcus Dong, Retirement Investment Officer

Kate Fishman, Retirement Investment Officer

Ankit Saw, Retirement Investment Officer

Melinda McElroy, Executive Assistant

Elizabeth Hennessey, General Counsel

Shawna Lode, Chief Strategy Officer

Tara Hagan, Chief Financial Officer

Consultant – Wilshire

Thomas Toth

Ali Kazemi

Ned McGuire

Presenter - CEM Benchmarking

Christopher Doll

Proceedings

Chairperson Justin Kirchhoff called the meeting to order at 10:30 a.m.

Approval of Minutes

Tami Loge moved to approve the meeting minutes from the June 20, 2024, Investment Board meeting. Kris Rowley seconded. The motion carried by unanimous voice vote.

CEO Report

Greg Samorajski shared with the Board a high-level review on how IPERS' funding works, stating contributions plus investment earnings are used to pay benefits and expenses. A portion of that income goes towards paying down the unfunded liability and any new liabilities.

IPERS FY2026 Budget

Greg Samorajski reviewed IPERS' proposed FY2026 budget noting unlike most state government agencies, IPERS receives no funding from the state general fund or any other government source. Expenditures are paid entirely from the IPERS Trust Fund that is funded only with member and employer contributions. IPERS' administrative budget is subject to appropriation from the Iowa Legislature. IPERS is seeking a budget increase of \$62.7 million and 13 new full-time employees. Most of the request, \$60 million spread over 10 years, is to replace IPERS' pension administration system. The Board expressed their support of the budget request.

CEM Investment Benchmarking Review for CY2023

Christopher Doll of CEM Benchmarking reviewed IPERS' investment benchmarking results for the 5-year period ending December 31, 2023. IPERS once again ranked as a low-cost fund based on CEM's analysis for the calendar year. Christopher reported IPERS' 5-year net value added was 1.6%, exceeding the peer median of 1.1%.

FY2024 Investment Performance Review

Thomas Toth and Ali Kazemi of Wilshire presented IPERS' investment performance for the fiscal year ended June 30, 2024. The portfolio returned 9.1% (net of fees) in FY2024, outperforming its policy benchmark return of 8.8% over the same period.

Annual Asset Allocation Review

Thomas Toth, Ali Kazemi and Ned McGuire of Wilshire presented the annual asset allocation review modeling potential portfolios with de-risking options. Wilshire concluded maintaining the current portfolio target allocation is reasonable given IPERS' investment horizon and recommended no changes.

Annual Review of Investment Policy and Goal Statement

No changes were made to Investment Policy and Goal Statement or the Asset Allocation Policy.

IPERS Investment Staff Reports

Beta Report

Sriram Lakshminarayanan reported all asset classes were within acceptable policy ranges as of September 13, 2024, and the total fund market value estimate was \$44.8 billion on that date.

Alpha Report

The investment staff reviewed the alpha report noting staff has no concerns with the active investment managers.

Private Markets Program

Pat Reinhardt reviewed IPERS' private market managers noting minor performance concerns with Heitman CREDIT.

Risk Report

Sriram Lakshminarayan presented IPERS' risk monitoring report showing plan-level total active risk stable and no meaningful increases or decreases are planned in the next quarter.

Election of Chair and Vice Chair

Justin Kirchhoff nominated Bill Bemis for chair and Kris Rowley as vice chair. Tami Loge seconded the nominations. The motion carried by unanimous roll call vote.

Ayes: Justin Kirchhoff, Bill Bemis, Treasurer Smith, Tami Loge, Kris Rowley and Matt Watters

Nays: None

MOTION PASSED

Public Comments

Public comments were heard from former Senator Patrick Deluhery.

Confirm Next Meeting Date and Adjournment

The next regularly scheduled IPERS Investment Board meeting is Friday, December 6, 2024. With no further business to come before the Board, Kris Rowley moved to adjourn the meeting. Tami Loge seconded. The meeting adjourned at 2:05 p.m.

Presentation of the IPERS June 30, 2024 Actuarial Valuation Results

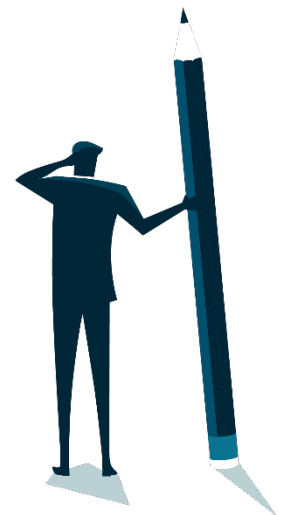
**Presented
December 6, 2024**



Patrice A. Beckham, FSA, EA, FCA, MAAA
Brent A. Banister, PhD, FSA, EA, FCA, MAAA
Bryan K. Hoge, FSA, EA, FCA, MAAA



- Actuarial Valuation Process
- June 30, 2024 Valuation Results
- FY 2024 GASB Results



- Develop a strategy to systematically fund the benefits of the system
- Measure assets and liabilities (future benefit payments)
- Determine actuarial contribution rates (6/30/24 valuation results are used to set the FY 2026 contribution rates)
- Analyze experience (actual vs. expected) in past year
- Report on trends and analyze actuarial risks



- Snapshot picture of the System as of a single date (June 30, 2024)
- Statistical projection of amount/timing of future benefits to be paid
 - Uses one set (best estimate) of assumptions out of many possible scenarios
 - Other reasonable sets of assumptions exist
 - Different assumptions would produce different results, potentially significant
- Actual experience determines the true costs of the System (actual benefit payments paid to members)



- HF 2661 passed which provided the Sheriffs and Deputies with benefit enhancements.
 - Increased the Unfunded Actuarial Liability by \$109 million
 - Increased the contribution rate by 7.16%
- Actuarial experience: actual versus assumed
 - Return of 9.07% on the market value of assets for FY 2024
 - Due to asset smoothing method, the return on actuarial assets was 7.61% which resulted in an actuarial gain of \$245 million
 - Liability loss of \$23 million
- June 30, 2024 Valuation Results
 - Total system Unfunded Actuarial Liability decreased
 - Funded ratio increased
 - Required contribution rate remained the same for Regular members and Protection Occupation, but increased for Sheriffs and Deputies due to HF 2661



Key Valuation Results for the Total System

	<u>June 30, 2024</u>	<u>June 30, 2023</u>
Actuarial Liability (\$M)	\$ 47,303	\$ 45,720
Actuarial Assets (\$M)	<u>42,927</u>	<u>41,013</u>
Unfunded Actuarial Liability	\$ 4,375	\$ 4,707
Funded Ratio – AVA	90.75%	89.70%
Funded Ratio – MVA	92.30%	90.13%
Actuarial Contribution Rate*	13.54%	13.89%
Required Contribution Rate*	<u>(15.73%)</u>	<u>(15.73%)</u>
Shortfall/(Margin)*	(2.19%)	(1.84%)
* Regular members only		

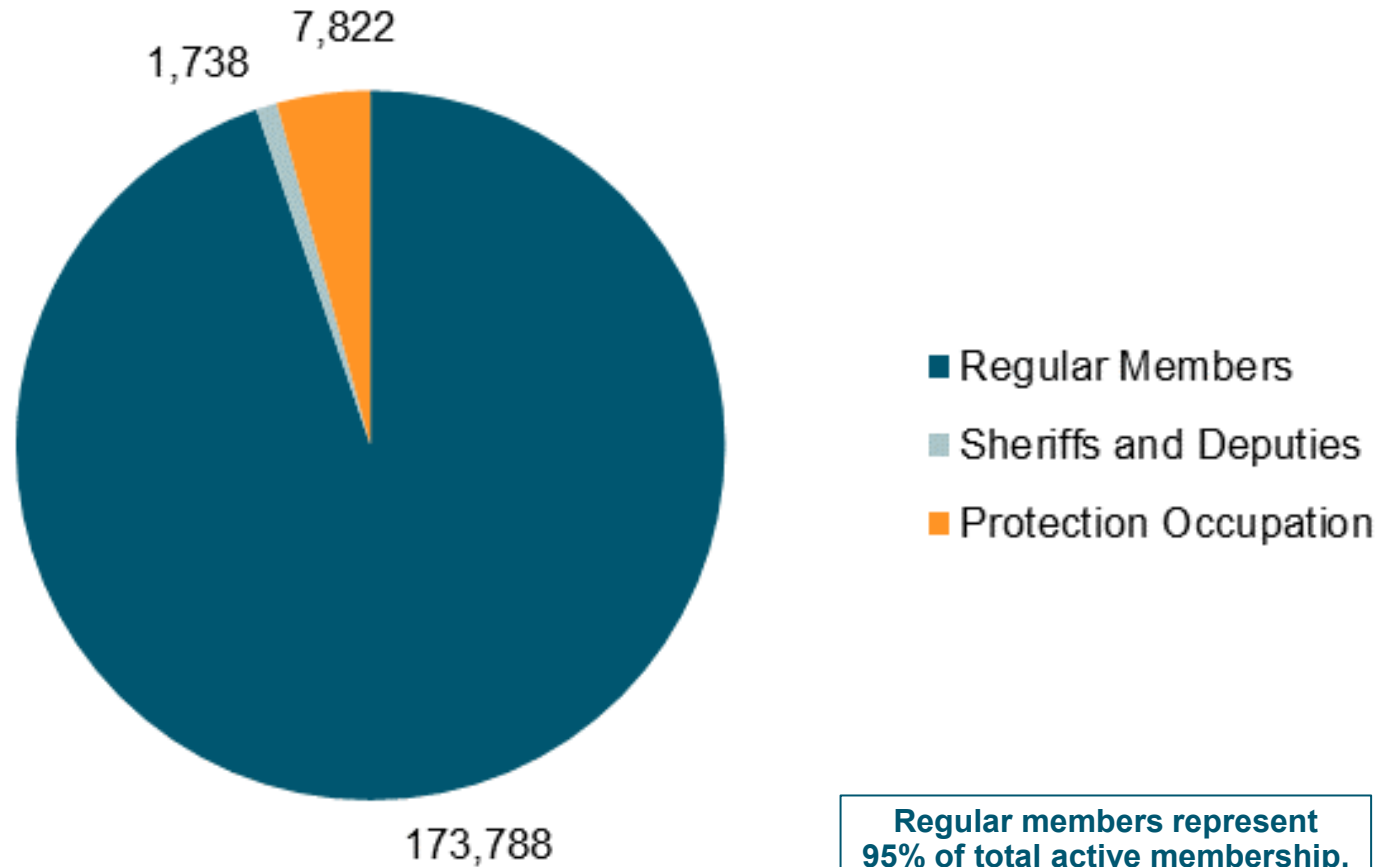
Note: Numbers may not add due to rounding.

Key Valuation Results By Member Group

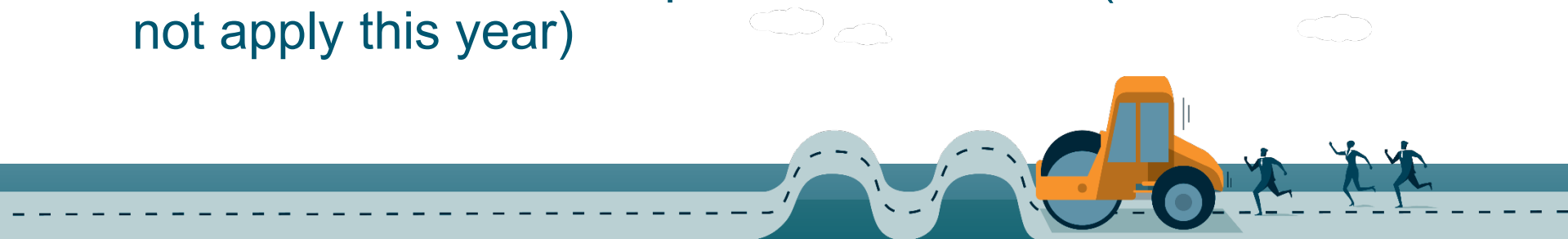
Contribution Rate for FY 2026			
	Regular Membership	Sheriffs and Deputies	Protection Occupation
1. Normal Cost Rate	10.63%	20.06%	15.43%
2. Amortization of UAL	<u>2.91%</u>	<u>4.12%</u>	<u>0.00%</u>
3. Actuarial Contribution Rate	13.54%	24.18%	15.43%
4. Required Contribution Rate	15.73%	24.18%	15.52%
5. Shortfall/(Margin) (3) – (4)	(2.19%)	0.00%	(0.09%)
6. Employee Contribution Rate	6.29%	12.09%	6.21%
7. Employer Contribution Rate (4) - (6)	9.44%	12.09%	9.31%
8. Unfunded Actuarial Liability (\$M)	\$4,370	\$88	(\$82)
9. Funded Ratio	90.06%	91.81%	103.65%



Active Membership By Group



- Market value not used directly in funding valuation
- Asset valuation method used to smooth the effect of market fluctuations
- Actuarial value is expected value (based on the expected return of 7.0% and contributions and benefit payments) plus 25% of difference between actual and expected values
- Resulting value of actuarial assets must be within a corridor of 80-120% of pure market value (corridor did not apply this year)

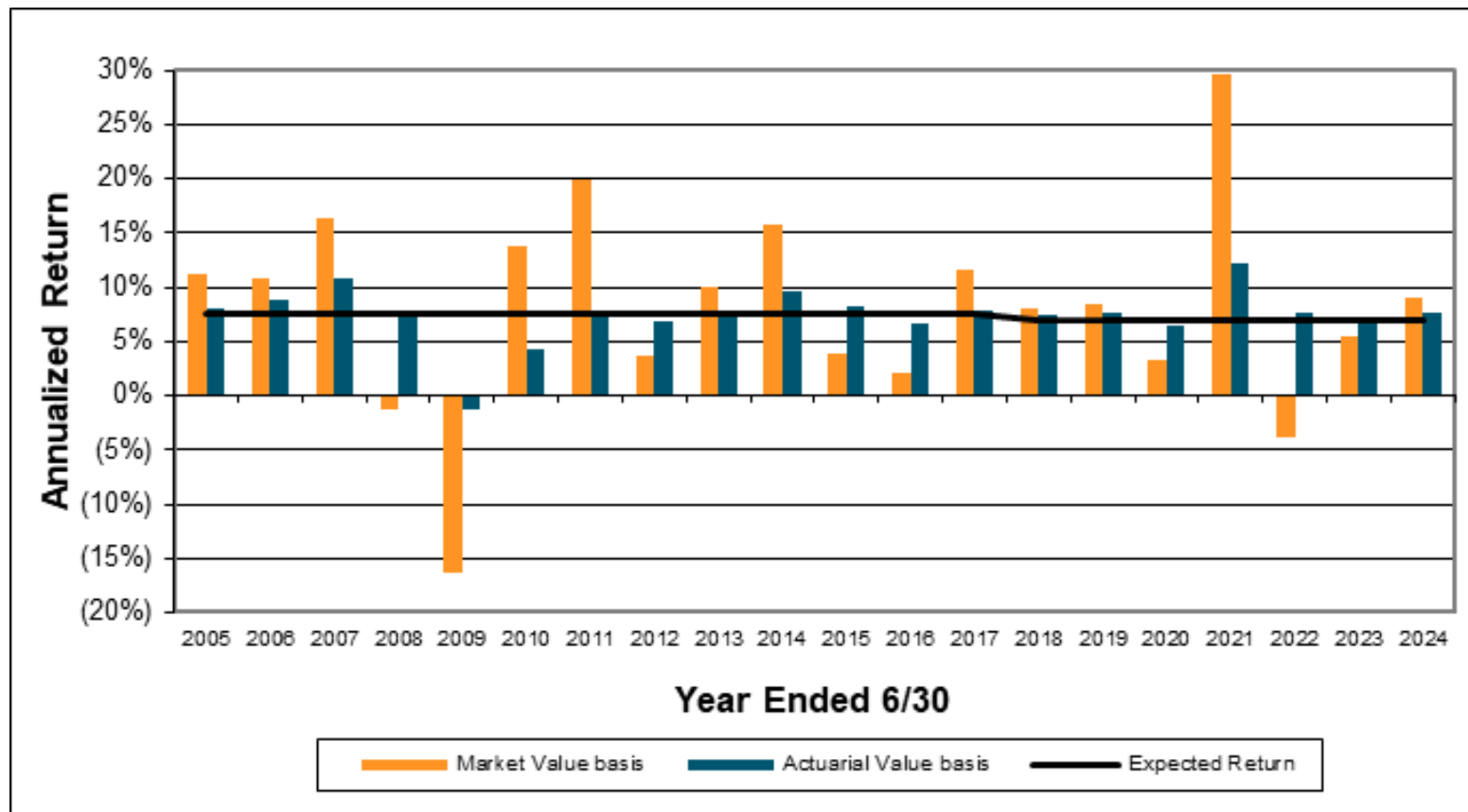


	<u>Market Value</u>	<u>Actuarial Value</u>
Assets, June 30, 2023	\$ 41,206	\$ 41,013
▪ Contributions	1,578	1,578
▪ Benefit Payments	(2,739)	(2,739)
▪ Investment Income	3,616	3,075
▪ FED Transfer	0	0
Assets, June 30, 2024	\$ 43,661	\$ 42,927
Estimated Rate of Return	9.07%*	7.61%

* As reported by IPERS

The 7.61% return on actuarial value of assets resulted in a \$245 million actuarial gain. Due to unrecognized investment gains, the market value of assets is currently 102% of actuarial value.

Historical Asset Returns

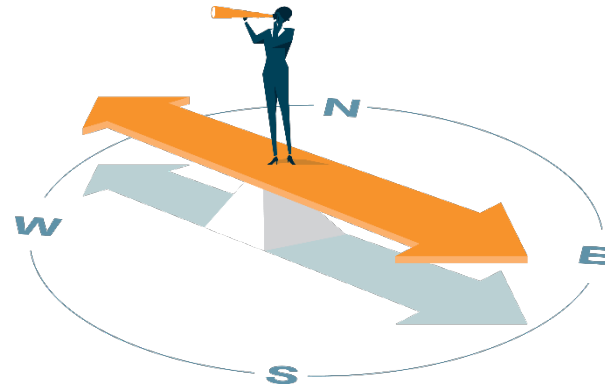


Expected return is 7.5% for all years through 2017 and 7.0% thereafter.

UAL by Group (\$ in Millions as of 6/30/24)

	<u>Regular</u>	<u>Sheriffs & Deputies</u>	<u>Protection Occupation</u>	<u>Total</u>
Actuarial Liability	\$43,969	\$1,072	\$2,262	\$47,303
Actuarial Value of Assets	<u>39,599</u>	<u>984</u>	<u>2,344</u>	<u>42,927</u>
Unfunded Actuarial Liability (UAL)	\$4,370	\$88	\$(82)	\$4,375
Funded Ratio	90.1%	91.8%	103.6%	90.8%

Note: Numbers may not add due to rounding.



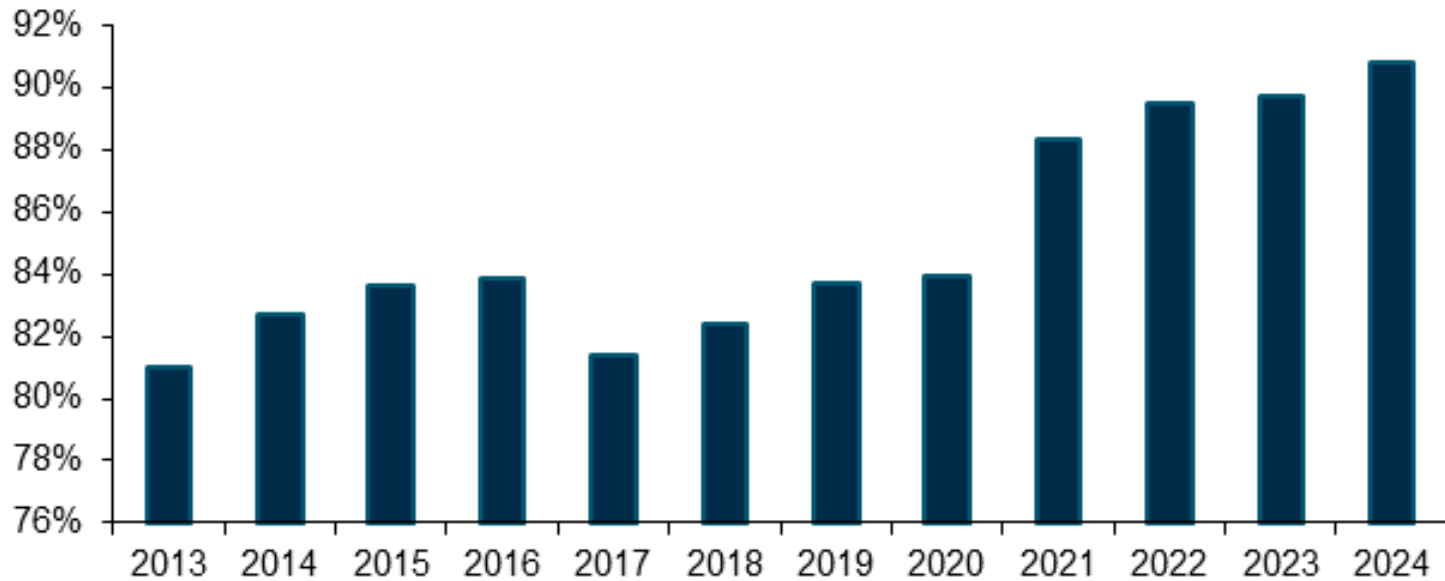
Change in Unfunded Actuarial Liability (\$M)

	<u>Regular Members</u>	<u>Sheriffs & Deputies</u>	<u>Protection Occupation</u>	<u>Total</u>
UAL June 30, 2023	\$4,795	\$(24)	\$(64)	\$4,707
Contributions above actuarial rate	(172)	0	(1)	(174)
Expected increase	11	(2)	(4)	5
Investment experience	(226)	(4)	(15)	(245)
Liability experience	12	8	3	23
Benefit changes	0	109	0	109
Other	<u>(50)</u>	<u>1</u>	<u>(1)</u>	<u>(50)</u>
UAL June 30, 2024	\$4,370	\$88	\$(82)	\$4,375

Note: Numbers may not add due to rounding.



Historical Funded Ratio (All Groups)




**Investment return
lowered to 7.0%**



- Final FED payment was made in January 2014.
- FED reserve account assets remain \$0 as of June 30, 2024.
- Contribution Rate Funding Policy was modified by the Board to prevent increasing the contributions to pre-fund FED transfers.
- No future transfers to FED reserve account are assumed in the valuation results.



- Components:
 - Normal Cost (ongoing cost for actives)
 - Amortization payment on Unfunded Actuarial Liability (UAL)
- UAL Amortization Policy (Layered Amortization)
 - June 30, 2014 base (legacy base) is amortized over a closed 30-year period (20 years remaining).
 - In subsequent years, changes in the expected vs. actual UAL are established as a new closed 20-year base.
 - Changes in UAL due to revised assumptions (2017, 2018 and 2022) were amortized over separate closed 20-year periods.
 - Once a group becomes 100% funded, all outstanding bases are eliminated, and the surplus (actuarial assets over actuarial liability) is amortized over an open 30-year period.

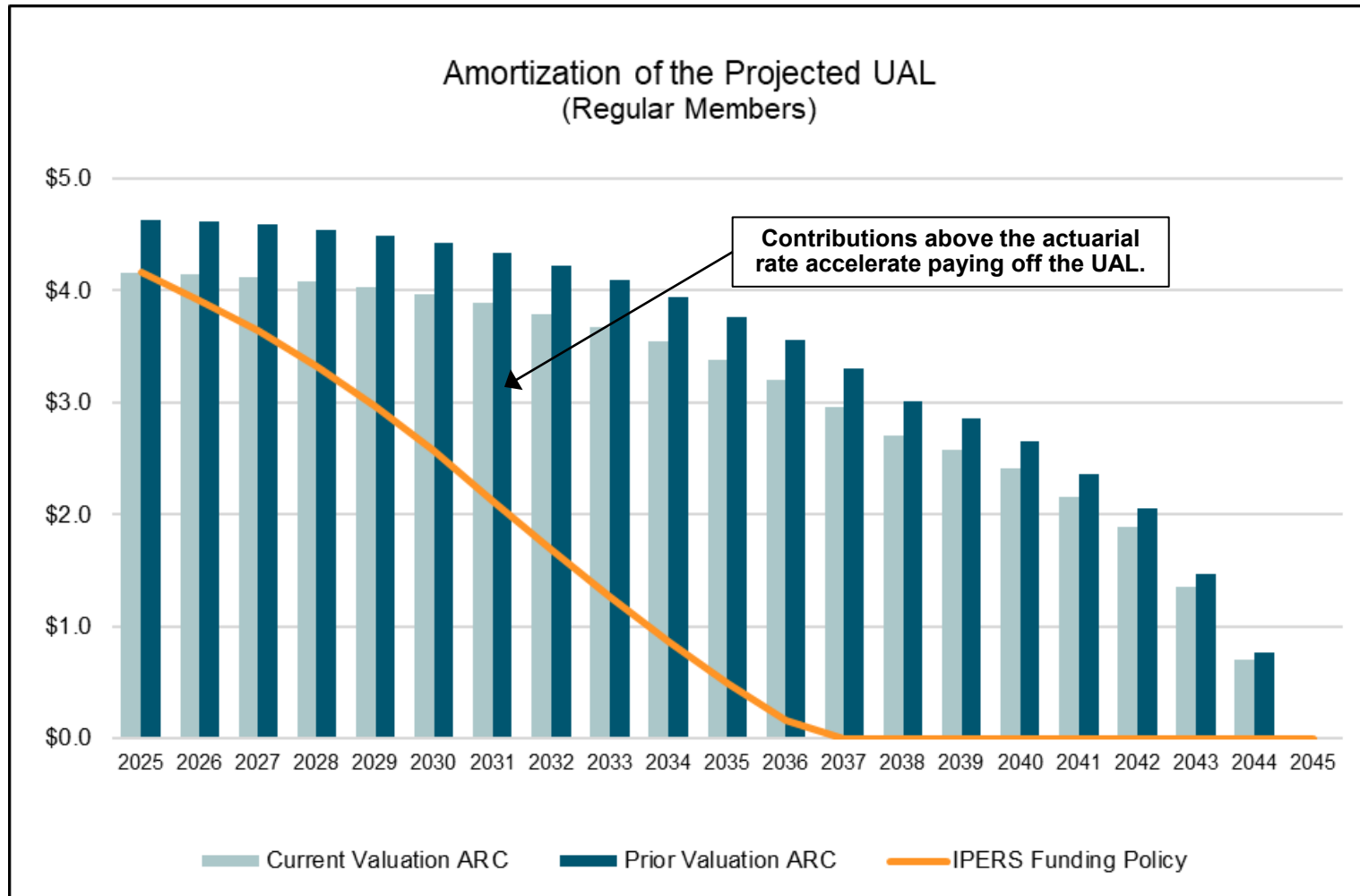


UAL Amortization Bases (Regular Members)

Amortization Bases	Original Amount	Remaining Payments*	Projected July 1, 2025 Balance	Annual Payment**
2014 Initial UAL	\$ 5,592,056,086	20	\$ 6,092,176,781	\$ 432,986,190
2015 Experience	(193,648,198)	11	(166,389,565)	(18,583,765)
2016 Experience	21,763,596	12	19,311,774	2,010,295
2017 Experience	(158,062,524)	13	(143,850,814)	(14,052,736)
2017 Assumption Changes	1,435,708,789	13	1,306,621,409	127,643,390
2018 Experience	(310,129,854)	14	(289,597,092)	(26,704,564)
2018 Assumption Changes	75,130,979	14	70,156,783	6,469,355
2019 Experience	(384,733,612)	15	(366,776,918)	(32,085,734)
2020 Experience	67,832,112	16	65,732,382	5,478,947
2021 Experience	(1,670,503,783)	17	(1,639,227,290)	(130,683,029)
2022 Experience	(351,647,258)	18	(348,246,299)	(26,643,355)
2022 Assumption Changes	9,926,473	18	9,830,469	752,102
2023 Experience	19,791,982	19	19,722,355	1,452,382
2024 Experience	(471,153,951)	20	(471,153,951)	(33,486,086)
Total			\$ 4,158,310,024	\$ 294,553,392

* Payment amounts reflect mid-year timing and increase 3.25% with the assumed increase in payroll growth.

UAL Balance Under Amortization Schedule



- Contribution Rate Funding Policy

- Compares Required Contribution Rate (RCR) from prior year to Actuarial Contribution Rate (ACR) in current year
- If $ACR < \text{previous RCR}$, then:
 - If difference is $< 0.50\%$, RCR is unchanged
 - If difference is $\geq 0.50\%$, RCR is lowered by 0.50% provided funded ratio is 95% or higher
- If $ACR > \text{previous RCR}$, then current RCR shall be:
 - Regular members: increased to ACR or 1% more than previous RCR, whichever is smaller
 - Sheriffs/Deputies: increased to ACR
 - Protection Occupation: increased to ACR



Contribution Rate (Regular Members)

Valuation Date

(Contribution Rates for FY 2026/FY 2025)

	<u>June 30, 2024</u>	<u>June 30, 2023</u>
Normal Cost	10.63%	10.62%
UAL Payment	<u>2.91%</u>	<u>3.27%</u>
Total Actuarial Rate	13.54%	13.89%
Required Contribution*	<u>15.73%</u>	<u>15.73%</u>
Shortfall/(Margin)	(2.19%)	(1.84%)
*Employee Rate	6.29%	6.29%
*Employer Rate	9.44%	9.44%

Note: The Regular membership group is less than 95% funded so the Required Contribution Rate does not change despite the reduction in the Actuarial Contribution Rate.

Contribution Rate (Sheriffs & Deputies)

Valuation Date

(Contribution Rates for FY 2026/FY 2025)

	<u>June 30, 2024</u>	<u>June 30, 2023</u>
UAL Payment	4.12%	(0.89%)
Funded Ratio	91.8%	102.6%
Normal Cost	20.06%	16.80%
Applicable UAL Rate*	<u>4.12%</u>	<u>0.00%</u>
Total Actuarial Contribution Rate	24.18%	16.80%
Employee Rate	12.09%	8.51%
Employer Rate	<u>12.09%</u>	<u>8.51%</u>
Required Contribution Rate	24.18%	17.02%
Shortfall/(Margin)	0.00%	(0.22%)

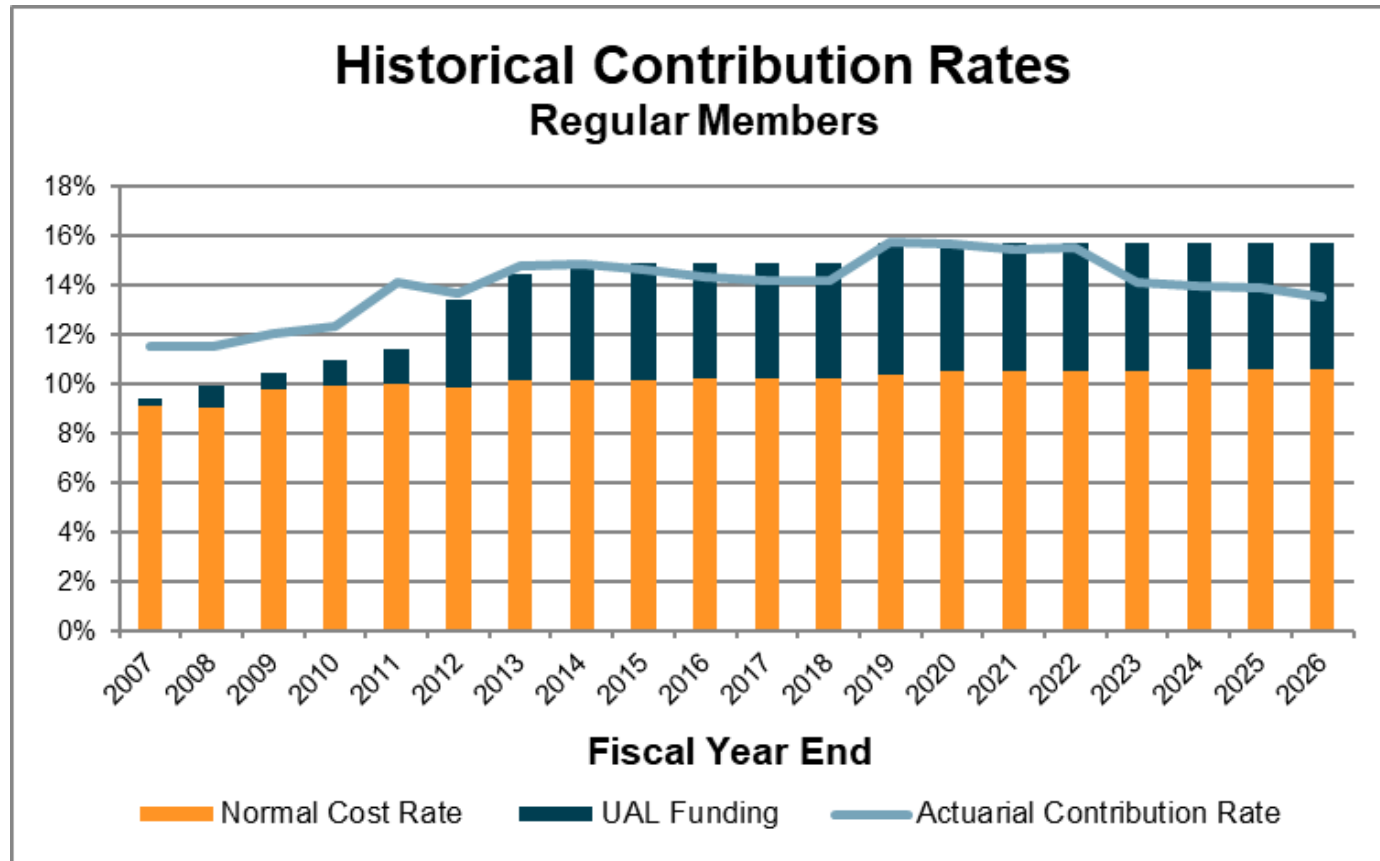
*The UAL Rate is allowed to be negative only if the funded ratio was at least 110% for the last three years.

Note: The ACR is greater than the prior year's RCR, so the RCR was increased to the ACR.

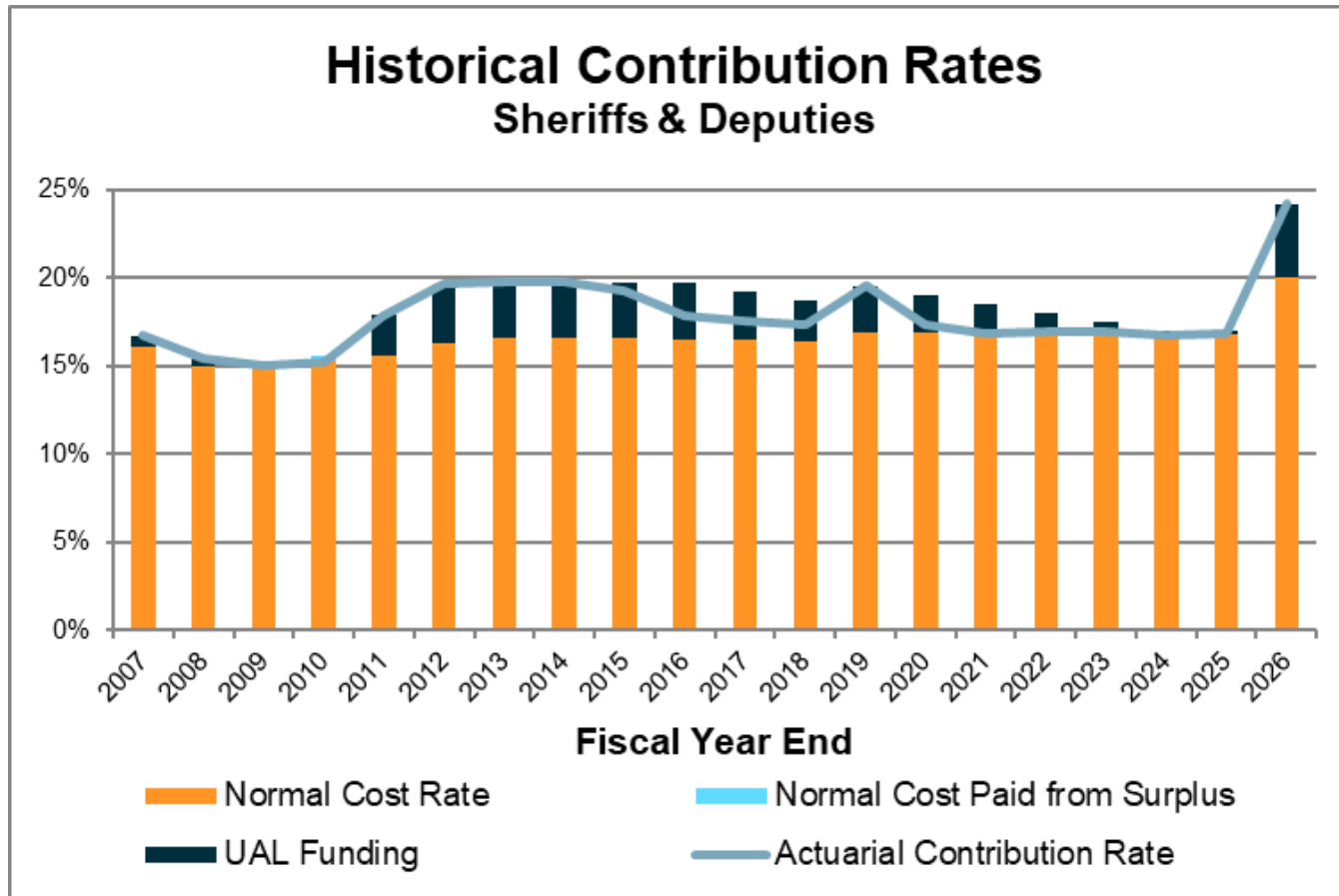
	Valuation Date	
	(Contribution Rates for FY 2026/FY 2025)	
	<u>June 30, 2024</u>	<u>June 30, 2023</u>
UAL Payment	(0.92%)	(0.79%)
Funded Ratio	103.7%	103.0%
Normal Cost	15.43%	15.34%
Applicable UAL Rate*	<u>0.00%</u>	<u>0.00%</u>
Total Actuarial Contribution Rate	15.43%	15.34%
Employee Rate	6.21%	6.21%
Employer Rate	<u>9.31%</u>	<u>9.31%</u>
Required Contribution Rate	15.52%	15.52%
Shortfall/(Margin)	(0.09%)	(0.18%)

*The UAL Rate is allowed to be negative only if the funded ratio was at least 110% for the last three years.

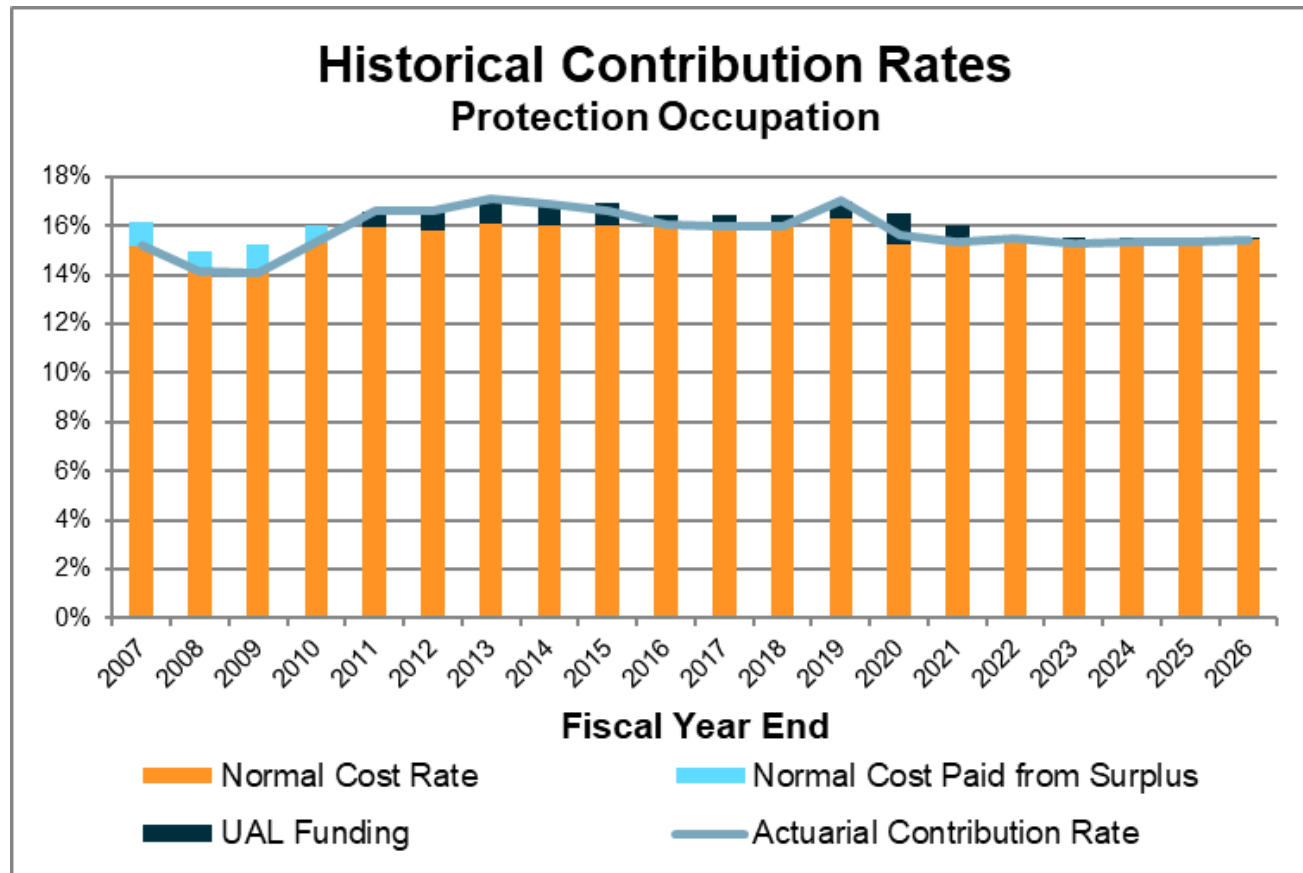
Note: The ACR is not less than the prior year's RCR by more than 0.50% so the RCR was not decreased by 0.50%.



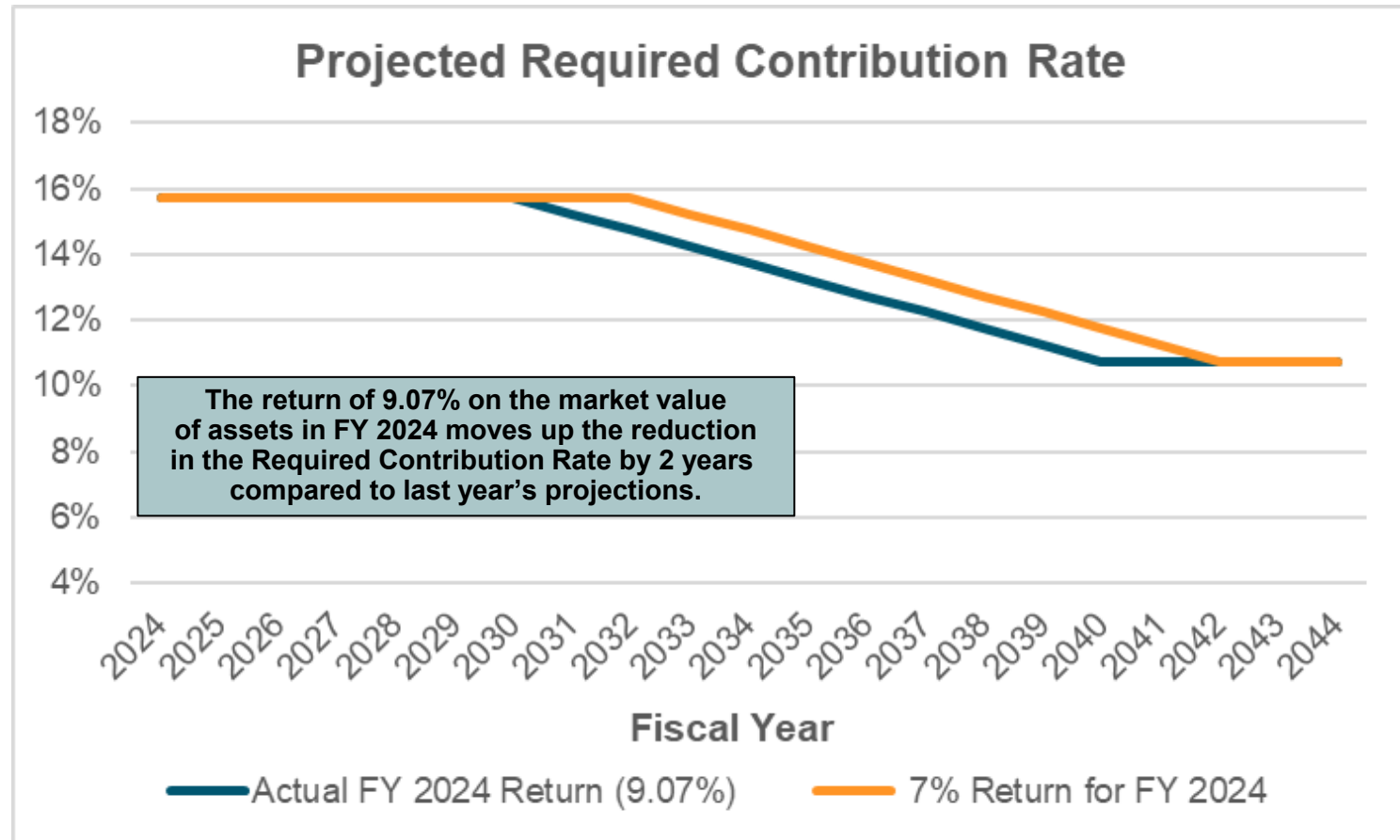
In the first part of this period, the contribution rates were fixed in statute. The ability for the IPERS Board to set the contribution rate beginning in 2013, within certain parameters, has resulted in an actual contribution rate equal to or above the actuarial contribution rate for the last thirteen years.



In contrast to the Regular membership, the actuarial contribution rate has always been contributed for this group. With the implementation of the Contribution Rate Funding Policy, the same criteria applies to setting the Required Contribution Rate. The large increase in 2026 is due to benefit enhancements passed by the 2024 Legislature.

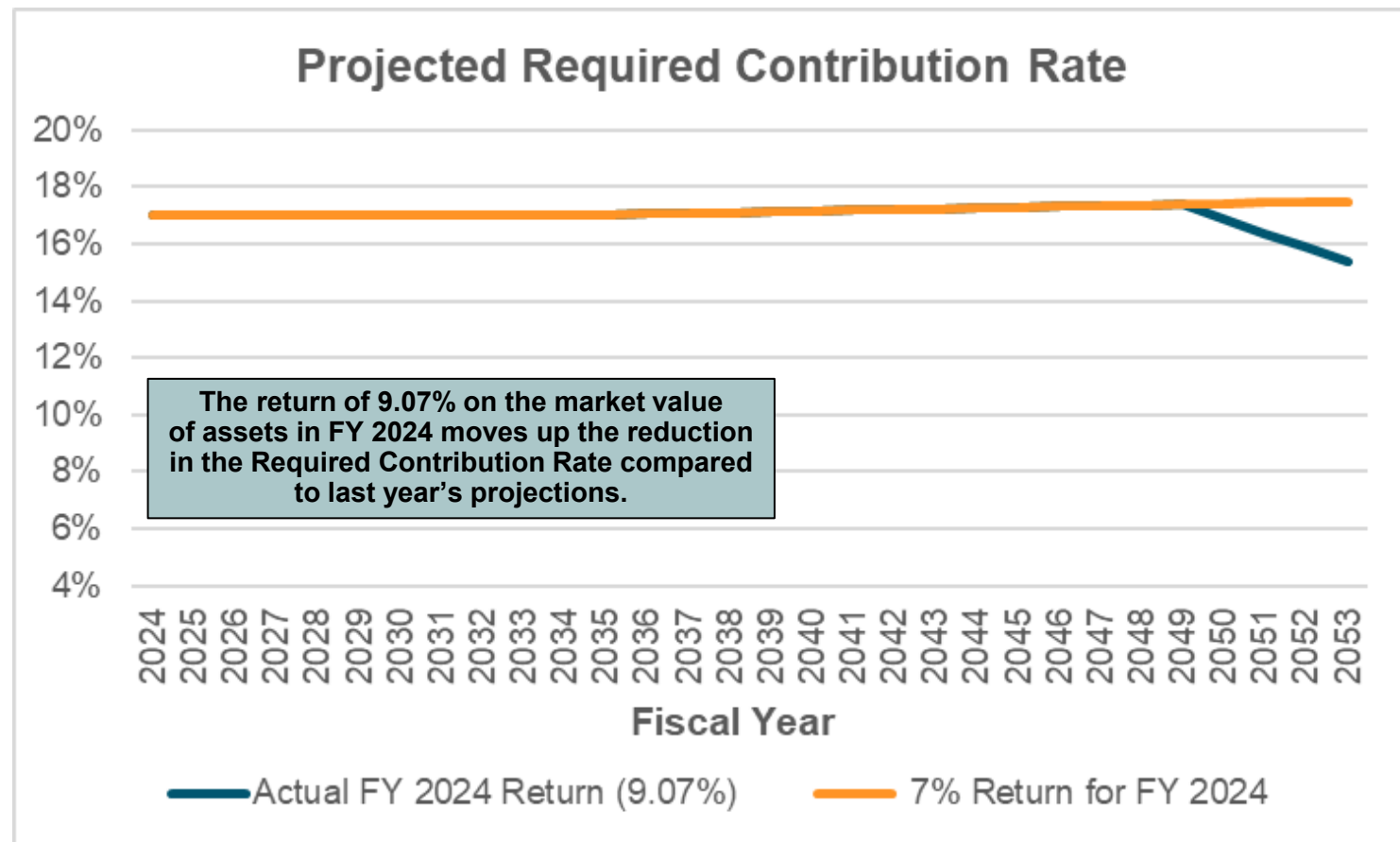


In contrast to the Regular membership, the actuarial contribution rate has always been contributed for this group. With the implementation of the Contribution Rate Funding Policy, the same criteria applies to setting the Required Contribution Rate.



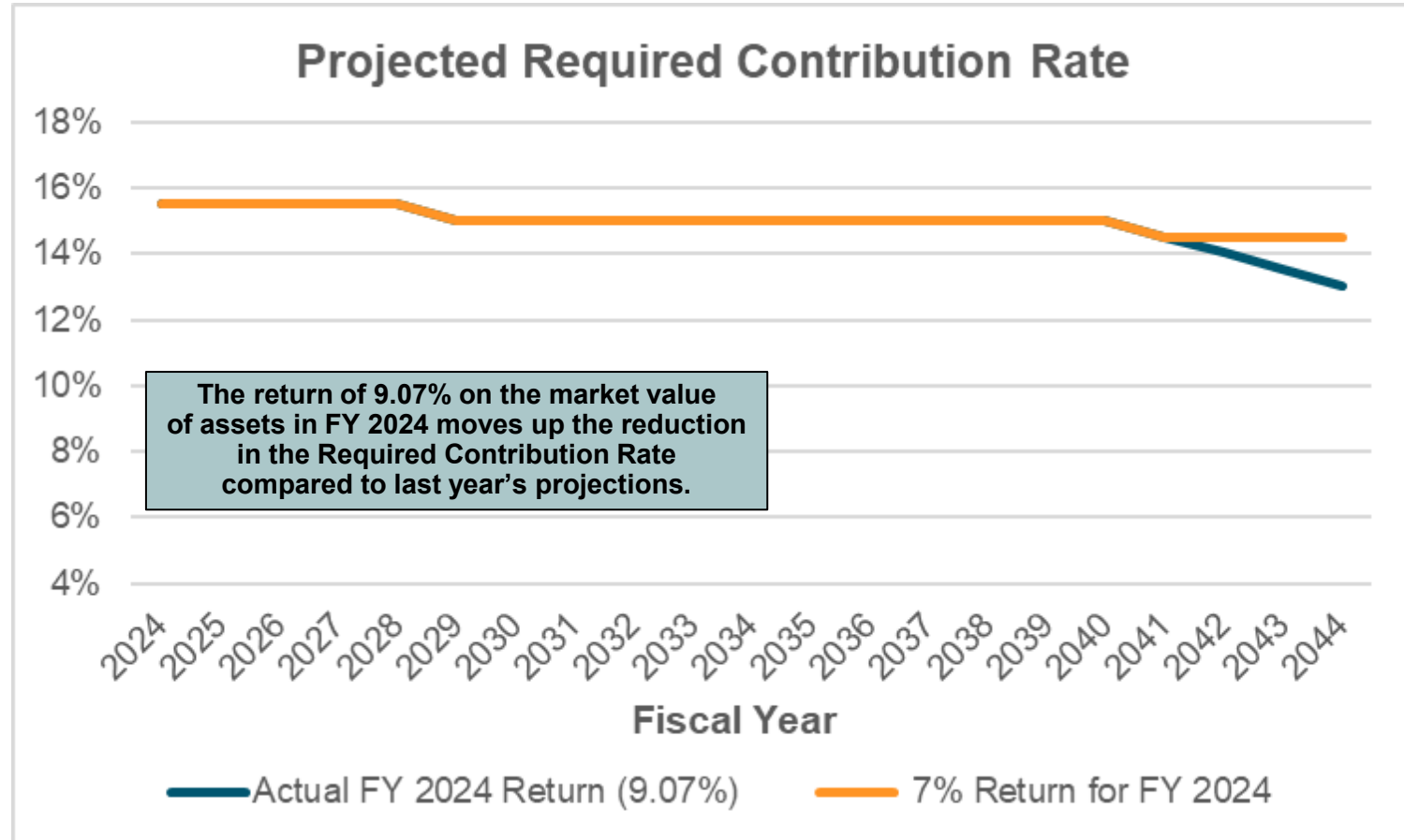
Projections are based on the 6/30/2023 valuation model.

6/30/2024 projections may differ from the blue line once demographic experience is reflected.



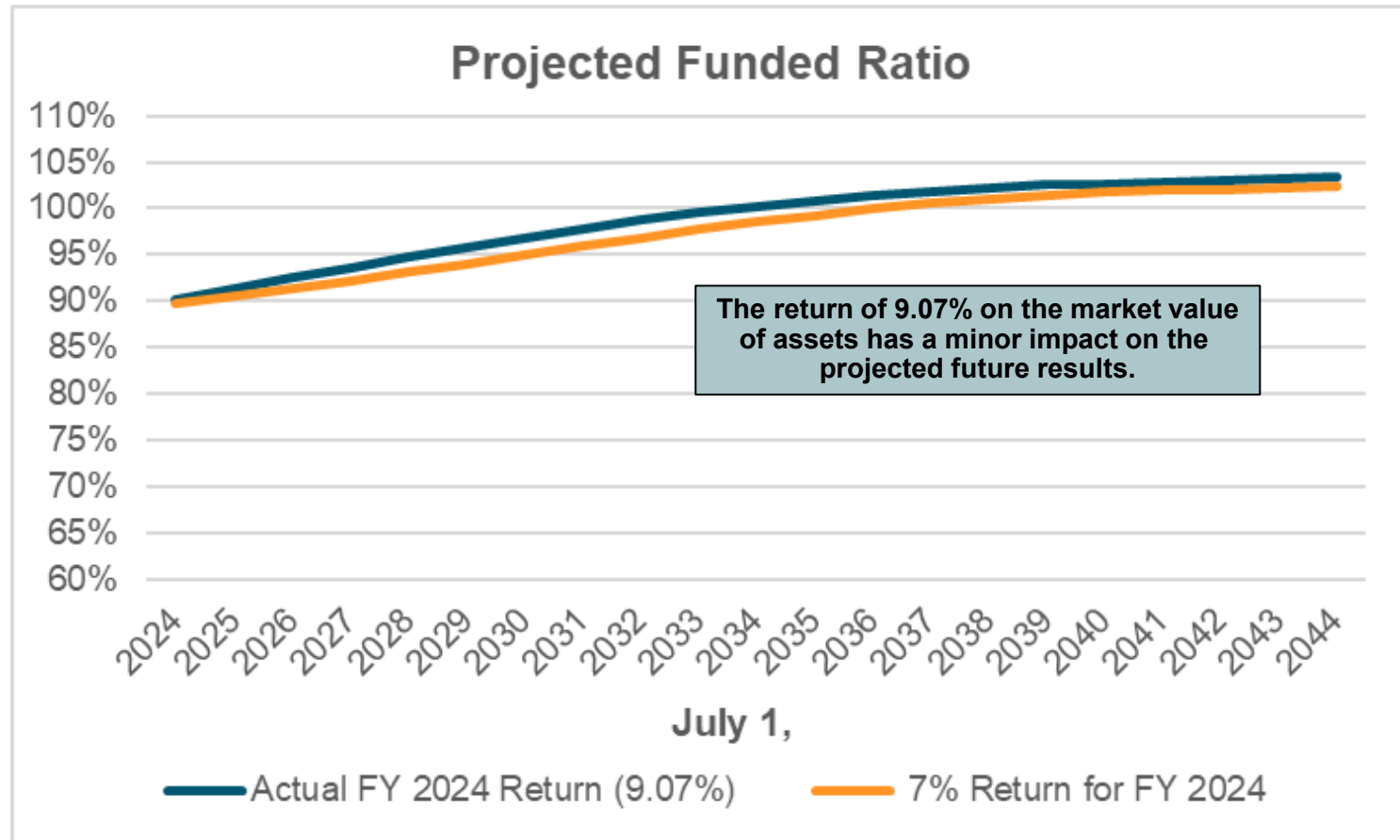
Projections are based on the 6/30/2023 valuation model.

6/30/2024 projections may differ from the blue line once demographic experience and plan changes are reflected.



Projections are based on the 6/30/2023 valuation model.

6/30/2024 projections may differ from the blue line once demographic experience is reflected.



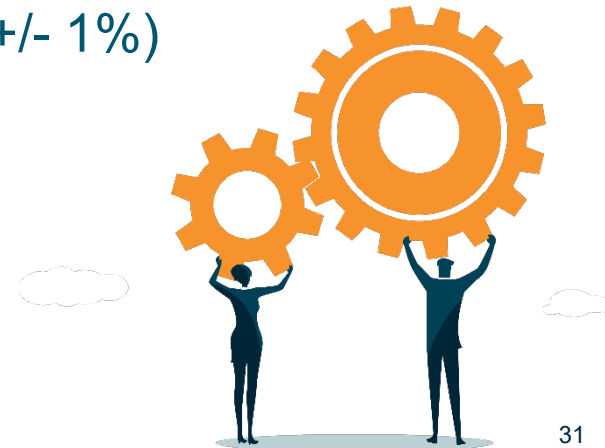
Projections are based on the 6/30/2023 valuation model.

6/30/2024 projections may differ from the blue line once demographic experience is reflected.

- Favorable actuarial experience (actual vs expected) for FY 2024
 - Return of 9.1% on market value of assets produced a return of 7.6% on actuarial assets, resulting in an actuarial gain of \$245 million.
 - Market value of asset now exceeds actuarial value by \$734 million, up from \$194 million last year.
 - Net actuarial loss on liabilities of \$23 million.
 - Unfunded actuarial liability for entire System decreased from \$4.71 billion last year to \$4.38 billion in the 2024 valuation.

- Contribution Rate Funding Policy
 - Required Contribution Rate is unchanged for Regular members and Protection Occupation and remains greater than Actuarial Contribution Rate for FY 2026.
 - Required Contribution Rate increased for Sheriffs & Deputies due to benefit changes and is now equal to the Actuarial Contribution Rate (no contribution margin exists).

- Effective since FY 2014
 - Applies to ACFR disclosures only
 - **Does not affect funding calculations**
- Requires some additional calculations
 - Projection to determine the Single Equivalent Interest Rate – using funding rate of 7.0% since fund is not depleted using GASB criteria
 - Liabilities are calculated using Entry Age Normal (the same as for funding)
 - Assets are on market value basis
 - Discount rate sensitivity must be disclosed (+/- 1%)

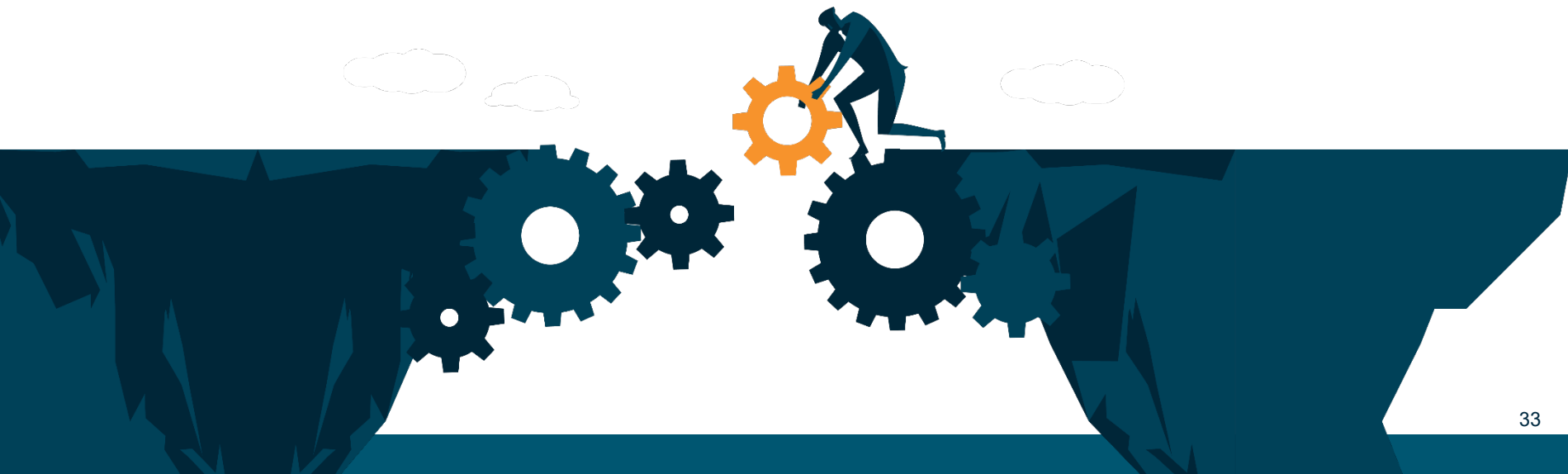


- Total Pension Liability (TPL)
 - For IPERS, same as Actuarial Accrued Liability in funding valuation
- Fiduciary Net Position (FNP)
 - The market value of assets
- Net Pension Liability (NPL)
 - $NPL = TPL - FNP$
 - Essentially the UAL on market value basis



	<u>June 30, 2024</u>	<u>June 30, 2023</u>
Total Pension Liability (TPL)	\$ 47.303	\$ 45.720
Fiduciary Net Position (FNP)	<u>43.661</u>	<u>41.206</u>
Net Pension Liability (NPL)	\$ 3.641	\$ 4.514
Ratio of FNP to TPL	92.30%	90.13%

Dollar amounts shown are in billions. Numbers may not add due to rounding.



GASB 67 Sensitivity Analysis

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
TPL	\$ 53.099	\$ 47.303	\$ 42.449
FNP	<u>43.661</u>	<u>43.661</u>	<u>43.661</u>
NPL	\$ 9.438	\$ 3.641	\$ (1.213)
FNP/TPL	82.23%	92.30%	102.86%

Dollar amounts are shown in billions. Numbers may not add due to rounding.

Note: Because the TPL and the FNP are of similar magnitude, the NPL is significantly smaller than the TPL. When the TPL changes due to the discount rate change, the NPL changes by the same dollar amount, but it is a much larger proportionate amount.



Actuarial Certification

We, Patrice A. Beckham, FSA, Brent A. Banister, FSA, and Bryan K. Hoge, FSA, are consulting actuaries with Cavanaugh Macdonald Consulting, LLC. We are members of the American Academy of Actuaries, Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. We are available to answer any questions or provide additional information as needed.



Patrice A. Beckham, FSA, EA, FCA, MAAA
Consulting Actuary



Brent A. Banister, Ph.D., FSA, EA, FCA, MAAA
Chief Actuary



Bryan K. Hoge, FSA, EA, FCA, MAAA
Consulting Actuary





THANK
YOU



IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

Gregory S. Samorajski, CFA
Chief Executive Officer

Kim Reynolds
Governor

MEMORANDUM

Date: November 26, 2024

To: Members of the Investment Board

From: Elizabeth Hennessey, General Counsel

Subject: Changes to Iowa Administrative Code 495-Chapter 2 "Investment Board"

This memorandum serves to update the Board and provide additional information regarding the proposed changes to Iowa Administrative Code 495 – Chapter 2 "Investment Board." Administrative rules implement or interpret law (statute); prescribe policy; or describe the organization, procedure or practice requirements of an executive branch agency.

On January 10, 2023, Governor Reynolds issued Executive Order 10, also known as the "red tape review." The executive order requires all state agencies to complete a comprehensive evaluation and cost benefit analysis of existing rules to evaluate their public benefits, whether the benefits justify the cost and whether there are less restrictive alternatives to achieve their intended goal. In addition, agencies have been directed to rescind rules that are merely duplicative of statute. IPERS' legal division reviewed Chapter 2 and propose the changes as part of the red tape review analysis. The proposed changes include removing unnecessary language and rescinding rules that are already in Iowa Code 97B.

CHAPTER 2

INVESTMENT BOARD

[Prior to 1/7/04, see 581—21.1]

495—2.1(97B) Investment board. The principal place of business of the board is IPERS' headquarters, 7401 Register Drive, Des Moines, Iowa.

~~—1. Effective July 1, 2002, the board shall, be the trustee of the retirement fund. The board shall meet annually, and may meet more often, to review its investment policies.~~

~~2.~~ 1. At the first meeting in each fiscal year, the voting members ~~shall~~ elect a chair and vice chair. Future meeting dates for the year ~~shall also~~ will be decided at the first meeting. Advance notice of time, date, tentative agenda, and place of each meeting ~~shall~~ will be given in compliance with Iowa Code chapter 21. All meetings of the board are open to the public and ~~shall be~~ are held in accordance with Robert's Rules of Order, Newly Revised.

~~3.~~ 2. Parties wishing to present items for the agenda of the next meeting shall file a written request with the board chair at least five business days prior to the meeting.

~~4.~~ 3. ~~Four members eligible to vote shall constitute a quorum. A simple majority vote of the full voting membership shall be the vote of the board. Decisions of the board are made by a simple majority vote of the full voting membership.~~

~~5.~~ 4. Members of the board shall file financial statements pursuant to Iowa Code section 68B.35(2) "e."

~~6.~~ 5. ~~In the event that it should become necessary to fill~~ If the chief investment officer position becomes vacant, the board may consult with, and make hiring recommendations to, the chief executive officer ~~that are~~ consistent with the requirements of Iowa Code chapter 8A, subchapter IV.

~~7.—The board shall set the salary of the CEO pursuant to Iowa Code section 97B.3.~~

~~8.—The board shall participate in the annual performance evaluation of the chief investment officer.~~

[ARC 0017C, IAB 2/22/12, effective 3/28/12; ARC 2981C, IAB 3/15/17, effective 4/19/17;
ARC 3684C, IAB 3/14/18, effective 4/18/18]

495—2.2(97B) Group trusts. Assets of the fund may be invested in a tax-exempt group trust that has been determined by the Internal Revenue Service to be a pooled fund arrangement pursuant to Revenue Ruling 81-100, as modified by Revenue Rulings 2004-67 and 2011-1, and that is operated or maintained exclusively for the commingling and collective investment of moneys. In such case, the terms of the group trust shall be adopted as part of this plan.

[ARC 1348C, IAB 2/19/14, effective 3/26/14]

These rules are intended to implement Iowa Code chapter 97B.

[Filed 12/17/03, Notice 11/12/03—published 1/7/04, effective 2/11/04]

[Filed 12/1/05, Notice 10/26/05—published 12/21/05, effective 1/25/06]

[Filed 4/7/06, Notice 3/1/06—published 4/26/06, effective 5/31/06]

[Filed emergency 6/25/08—published 7/16/08, effective 6/25/08]

[Filed 8/20/08, Notice 7/16/08—published 9/10/08, effective 10/15/08]

[Filed ARC 0017C (Notice ARC 9951B, IAB 12/28/11), IAB 2/22/12, effective 3/28/12]

[Filed ARC 1348C (Notice ARC 1256C, IAB 12/25/13), IAB 2/19/14, effective 3/26/14]

[Filed ARC 2981C (Notice ARC 2892C, IAB 1/18/17), IAB 3/15/17, effective 4/19/17]

[Filed ARC 3684C (Notice ARC 3537C, IAB 1/3/18), IAB 3/14/18, effective 4/18/18]

CHAPTER 2

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[Prior to 1/7/04, see 581—21.1]

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3. Decisions of the board are made by a simple majority vote of the full voting membership.

4. Members of the board shall file financial statements pursuant to Iowa Code section 68B.35(2) "e."

5. If the chief investment officer position becomes vacant, the board may consult with, and make hiring recommendations to, the chief executive officer consistent with the requirements of Iowa Code chapter 8A, subchapter IV.

[**ARC 0017C**, IAB 2/22/12, effective 3/28/12; **ARC 2981C**, IAB 3/15/17, effective 4/19/17;
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[Filed ARC 2981C (Notice ARC 2892C, IAB 1/18/17), IAB 3/15/17, effective 4/19/17]

[Filed ARC 3684C (Notice ARC 3537C, IAB 1/3/18), IAB 3/14/18, effective 4/18/18]

97B.8A Investment board.

1. *Board established.* A board is established to be known as the “Investment Board of the Iowa Public Employees’ Retirement System”, referred to in [this chapter](#) as the “board”. The duties of the board are to establish policy, and review its implementation, in matters relating to the investment of the retirement fund. The board shall be the trustee of the retirement fund.

2. *Investment review.*

a. At least annually the board shall review the investment policies and procedures used by the board and system, and shall hold a public meeting on the investment policies and investment performance of the retirement fund. Following its review and the public meeting, the board shall, pursuant to the requirements of [section 97B.7A](#), and in consultation with the chief investment officer and other relevant personnel of the system, establish an investment policy and goal statement that shall direct the investment activities concerning the retirement fund.

b. The board shall review and approve, prior to the execution of a contract with the system, the hiring of each investment manager and investment consultant outside of state government.

c. The board shall be involved in the performance evaluation of the chief investment officer.

3. *Actuarial responsibilities.*

a. The board shall select the actuary to be employed by the system as provided in [section 97B.4](#).

b. The board shall, in consultation with the chief executive officer, the actuary, and other relevant personnel of the system, adopt from time to time mortality tables and all other necessary factors for use in actuarial calculations required in connection with the retirement system. The board shall also adopt the actuarial methods and assumptions to be used by the actuary for the annual valuation of assets as required by [section 97B.4](#).

4. *Membership.*

a. The board shall consist of eleven members, including seven voting members and four nonvoting members.

(1) The voting members shall be as follows:

(a) Three public members, appointed by the governor, who are not members of the retirement system and who each have substantial institutional investment experience or substantial institutional financial experience.

(b) Three members, appointed by the governor, who are members of the retirement system. Prior to the appointment by the governor of a member of the board under this subparagraph, the benefits advisory committee shall submit a slate of at least two nominees per position to the governor for the governor’s consideration. The governor is not required to appoint a member from the slate submitted. Of the three members appointed, one shall be an active member who is an employee of a school district, area education agency, or merged area; one shall be an active member who is not an employee of a school district, area education agency, or merged area; and one shall be a retired member of the retirement system.

(c) The treasurer of state.

(2) The nonvoting members of the board shall be two state representatives, one appointed by the speaker of the house of representatives and one by the minority leader of the house, and two state senators, one appointed by the majority leader of the senate and one by the minority leader of the senate.

b. Four voting members of the board shall constitute a quorum.

c. The three members who have substantial institutional investment experience or substantial institutional financial experience, and the member who is a retired member of the retirement system, shall be paid their actual expenses incurred in the performance of their duties and shall receive a per diem as specified in [section 7E.6](#) for each day of service not exceeding forty days per year. Legislative members shall be paid the per diem and expenses specified in [section 2.10](#), for each day of service. The per diem and expenses of the

legislative members shall be paid from funds appropriated under [section 2.12](#). The members who are active members of the retirement system and the treasurer of state shall be paid their actual expenses incurred in the performance of their duties as members of the board and the performance of their duties as members of the board shall not affect their salaries, vacations, or leaves of absence for sickness or injury.

d. The appointive terms of the members appointed by the governor are for a period of six years beginning and ending as provided in [section 69.19](#). If there is a vacancy in the membership of the board for one of the members appointed by the governor, the governor has the power of appointment. Gubernatorial appointees to this board are subject to confirmation by the senate.

5. *Closed sessions.* In addition to the reasons provided in [section 21.5, subsection 1](#), the board may hold a closed session pursuant to the requirements of [section 21.5](#) of that portion of a board meeting in which financial or commercial information is provided to or discussed by the board if the board determines that disclosure of such information could result in a loss to the retirement system or to the provider of the information.

[2001 Acts, ch 68, §12, 24; 2003 Acts, ch 145, §286; 2008 Acts, ch 1032, §201](#)

Referred to in [§97B.1, 97B.1A, 97B.8B](#)

Confirmation, see [§2.32](#)

Private Markets - Annual Commitment Plan

CY2025

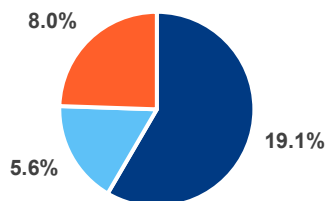
Pat Reinhardt, Marcus Dong

December 6, 2024



Portfolio Exposures

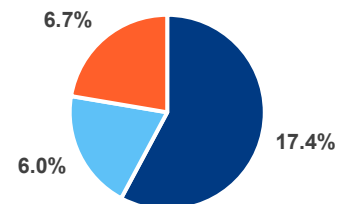
Last Year



■ Private Equity ■ Private Credit ■ Private Real Assets

Unaudited as of November 24, 2023

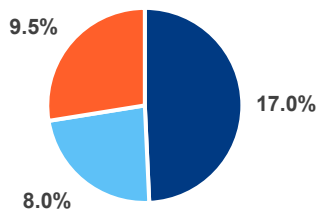
Now



■ Private Equity ■ Private Credit ■ Private Real Assets

Unaudited as of November 8, 2024

Long-Term Target



■ Private Equity ■ Private Credit ■ Private Real Assets

Equity (+0.4%); Target Achieved (for now?)

Credit (-2.0%); Measured Commitments

Real Assets (-2.8%); Finding a Bottom and Ramping Up

CY2024 Review

Asset Class	2024 Plan	2024 Actual ¹
Private Equity	\$700	\$632 ²
Private Credit	\$700	\$525
Private Real Assets	\$500	\$138
Private Market Program	\$1,900	\$1,295

\$ Millions

1. As of November 8, 2024

2. Three investments are in late-stage due diligence and anticipated to fill out the remaining private equity commitments for 2024.

- **Private Credit**

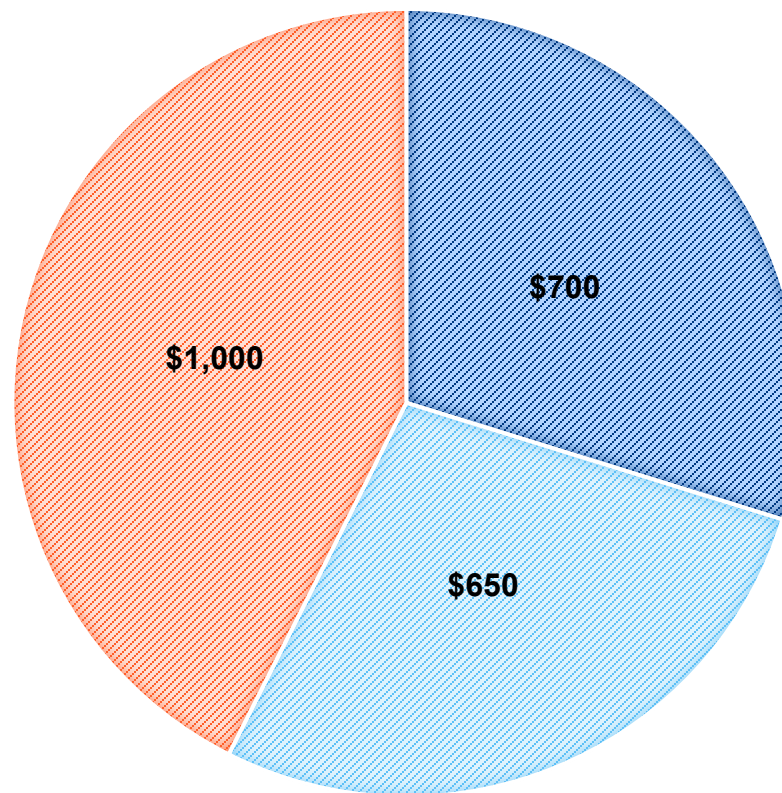
- Active Year – commitments were finalized across four mandates
- In addition, there is one add-on commitment that is in late-stage due diligence

- **Private Real Assets**

- As anticipated, real estate transaction activity was slow
- Committed to one real estate mandate from the real asset equity search
- Three Infrastructure mandates are in late-stage due diligence

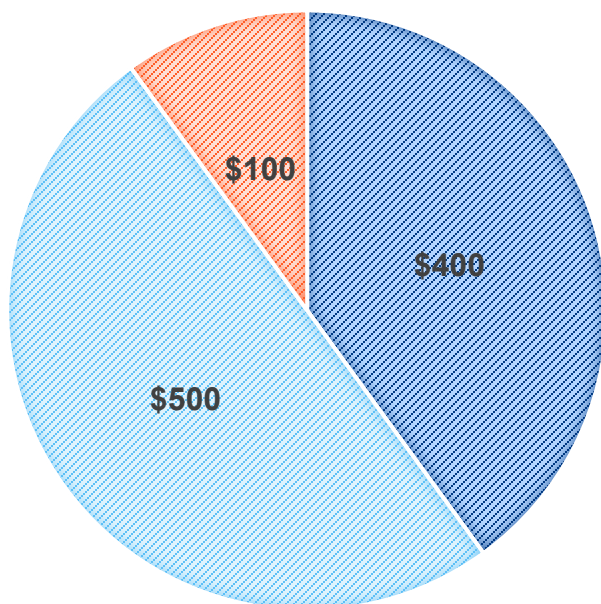
Anticipated Commitments (in Millions)

■ Private Equity ■ Private Credit ■ Private Real Assets



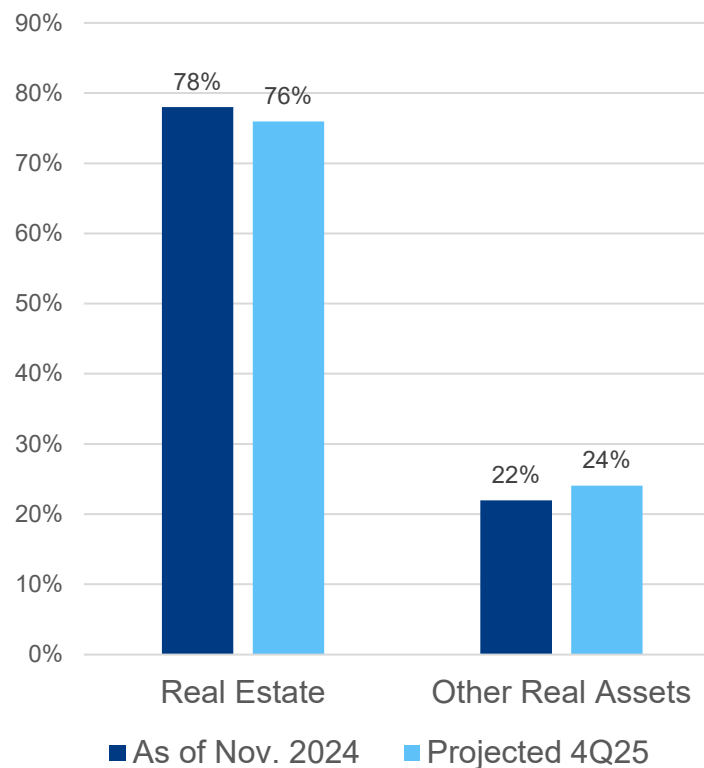
Private Real Assets – Ramping Up

CY2025 COMMITMENTS
(IN MILLIONS)



■ Real Estate ■ Other Real Assets
■ Co-Investments

Sub-Portfolio Exposures



Private Real Assets – Projected Exposure (in Millions)

Private Real Assets Current Exposure	\$3,030
Contributions from Unfunded Commitments	\$ 50
Contributions from CY25 Commitments	\$ 450
Return of Capital	\$ 350
CY2025 Private Real Assets Exposure	\$3,180
 Total Fund Value Range ¹	 \$41,950 to \$48,265
 CY2025 Projected Exposure Range	 7.6% to 6.6%

¹Based on the Fund's market value as of November 8, 2024, \$45,107M +/- 7%.

Private Real Assets

- CY2025 – Commitments up to **\$1.0 billion**
- Real Estate (Up to \$400 million)
 - Recycle real estate disposition proceeds
 - On-board NNN & Value-Add real estate mandates
 - Potential new allocation to core real estate manager
- Other Real Assets (Up to \$500 million)
 - On-board infrastructure mandates
- Co-Investments (Up to \$100 million)
 - Anticipate ~ 5 deals @ \$20M bite size

Private Equity – Maintain Target

(\$mm)	2018	2019	2020	2021	2022	2023	2024 ¹	2025 ²
Commitments	\$750	\$700	\$740	\$960	\$998	\$698	\$632 ³	\$700
Contributions	\$701	\$766	\$747	\$982	\$799	\$612	\$535	\$650-\$850

1 Unaudited as of November 4, 2024

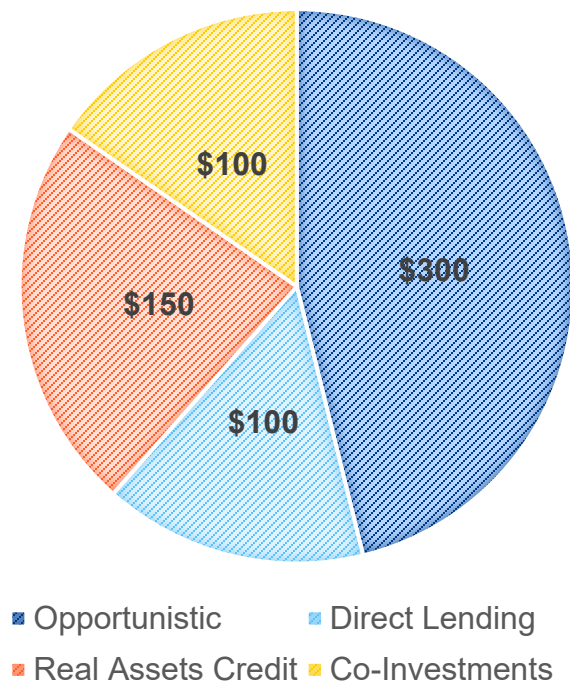
2 Projected commitments and contributions

3 Includes closed and IC approved deals as of November 4, 2024

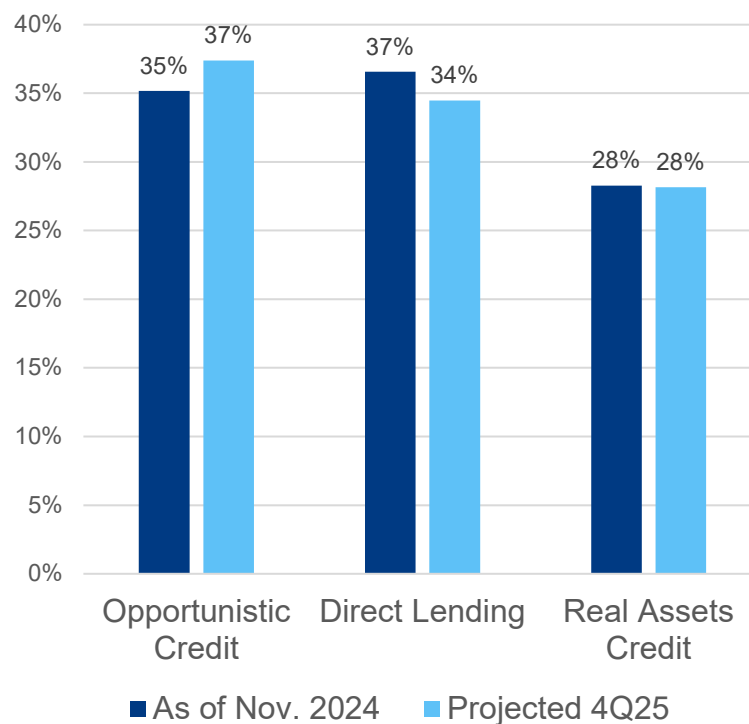
- CY2025 - Maintain steady state on commitments, **\$700 million**
- CY2024 contributions split between primaries (65%), co-investments (20%) and secondaries (15%) - in line with the portfolio's long-term targeted exposures.
- As of 3Q24, unfunded commitments in Private Equity were ~ \$2.4 billion. The pace of drawdown is assumed to be 7 years.

Private Credit – Measured Commitments

CY2025 COMMITMENTS
(IN MILLIONS)



Sub-Portfolio Exposures



Private Credit – Projected Exposure (in Millions)

Private Credit Current Exposure	\$2,690
Contributions from Unfunded Commitments	\$ 480
Contributions from CY2025 Commitments	\$ 250
Return of Capital	\$ 160
CY2025 Private Credit Exposure	\$3,260
 Total Fund Value Range ¹	 \$41,950 to \$48,265
 CYE2025 Projected Exposure Range	 7.8% to 6.8%

¹Based on the Fund's market value as of November 8, 2024, \$45,107M +/- 7%.

Private Credit

- CY2025 – Commitments up to **\$650 million**
- Opportunistic private credit (Up to \$300 million)
 - Evaluate re-up commitments of existing mandates
 - Potential add-on commitment to existing mandate
- Direct Lending Sub-Portfolio (Up to \$100 million)
 - Add-on commitment to existing mandate
- Real Assets Credit Sub-Portfolio (Up to \$150 million)
 - Evaluate re-up commitment to existing real estate debt strategy
- Co-Investment (Up to \$100 million)
 - Anticipate 5 - 10 deals @ \$10M to \$20M bite size for CY2025



RFP I-2024-2
Absolute Return Strategies
Hiring Recommendations
December 6, 2024

The Evaluation Committee recommends the Investment Board approve the hiring of the following five investment firms/strategies for the Absolute Return search, subject to final due diligence and successful contract negotiations:

Firm Name	Strategy Name
AQR Capital Management	AQR Helix Strategy
Brevan Howard	Brevan Howard Alpha Strategies Master Fund Limited
Bracebridge Capital	Bracebridge Absolute Return Composite
Blackstone	Blackstone Strategic Opportunity Fund
Davidson Kempner Capital Management	Navigator Fund

IPERS issued an RFP on January 10, 2024, with the purpose of identifying absolute return investment products that could potentially be used in a portable alpha strategy; 93 respondents applied to the RFP by the February 21, 2024, deadline. The evaluation of the strategies was conducted in three phases. Phase 1 consisted primarily of the collection of quantitative and certain qualitative information from potential managers. The information was then blindly evaluated and scored based on a pre-determined algorithm to obtain a sub-group of the highest scoring strategies to advance to Phase 2. Of the 93 respondents, 28 were asked to apply to Phase 2 and 26 submitted applications.

Phase 2 of the RFP process was a questionnaire that again blindly evaluated the remaining potential strategies. Managers were notified and required to submit additional detailed information concerning their investment processes, portfolio construction and risk management processes, as well as other aspects of the strategy or firm. The Evaluation Committee comprised of Sriram Lakshminarayanan, Sheldon Lien and John Fujiwara read and scored each of the semifinalists' responses to the questionnaire. Based on the Evaluation Committee's scores, nine strategies were identified for further evaluation. The nine strategies identified for further evaluation next were revealed to the Evaluation Committee and virtual interviews were conducted with each Manager in August/September 2024. The virtual interviews narrowed the nine strategies down to five finalists to be advanced to Phase 3.

Phase 3 will consist of on-site interviews with the five firms and visits will be scheduled in a prudent manner. On-site visits will allow IPERS staff to evaluate the potential managers' operations, stability and ability to work with IPERS. IPERS reserves the right to modify the assessment process as necessary. Notice of intent to award will be issued after completion of Phase 3. Regardless of issuance of a notice of intent to award, a proposal may be rejected in IPERS' sole discretion if the bidder and IPERS cannot agree on contract terms and conditions.

Brief profiles of the five strategies recommended for hiring are provided on the following pages.



FIRM NAME: AQR Capital Management

Corporate Headquarters: One Greenwich Plaza, Greenwich, CT 06830

Ownership Structure: AQR Capital Management, LLC is a Delaware Limited Liability Company. AQR Capital Management Holdings, LLC is a 100% owner of AQR Capital Management, LLC, whose principals hold majority interest in the Firm (greater than 70%). Affiliated Managers Group ("AMG") holds minority interest in the Firm (less than 30%).

Firm Wide Assets Under Management: \$110B as of 6/30/2024

Product Name: AQR Helix Strategy

Product Benchmark: Cash (ICE BofA US 3M T-Bill Index)

Product Asset Inception Date: 1/1/2018

Product Assets Under Management: \$1.6B as of 6/30/2024

Product Style Description: Diversified Trend Following

Historical Excess Returns and Risk (net of fees) vs. Product Benchmark:

	Year Ended 6/30/24	3 years Ended 6/30/24	5 years Ended 6/30/24
Annualized Return*	7.4%	24.2%	16.7%
Annualized Risk**	7.8%	13.3%	13.0%

*Showing net returns in excess of cash. Returns are net of 1.5% management and 20% performance fee (over 3 Month T-bill hurdle) per annum.

**Defined as Tracking Error.

Other IPERS Mandates: N/A

FIRM NAME: Brevan Howard Capital Management LP

Corporate Headquarters: 37 Esplanade, 6th Floor, St Helier, JE2 3QA, Jersey

Ownership Structure: Brevan Howard is a private business. However, Alan Howard is the substantive owner of the business.

Firm Wide Assets Under Management: \$33,474,494,410 estimated as of 31 October 2024.

Product Name: Brevan Howard Alpha Strategies Master Fund Limited ("BHAL" / the "Fund")

Product Benchmark: The Fund seeks to generate absolute returns through the allocation of capital to a number of strategies (including but not limited to relative value, directional, short-term trading and volatility strategies) across a broad range of asset classes, including but not limited to interest rates, foreign exchange, equities, commodities, credit and digital assets.

By using a combination of asset classes and strategies, the Fund's trading strategy is designed to work in a wide range of market environments. Macro investment tends to perform best during periods of political & economic changes, increased central bank activity and elevated market volatility. High levels of macro trading activity also tend to increase relative value trading opportunities as correlated markets can become relatively dislocated. Given that the Fund follows a pure alpha strategy, there is no benchmark.

Product Asset Inception Date: BHAL commenced trading on 3 September 2018.

Product Assets Under Management: \$11,712,890,593 estimated as of 31 October 2024.

Product Style Description: The Fund has numerous distinct underlying trading portfolios (the "Portfolios"). The trading style of each of these underlying Portfolios can be broadly categorized into nine core areas to ease descriptions, each core area will have multiple underlying Portfolios:

- Developed Markets Rates
- Developed Markets Bond Relative Value
- Emerging Markets Fixed Income
- Directional
- Foreign Exchange
- Volatility
- Liquid Credit
- Quantitative Strategies
- Digital Assets

Note: the categories cover all actively traded portfolios in the Fund as at the date hereof.

Historical Excess Returns and Risk (net of fees) vs. Product Benchmark: As stated above, given that the Fund follows a pure alpha strategy, there is no benchmark.

	Year Ended 6/30/24	3 years Ended 6/30/24	5 years Ended 6/30/24
Annualized Return*	2.01%	9.54%	8.95%
Annualized Risk**	4.17%	5.69%	7.01%

* Annualized Rate of Return performance is represented by BHALFL USD Class B 1 Shares for the period 1 January 2019 to 31 December 2022, net of all investment management fees: (i) 1% management fee per annum; (ii) the PM Costs Charge and (iii) the Other PM Costs Fee (as described in the Fund's offering memorandum that applied during the period 1 January 2019 to 31 December 2022) and all other fees and expenses payable by BHALFL and BHAL ("Class B Performance"). Performance is represented by BHALFL USD Class B 1 Shares for the period 1 January 2023 onwards, net of all investment management fees: (i) 1% management fee per annum; (ii) the Relevant Pass Through Expenses (as described in the Fund's offering memorandum that applies from 1 January 2023) and all other fees and expenses payable by BHALFL and BHAL ("Class B Performance").

**Risk: Annualized standard deviation of returns (based on daily data estimated by BHAM)

Other IPERS Mandates: None



FIRM NAME: Bracebridge Capital, LLC

Corporate Headquarters: Boston, MA

Ownership Structure: Bracebridge is an SEC-registered investment adviser organized as a Delaware limited liability company. Nancy Zimmerman and Gabriel Sunshine founded the business in 1994 (under a former adviser entity that was replaced by Bracebridge in 1996) as a manager of absolute return investment funds. Nancy Zimmerman and Gabriel Sunshine own SVZ, Inc., the general partner of Bracebridge Capital II, L.P., which is the sole managing member of Bracebridge.

Firm Wide Assets Under Management: \$11,563,971,548 as of 6/30/24

Product Name: Bracebridge Absolute Return Composite

Product Benchmark: N/A

Product Asset Inception Date: March 31, 1994

Product Assets Under Management: \$8,343,149,358 as of 6/30/24

Product Style Description:

The investment objective of the Bracebridge absolute return funds is to identify and capitalize on investment opportunities arising from inefficiencies in financial markets. The goal is to allow investors to diversify their portfolios and preserve capital without giving up expected return. The strategy seeks to capture the cheapness or richness created by market inefficiencies while hedging against risks related to interest rates, foreign exchange and credit, resulting in persistently low beta (0.1 to S&P since inception) and no meaningful correlation to equities, rates, or other financial markets.

Historically, fixed income and related derivative markets have provided the most robust arena for our strategy. We invest globally and allocate risk capital across four broad areas: Corporates, Developed Market Rates, Emerging Markets, and Structured Products. Pricing anomalies may arise from a variety of sources, including passive investing, indexation effects, ratings, regulation and market segmentation. Representative strategies include government bond relative value, cash/futures arbitrage, corporate capital structure arbitrage and bond/CDS basis, emerging market sovereign and quasi-sovereign arbitrages, structured products relative value and inefficiencies in new financial products. We may take long or short positions in instruments including bonds, options, futures, forward contracts, swaps, and equities.



Historical Excess Returns and Risk (net of fees) vs. Product Benchmark:

	Year Ended 6/30/24	3 years Ended 6/30/24	5 years Ended 6/30/24
Annualized Return	11.59%	5.32%	5.19%
Annualized Risk ¹	2.29%	3.19%	5.43%

Other IPERS Mandates: None.

¹ The Annualized Risk figures provided are calculated as the annualized standard deviation of our monthly net returns.



FIRM NAME: Blackstone Multi-Asset Investing (“BXMA”)

Corporate Headquarters: 345 Park Avenue, New York, New York

Ownership Structure: Blackstone is a publicly traded corporation incorporated in the state of Delaware.

Firm Wide Assets Under Management: \$83.7 billion²

Product Name: Blackstone Strategic Opportunity Fund (“BSOF”)

Product Benchmark: Please note that BXMA does not provide target returns across its existing product offerings, and similarly, does not benchmark its products.

Product Asset Inception Date: The BSOF Commingled Fund was launched in August 2011. The first BSOF Custom Fund was launched in October 2016.

Product Assets Under Management: \$3.4 billion in the BSOF commingled fund and \$4.0 billion in BSOF custom funds.³

Product Style Description: BSOF is Blackstone’s multi-strategy fund that marries an unconstrained investment mandate with the power and insights of the Blackstone ecosystem for sourcing, diligence, and relationships. BSOF seeks to deliver attractive and uncorrelated returns across the market cycle through fundamentally driven investments across asset classes, regions and duration profiles. The Fund’s strategy is comprised of “Cornerstone” strategies and “Opportunistic” strategies. Cornerstone strategies are platform activities that provide for the recurring deployment of capital and seek to tap into structural alpha streams that are further enhanced by the Blackstone ecosystem⁴ (mortgage servicing rights, accounts receivables, bank risk transfers, and an equity capital markets platform). Opportunistic investments are tactical, generally shorter duration trades that aim to capitalize on large disconnects between fundamentals and price due to forced selling or market dislocations (recent focus areas have been in equities, both in liquid form and more structured positions).⁵

² AUM as of 9/30/2024. Estimated and unaudited. AUM includes committed but uncalled capital. Figures may reflect rounding.

³ As of October 31, 2024. Estimated and unaudited. AUM includes NAV and unfunded commitments. Figures may reflect rounding.

⁴ Subject to Blackstone’s Information Walls Policy.

⁵ Some investments described above, including those in the Cornerstone Strategies, are capacity-constrained and may not be available for investment. The strategies described above are not an exhaustive list and not representative of all investment opportunities in the entire portfolio. No assurance can be made that future investments will feature the same or similar attributes to those mentioned above, or that they will achieve their objectives or avoid significant losses. Please see Important Disclosure Information, in particular “Trends” and “Opinions,” for more information.



Historical Excess Returns⁶ and Risk (net of fees) vs. Product Benchmark:^{7, 8, 9}

	Year Ended 6/30/24	3 years Ended 6/30/24	5 years Ended 6/30/24
Annualized Return	10.9%	5.3%	8.1%
Annualized Risk ¹⁰	2.5%	3.1%	4.5%

Other IPERS Mandates: n/a within BXMA

⁶ Represents beta-adjusted excess return.

⁷ **Past performance does not predict future returns. There can be no assurance that any fund will achieve its objectives or avoid significant losses.** Certain returns are estimated and unaudited. Figures may reflect rounding.

⁸ Indices are provided for illustrative purposes only. They have not been selected to represent appropriate benchmarks or targets for the Fund, but rather are disclosed to allow for comparison of the Fund's performance to that of well-known and widely recognized indices. Please see "Important Disclosure Information," in particular "Index Comparison," for more information.

⁹ Note: Please see Important Disclosure Information, in particular "BSOF Custom Fund Returns," "Aggregate Returns," and "Performance Calculations," for more information. The BSOF Custom Fund Discretionary Composite is not an investable product, and as such, returns are presented for informational purposes only. BSOF Custom Fund Discretionary Composite returns represent the composite performance for Class A (BAS's discretionary class) across all BSOF Custom Funds. Returns are presented net of the fund expenses and of management and performance fee set forth in the Limited Partnership Agreement of each BSOF Custom Fund.

¹⁰ Volatility



FIRM NAME: Davidson Kempner Capital Management LP

Corporate Headquarters:

520 Madison Ave,
New York, NY 10022

Ownership Structure:

The Firm is 100% privately owned by DK Partners with no external shareholders. In addition to the active DK Partners, members of their immediate families, and trusts or other entities for their benefit and certain retired partners also own a passive interest in the Firm.

Firm Wide Assets Under Management:

\$37,169.4 million¹¹

Product Name:

Davidson Kempner International (BVI), Ltd. ("DKIL" or the "Fund")

Product Benchmark:

Although the Fund has no formal benchmark, the Fund aims to outperform short-term U.S. Treasuries¹² by 300 to 500 basis points on a net basis, while seeking to achieve low volatility and strong downside protection.¹³

Product Asset Inception Date:

September 1995

Product Assets Under Management:

Multi-Strategy Funds' AUM: \$20,975.7¹⁴

DKIL AUM: \$8,695.2¹⁴

Product Style Description

Multi-Strategy Hedge Fund:

The Fund's objective is to achieve capital appreciation. The Firm seeks to achieve consistent, positive long-term returns. The Fund is an event driven, multi-strategy fund that invests primarily in global credit and merger

¹¹ As of October 1, 2024. Assets under management are approximate and include (1) uncalled capital commitments for funds in their investment periods; (2) accounts for which assets are based on notional capital adjusted for performance; (3) amounts not yet deployed related to a target account size of an account and (4) the principal balance of collateral obligations within an aviation loan asset-backed securitization. Further information regarding the calculation methodology is available upon request.

¹² References to short-term US treasuries means the 3-month T-bill rate. There are significant differences between the Fund's investments and 3-month T-bills. For instance, the Fund may use short-sales and leverage and invests in securities that have a greater degree of risk and volatility, as well as less liquidity, than 3-month T-bills. The returns of the 3-month T-bills do not presume the re-investment of income and are not subject to any of the management fees or expenses that the Fund must pay.

¹³ DKIL's net target return has been determined in consideration of several factors and assumptions, including historical returns. The target return is presented net of management fees, incentive allocation and other Fund expenses. While Davidson Kempner believes the assumptions used to generate this data are reasonable, these assumptions are subjective in nature and other assumptions may also be reasonable. The assumptions may prove not to be accurate or may not materialize. Actual conditions different than such assumptions may result in materially different performance. There can be no assurance that the target return will be met or that the Fund will be able to implement its investment strategy and investment approach or achieve its investment objective. Accordingly, actual realized returns may differ materially from the assumptions and circumstances on which the target return is based, and the target return should not be used as a primary basis for an investor's decision to invest in the Fund. Further information about the risks and limitations of using hypothetical performance in making investment decisions is available upon request.

¹⁴ As of October 1, 2024. Assets under management are approximate. The "Multi-Strategy Funds" are Davison Kempner Partners, Davidson Kempner Institutional Partners, L.P., DKIL and M.H. Davidson & Co. DKIL operates its investment strategy through a master-feeder structure by investing substantially all of its assets in Davidson Kempner International, Ltd. (the "DKIL Master Fund"). Information provided herein relating to the investments and assets under management of DKIL includes investments made through the DKIL Master Fund.



arbitrage with smaller allocations to long/short equities, convertible arbitrage, and long/short credit. The Firm's investment approach emphasizes fundamental, bottom-up research, portfolio diversification, and downside risk management with limited use of leverage on a position-by-position basis and at the Fund level. The investment team collaborates across geographies to identify and deploy capital to what they believe are the best risk-adjusted opportunities. Risk management and preservation of capital are key priorities.

Historical Excess Returns and Risk (net of fees) vs. Product Benchmark:

DKIL ¹⁵	Year Ended 6/30/24	3 years Ended 6/30/24	5 years Ended 6/30/24
Annualized Return	8.22%	3.09%	5.00%
Annualized Risk ¹⁶	1.61%	2.52%	5.11%

Other IPERS Mandates:

Not applicable.

MANAGER DISCLAIMER

Fund specific information in this document is provided with respect to DKIL. Unless otherwise indicated, responses are provided as of October 1, 2024. The information contained herein is being provided at your request for informational purposes only and is current only as of the dates indicated herein. Information that is not dated or information that is dated but viewed subsequent to its date may not be current. Davidson Kempner Capital Management LP ("DKCM") and its affiliates ("Davidson Kempner," "DK," "we" or the "Firm") assume no duty to update or correct any information for any reason, including new information, results or subsequent events.

DKCM or an affiliate has been registered as an investment adviser with the U.S. Securities and Exchange Commission (the "SEC") since 1990. Since that date, all U.S. Davidson Kempner affiliates under common control have operated on the basis of being registered and will continue to do so. The required Form ADV that DKCM files with the SEC contains extensive disclosure regarding all Davidson Kempner investment management entities. Registration with the SEC or with any state securities authority does not imply a certain level of skill or training.

Past performance is not necessarily indicative of future results. Actual investor results may vary. Investment losses may occur, and investors could lose some or all of their investment. No guarantee or representation is made that the Fund's investment program, including, without limitation, its investment objective, diversification strategies, or risk monitoring goals, will be successful, and investment results may vary substantially over time. Nothing herein is intended to imply that an investment in the Fund may be considered "conservative," "safe," "risk free" or "risk averse." Economic, market and other conditions could also cause the Fund to alter its investment objective, guidelines and restrictions. Certain information contained herein may constitute "forward-looking statements," which can be identified by the use of forward-looking terminology such as "may," "will," "should," "expect," "anticipate," "target," "project," "estimate," "intend," "continue" or "believe" or the negatives thereof or other variations thereon or comparable terminology. Due to various risks and uncertainties, including economic, market and other conditions, actual events or results or the actual performance of the Fund may differ materially from those reflected or contemplated in such forward-looking statements. Davidson Kempner shall have no duty to, and may not undertake to, update or correct any such forward looking statements.

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¹⁵DKIL performance figures are net of expenses, management fees and incentive fees or incentive allocations and include income from new issue investments. Performance is net of a 1.5% management fee. Performance figures are based on a representative investor that has invested in the Fund throughout the relevant period shown. The actual results of any investor will likely differ from the performance figures herein due to factors such as an investor's capital activity. Performance figures for 2023 reflect the impact of a "loss carry forward" relating to 2022. Capital invested into the Fund in 2023 would not experience this "loss carry forward" and therefore returns on such capital would be impacted by a full incentive allocation relating to 2023. All performance figures are estimated, based on unaudited data and subject to change. Past performance is not necessarily indicative of future results. Investment losses may occur, and investors could lose some or all of their investment. No guarantee or representation is made that the Fund's investment program will be successful. No representations are made as to the accuracy of the information provided herein. Actual investor results may vary.

¹⁶ Reflects annualized volatility.



prohibited. The information contained herein does not constitute an offer to sell or a solicitation of any offer to buy any securities and may not be used or relied upon for making an investment decision. Any offer or solicitation will be made only by means of a confidential private offering memorandum or similar disclosure document and the related subscription agreement. This communication does not represent legal, tax or investment advice, nor does it contain a complete description of the Fund and is subject to and qualified in its entirety by reference to the Confidential Private Offering Memorandum of the Fund (the "Memorandum"), which contains material information regarding the Fund, including important disclosure regarding the investment strategies, fees and expenses, conflicts of interest and risks associated with an investment in the Fund. Any decision to invest must be based solely upon the information set forth in the Memorandum, irrespective of any information the investor may have otherwise been furnished, including this communication and in consultation with the investor's legal, investment and tax advisers. Capitalized terms used and not defined herein shall have the meanings ascribed to them in the Memorandum.

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BETA REPORT
IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM PORTFOLIO
PRELIMINARY (Unreconciled) MARKET VALUES AT
11/15/2024

	Actual	Overlay	Total	Policy	Difference
PUBLIC MARKETS					
Domestic	\$ 9,501,540,553	\$ (309,625,331)	\$ 9,191,915,222	\$ 9,495,098,196	\$ (303,182,975)
International	\$ 5,746,807,374	\$ 33,870,340	\$ 5,780,677,715	\$ 5,876,430,604	\$ (95,752,889)
Global Smart Beta	\$ 2,261,893,730		\$ 2,261,893,730	\$ 2,262,224,993	\$ (331,263)
Total Equities	\$ 17,510,241,657		\$ 17,234,486,666	\$ 17,633,753,793	\$ (399,267,127)
Core Fixed Income	\$ 11,565,820,252	\$ 153,318,691	\$ 11,719,138,944	\$ 11,529,762,095	\$ 189,376,848
Public Credit	\$ 1,374,814,341		\$ 1,374,814,341	\$ 1,356,442,599	\$ 18,371,741
Cash	\$ 580,531,010	\$ 122,436,299	\$ 702,967,310	\$ 455,122,188	\$ 247,845,122
PRIVATE MARKETS	\$ 13,588,415,091		\$ 13,588,415,091	\$ 13,644,741,675	\$ (56,326,584)
Private Equity	\$ 7,866,280,637		\$ 7,866,280,637	\$ 7,928,942,432	\$ (62,661,795)
Private Credit	\$ 2,691,993,412		\$ 2,691,993,412	\$ 2,663,803,394	\$ 28,190,018
Private Real Assets	\$ 3,030,141,041		\$ 3,030,141,041	\$ 3,051,995,849	\$ (21,854,808)
TOTAL FUND	\$ 44,619,822,351			\$ 44,619,822,351	\$ -

	Actual	Overlay	Total	Policy	Difference
PUBLIC MARKETS					
Domestic	21.29%	-0.69%	20.60%	21.28%	-0.68%
International	12.88%	0.08%	12.96%	13.17%	-0.21%
Global Smart Beta	5.07%		5.07%	5.07%	0.00%
Total Equities	39.24%		38.63%	39.52%	-0.89%
Core Plus	25.92%	0.34%	26.26%	25.84%	0.42%
Public Credit	3.08%		3.08%	3.04%	0.04%
Cash	1.30%	0.27%	1.58%	1.02%	0.56%
PRIVATE MARKETS	30.45%		30.45%	30.58%	-0.13%
Private Equity	17.63%		17.63%	17.77%	-0.14%
Private Credit	6.03%		6.03%	5.97%	0.06%
Private Real Assets	6.79%		6.79%	6.84%	-0.05%
TOTAL FUND	100.00%			100.00%	0.00%

BETA REPORT							
IOWA PUBLIC EMPLOYEES' RETIREMENT SYSTEM PORTFOLIO							
PRELIMINARY (Unreconciled) MARKET VALUES AT							
11/15/2024							
PUBLIC PORTFOLIO		69.55%	\$	31,031,407,260			
Manager Name	Manager % of Asset Class	Total Market Value		Manager Name	Manager % of Asset Class	Total Market Value	
Blackrock R2000 SAE	2.54%	\$	241,012,420	Western	0.00%	\$	308,911
Blackrock Russell 1000 Alpha Tilts	22.77%	\$	2,163,208,239	IPERS MESIROW EM CURRENCY	2.03%	\$	235,300,116
DOMESTIC EQUITY - ACTIVE	5.39%	\$	2,404,220,659	IPERS MAN EM GLOBAL MACRO	1.27%	\$	147,440,475
				Blackrock	0.00%	\$	3,733
Mellon - Russell 1000 Index	71.81%	\$	6,822,664,706	Principal Global Investors	0.00%	\$	2,204
Mellon - Russell 2000 Index	2.01%	\$	191,422,810	TCW	0.00%	\$	98,158
Rhumblne Advisers	0.00%	\$	-	Prudential	0.00%	\$	3,629
Parametric - Domestic Equity	0.88%	\$	83,232,378	BlackRock Universal Alpha	2.69%	\$	311,649,110
NT Transition Manager	0.00%	\$	-	BlackRock Universal Beta	2.98%	\$	344,898,638
DOMESTIC EQUITY - PASSIVE	15.91%	\$	7,097,319,894	Mackay Shields	0.00%	\$	58
				PGIM GLRV Alpha	2.35%	\$	271,795,500
TOTAL DOMESTIC EQUITY	21.29%	\$	9,501,540,553	PGIM GLRV Beta	2.22%	\$	256,721,043
				CORE PLUS - ACTIVE	3.51%	\$	1,568,221,577
Blackrock - Canada	8.08%	\$	464,157,250				
Passive - Blackrock EAFE	35.06%	\$	2,015,023,680	Parametric - Fixed Income	0.19%	\$	21,967,073
Parametric - Int'l Equity	0.91%	\$	52,099,906	Mellon SLH Agg	86.25%	\$	9,975,631,603
Mellon Passive Emerging	17.60%	\$	1,011,648,112	CORE PLUS - PASSIVE	22.41%	\$	9,997,598,676
INTERNATIONAL EQUITY - PASSIVE	7.94%	\$	3,542,928,948				
				TOTAL CORE PLUS	25.92%	\$	11,565,820,252
Blackrock EAFE SAE	20.21%	\$	1,161,436,937				
Blackrock EM SAE	6.95%	\$	399,518,478	Oaktree Capital Management	0.10%	\$	1,406,093
Blackrock Europe Alpha Tilt	0.20%	\$	11,285,527	Aegon USA	32.57%	\$	447,773,551
BMO EAFE	0.04%	\$	2,474,721	Prudential EMD	33.59%	\$	461,764,813
International Equity Transition	0.01%	\$	328,953	PGIM High Yield	33.74%	\$	463,869,885
Oechsle	0.01%	\$	715,806	TOTAL PUBLIC CREDIT	3.08%	\$	1,374,814,341
PanAgora Dynamic EAFE	6.41%	\$	368,139,991				
Columbia EAFE Equity	0.09%	\$	4,971,104	UBS - US	61.45%	\$	1,390,025,264
Wellington EM	4.44%	\$	255,006,909	UBS - Developed ex US	28.76%	\$	650,558,828
INTERNATIONAL EQUITY - ACTIVE	4.94%	\$	2,203,878,426	UBS - EM	9.78%	\$	221,309,638
				TOTAL GLOBAL SMART BETA EQUITIES	5.07%	\$	2,261,893,730
TOTAL INTERNATIONAL EQUITY	12.88%	\$	5,746,807,374				
				Cash Account	61.20%	\$	355,307,900
				LARS Liquid Assets	38.80%	\$	225,223,111
				Parametric - Directed Trades	0.00%	\$	-
				Parametric - Synthetic Cash	0.00%	\$	-
				Public Real Assets Cash	0.00%	\$	-
				Pending Cash	0.00%	\$	-
				CASH ACCOUNT	1.30%	\$	580,531,010
PRIVATE PORTFOLIO		30.45%	\$	13,588,415,091			
Manager Name	Manager % of Asset Class	Total Market Value		Manager Name	Manager % of Asset Class	Total Market Value	
Legacy Portfolio	9.69%	\$	762,151,376	RREEF	39.24%	\$	927,666,573
Pathway PE Fund XXV	90.31%	\$	7,104,129,261	Clarion Partners	3.19%	\$	75,350,846
PRIVATE EQUITY	17.63%	\$	7,866,280,637	Invesco	37.07%	\$	876,381,673
				UBS Realty	20.51%	\$	484,830,471
BlackRock	34.25%	\$	326,160,097	REAL ESTATE	5.30%	\$	2,364,229,562
Pathway XXV-B	22.22%	\$	211,540,936				
Monroe Capital	43.53%	\$	414,474,194	Brookfield Super Core Infrastructure	49.22%	\$	327,733,037
DIRECT LENDING	2.13%	\$	952,175,227	Forest Invest	34.08%	\$	226,968,377
				UBS Farmland Investors	16.70%	\$	111,210,064
ArrowMark	10.35%	\$	101,355,553	OTHER REAL ASSETS	1.49%	\$	665,911,479
Crestline Opps Credit IA	18.87%	\$	184,717,193	PRIVATE REAL ASSETS	6.79%	\$	3,030,141,041
Crestline Opps Credit IA SRS	5.86%	\$	57,373,888				
Audax Mezzanine Fund V	3.01%	\$	29,458,056				
Marathon SPS IA Fund, L.P.	24.92%	\$	243,918,495				
KKR Goldfinch	29.07%	\$	284,601,032				
Ares Private Credit Solutions II	6.63%	\$	64,896,317				
Audax Mezzanine Coinvest IA	1.29%	\$	12,622,338				
OPPORTUNISTIC	2.19%	\$	978,942,871				
Oaktree RECIF	6.33%	\$	48,198,291				
IPERS Principal OEDF	0.84%	\$	6,375,595				
ITE	11.51%	\$	87,552,953				
IFM USIDF	12.26%	\$	93,296,730				
PGIM RE Global Debt	20.57%	\$	156,547,809				
IPERS PGIM PREDS	9.30%	\$	70,785,425				
Principal RE Debt II	0.35%	\$	2,646,562				
KARED IV	12.45%	\$	94,763,978				
IPERS GTIF	13.57%	\$	103,241,079				
Heitman Credit	12.81%	\$	97,466,893				
REAL ASSETS CREDIT	1.71%	\$	760,875,315				
PRIVATE CREDIT	6.03%	\$	2,691,993,412				
GRAND TOTAL		\$		44,619,822,351			
	PERCENT	DOLLARS					
PUBLIC MARKET	69.55%	\$	31,031,407,260				
PRIVATE MARKET	30.45%	\$	13,588,415,091				
TOTAL	100.00%	\$	44,619,822,351				

RECENT MARKET VALUES		
11/15/2024	\$	44,619,822,351
11/8/2024	\$	45,107,919,640
11/1/2024	\$	44,428,997,858
10/25/2024	\$	44,805,302,796
10/18/2024	\$	45,254,120,683
10/11/2024	\$	45,113,405,731
10/4/2024	\$	44,953,495,727
9/27/2024	\$	45,437,090,020
9/20/2024	\$	45,090,756,100

IPERS Portfolio Structure and Allocations
Quarter End September 30, 2024
\$45.3 Billion

Public Markets – 70% of Total Fund (Equities 41%)				
Domestic Equity \$9.8 Billion 21.7%		International Equity \$6.1 Billion 13.5%		Global Smart Beta \$2.3 Billion 5.2%
Active \$2.3 Billion 24.0%	Passive \$7.5 Billion 76.0%	Active \$2.3 Billion 38.4%	Passive \$3.8 Billion 61.6%	Passive \$2.3 Billion 100.0%
BlackRock (R1000 SAE) \$2.1 billion	BNY Mellon (R1000) \$7.1 billion	BlackRock (EAFE SAE) \$1.2 billion	BlackRock (EAFE) \$2.2 billion	UBS (U.S. Equity Smart Beta) \$1.4 billion
BlackRock (R2000 SAE) \$234.8 million	BNY Mellon (R2000) \$248.7 million	Panagora (Dynamic EAFE) \$395.3 million	BlackRock (Canada) \$476.3 million	UBS (Developed ex U.S. Smart Beta) \$702.0 million
	Parametric (Synthetic) \$79.4 million	BlackRock (Emerging SAE) \$427.5 million	BNY Mellon (Emerging) \$1.1 billion	UBS (Emerging Market Smart Beta) \$238.4 million
		Wellington (Emerging) \$269.9 million	Parametric (Synthetic) \$54.1 million	

Terminated managers with residual amounts in their accounts are not included.

IPERS Portfolio Structure and Allocations
Quarter End September 30, 2024
\$45.3 Billion

Public Markets – 70% of Total Fund (Fixed Income and Cash 29%)				
Core Fixed Income \$11.5 Billion 25.4%			Public Credit \$1.4 Billion 3.1%	Cash \$429.6 Million 0.9%
Active \$1.6 Billion 14.2%		Passive \$9.8 Billion 85.8%	Active \$1.4 Billion 100.0%	
BlackRock Universal (Relative Value) \$685.3 million	PGIM Universal (Relative Value) \$546.3 million	BNY Mellon Agg (Core) \$9.8 billion	Aegon USA (High Yield) \$449.0 million	BNY Mellon (Cash) \$205.3 million
Man EM Global Macro (Relative Value) \$149.7 million	Mesirow EM Currency (Relative Value) \$248.1 million	Parametric (Synthetic) \$29.7 million	PGIM (High Yield) \$464.8 million	LARS Liquid Assets (Cash) \$224.3 million
			PGIM (Emerging Market Debt) \$471.4million	

Terminated managers with residual amounts in their accounts are not included.

IPERS Portfolio Structure and Allocations
Quarter End September 30, 2024
\$45.3 Billion

Private Markets – 30% of Total Fund				
Private Equity \$8.0 Billion 17.6%	Private Real Assets \$3.0 Billion 6.7%	Private Credit \$2.7 Billion 5.9%		
Pathway Capital (Private Equity) \$8.0 billion	Clarion Partners (RE Equity) \$81.1 million	Tennenbaum Capital (Direct Lending) \$326.2 million	PGIM PREDS (Real Assets Credit) \$71.3 million	Audax Mezz Coinvest (Opportunistic Credit) \$12.6 million
	Invesco (RE Equity) \$880.5 million	Monroe Capital (Direct Lending) \$414.5 million	Heitman Credit (Real Asset Credit) \$99.4 million	Audax Mezz V (Opportunistic Credit) \$33.2 million
	RREEF (RE Equity) \$927.7 million	Pathway Capital (Direct Lending) \$216.6 million	IFM USIDF (Real Asset Credit) \$95.3 million	Arrowmark (Opportunistic Credit) \$98.4 million
	UBS Realty (RE Equity) \$486.3 million	Oaktree RECIF (Real Assets Credit) \$48.2 million	PGIM RE Global Debt (Real Assets Credit) \$121.6 million	Crestline Opp Credit (Opportunistic Credit) \$193.5 million
	Forest Investment (Timber) \$227.0 million	Principal OEDF (Real Assets Credit) \$6.4 million	Kayne Anderson IV (Real Assets Credit) \$97.4 million	Crestline Opp Credit 2 (Opportunistic Credit) \$55.2 million
	UBS Farmland Investors (Farmland) \$111.2 million	Principal Global II (Real Assets Credit) \$3.9 million	JP Morgan GTIF (Real Asset Credit) \$103.2 million	Marathon SPS IA (Opportunistic Credit) \$243.9 million
	Brookfield (Infrastructure) \$330.0 million	ITE Rail Fund (Real Asset Credit) \$88.5 million	KKR Goldfinch (Opportunistic Credit) \$284.6 million	ARES PCS II (Opportunistic Credit) \$64.9 million

Alpha Report

For periods ending September 30, 2024

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IPERS' Active Manager Alpha Scorecard

Net of Fees as of 3Q24	3Q24	1 Year	3 Year	5 Year	SI	Perf	Org	People	Process
Domestic Equity									
BlackRock - Russell 1000 SAE	-0.73%	2.38%	NA	NA	0.72%				
BlackRock - Russell 2000 SAE	-0.88%	1.61%	0.90%	1.00%	1.48%				
International Equity									
BlackRock – EAFE SAE	-0.88%	1.09%	1.98%	1.30%	1.24%				
PanAgora - Dynamic EAFE	-1.09%	2.00%	1.75%	1.28%	0.77%				
Wellington - Emerging Markets	-4.97%	-0.99%	-1.65%	0.45%	-0.05%				
BlackRock - Emerging Markets SAE	-2.24%	-1.28%	-0.40%	-0.82%	-0.61%				
Core Fixed Income									
BlackRock - Universal	-0.06%	2.69%	1.32%	NA	1.34%				
PGIM - Universal	0.56%	-0.51%	0.32%	NA	-0.03%				
Man EM Global Macro	-5.82%	-19.24%	NA	NA	-19.24%				
Mesirow EM Currency	6.48%	-4.72%	NA	NA	-4.72%				
Public Credit									
PGIM - High Yield	0.20%	0.48%	0.40%	0.62%	0.65%				
Aegon USA - High Yield	0.04%	-1.03%	-0.34%	-0.23%	0.22%				
PGIM - Emerging Market Debt	0.16%	2.77%	0.66%	0.59%	0.88%				
LARS									
Aspect Capital	-2.57%	-0.27%	NA	NA	6.31%				
Graham Capital Management	-7.11%	-9.84%	5.44%	0.34%	3.23%				
P/E Global	-8.31%	-9.99%	4.10%	0.26%	3.12%				
PIMCO	-1.00%	6.88%	NA	NA	10.76%				
Welton Global	0.06%	-5.02%	-2.19%	NA	-1.44%				
ARP	-1.28%	-3.01%	NA	NA	-2.50%				



No Concerns



Minor Concerns



Material Concerns

IPERS' Active Manager Listing

MANAGER	INCEPTION DATE	MANDATE	BENCHMARK
Domestic Equity			
BlackRock - Russell 1000 SAE	May 2022	Large Cap	Russell 1000
BlackRock - Russell 2000 SAE	May 2019	Small Cap	Russell 2000
International Equity			
BlackRock – EAFE SAE	May 2019	Developed EAFE	MSCI EAFE Index (net)
PanAgora - Dynamic EAFE	May 2019	Developed EAFE	MSCI EAFE Index (net)
Wellington - Emerging Markets	February 2009	Global Emerging Markets	MSCI Emerging Markets (net)
BlackRock - Emerging Markets SAE	May 2019	Global Emerging Markets	MSCI Emerging Markets (net)
Core Fixed Income			
BlackRock - Universal	November 2020	Relative Value	Bloomberg U.S. Aggregate
PGIM - Universal	March 2021	Relative Value	Bloomberg U.S. Aggregate
Man EM Global Macro	October 2023	Relative Value	Bloomberg U.S. Aggregate
Mesirow EM Currency	October 2023	Relative Value	Bloomberg U.S. Aggregate
Public Credit			
PGIM - High Yield	June 2019	High Yield	Bloomberg U.S. HY 2% Capped Index
Aegon USA - High Yield	February 2012	High Yield	High Yield Policy Index
PGIM - Emerging Market Debt	April 2016	Emerging Market Debt	JP Morgan EMBI Global
LARS			
Aspect Capital	March 2022	Diversified Trend	Absolute Return
Graham Capital Management	December 2016	Tactical Trend	Absolute Return
P/E Global	December 2016	FX Strategy	Absolute Return
PIMCO	July 2022	Commodity Alpha	Absolute Return
Welton Global	June 2021	Welton Global	Absolute Return
ARP	November 2022	Alternative Risk Premium	Absolute Return

Private Market Program Manager Updates

For periods ending September 30, 2024

IPERS' PMP Manager Scorecard

	1 Year	5 Year	10 Year	SI	Performance	Organization	People	Process
Private Equity								
Multi-Strategy								
Pathway	5.0%	16.0%	15.5%	12.9%				
Private Credit								
Direct Lending								
BlackRock	6.0%	6.7%	N/A	7.1%				
Monroe	6.7%	7.3%	N/A	7.3%				
Pathway	10.5%	N/A	N/A	8.8%				
Opportunistic								
Arrowmark	15.0%	N/A	N/A	10.0%				
Ares Private Credit Solutions II	13.1%	N/A	N/A	6.2%				
Audax Mezzanine Fund V	9.5%	N/A	N/A	17.6%				
Audax Mezzanine Co-Invest Fund	14.4%	N/A	N/A	12.0%				
Crestline Series I	9.9%	N/A	N/A	8.3%				
Crestline Series II	N/A	N/A	N/A	0.2%				
KKR	11.2%	7.7%	N/A	7.8%				
Marathon	6.4%	N/A	N/A	6.3%				
Real Assets								
Heitman CREDIT	-5.4%	N/A	N/A	-3.3%				
IFM USIDF	4.0%	N/A	N/A	3.8%				
PGIM Global Real Estate Debt	10.2%	7.0%	N/A	7.0%				
Principal Real Estate Debt II	14.9%	5.8%	N/A	7.0%				
Kayne Anderson Real Estate Debt IV	11.5%	N/A	N/A	8.6%				
JP Morgan GTIF	12.0%	N/A	N/A	8.8%				
ITE Rail Fund IA	13.7%	N/A	N/A	12.6%				
PGIM PREDS	N/A	N/A	N/A	3.3%				
Oaktree RECIF	N/A	N/A	N/A	2.5%				
Principal OEDF	N/A	N/A	N/A	-0.3%				



No Concerns




Minor Concerns





Material Concerns

IPERS' PMP Manager Scorecard

	1 Year	5 Year	10 Year	SI	Performance	Organization	People	Process
Private Real Assets								
Real Estate								
Clarion Partners	-26.6%	-7.8%	0.2%	3.3%				
Invesco	-13.5%	9.9%	11.9%	10.1%				
RREEF	-7.4%	6.7%	8.5%	9.2%				
UBS Realty	-5.9%	10.1%	10.9%	9.7%				
Other Real Assets								
Brookfield	8.1%	N/A	N/A	7.2%				
Forest Investment Associates	7.8%	7.4%	5.3%	6.2%				
UBS Farmland	7.6%	5.1%	N/A	7.1%				

 No Concerns

 Minor Concerns

 Material Concerns

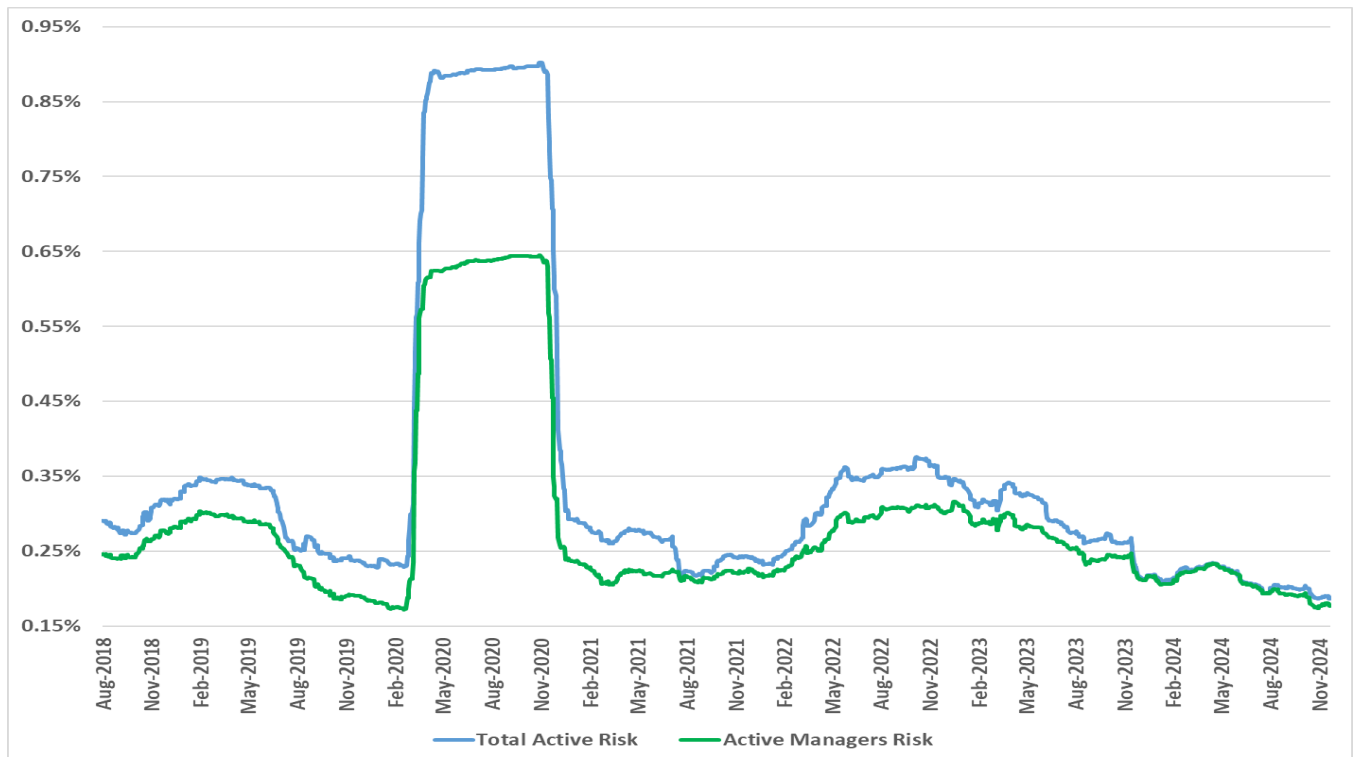
Active Risk –180 Days (Nov 2024)

	Active	Passive	Misfit	Total
Equities				
Domestic Equities	0.08%	0.01%	0.00%	0.08%
International Equities	0.08%	0.03%	0.00%	0.09%
Global Smart Beta Equities	-	0.00%	0.00%	0.00%
Fixed Income				
Core Fixed Income	0.10%	0.02%	0.00%	0.10%
Public Credit	0.02%	-	0.00%	0.02%
Cash/LARS	0.07%	-	-	0.07%
Asset Allocation	-	0.07%	-	0.07%
Total Public Markets	0.18%	0.08%	0.00%	0.19%

- Plan-level Total Active Risk stable at 0.19%
- A couple of additional mandates to be added next quarter
- Active risk at the lowest level since Mar-2020

Target	1.50%
Upper Limit	3.00%

External Active Risk –180 Days (Nov 2024)



Investment Management Expenses

FY2024

Keith Scholten– Senior Investment Officer

December 6, 2024



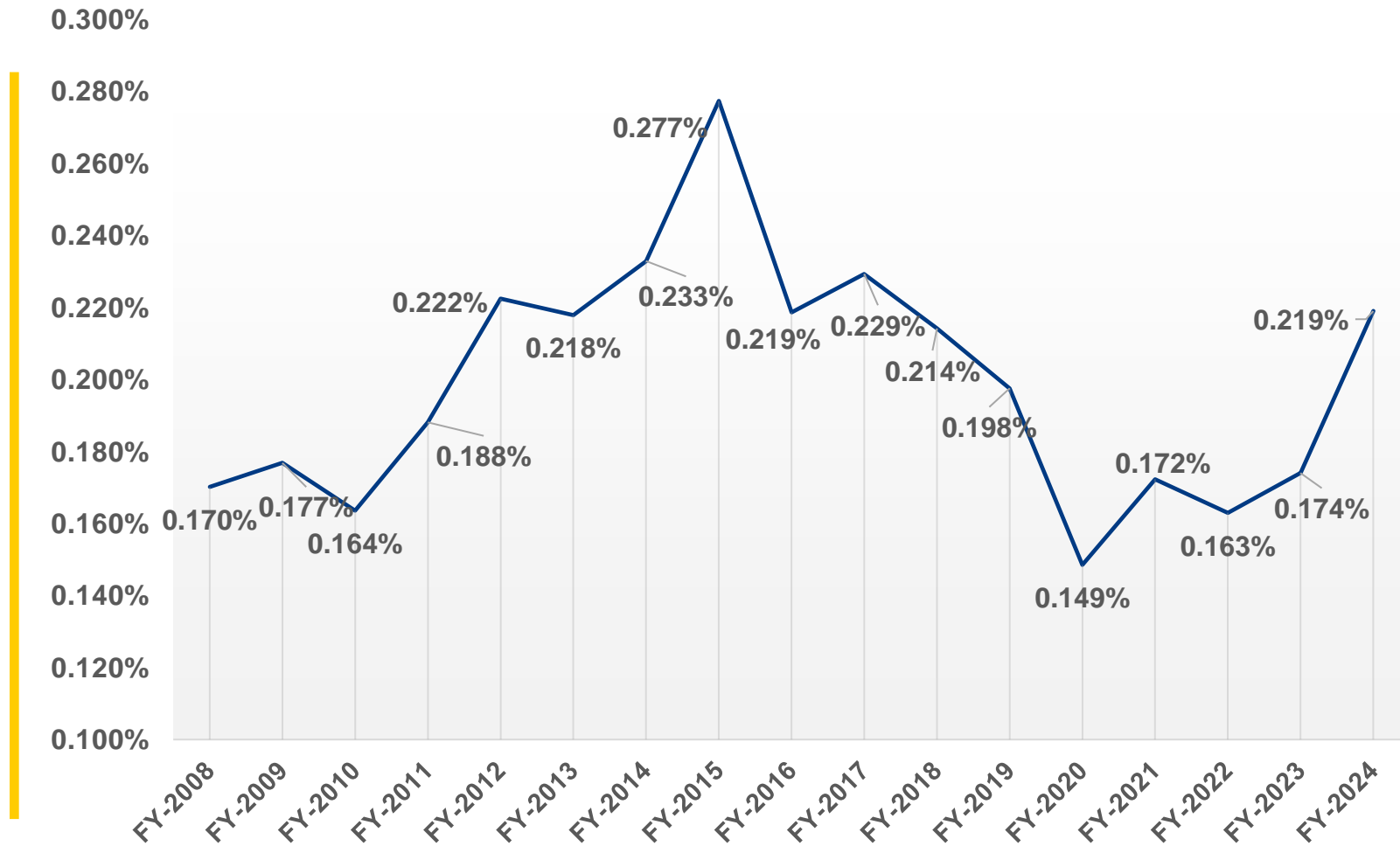
Investment Management Expenses

PRELIMINARY	FY24	FY24	FY24	FY24 Average	Cost as % of
	Mgmt. Fee	Incentive Fee	Total Fees	Market Value	Avg. Assets
<u>Investment Manager Fees</u>					
Core Fixed Income - Passive	-\$344,349	N.A.	-\$344,349	\$8,855,946,405	-0.004%
Core Fixed Income - Active	2,857	\$3,567,377	3,570,234	1,523,506,029	0.234%
Public Credit	490,853	561,980.85	1,052,834	1,266,521,422	0.083%
Domestic Equity - Passive	-136,254	N.A.	-136,254	6,293,998,999	-0.002%
Domestic Equity - Active	259,303	12,018,684.39	12,277,988	2,571,446,851	0.477%
International Equity - Passive	430,115	N.A.	430,115	2,954,992,110	0.015%
International Equity - Active	1,295,755	13,543,443.31	14,839,198	2,646,097,961	0.561%
Global Smart Beta	681,879	N.A.	681,879	2,124,655,748	0.032%
Cash - STIF*	-	N.A.	-	366,358,199	0.000%
Cash - LARS	-	4,735,606.82	4,735,607	232,903,758	2.033%
Private Equity**	11,568,888	N.A.	11,568,888	7,935,347,360	0.146%
Private Real Assets	15,354,192	N.A.	15,354,192	3,149,927,213	0.487%
Private Credit***	19,880,978	N.A.	19,880,978	2,433,050,331	0.817%
Total Manager Fees	\$49,484,218	\$34,427,092	\$83,911,310	\$42,354,752,386	0.198%
<u>Investment Related Services Fees</u>					
Investment Consultants	365,000	N.A.	365,000	42,354,752,386	0.001%
Custody Services	899,309	N.A.	899,309	42,354,752,386	0.002%
Total Services Fees	\$1,264,309	N.A.	\$1,264,309	\$42,354,752,386	0.003%
<u>Administrative Costs</u>					
Commission Expenses	3,174,817	N.A.	3,174,817	42,354,752,386	0.007%
Investment Staff & Board Expenses	2,658,913	N.A.	2,658,913	42,354,752,386	0.006%
Miscellaneous Expenses	1,858,531	N.A.	1,858,531	42,354,752,386	0.004%
Total Administrative Costs	\$7,692,261	N.A.	\$7,692,261	\$42,354,752,386	0.018%
TOTAL	\$58,440,787	\$34,427,092	\$92,867,879	\$42,354,752,386	0.219%
* Short Term Investment Fund (STIF) is managed by BNY Mellon. The STIF charges a management fee of 10 bps per annum, which is netted from the earnings credited to the STIF.					
** Management fees and incentive fees paid to private equity partnerships are not recorded as an investment management expense, but are recorded as a reduction in the net appreciation in the fair value of private equity investments.					
*** Incentive fees paid to private credit funds are not recorded as an investment management expense, but are recorded as a reduction in the net appreciation in the fair value of private credit investments.					

Year-Over-Year Changes in Costs

<u>Fee Category</u>	<u>FY24 Expenses</u>	<u>FY23 Expenses</u>	<u>Change in Dollars</u>	<u>Percentage Change</u>
<u>Investment Manager Fees</u>				
Core Fixed Income	\$3,225,885	\$1,606,060	\$1,619,825	100.9%
Public Credit	1,052,834	487,131	565,703	116.1%
Domestic Equity	12,141,734	4,035,059	8,106,675	200.9%
International Equity	15,269,313	6,619,198	8,650,115	130.7%
Global Smart Beta	681,879	654,362	27,517	4.2%
Cash - LARS	4,735,607	3,967,718	767,889	19.4%
Private Equity	11,568,888	11,175,586	393,302	3.5%
Private Real Assets	15,354,192	16,505,257	-1,151,065	-7.0%
Private Credit	19,880,978	12,659,342	7,221,635	57.0%
Total Manager Fees	\$83,911,310	\$57,709,714	\$26,201,595	45.4%
<u>Investment Related Services Fees</u>				
Investment Consultants	365,000	480,000	-115,000	-24.0%
Custody Services	899,309	871,385	27,924	3.2%
Total Services Fees	\$1,264,309	\$1,351,385	-\$87,076	-6.4%
<u>Administrative Costs</u>				
Commission Expenses	3,174,817	5,804,870	-2,630,053	-45.3%
Investment Staff & Board Expenses	2,658,913	2,204,061	454,852	20.6%
Miscellaneous Expenses	1,858,531	2,034,681	-176,151	-8.7%
Total Administrative Costs	\$7,692,261	\$10,043,612	-\$2,351,352	-23.4%
TOTAL	\$92,867,880	\$69,104,712	\$23,763,168	34.4%

Historical Cost as % of Avg Assets Trend



Comments

- **Investment Management expenses were 0.219% (21.9 basis points) of the Fund's FY2024 average market value**
- **Total investment management expenses increased 34.4% from FY2024**
 - Investment manager fees increased by 45.4%
 - Consultant and Custody costs decreased by 6.4%
 - Administrative costs decreased by 23.4%

2025

Board Meetings

JANUARY						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

FEBRUARY						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

MARCH						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

APRIL						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

March 28, 2025

CY2024 Investment Performance

June 19, 2025

Private Markets Program Review

September 24-25, 2025

Continuing Education Session

FY2025 Investment Performance Review

Asset Allocation

Investment Policy & Goal Statement

December 5, 2025

Actuarial Valuation Presentation