AGENDA

DALLAS POLICE & FIRE PENSION SYSTEM

Date: May 2, 2025

The regular meeting of the Dallas Police and Fire Pension System Board of Trustees will be held at **8:30 a.m. on Thursday, May 8, 2025, in the Second Floor Board Room at 4100 Harry Hines Boulevard, Dallas, Texas and via telephone conference for audio at 214-271-5080 access code 588694 or Toll-Free (US & CAN): 1-800-201-5203 and Zoom meeting for visual https://us02web.zoom.us/j/83364156526?pwd=OG5CbEFhajN5V0hWaUFJMlhYcHQ2Zz09 Passcode: 923237.** Items of the following agenda will be presented to the Board:

A. MOMENT OF SILENCE

B. APPROVAL OF MINUTES

Regular meeting of April 10, 2025

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. **Legislative Update**

   Portions of the discussion under this topic may be closed to the public under the terms of Section 551.071 of the Texas Government Code.

2. **Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation or any other legal matter in which the duty of the attorneys to DPFP and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.**

3. **Portfolio Update**

4. **Report on Investment Advisory Committee Meeting**

5. **Possible New Private Credit Commitments**

6. **Private Equity Pacing Plan**

7. **Lone Star Investment Advisors**

   Portions of the discussion under this topic may be closed to the public under the terms of Section 551.071 of the Texas Government Code.

8. **City Contribution Update**

9. **Executive Director Approved Pension Ministerial Actions**

10. **Board approval of Trustee education and travel**

    a. Future Education and Business-related Travel
    b. Future Investment-related Travel

D. BRIEFING ITEMS

1. **Public Comment**

2. **Executive Director's Report**

    a. Associations' newsletters
    - NCPERS Monitor (May 2025)
    - NCPERS PERSist (Spring 2025)

    b. Open Records

The term "possible action" in the wording of any Agenda item contained herein serves as notice that the Board may, as permitted by the Texas Government Code, Section 551, in its discretion, dispose of any item by any action in the following non-exclusive list: approval, disapproval, deferral, table, take no action, and receive and file. At the discretion of the Board, items on this agenda may be considered at times other than in the order indicated in this agenda.

At any point during the consideration of the above items, the Board may go into Closed Executive Session as per Texas Government Code, Section 551.071 for consultation with attorneys, Section 551.072 for real estate matters, Section 551.074 for personnel matters, Section 551.076 for deliberation regarding security devices or security audits, and Section 551.078 for review of medical records.

DALLAS POLICE & FIRE PENSION SYSTEM

MOMENT OF SILENCE

In memory of our Members and Pensioners who recently passed away

NAME	ACTIVE/ RETIRED	DEPARTMENT	DATE OF DEATH
James R. (J R.) Smith	Retired	Police	Apr. 1, 2025
Joe B. Millhollon Jr.	Retired	Police	Apr. 4, 2025
Lester C. Taylor	Retired	Police	Apr. 8, 2025
Thomas C. Smith	Retired	Police	Apr. 14, 2025
Lynn A. Reves	Retired	Fire	Apr. 20, 2025
Jake J. Escamilla	Retired	Fire	Apr. 25, 2025

Regular Board Meeting –Thursday, May 8, 2025

Dallas Police and Fire Pension System
Thursday, April 10, 2025
8:30 a.m.
4100 Harry Hines Blvd., Suite 100
Second Floor Board Room
Dallas, TX

Regular meeting, Michael Taglienti, Deputy Vice Chairman, presiding:

ROLL CALL

Board Members

Present at 8:31 a.m.	Michael Taglienti, Michael Brown, Matthew Shomer, Tom Tull, Anthony Scavuzzo, Joe Colonnetta, Marcus Smith, David Kelly, Steve Idoux, Robert Walters
Absent	None
Staff	Kelly Gottschalk, Josh Mond, Brenda Barnes, Ryan Wagner, Christina Wu, Kyle Schmit, John Holt, Nien Nguyen, Milissa Romero
By telephone	Cynthia Thomas, Bill Scoggins
Others	Karolyn Ladas, Jeff Williams, Ben Mesches, Nicholas Merrick, Tina Hernandez Patterson, Jeff Patterson, Gay Donnell Willis, Paula Blackmon, Chris Peterson
By telephone	Ken Haben, Caitlin Grice, Aaron Lally, Colin Kowalski

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The meeting was called to order at 8:31 a.m.

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A. TRUSTEES

The Board welcomed the newly appointed Mayoral Trustees, Joe Colonnetta, David Kelly, and Robert Walters who will each serve three-year terms.

Staff and the Board thanked the outgoing Trustees, Nicholas Merrick and Tina Hernandez Patterson, for their service to the Board and the members. Several other Trustees voiced their thanks as well including their thanks for the Chairman and the work he had done during his tenure.

No motion was made.

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Regular Board Meeting
Thursday, April 10, 2025

B. MOMENT OF SILENCE

The Board observed a moment of silence in memory of retired police officer Walter G. Wilson, Patrick D. Cheshier, James W. Harris Sr., Randall L. Jones, Donald R. O'Donnel and active firefighter Brett A. Shipp, and retired firefighter Ulysses Underwood.

No motion was made.

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C. APPROVAL OF MINUTES

Regular meeting of March 20, 2025

After discussion, Mr. Tull made a motion to approve the minutes of the Regular meeting of March 20, 2025. Mr. Shomer seconded the motion, which was unanimously approved by the Board.

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D. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. Board Chairman, Vice Chairman, and Deputy Vice Chairman Election

The Board deferred action on filling the vacancies of Board officers until the June Board meeting.

No motion was made.

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2. Non-member Trustee Vacancy

Nancy Rocha resigned from her role as Non-member Trustee and staff reviewed the provisions of the Trustee Election Procedures that a Trustee vacancy occurring with less than nine months remaining in the term will remain unfilled until the regular election cycle. The next Non-member election is scheduled for June 2025.

No motion was made.

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Regular Board Meeting
Thursday, April 10, 2025

3. Audit Plan

Karolyn Ladas from BDO, DPFP's external independent audit firm, discussed their audit plan for the year ended December 31, 2024.

No motion was made.

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3. Executive Director Approved Pension Ministerial Actions

The Executive Director reported on the April pension ministerial actions.

No motion was made.

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4. City Contribution Update

The Executive Director provided an update on the amount of City Contributions received and any shortage since October 1, 2024.

No motion was made.

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5. Board Approval of Trustee Education and Travel

a. Future Education and Business-related Travel
b. Future Investment-related Travel

After discussion, Mr. Colonnetta made a motion to approve Mr. Taglienti's request to attend the NCPERS Trustee Educational Seminar and the TEXPERS 2025 Summer Forum. Mr. Tull seconded the motion, which was unanimously approved by the Board.

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6. Board Members' reports on meetings, seminars and/or conferences attended

Mr. Taglienti and Mr. Shomer reported on the TEXPERS 2025 Annual Conference.

No motion was made.

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7. Portfolio Update

Staff briefed the Board on recent events and current developments with respect to the investment portfolio.

No motion was made.

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Regular Board Meeting
Thursday, April 10, 2025

8. Lone Star Investment Advisors

No discussion was held, and no motion was made.

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9. Legislative Update

The Board went into closed executive session – Legal at 10:09 a.m.

The meeting reopened at 11:43 a.m.

Mr. Brown left the meeting at 10:30 a.m. and Mr. Smith left the meeting at 11:19 a.m.

After discussion, Mr. Shomer made a motion to authorize Michael Taglienti, Robert Walters and the Executive Director to collectively negotiate with the City of Dallas on possible plan changes and bring back any agreement to the Board for final approval. Mr. Tull seconded the motion, which was unanimously approved by the Board.

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10. Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation or any other legal matter in which the duty of the attorneys to DPFP and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.

The Board went into closed executive session – Legal at 10:09 a.m.

The meeting reopened at 11:43 a.m.

The Board and staff discussed legal issues.

No motion was made.

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Mr. Idoux left the meeting at 12:00 p.m.

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Regular Board Meeting
Thursday, April 10, 2025

E. BRIEFING ITEMS

1. Public Comment

Prior to commencing items for Board discussion and deliberation, the Board received public comments during the open forum.

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2. Executive Director's Report

a. Associations' newsletters
- NCPERS Monitor (April 2025)

b. Open Records

The Executive Director's report was presented.

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Ms. Gottschalk stated that there was no further business to come before the Board. On a motion by Mr. Shomer and a second by Mr. Scavuzzo, the meeting was adjourned at 12:12 p.m.

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Michael Taglienti,
Deputy Vice Chairman

ATTEST:

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Kelly Gottschalk,
Secretary

Regular Board Meeting
Thursday, April 10, 2025

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DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C1

Topic: **Legislative Update**

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.071 of the Texas Government Code.

Discussion: Staff will brief the Board on pension bills that have been filed which may bear on DPFP.

Regular Board Meeting – Thursday, May 8, 2025

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C2

Topic: **Legal issues - In accordance with Section 551.071 of the Texas Government Code, the Board will meet in executive session to seek and receive the advice of its attorneys about pending or contemplated litigation or any other legal matter in which the duty of the attorneys to DPFP and the Board under the Texas Disciplinary Rules of Professional Conduct clearly conflicts with Texas Open Meeting laws.**

Discussion: Counsel will brief the Board on these issues.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C3

Topic: **Portfolio Update**

Discussion: Investment Staff will brief the Board on recent events and current developments with respect to the investment portfolio.

Regular Board Meeting – Thursday, May 8, 2025

DALLAS POLICE & FIRE PENSION SYSTEM

Portfolio Update

May 8, 2025

Board Meeting

Executive Summary

- **Estimated YTD Return (through 4/30):** 1.2% for DPFP Portfolio; 1.4% for Public Portfolio which makes up 79.2% of the assets.
- The Private Markets Sub-Committee interviewed senior direct lending finalists on April 17th.
- The Investment Advisory Committee reviewed the multi-asset credit search process and approved the formal search process document. Staff issued the invite only RFP to 11 products on April 28th.
- Staff and Meketa continue to monitor the portfolio for potential rebalancing opportunities.

Investment Initiatives – 2025 Plan

Q1 2025

- ~~Appointment of Private Markets Sub-Committee~~
- ~~Private Credit Pacing Plan~~
- ~~Public Equity and Public Credit Asset Class Structure Reviews~~

Q2 2025

- Private Equity Pacing Plan
- ~~Sub-Committee Review of New Private Credit Investments~~
- ~~Initiate Multi Asset Credit Search~~
- Board Approval of Initial Private Credit Commitments

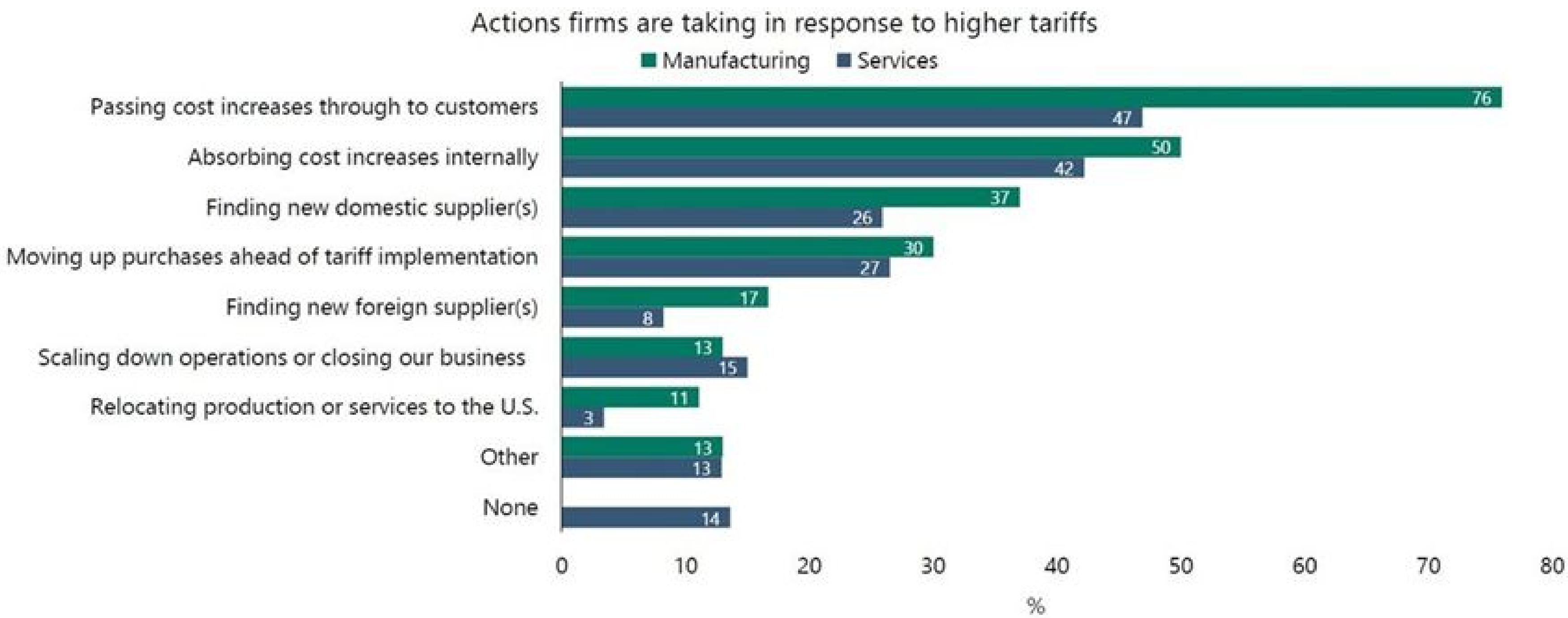
Q3 2025 & Beyond

- Initial New Private Equity Investments
- Diligence of Additional Private Credit Investments
- Multi Asset Credit Manager Selection and Funding

How are firms reacting to tariffs?

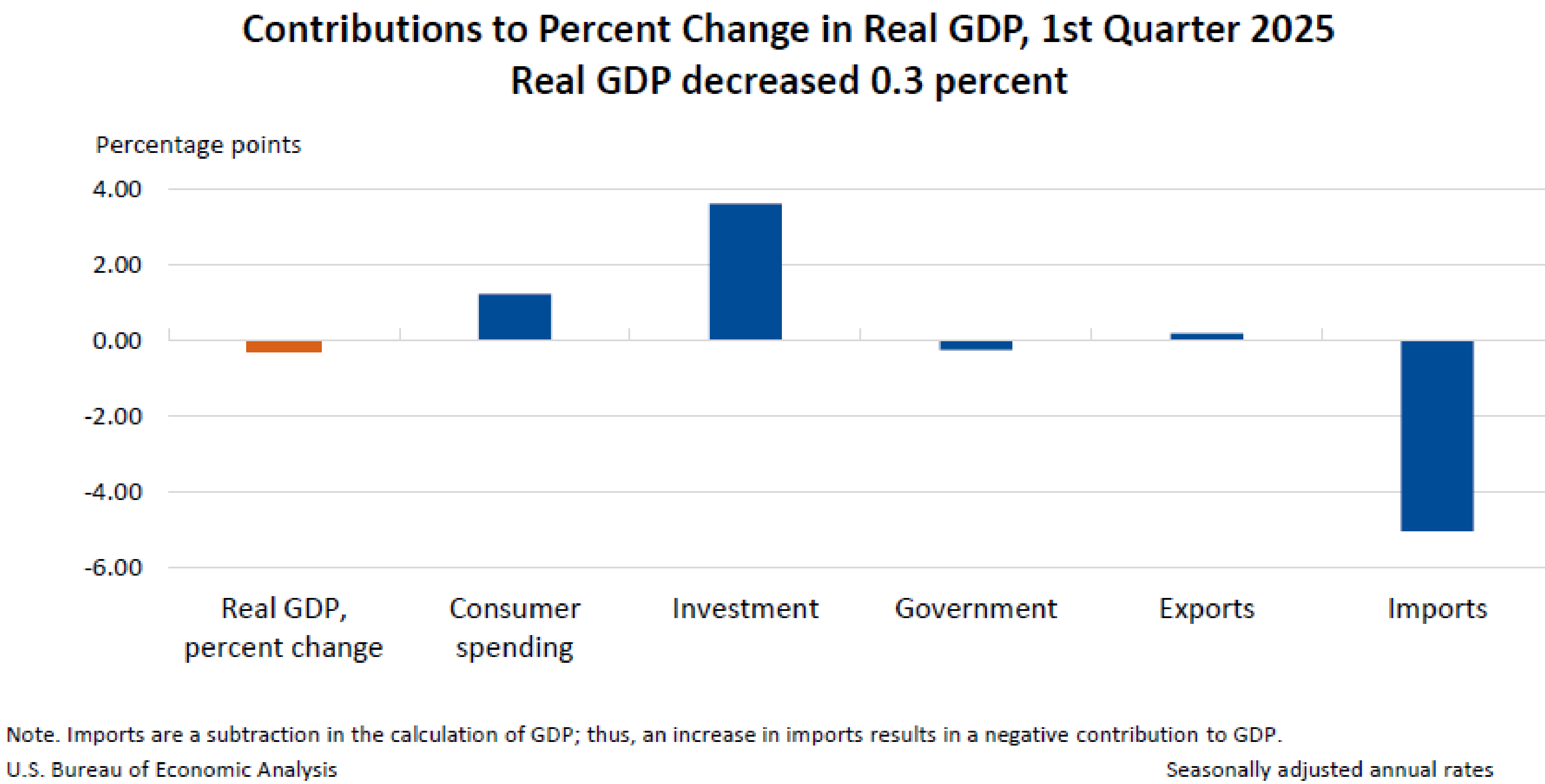
APOLLO

Firms plan to pass tariff-related costs to consumers

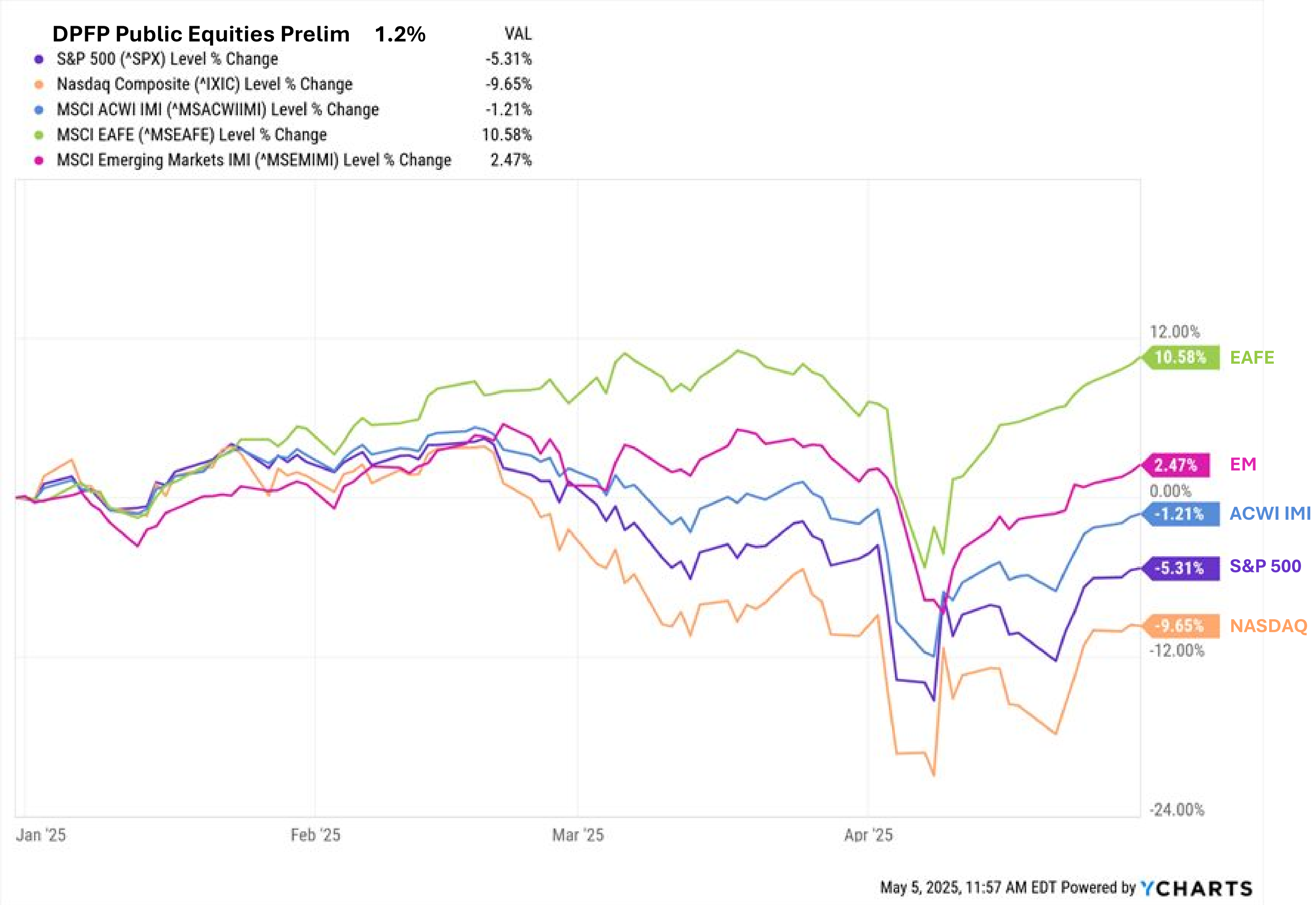


Source: Federal Reserve Bank of Dallas, Apollo Chief Economist

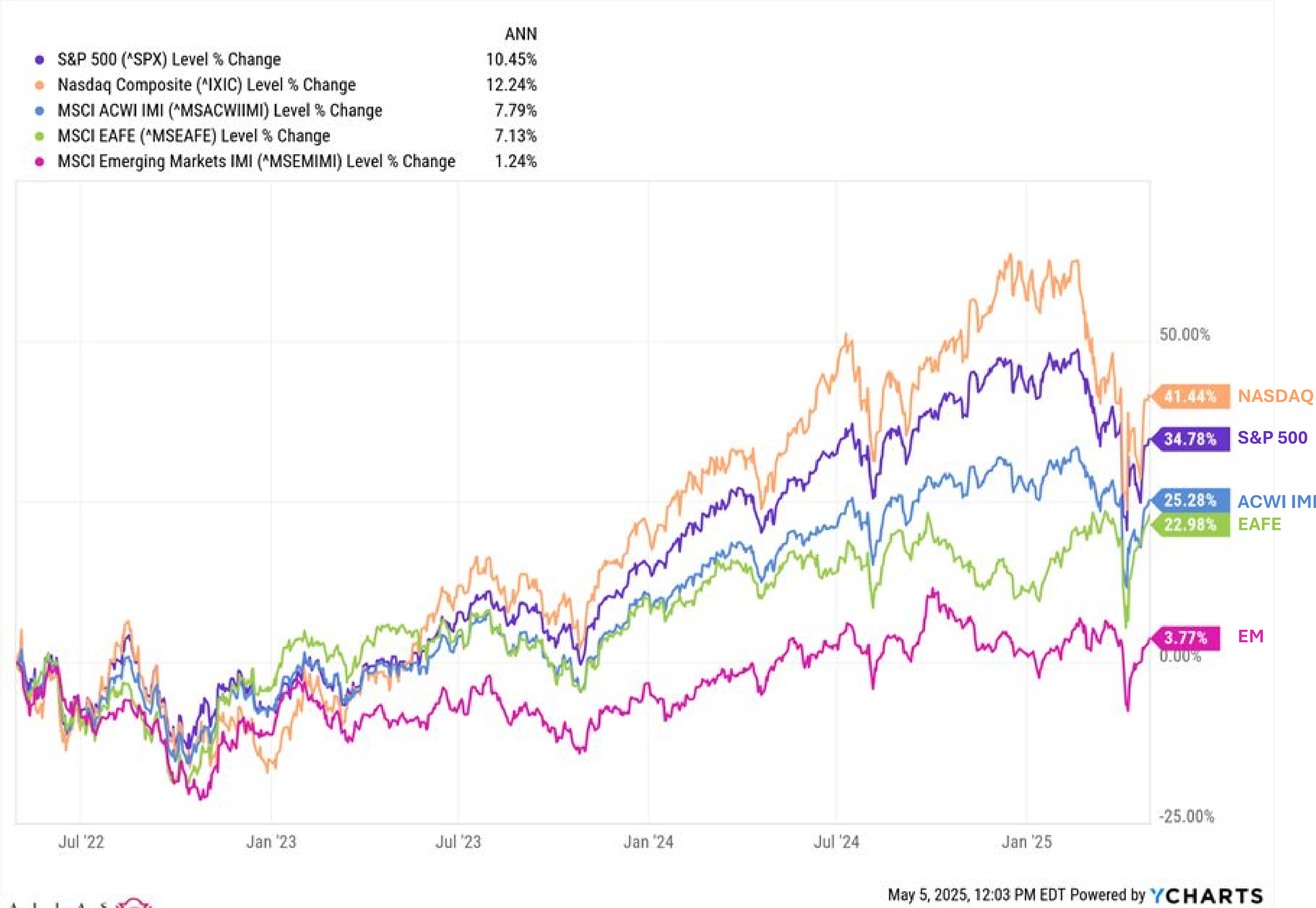
Q1 GDP Advance Estimate Shows Small Contraction



Equity Market Returns YTD (Ending 4/30/2025)



Equity Market Returns (3 Years Ending 4/30/25)



Public Markets Performance Snapshot

Public Markets made up 78.9% of DPFP Investment Portfolio.

Asset Allocation & Performance | As of April 30, 2025

Performance Summary
Ending April 30, 2025

	Market Value ($)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Total Public Portfolio	**1,607,130,194**	**1.1**	**1.4**	**9.0**	**8.2**	**8.7**
60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index		*1.7*	*1.8*	*10.2*	*6.3*	*7.2*
Public Equity	**1,095,964,268**	**1.4**	**1.2**	**10.8**	**9.9**	**12.6**
MSCI AC World IMI Index (Net)		*0.9*	*-0.7*	*11.1*	*9.6*	*12.8*
Boston Partners Global Equity Fund	130,077,688	2.7	11.5	14.2	12.3	17.3
MSCI World Net		*0.9*	*-0.9*	*12.2*	*11.1*	*13.9*
Manulife Global Equity Strategy	119,427,788	-1.2	0.7	5.2	9.5	12.6
MSCI ACWI Net		*0.9*	*-0.4*	*11.8*	*10.3*	*13.1*
Walter Scott Global Equity Fund	119,546,090	2.3	-1.4	4.7	8.1	10.3
MSCI ACWI Net		*0.9*	*-0.4*	*11.8*	*10.3*	*13.1*
WCM Global Equity	121,980,142	3.3	0.2	22.7	--	--
MSCI AC World Index Growth (Net)		*3.0*	*-4.0*	*13.0*	*12.3*	*13.4*
NT ACWI Index IMI	408,767,876	0.9	-0.4	11.6	10.3	--
MSCI AC World IMI Index (Net)		*0.9*	*-0.7*	*11.1*	*9.6*	*12.8*
Eastern Shore US Small Cap	57,031,141	-0.6	-8.5	6.1	4.1	--
Russell 2000 Index		*-2.3*	*-11.6*	*0.9*	*3.3*	*9.9*
Global Alpha International Small Cap	57,119,408	3.9	7.4	3.9	0.1	--
MSCI EAFE Small Cap (Net)		*5.8*	*9.7*	*12.4*	*5.3*	*9.0*
RBC Emerging Markets Equity	82,014,135	1.9	4.9	11.1	6.5	7.5
MSCI Emerging Markets IMI (Net)		*1.5*	*3.2*	*7.5*	*3.9*	*7.1*

Public Markets Performance Snapshot

Asset Allocation & Performance | As of April 30, 2025

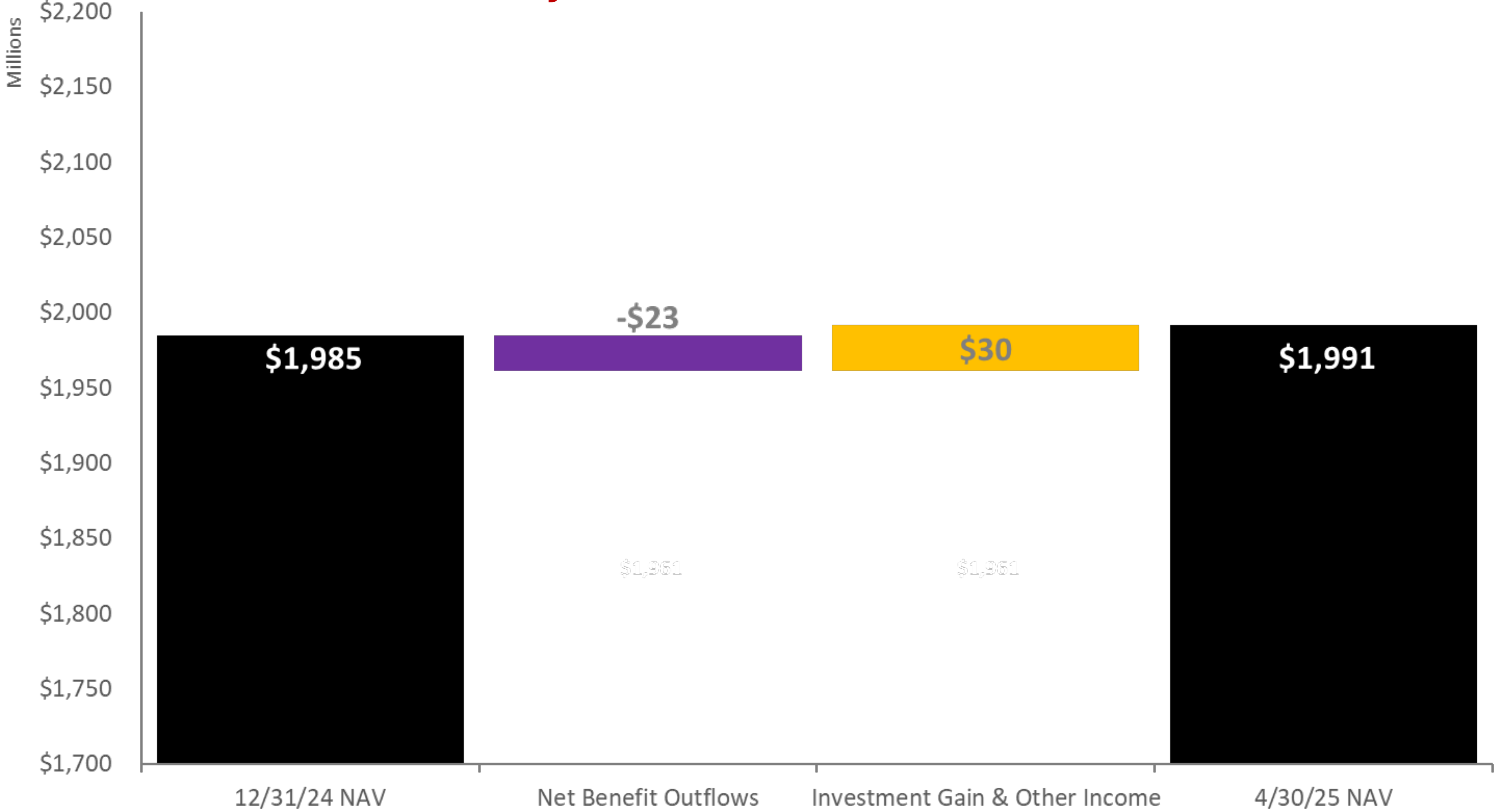
	Market Value ($)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Fixed Income and Cash	**296,175,596**	**0.5**	**2.2**	**6.9**	**3.4**	**2.0**
Fixed Income and Cash Blended Benchmark		*0.5*	*2.4*	*6.7*	*3.3*	*1.1*
IR&M 1-3 Year Strategy	126,223,879	0.7	2.3	7.0	4.0	2.3
Blmbg. U.S. Aggregate 1-3 Yrs		*0.7*	*2.4*	*6.8*	*3.6*	*1.5*
Longfellow Core Fixed Income	82,304,925	0.3	3.0	8.3	2.3	--
Blmbg. U.S. Aggregate Index		*0.4*	*3.2*	*8.0*	*2.0*	*-0.7*
Cash Equivalents	87,646,791	0.3	1.4	5.0	4.5	2.8
ICE BofA 3 Month U.S. T-Bill		*0.3*	*1.4*	*4.9*	*4.3*	*2.6*
Public Credit	**214,990,331**	**0.2**	**1.4**	**8.1**	**5.8**	**5.1**
Credit Blended Benchmark		*0.2*	*1.6*	*7.9*	*6.4*	*6.1*
Aristotle Pacific Capital Bank Loan	84,527,604	0.1	0.6	5.8	7.4	7.5
S&P UBS Leveraged Loan Index		*0.0*	*0.6*	*6.3*	*7.0*	*8.0*
Loomis US High Yield Fund	69,485,878	0.1	1.3	10.3	5.8	--
Blmbg. U.S. High Yield - 2% Issuer Cap		*0.0*	*1.0*	*8.7*	*6.2*	*6.3*
Metlife Emerging Markets Debt Blend	60,976,850	0.3	2.7	8.1	--	--
35% JPMEMBI Global Index/35% JPM CEMBI Broad Diversified Index/ 30% JPMGBI-EM Di		*0.8*	*3.8*	*8.9*	*5.6*	*3.1*

Fixed Income and Cash Blended Benchmark consists of 23% ICE BofA 3-month T-bill, 46% Bloomberg Aggregate 1-3 Yr Index, and 31% Bloomberg US Aggregate.
Credit Blended Benchmark consists of 36% S&P UBS Leveraged Loan Index, 36% BBG US High Yield 2% Cap, 27% EMD Blend (35% JPM EMBI, 35% JPM CEMBI Broad Diversified Index, 30% JPM GBI EM Diversified).

Change in Market Value Bridge Chart - As of 4/30/2025

In Millions

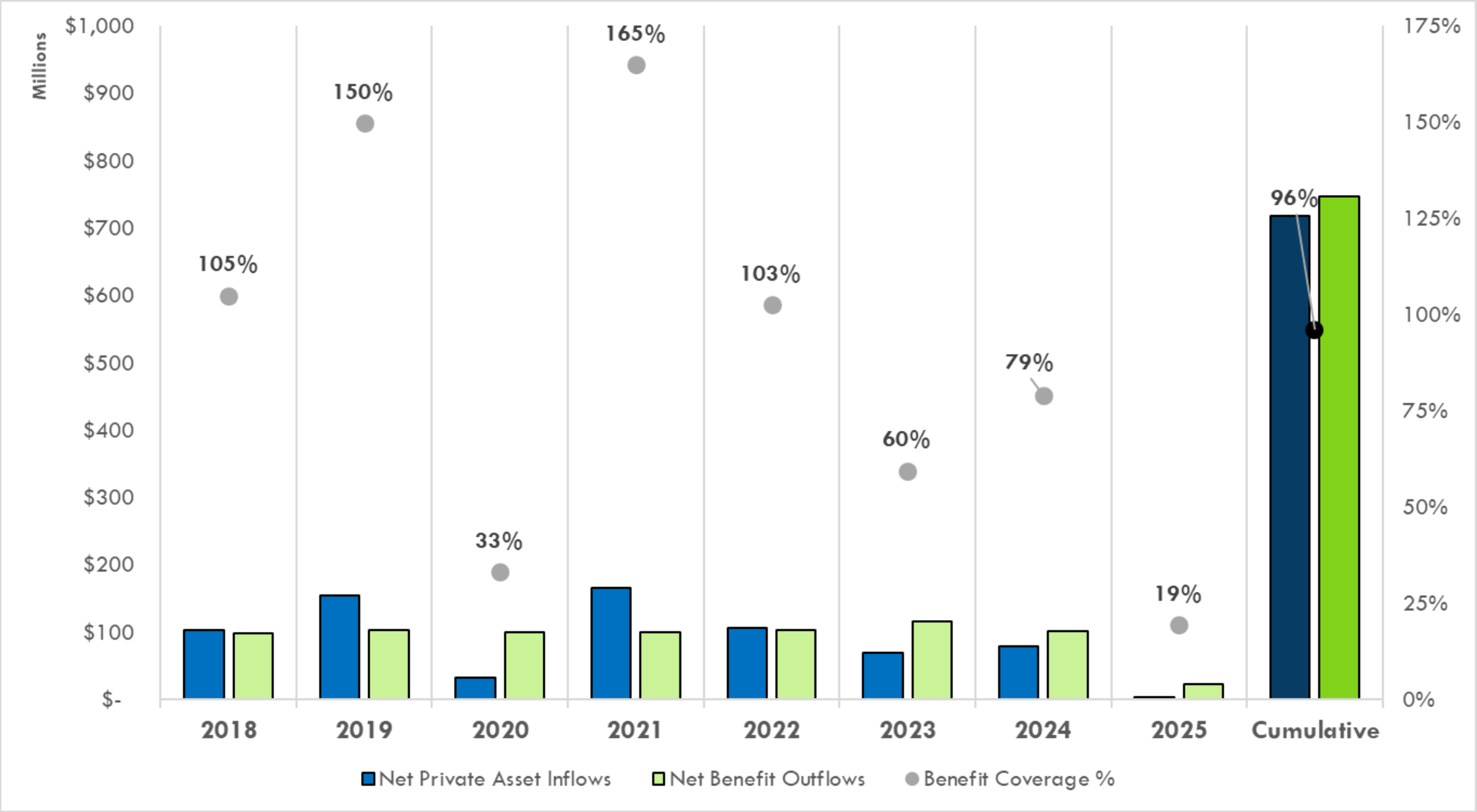
2025 YTD Preliminary Investment Return estimated at 1.5%



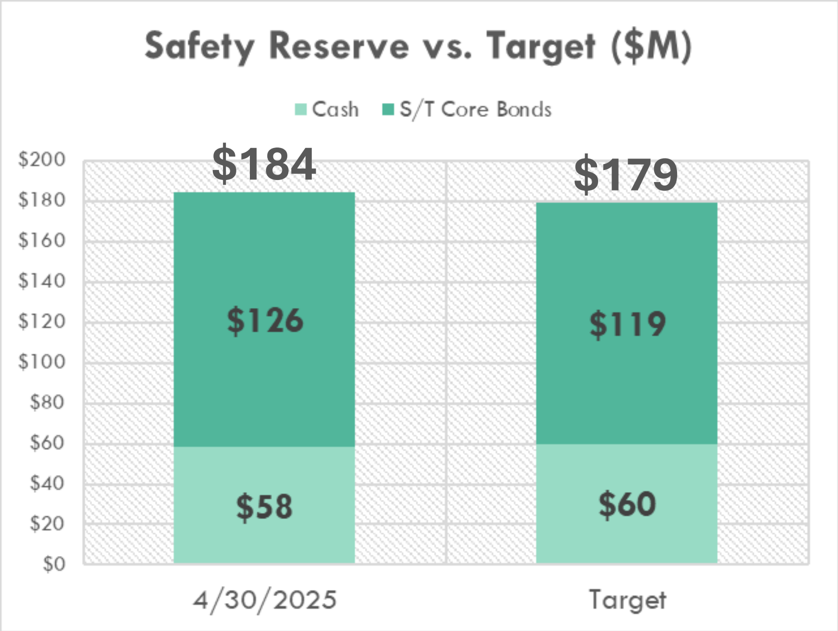
The beginning 12/31/24 value includes a one-quarter lag on private assets.
Numbers may not foot due to rounding.

Benefit Outflow Coverage

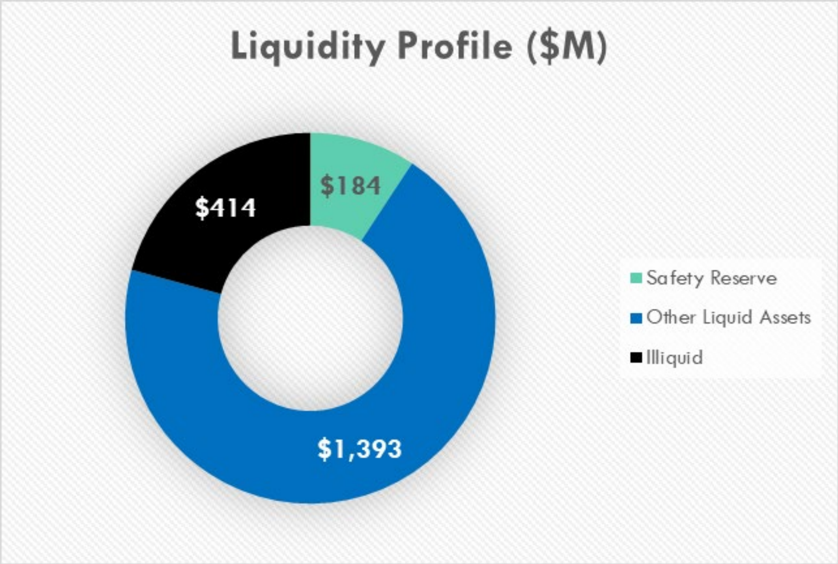
Since 2018, net Private Asset inflows have covered 96% of net benefit outflows.



Safety Reserve Dashboard – As of 4/30/25



Projected Net Monthly outflows of **$6.3M** per month. Safety Reserve of **$184M** would cover net monthly outflows for next **29 months** or through **September 2027.**



Expected Cash Activity	Date	Amount ($M)	Projected Cash Balance ($M)	Projected Cash (%)
	4/30/25		**$58.2**	**2.9%**
City Contribution	5/9/25	$10.8	$80.8	**4.1%**
City Contribution	5/23/25	$10.8	$91.6	**4.7%**
Pension Payroll	5/28/25	($28.9)	$62.7	**3.2%**
City Contribution	6/6/25	$10.8	$73.5	**3.8%**
City Contribution	6/20/25	$10.8	$84.3	**4.3%**
Pension Payroll	6/26/25	($28.9)	$55.3	**2.8%**
City Contribution	7/4/25	$10.8	$66.1	**3.4%**
City Contribution	7/18/25	$10.8	$76.9	**3.9%**
City Contribution	7/30/25	($28.9)	$66.1	**3.4%**
City Contribution	8/1/25	$10.8	$76.9	**3.9%**

Numbers may not foot due to rounding.

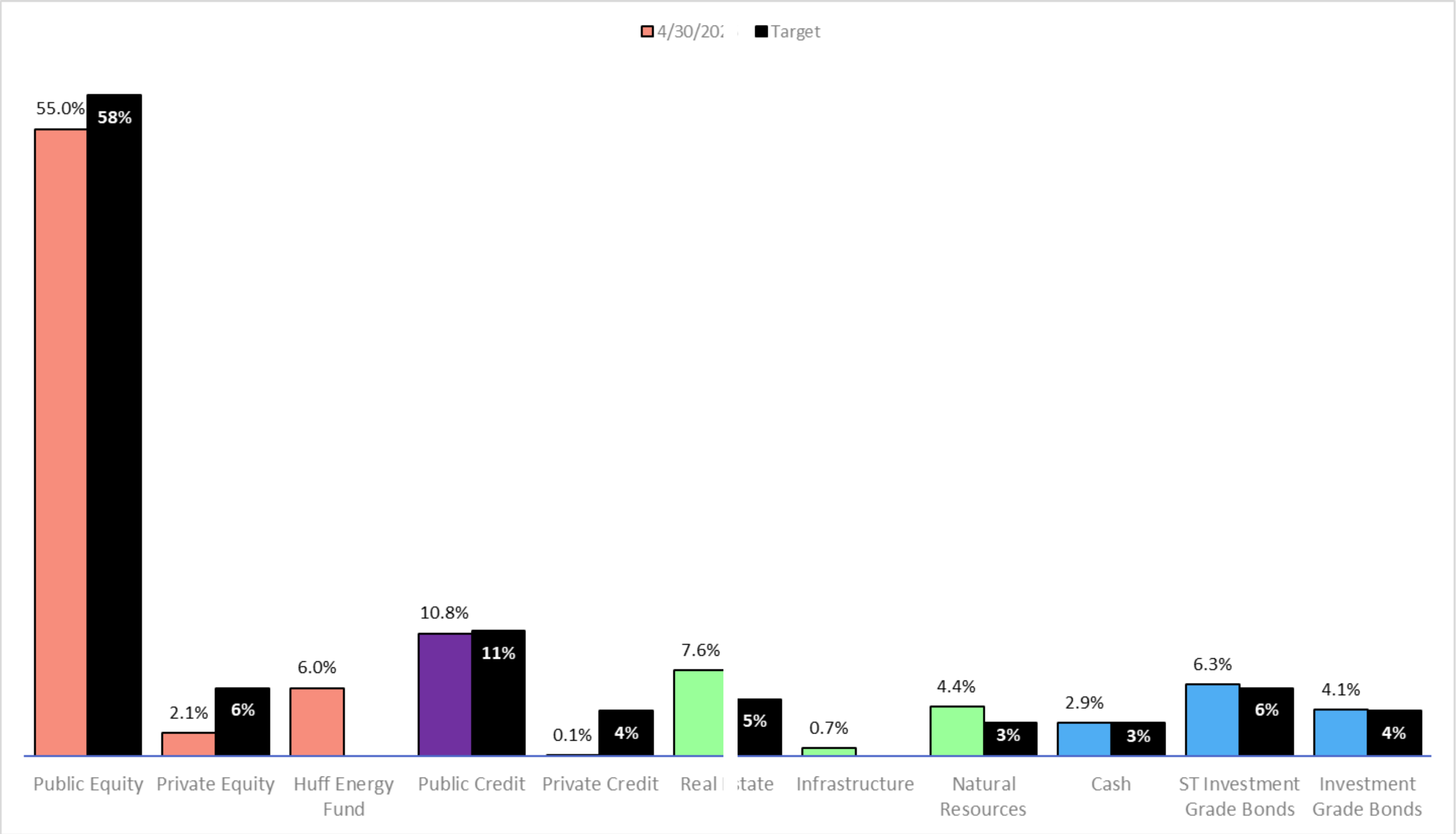
DALLAS POLICE & FIRE PENSION SYSTEM

Asset Allocation Detail

DPFP Asset Allocation	4/30/2025		Targets			Variance	
	NAV	%	$ mil.	%	% of Target	$ mil.	%
Equity	**1,256**	**63.1%**	**1,274**	**64%**	**99%**	**-18**	**-0.9%**
Public Equity	1,096	55.0%	1,155	58%	95%	-59	-3.0%
Northern Trust ACWI IMI Index	*409*	*20.5%*	*478*	*24%*	*86%*	*-69*	*-3.5%*
Boston Partners	*130*	*6.5%*	*119*	*6%*	*109%*	*11*	*0.5%*
Manulife	*119*	*6.0%*	*119*	*6%*	*100%*	*0*	*0.0%*
Walter Scott	*120*	*6.0%*	*119*	*6%*	*100%*	*0*	*0.0%*
WCM	*122*	*6.1%*	*119*	*6%*	*102%*	*3*	*0.1%*
Eastern Shore US Small Cap	*57*	*2.9%*	*60*	*3%*	*95%*	*-3*	*-0.1%*
Global Alpha Intl Small Cap	*57*	*2.9%*	*60*	*3%*	*96%*	*-3*	*-0.1%*
RBC Emerging Markets Equity	*82*	*4.1%*	*80*	*4%*	*103%*	*2*	*0.1%*
Private Equity	41	2.1%	119	6%	34%	-79	-3.9%
Huff Energy Fund	120	6.0%	0	0%		120	6.0%
Credit	**216**	**10.9%**	**299**	**15%**	**72%**	**-83**	**-4.1%**
Public Credit	215	10.8%	219	11%	98%	-4	-0.2%
Aristotle Pacific Bank Loans	*85*	*4.2%*	*80*	*4%*	*106%*	*5*	*0.2%*
Loomis Sayles High Yield Bonds	*69*	*3.5%*	*80*	*4%*	*87%*	*-10*	*-0.5%*
MetLife Emerging Market Debt	*61*	*3.1%*	*60*	*3%*	*102%*	*1*	*0.1%*
Private Credit	1	0.1%	80	4%	*2%*	-78	-3.9%
Real Assets	**252**	**12.7%**	**159**	**8%**	**158%**	**93**	**4.7%**
Real Estate	151	7.6%	100	5%	152%	52	2.6%
Natural Resources	87	4.4%	60	3%	145%	27	1.4%
Infrastructure	14	0.7%	0	0%		14	0.7%
Fixed Income & Cash	**267**	**13.4%**	**259**	**13%**	**103%**	**8**	**0.4%**
Cash	58	2.9%	60	3%	97%	-2	-0.1%
IR+M Short Term Bonds	126	6.3%	119	6%	106%	7	0.3%
Longfellow IG Bonds	82	4.1%	80	4%	103%	3	0.1%
Total	**1,991**	**100.0%**	**1,991**	**100%**		**0**	**0.0%**
Safety Reserve	184	9.3%	179	9%	103%	5	0.3%
Private Market Assets	414	20.8%	358	18%		55	-3.2%

Source: Preliminary BNY Custodial Data, Staff Estimates and Calculations. Numbers may not foot due to rounding.

Asset Allocation – Actual vs Target



DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C4

Topic: **Report on Investment Advisory Committee Meeting**

Discussion: The Investment Advisory Committee met on April 24, 2025. The Committee Chair and staff will comment on Committee observations and advice.

Regular Board Meeting – Thursday, May 8, 2025

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C5

Topic: **Possible New Private Credit Commitments**

Attendees: Spencer Edge, Senior Portfolio Analyst – Albourne

Discussion: Staff conducted a search of senior secured direct lending strategies with the assistance of Albourne. The Private Markets Sub-Committee of the Investment Advisory Committee provided advice regarding the search and interviewed two finalists. Staff and Albourne will discuss the search process and provide an overview of the recommended strategies.

Staff Recommendation: **Available** at meeting.

DALLAS POLICE & FIRE PENSION SYSTEM

PRIVATE CREDIT MANAGER RECOMMENDATION

Date:	May 8, 2025
To:	Board of Trustees
From:	Investments Staff
Subject:	Private Credit Manager Selection & Recommendation

Executive Summary

Following the Investment Advisory Committee (IAC) and Board review of the Private Credit Strategic & Pacing Plan in early 2025, staff, with the assistance of Albourne, have been conducting a comprehensive process to implement the private credit allocation. This memo outlines the process undertaken to search for senior secured direct lending strategies which will serve as the core component of the Private Credit portfolio and recommends two private credit managers — Golub and KKR — for approval.

Strategic Context

The Private Credit Strategic & Pacing Plan outlines a balanced portfolio with strategic allocation targets across various strategies. These targets reflect long-term strategic ranges that will be met over several years.

Strategy Weights			
Strategy	**Target**	**Min**	**Max**
Senior Secured Direct Lending	50%	30%	70%
Real Asset/Real Estate Credit	20%	10%	30%
Asset-Based Lending/Structured Credit	20%	10%	30%
Distressed & Special Situations	10%	0%	20%

The Private Credit Strategic & Pacing Plan also includes a recommended commitment schedule, projecting that the Fund will reach its 4% private credit allocation target over a 4-5-year period, with appropriate diversification across vintage years. The Pacing Plan outlined $30 million in 2025 commitments to direct lending strategies, which the Board will consider for approval at the May 8th Board meeting.

DALLAS POLICE & FIRE PENSION SYSTEM

Future Commitment Schedule (millions)					
Year	**2025**	**2026**	**2027**	**2028**	**2029**
Strategy					
Distressed & Special Situations	$5	$5	$5	$5	
Multi-Strategy Lending (Real Asset/Real Estate Credit, Asset-Based Lending/Structured Credit)	$15	$10	$10	$5	$5
Direct Lending	$30	$25			
Commitments	**$50**	**$40**	**$15**	**$10**	**$5**

<u>Process Overview</u>

Beginning in Fall 2024, staff initiated meetings with potential managers in preparation for the upcoming private credit allocation. In parallel, staff held regular discussions with Albourne to refine the manager universe, focusing exclusively on those with high ratings from Albourne.

Throughout this process, staff conducted multiple conversations and meetings with select managers, performing comprehensive due diligence to evaluate investment strategy, structure, and risk profile. This culminated in the development of a shortlist of four managers/products specializing in senior secured direct lending. After discussions with Albourne, staff focused due diligence on funds offering an evergreen structure. Staff believes that evergreen structures are particularly well-suited to direct lending, as they allow DPFP to establish long-term partnerships in what is often considered private credit beta exposure. This approach also helps free up staff capacity and Board/IAC time to concentrate on higher alpha-generating areas within the private credit landscape.

On February 26, 2025, the Private Markets Sub-Committee met and reviewed the shortlist and provided input to Staff. Based on this feedback, the shortlist was narrowed to two managers: Golub and KKR.

Staff subsequently performed on-site visits to the headquarters of both firms in New York City in April 2024. Following in-person interviews on April 17, 2025, the Private Markets Sub-Committee voted to recommend both Golub and KKR for Board approval.

<u>Staff Recommendations</u>

Staff recommends commitments of $15 million each to 1. **Golub Capital Direct Lending Fund, L.P. Series SL-A (levered vehicle)** and **2. KKR Enhanced US Direct Lending Fund SCsp (levered vehicle).** Staff recommends the Board approve the flexibility to commit **up to $30 million to either Golub or KKR** if the other fund falls through due to legal review or contracting issues. The recommended private credit funds qualify as "Alternative Investments" pursuant to the definition outlined in Appendix D of the Investment Policy Statement, therefore will require a vote of eight trustees for approval.

Golub and KKR provide complementary exposures across core and upper middle market senior secured direct lending strategies and offer different structural and operational strengths. Staff holds strong conviction in both firms and believes they represent best-in-class strategy for the senior secured direct lending component of the Private Credit allocation.

DALLAS POLICE & FIRE PENSION SYSTEM

Manager Overviews

Golub

Golub is a leading core middle market direct lender focused on originating newly issued, first lien, senior secured loans to healthy U.S. middle market companies that are backed by private equity sponsors. The team is deeply experienced with long firm tenure, and its professionals are structured along industry verticals, enabling deep sector expertise and thorough underwriting. The firm maintains dedicated portfolio monitoring and workout teams to actively manage credit exposures. Performance has been strong across market cycles, with low default rates and minimal credit losses. The Golub Capital Direct Lending Fund offers a hybrid evergreen fund structure, which allows for continuous deployment and provides LPs with flexibility to increase or opt out of future commitments. Fees and carry are competitive and enhanced through a potential consultant discount.

KKR

KKR targets first lien, senior secured loans to U.S. upper middle market companies backed by private equity sponsors, with 10–15% of its investments directed toward non-sponsored deals. The platform is well-established, supported by a team of over 70 professionals dedicated to direct lending. It is highly resourced and organized to provide strong capabilities in both portfolio monitoring and special situations management. In workout scenarios, the private credit team can leverage broader institutional resources to support recovery efforts. The KKR direct lending business went through a restructuring following the underperformance of funds prior to 2017. Since the restructuring, performance has been robust with low default rates and limited credit losses. The KKR Enhanced US Direct Lending Fund utilizes a true evergreen structure enabling rapid ramp-up, ongoing portfolio diversification, flexible capital commitment and liquid options. Additionally, the product offers one of the most attractive fee structures currently available in the market.

ALBOURNE

Dallas Police & Fire Pension System

May 1, 2025

Re: **Dallas Police & Fire Pension System Private Credit Investment Memo**

Albourne America LLC (“Albourne”) supports Staff’s recommendation to invest $15m (and potentially up to $30) in the following fund:

Golub Capital Direct Lending Fund (“GDL” or the “Fund”)

Golub Capital Direct Lending Fund

Golub Capital ("Golub," the "Firm," or the "Manager") was founded in 1994 and is still led by brothers Lawrence and David Golub. With $75bn in AUM and over 220 investment professionals as of 31 December 2024, Golub is one of the largest and longest standing middle-market direct lenders. The Manager has one of the best historical track records among vanilla direct lenders, albeit with an elevated level of workout activity in its GCP fund in 2024.

As of 1Q 2025, the Manager is fundraising for Golub Capital Direct Lending ("GDL" or the "Fund"), a vehicle that will ramp from scratch pro rata with the Golub Capital Partners (“GCP) master fund and all other participating vehicles, including its public BDC. The Fund executes substantially the same strategy as the flagship GCP product but in a new evergreen structure. The Manager offers a series of independent investment pools where "evergreen" refers to an indefinite investment period rather than transactions at NAV.

Strengths

- **Entrenched Platform with Deep Resources:** Having completed over 2,400 transactions to deploy $150bn over 30 years through 31 December 2024, Golub has been an early and remains a dominant player in sponsor-backed direct lending.
- **Track Record:** Setting aside net IRR and multiples of the GCP fund series, which has a unique structure, the Manager has some of the lowest cumulative defaults and net realized losses of any established direct lender as of year-end 2023. This is particularly notable as Golub has posted the results with high origination volumes since roughly 2015, in contrast to many managers with sharp upticks in deployment in 2018 or more recently.
- **Fund Terms/Structure:** The structure of the Fund and its highly competitive fees is well suited for institutional LPs. It offers a series of independent investment pools and distributes interest income, Original Issue Discount (“OID”), and prepayment premiums from day one (recycling is only on the investment basis of principal repayment).

Considerations

- **Existing Portfolio Metrics:** While not directly applicable to the Fund itself, the Manager's flagship GCP vehicle has a relatively large portion of loans under 1.0x interest coverage compared to upper-middle-market peers. The flagship fund is a tale of two tables – as of year-end 2023 having one of the best track records and one of the worst interest coverage metrics. In the remote likelihood that troubles ever arise in GCP, the Manager may have general fundraising difficulties, which could ultimately impact deployment ability, talent retention, and, by extension, GDL returns.

Dallas Police & Fire Pension System

- **Deal-level Transparency:** In contrast to some peers, by internal policy the Manager is unable to comment on active workout situations and is more restrictive in sharing loan-level data in general. In short, Albourne has found the Manager extremely responsive and quick to provide stratifications of its portfolio, but more difficult when it comes to being able to pass on deal-level information, a potential pain point once portfolio metrics point to potential borrower stress.

Reason for Investment

This Fund may be suitable as a core allocation for investors seeking a core to upper-middle-market senior lending exposure in an evergreen format. The Fund is among the better structured "evergreen" vehicles on Albourne's IDD platform.

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Dallas Police & Fire Pension System

Disclosure of Potential Conflicts

Based on a review of the compliance records for Albourne Partners Limited and/or its affiliates (the “Albourne Group”), there appear to have been the following gifts and entertainment between the Albourne Group and the Manager during the past five years:

- In October 2022, three employees from the Manager attended an Albourne Group client event in Toronto

There do not appear to have been any additional gifts and entertainment between the Albourne Group and the Manager during the past five years.

Sincerely,

Spencer Edge
Senior Portfolio Analyst

Dallas Police & Fire Pension System

Important Notice

The information in this report does not contain all material information about the fund that is the subject of this report, its investment manager, any of their affiliates or any other related entity to which this report relates, including important disclosures and risk factors associated with an investment in the fund. As used herein, the term "Fund" refers to (i) the specific fund that is the subject of this report, (ii) collectively, the specific fund that is the subject of this report, its investment manager, any of their affiliates or any other related entity to which this report relates, or (iii) investment funds generally, as the context requires.

Before making an investment, you should obtain and carefully review the relevant fund offering documents before investing in the Fund mentioned herein, as such documents may contain important information needed to evaluate the investment and may provide important disclosures regarding risks, fees and expenses. Funds are speculative, involve a high degree of risk, and are illiquid. Past performance is not indicative of future results and you could lose all or a substantial amount of any investment it makes in such Funds. Furthermore, Funds may involve complex tax structures and delays in the distribution of important tax information, may have a limited operating history, may be highly volatile, and there may not be a secondary market for Fund interests. There may be restrictions on redemptions and transfers of Fund interests and such interests may otherwise be illiquid. Funds may also be highly leveraged and may have a fund manager with total investment and/or trading authority over the Fund. It should also be noted that, in the case of hedge funds, there may be a single adviser applying generally similar trading programs with the potential for a lack of diversification and corresponding higher risk; hedge funds may also affect a substantial portion of trades on foreign exchanges, which have higher trading costs.

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Dallas Police & Fire Pension System

May 1, 2025

Re: **Dallas Police & Fire Pension System Private Credit Investment Memo**

Albourne America LLC ("Albourne") supports Staff's recommendation to invest \$15m up to \$30m in the following fund:

KKR US Direct Lending Evergreen Fund (the "Fund")

KKR US Direct Lending Evergreen Fund

Within Kohlberg, Kravis & Roberts, Inc. ("KKR" or the "Firm"), KKR Credit oversees the Firm's activities across the credit spectrum, which has expanded to \$219bn overseen by 230 professionals as of 31 March 2024. Of that, \$86.1bn sits in Private Credit, a division that is overseen by Daniel Pietrzak. In Private Credit, the KKR Corporate Credit Team (the "Manager") oversees its direct lending businesses (both senior and junior) and has been best known for its flagship product, KKR Lending Partners.

The Manager has switched to offering only evergreen vehicles (the "Fund"), first launched in 1Q 2023. Investors will be able to choose between an unlevered ("KKR US Direct Lending Fund") and a levered ("KKR Enhanced US Direct Lending Fund") sleeve. The Fund will implement the same strategy and invest pro rata alongside KKR Lending Partners IV (and other applicable vehicles such as the KKR BDC). Under Mr. Pietrzak, the Manager has shifted to focus on upper-mid-market PE sponsor-backed borrowers and has gained a reputation for underwriting names at a higher risk/leverage profile in return for higher spreads. While not the most scaled player, the revamped Manager has been able to leverage its strengths to turn around its legacy underperformance and deliver a compelling offering within the vanilla upper-mid-market senior lending space.

Strengths

- **Strong structuring and workout experience:** Given its private equity ("PE") background and its dedicated workout resources separate from the deal teams, KKR can credibly take over companies from sponsors. The Manager has used the specter of takeover in the past to drive superior economics in amendment situations as well as encourage sponsors to add additional equity into deals as needed.
- **Promising performance since 2017:** KKR Lending Partners Fund III and Fund IV are generating strong net performance. It is Albourne's sense from reviewing the portfolio and working through various case studies that the Manager is well positioned to continue crystallizing on its positive early performance. Finally, the pace of realizations has generally been meeting expectations.
- **Broader platform:** The Manager is able to leverage both the sourcing relationships as well as the underwriting experience of KKR's Private Equity and Leveraged Finance groups in the US as well as in Europe. KKR's broader reputation as a large and well-resourced private equity shop also lends itself to hard bargaining when necessary, particularly in workout processes. To be clear, in most performing situations, the Manager's emphasis is on being a "constructive" lender. Also, the Manager emphasizes a lack of overlap between private equity deals and direct lending investments (largely for compliance reasons), though it has a conflicts process for syndicated deals.

Dallas Police & Fire Pension System

- **Transparency:** The Manager provides granular visibility into its individual deals that is beyond what is provided by most typical direct lenders. Albourne also found the Manager to be more readily able to dive into the details of any given investment and to respond to detailed follow-up requests within a short turnaround period. This culture of comprehensiveness helps credibility and confidence in the underwriting process as well as the portfolio management process.

Considerations

- **Expansion-related senior turnover:** Between April 2018 and June 2023, the Manager experienced 27 departures at the Principal level or above. In the same period, it added 41. This net hiring follows historical leadership turnover in the KKR Credit Team prior to 2017. While somewhat expected, the volume of recent turnover could strain continuity of deal coverage and underwriting consistency, leaving the door open to inefficiencies at best and weaker strategy/deal execution across the investment life cycle at worst. That said, the current leadership team appears to be of high quality, and the leadership at the highest level has been strong since 2017.
- **AUM ambitions:** Institutionally, KKR's mandate to expand its private credit business more generally has led to rapid AUM growth and hiring. With its continued move upmarket, concerns remain that the Manager is in a sense "forced" to deploy capital raised and that a competent core team may be diluted with mediocre hires on the margins to appropriately staff the additional capital deployment. Moreover, Mr. Pietrzak's focus has increasingly turned to building out the asset-based Finance Team.
- **Crowded, sponsor-reliant market:** There is less scope for negotiating above-market terms in sponsor-led transactions in a vanilla implementation of a direct lending strategy. To its credit, by playing in the upper middle market, it has fewer competitors than in the core middle market. Arguably, the indirect pressure from the public markets on upper-middle-market deals has and will continue to impact economics and leverage terms for the Fund's deals. Furthermore, as a large PE sponsor, KKR inevitably will be at least somewhat limited in the deal flow seen from "peer" PE firms, conflict process notwithstanding.

Reason for Investment

This Fund may be suitable for investors seeking a lower-fee option to access vanilla upper-mid-market, sponsor-backed senior lending in an evergreen structure.

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Dallas Police & Fire Pension System

Disclosure of Potential Conflicts

Albourne Partners Limited and/or its affiliates (the "Albourne Group") advises an entity that it believes (i) to be an affiliate of the management company of this Fund or (ii) has an economic interest in the revenues of the management company of this Fund. The Albourne Group does not believe that this potential conflict of interest impacts its ability to provide objective advice regarding this Fund but is disclosing this to you nonetheless.

During the past five years, there has been the following gift and entertainment between the Albourne Group and the Manager:

- In October 2024, a KKR employee attended an Albourne Group client event in New York

There do not appear to have been any additional gifts and entertainment between the Albourne Group and the Manager during the past five years.

Sincerely,

Spencer Edge

Spencer Edge
Senior Portfolio Analyst

Dallas Police & Fire Pension System

Important Notice

The information in this report does not contain all material information about the fund that is the subject of this report, its investment manager, any of their affiliates or any other related entity to which this report relates, including important disclosures and risk factors associated with an investment in the fund. As used herein, the term "Fund" refers to (i) the specific fund that is the subject of this report, (ii) collectively, the specific fund that is the subject of this report, its investment manager, any of their affiliates or any other related entity to which this report relates, or (iii) investment funds generally, as the context requires.

Before making an investment, you should obtain and carefully review the relevant fund offering documents before investing in the Fund mentioned herein, as such documents may contain important information needed to evaluate the investment and may provide important disclosures regarding risks, fees and expenses. Funds are speculative, involve a high degree of risk, and are illiquid. Past performance is not indicative of future results and you could lose all or a substantial amount of any investment it makes in such Funds. Furthermore, Funds may involve complex tax structures and delays in the distribution of important tax information, may have a limited operating history, may be highly volatile, and there may not be a secondary market for Fund interests. There may be restrictions on redemptions and transfers of Fund interests and such interests may otherwise be illiquid. Funds may also be highly leveraged and may have a fund manager with total investment and/or trading authority over the Fund. It should also be noted that, in the case of hedge funds, there may be a single adviser applying generally similar trading programs with the potential for a lack of diversification and corresponding higher risk; hedge funds may also affect a substantial portion of trades on foreign exchanges, which have higher trading costs.

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DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C6

Topic: **Private Equity Pacing Plan**

Attendees: Spencer Edge, Senior Portfolio Analyst - Albourne

Discussion: Albourne will present a strategic review and pacing plan for the Private Equity allocation, which will cover portfolio construction, the pacing model, and an overview of the forward calendar for various private equity strategies. Staff and Albourne reviewed the Private Equity portfolio strategy and pacing plan with the Investment Advisory Committee in April.

Regular Board Meeting – Thursday, May 8, 2025

ALBOURNE

May 2025

Dallas Police & Fire Pension System: Private Equity Portfolio

30 YRS the road less traveled

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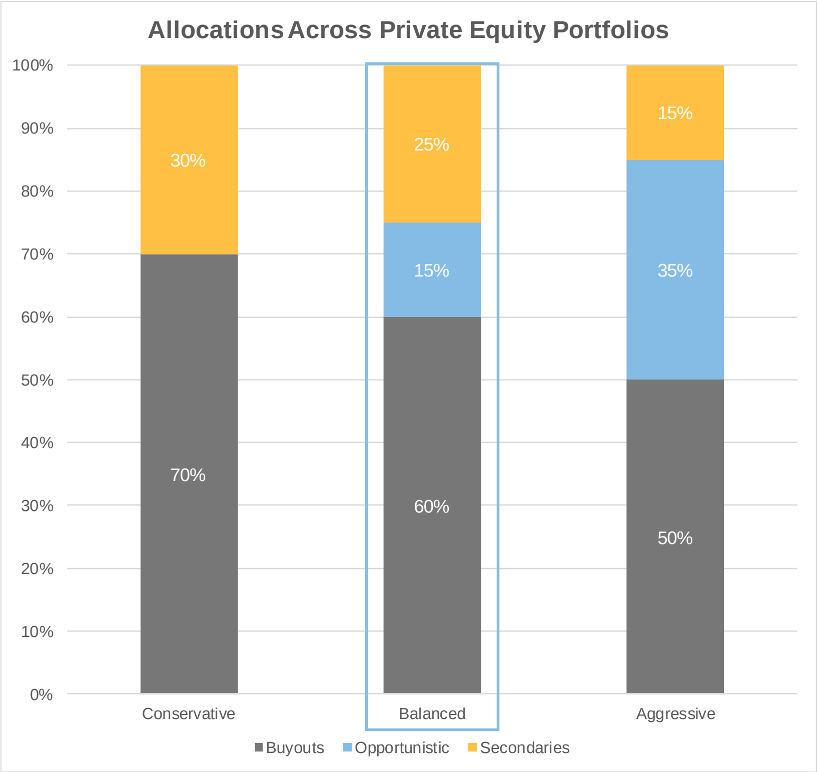
Overview

Example Model Private Equity Portfolio

Example Private Equity Model Portfolios

- **Portfolio Types: full-cycle target returns**
  - Conservative: 9-11%
  - Balanced: 11-13%
  - Aggressive: 13-15%
- **Buyouts**
  - Target allocation range: 50-70% (weighted to middle-market)
  - Anchor position across portfolio types
  - Expected to be the most stable driver of returns
- **Opportunistic**
  - Target allocation range: 0-35%
  - Includes Turnarounds/Value:
    - Stressed/Distressed opportunities
    - A component of most Buyout strategies
  - Includes Growth
    - Risk and return profile between buyouts and venture
  - Includes Venture Capital
    - High risk with exceptional growth potential
- **Secondaries**
  - Target allocation range: 15-30%
  - Diversification through prior vintage years
  - J-curve mitigation, useful for new private equity programs



**For Cash Flow Modeling purposes, Venture, Growth and Turnarounds have been consolidated into Opportunistic*
For illustrative purposes only

Pacing Model Output

Pacing Model Overview and Process

- Albourne's proprietary cash flow simulator employs a Bayesian approach, adapting to new information as it is gathered. This is in contrast with classical models (e.g. the Takahashi-Alexander model) where cash flow forecasts are calculated in advance.
- Advantages
  - Utilizes prior knowledge of a strategy's cash flow profile.
  - Considers and adapts to the economic environment.
  - Affords flexibility in its assumptions, which can be customized to account for distortions such as subscription line facilities.

Albourne utilizes a bottom's up approach, modeling each item in a portfolio based on its unique characteristics.

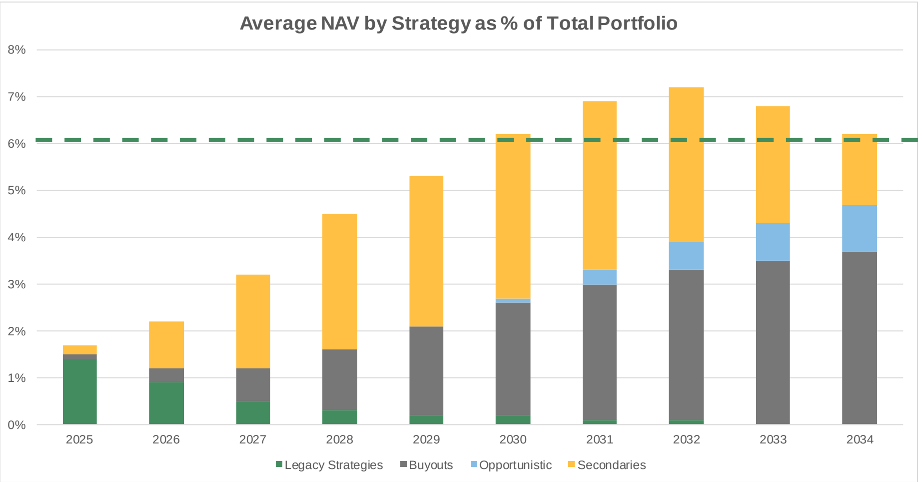
Base assumptions were set for Dallas P&F's anticipated net growth trajectory over the next 5-10 years.

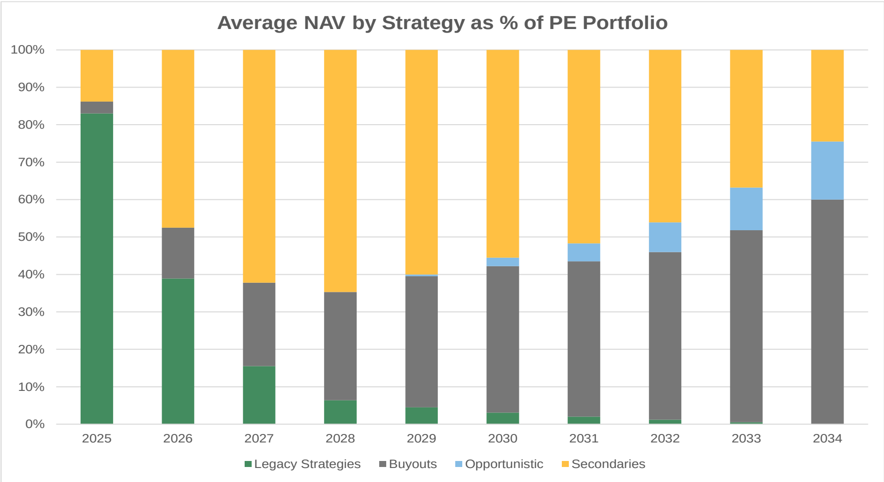
Albourne uses strategy forecasts to model future commitments for targeted strategies.

These future models were used to build future commitment schedules for the portfolio, targeting annual and long-term portfolio objectives.

3.85% Growth: Balanced Portfolio

Assumptions	
Current AUM	$2bn
Growth Rate	3.85%





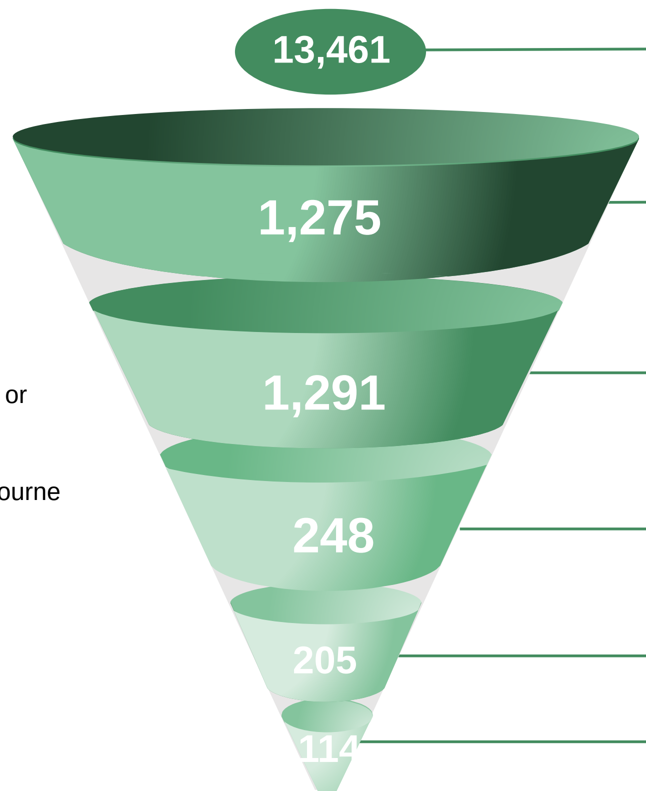
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
NAV as % of Total Portfolio										
Target	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Model	1.6%	2.5%	3.7%	4.8%	5.7%	6.6%	7.1%	7.2%	6.6%	6.1%
Model (mn)	$33	$54	$83	$113	$138	$165	$186	$194	$186	$177
Future Commitment Schedule (mn)										
Buyouts	$15	$20	$20	$20	$15	$15	$15	$20	$20	$20
Opportunistic					$10	$10	$10	$5	$5	$5
Secondaries	$20	$20	$20				$7			
Commitments	**$35**	**$40**	**$40**	**$20**	**$25**	**$25**	**$32**	**$25**	**$25**	**$25**

For illustrative purposes only

Albourne Private Equity Coverage

Private Equity – LBO/Growth & Secondaries

Top Picks	Up and coming GPs	Niche markets
Recommended funds rated A or B with Conviction 4 or 5, open to clients	Spin-outs, product expansions & institutionalizing GPs	Esoteric strategies such as Litigation Finance, Aviation



1. **All Private Market funds**
   All funds in Albourne's database.
2. **Number of funds raising / currently open**
3. **Number of IDD Reports published on Unique Fund Series**
4. **Funds We Reviewed (2024)[1]**
5. **Funds We Met With (2024)[2]**
6. **Albourne's Composite Top Picks**
   Funds in 2 above which are recommended to clients. Includes Top Picks (119) and Aspiring Top Picks (288).

[1]Review refers to funds where the PPM or marketing materials of the fund were reviewed.

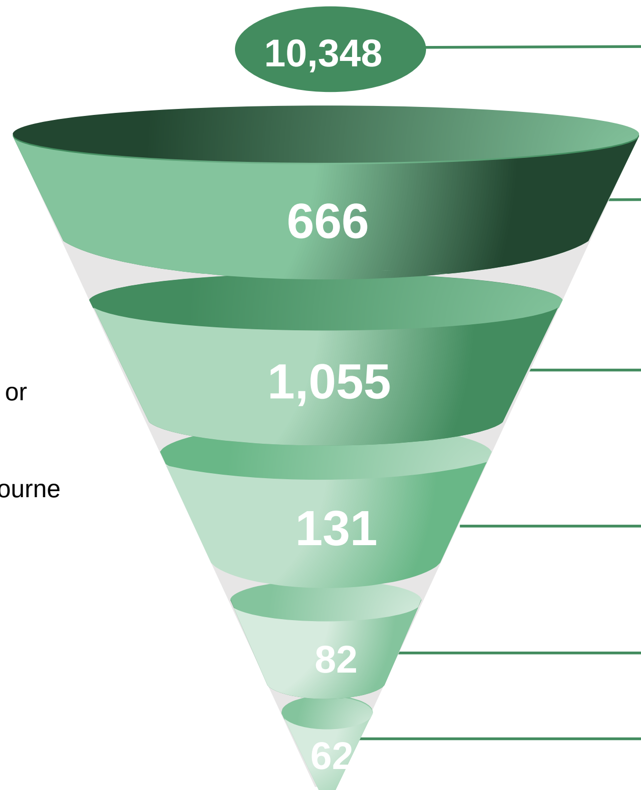
[2]Met With refers to funds where the Albourne analyst has met with the manager and published a report.

All figures are as of 25 February 2025.

ALBOURNE

Private Equity – Venture Capital

Top Picks	Up and coming GPs	Niche markets
Recommended funds rated A or B with Conviction 4 or 5, open to clients	Spin-outs, product expansions & institutionalizing GPs	Esoteric strategies such as Litigation Finance, Aviation



1. **Total Count of Funds**
   All funds in Albourne's database.
2. **Number of IDD Reports published on Unique Fund Series**
3. **Number of funds raising / currently open**
4. **Funds We Reviewed (2024)[1]**
5. **Funds We Met With (2024)[2]**
6. **Albourne's CompositeTop Picks**
   Funds in 2 above which are recommended to clients. Includes Top Picks (3) and Aspiring Top Picks (59).

[1]Review refers to funds where the PPM or marketing materials of the fund were reviewed.

[2]Met With refers to funds where the Albourne analyst has met with the manager and published a report.

All figures are as of 25 February 2025.

Albourne Recommendations

Albourne Recommendations

- **Portfolio Construction:**
  - Over the long-term, Albourne recommends that Dallas P&F build its Private Equity portfolio to resemble the Balanced Portfolio highlighted on slide 4.
  - The portfolio would be constructed to target long-term expected returns that significantly exceed the assumed rate of return of the Plan given the illiquidity premium associated with making private market investments.
  - The portfolio will initially be skewed towards the Conservative Portfolio allocation with Secondaries making up a significant portion of the portfolio early on, allowing the Plan to more quickly ramp-up exposure and mitigate the early negative impacts of the J-curve.
  - Buyouts will ramp up in subsequent years to become the anchor of the portfolio as this strategy is expected to be the most stable drivers of returns above public markets.
  - Venture, Growth, and Turnarounds will opportunistically be added for strategy diversification and return enhancement.
- **Portfolio Pacing:**
  - Our CF Modeling highlights an optimized path towards achieving and maintaining the desired 6% target weight over the next 10 years.
  - Front loading the pacing plan with Secondaries provides the greatest benefit in terms of early diversification and J-curve mitigation. In addition, Albourne's outlook on Secondaries is positive given the current market environment.
  - Staff should retain the flexibility to invest in best-in-class managers/funds in other strategies based on specific fundraising timelines and available capacity, while maintaining discipline around deployment to achieve target NAV.

Appendix: Private Equity Snapshot

Outlook for New Commitments – Summary
1Q 2025 Private Markets Forecast

Strategy	Outlook	Δ	Comments
North American LBO/Growth	Marginally Positive	↔	Private equity should see a continued buoyancy in new investments as well as an uptick in exits, supported by ample debt, readjusted valuations, and friendlier regulatory stance on M&A. However, generating buyout returns will continue to require more than average capabilities to enhance value at an operational level, skillsets which are widely claimed but not as widely present across the buyout manager universe.
European LBO/Growth	Marginally Positive	↑	Improving financing conditions and lower rates are driving improved dealmaking conditions whilst pressure to produce distributions may lead to a thaw in the valuation gap that has stalled deal making in recent years. Pressure to resolve the Ukraine war might bring much needed stability. However, uncertainty regarding US trade and foreign policy as well as regional and national political disruption mean that opportunities are likely to vary widely between sector and region.
Asia LBO/Growth	Marginally Positive	↔	While geopolitical risks remain, given the wide spread of countries in Asia Pacific facing different economic environments relative to developed Western geographies, the opportunity set, and diversification benefits remain attractive.
Venture Capital	Marginally Positive	↔	Overall, the US VC market is at a decent entry point with most of the excesses of the 2021-2022 market squeezed out of the system and a range of attractive sectors in which to invest. While we are bullish on the broad AI and AI-adjacent opportunity set, we would note we are in the early innings of this mega-trend in VC with lots of capital chasing the next generation of unicorns. It will take years to establish the ultimate winners and losers, but as was the case in past US-led tech innovation cycles, select VCs are poised to reap the windfalls.
Secondaries	Positive	↔	Entry discounts are still relatively narrow, but many LPs are seeking to rebalance their portfolios in a GP-led market, creating a positive environment for the strategy.

↔ Unchanged from prior quarter; ↑ Increased from prior quarter; ↓ Decreased from prior quarter

Source: Albourne's Private Markets Forecast 1Q 2025

Outlook for New Commitments – Return Drivers

1Q 2025 Private Markets Forecast

Drivers	North American LBO/Growth	European LBO/Growth	Asia LBO/Growth	Venture Capital	Secondaries
Deal Pricing	Neutral ↔	Marginally Positive ↔	Neutral ↔	Marginally Positive ↔	Neutral ↔
Supply of Opportunities	Marginally Positive ↔	Neutral ↔	Positive ↔	Positive ↔	Positive ↔
Leverage Availability	Marginally Positive ↔	Marginally Positive ↑	Marginally Positive ↔	N/A	Marginally Positive ↔
Supply of Capital (Dry Powder)	Marginally Negative ↑	Marginally Negative ↔	Neutral ↔	Neutral ↔	Marginally Positive ↓
External / Political Influences	Marginally Negative ↓	Marginally Negative ↔	Marginally Negative ↔	Marginally Positive ↔	Neutral ↔
OVERALL	Marginally Positive ↔	Marginally Positive ↑	Marginally Positive ↔	Marginally Positive ↔	Positive ↔

↔ Unchanged from prior quarter; ↑ Increased from prior quarter; ↓ Decreased from prior quarter

Source: Albourne's Private Markets Forecast 1Q 2025

Albourne's Private Equity Taxonomy

Portfolio Construction

LBO/Growth

- Large Market Buy-Out
- Middle Market Buy-Out
- Small Market Buy-Out
- Growth (PE)
- Turnaround

Venture Capital

- Late Stage
- Early Stage
- Seed Stage

Other

- Secondaries
- Co-Investments

Private Equity Strategies

Portfolio Construction

	Strategy Description
Leveraged Buyout (LBO)	Funds in this space make equity investments, sometimes utilizing significant leverage, to acquire control of target companies. Due to the amount of leverage that can be involved, transaction size (in addition to fund size) is an important distinguishing factor within the LBO classification.
Growth	These funds usually take minority interests in fast growing companies (revenue growth of over 30% in many cases) with no or comparatively little leverage (40% or less), where operating profit is primarily being fed into capital expenditure to further increase revenues. These funds mostly target companies with enterprise values of under $500m.
Turnaround	These funds acquire companies in operational distress through an outright equity transaction. These funds often have a significant team of operating partners that will go into portfolio companies and actively make operational changes.
Venture Capital	This is a type of financing provided to startup companies and small businesses that are believed to have long-term growth potential. Venture capital is typically allocated to small companies with exceptional growth potential, or to companies that have grown quickly and appear poised to continue to expand. This type of growth arrangement is most commonly found in high growth technology industries like biotech and software.

The above list is for illustrative purposes only and may not encompass all private equity strategies.

Pan-Strategy Points of Differentiation

Portfolio Construction

The list below represents some of the dimensions of approach and focus that managers take in Private Equity.

Sourcing	• Proactive internal teams • Informal networking channels
Target Company Type	• Sector / geographic focus • Size • Stage of development (growing vs. mature)
Leverage	• High (LBO) • Low (growth equity)
Operational Involvement	• Predominantly financial restructuring • Buy & build • Heavy ownership influence
Exit	• Sale to strategic acquiror • Sale to other sponsor • IPO

Questions

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DALLAS POLICE & FIRE PENSION SYSTEM

PRIVATE EQUITY STRATEGIC & PACING PLAN

Board Review Date: May 8, 2025

Philosophy:

The DPFP Private Equity portfolio will be designed to target low double-digit returns net of fees over a full market cycle. A balanced strategy will be adopted, with an initial focus on secondaries which offer vintage year diversification, fund diversification, and a mitigated j-curve. Long term, the portfolio will have a core exposure to buyout. The remainder of the private equity allocation will consist of secondaries as well as opportunistic private equity (growth, venture and turnaround). The opportunistic exposure will provide higher returns commensurate with the risk and allow DPFP to participate selectively in high conviction funds in the broader private equity opportunity set.

Proposed Strategic Plan Targets & Ranges:

DPFP intends to construct its Private Equity portfolio with the following strategies and target ranges. These allocations represent longer term strategic ranges that will be met over a multi-year period. Allocations in individual years may vary depending on the opportunity set. Additionally, in the early years of the program the allocation will be skewed heavily towards secondaries.

Strategy Weights			
Strategy	**Target**	**Min**	**Max**
Buyout	60%	50%	70%
Secondaries	25%	15%	30%
Opportunistic	15%	0%	40%

Pacing Plan:

The following commitment schedule provides a recommended annual commitment amount to meet DPFP's Private Equity 6% target allocation over a period of five years recognizing that legacy investments remain in the portfolio for the time being and in order to provide vintage year diversification. Vintage commitments shown may be made to one or more investment managers.

Future Commitment Schedule (millions)					
Year	**2025**	**2026**	**2027**	**2028**	**2029**
Strategy					
Buyout	$15	$20	$20	$20	$20
Secondaries	$20	$20	$20		
Opportunistic					$5
Total Commitments	$35	$40	$40	$20	$25

DALLAS POLICE & FIRE PENSION SYSTEM

Benchmark:

A benchmark of the MSCI ACWI IMI plus a spread of 200 bps, on a one quarter lag basis is chosen to represent the target return for the Private Equity portfolio. This benchmark selection also reflects the belief that private equity should earn a spread over the public market given its illiquidity and complexity premiums and is in line with capital market assumptions.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C7

Topic: **Lone Star Investment Advisors**

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.071 of the Texas Government Code.

Discussion: Staff will update the Board on investments with this manager.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C8

Topic: **City Contribution Update**

Discussion: Staff will update the Board on the accumulated amount of City Contributions paid compared to the City Contributions due under the law.

Regular Board Meeting – Thursday, May 8, 2025

City Regular Plan Contributions				
Pay Period Date	Date Contributions Received	City Contribution Paid (Excluding Excess Benefit Plan Contributions)	City Contributions Due under Based on Current Law as Confirmed by the Court	Contribution Shortage
City Contributions Beginning 10-1-2024				
10/1/2024-10/8/2024	Pro-rated last payroll	$ 3,814,556.76	$ 4,727,428.57	$ 912,871.81
10/9/2024 -10/22/2024	10/24/2024	$ 6,588,862.07	$ 8,273,000.00	$ 1,684,137.93
10/23/2024 - 11/5/2024	11/7/2024	$ 6,707,431.25	$ 8,273,000.00	$ 1,565,568.75
11/6/2024 - 11/19/204	11/21/2024	$ 6,612,830.37	$ 8,273,000.00	$ 1,660,169.63
City Catch Up based on City Plan - with Errors	12/3/2024	$ 1,762,120.67	$ -	$ (1,762,120.67)
11/20/2024 -12/3/2024	12/6/2024	$ 7,790,959.24	$ 8,273,000.00	$ 482,040.76
12/4/2024 -12/17/2024	12/19/2024	$ 7,708,704.35	$ 8,273,000.00	$ 564,295.65
12/18/2024 - 12/31/2024	1/2/2025	$ 7,787,490.19	$ 8,273,000.00	$ 485,509.81
1/1/2025 -1/14/2025	1/17/2025	$ 7,884,160.99	$ 8,273,000.00	$ 388,839.01
1/15/2025 - 1/28/2025	1/30/2025	$ 7,899,488.32	$ 8,273,000.00	$ 373,511.68
1/29/2025 - 2/11/2025	2/13/2025	$ 7,913,485.36	$ 8,273,000.00	$ 359,514.64
2/12/2025 - 2/25/2025	2/28/2025	$ 7,934,532.31	$ 8,273,000.00	$ 338,467.69
2/26/2025 - 3/11/2025	3/14/2025	$ 7,904,750.02	$ 8,273,000.00	$ 368,249.98
3/12/2025 - 3/25/2025	3/28/2028	$ 7,912,333.15	$ 8,273,000.00	$ 360,666.85
3/26/2025 - 4/8/2025	4/11/2025	$ 7,917,680.65	$ 8,273,000.00	$ 355,319.35
4/9/2025 - 4/23/2025	4/25/2025	$ 7,966,183.27	$ 8,273,000.00	$ 306,816.73
FY 2025 YTD Shortage		$ 112,105,568.97	$ 120,549,428.57	$ 8,443,859.60
FY 2024 Shortage - City Commitment ($184,733,285 minus $181,798,953.77)				$ 2,934,331.23
Total Shortage Through 3/28/2025				$ 11,378,190.83

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C9

Topic: **Executive Director Approved Pension Ministerial Actions**

Discussion: The Executive Director approved ministerial membership actions according to the Retirement and Payments Approval Policy. Membership actions approved are summarized in the provided report.

Regular Board Meeting – Thursday, May 8, 2025

Membership Actions -2025

	January	February	March	April	May	June	July	August	September	October	November	December	YTD Totals
Refunds	38	27	16	15	10								106
DROP - Join	2	2	0	0	0								4
Estate Payments	6	7	8	9	3								33
Survivor Benefits	4	11	4	9	3								31
Retirements	7	10	8	9	10								44
Alternate Payees	0	0	2	1	2								5
Spouse Wed After Retirement	0	0	0	1	0								1
Service Purchases	1	1	0	0	2								4
Earnings Test	0	0	0	0	0								0

Membership Actions -2024

	January	February	March	April	May	June	July	August	September	October	November	December	YTD Totals
Refunds	23	22	21	26	16	21	13	19	37	18	20	32	268
DROP - Join	1	1	2	0	5	1	1	1	0	1	0	0	13
Estate Payments	2	1	3	5	3	1	4	5	10	7	7	9	57
Survivor Benefits	4	6	3	8	5	4	6	5	3	4	5	3	56
Retirements	10	10	16	9	13	10	9	11	7	5	8	6	114
Alternate Payees	2	0	2	1	1	1	0	0	0	1	0	0	8
Spouse Wed After Retirement	0	0	0	0	0	0	0	0	1	0	0	0	1
Service Purchases	0	2	0	1	7	2	1	2	1	2	5	1	24
Earnings Test*	0	0	0	0	0	0	10	0	0	0	0	0	10

Membership Actions -2023

	January	February	March	April	May	June	July	August	September	October	November	December	YTD Totals
Refunds	26	19	12	13	17	14	23	13	57	53	18	21	286
DROP - Join	3	3	0	2	2	2	0	0	3	0	3	0	18
Estate Payments	0	5	7	5	1	2	4	92	5	3	5	9	138
Survivor Benefits	1	6	8	6	4	3	5	6	6	2	3	6	56
Retirements	12	16	11	14	11	12	10	13	10	17	6	12	144
Alternate Payees	0	2	1	0	2	3	1	3	2	0	0	1	15
Spouse Wed After Retirement	1	0	0	0	0	0	0	0	1	1	1	0	4
Service Purchases	2	0	0	1	0	2	0	1	0	0	2	0	8
Earnings Test	0	0	0	0	0	9	0	0	0	0	0	0	9

Data is based on Agenda/Executive Approval Date
Service purchases include Military, DROP Revocation, and Previously Withdrawn Contributions
The increase in Refunds in September 2023 and October 2023 is due to the Refund Project
87 of the Estate Payments in August 2023 are approvals for the Pending Death Project

G:\Kelly\Executive Director Ministerial Action Approvals\Membership Actions Data 2025

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C10

Topic: **Board Approval of Trustee Education and Travel**

a. Future Education and Business-related Travel
b. Future Investment-related Travel

Discussion:

a. Per the Education and Travel Policy and Procedure, planned Trustee education and business-related travel and education which does not involve travel requires Board approval prior to attendance.

Attached is a listing of requested future education and travel noting approval status.

b. Per the Investment Policy Statement, planned Trustee travel related to investment monitoring, and in exceptional cases due diligence, requires Board approval prior to attendance.

There is no future investment-related travel for Trustees at this time.

Future Education and Business Related Travel & Webinars
Regular Board Meeting – May 8, 2025

			REQUESTED	APPROVED
1.	**Conference:**	**NCPERS Trustee Educational Seminar (TEDS)**	**MT**	**04/10/2025**
	Dates:	May 17-18, 2025		
	Location:	Denver, CO		
	Est Cost:	$500		
2.	**Conference:**	**NCPERS Accredited Fiduciary Program (NAF)**	**MAS**	**02/13/2025**
	Dates:	May 17-18, 2025		
	Location:	Denver, CO		
	Est Cost:	$900		
3.	**Conference:**	**NCPERS Annual Conference & Exhibition (ACE)**		
	Dates:	May 18-21, 2025		
	Location:	Denver, CO		
	Est Cost:	$1,100		
4.	**Conference:**	**NCPERS Chief Officers Summit**		
	Dates:	June 16-18, 2025		
	Location:	New York City, NY		
	Est Cost:	$1,000		
5.	**Conference**	**TEXPERS 2025 Summer Forum**	**MT**	**04/10/2025**
	Dates:	August 4-5, 2025		
	Location:	El Paso, TX		
	Est Cost:	TBD		

DISCUSSION SHEET

ITEM #D1

Topic: **Public Comment**

Discussion: Comments from the public will be received by the Board.

Regular Board Meeting – Thursday, May 8, 2025

DISCUSSION SHEET

ITEM #D2

Topic: **Executive Director's Report**

a. Associations' newsletters
- NCPERS Monitor (May 2025)
- NCPERS PERSist (Spring 2025)

b. Open Records

Discussion: The Executive Director will brief the Board regarding the above information.

THE NCPERS

MONITOR

The Latest in Legislative News

May 2025

NCPERS Executive Director's Corner

Navigating Market Volatility: Public Pensions Remain Resilient

By Hank Kim, Executive Director and Counsel, NCPERS

Photo Illustration © 2024, Adobestock.com

At the beginning of April, a new record was set: the U.S. stock market shed $6.6 trillion in value as escalating trade wars sparked by the Trump administration's decision to implement widespread tariffs rattled investors.

As the markets continue to experience extreme volatility, headlines have leaned into the natural reaction to economic and geopolitical uncertainty: Fear.

Following the release of an April 2025 report from Equable highlighting questionable* claims that the top 25 state and local pension funds lost more than $249 billion in public equities, fear-based narratives have dominated much of the media coverage surrounding the public pension industry.

Much of this reporting, however, lacks crucial context.

Using a more reliable and consistent source—the Milliman 100 Public Pension Funding Index—we see that in March 2025 (the most recently available data), the top 100 plans experienced losses of $92 billion, or roughly 1.6 percent of their total asset value. While gains are of course the goal, the relatively modest decline in total asset value demonstrates why diversification is such a powerful risk mitigation tool for institutional investors.

Consider that in March 2025, the S&P 500 lost 5.75% of its total value. Had these same public plans been invested only in this index, as some tend to advocate for, they would have lost an additional $212 billion, or more than $304 billion total, that same month.

When we expand our view to consider the big picture, we see these plans had investment returns of more than $590 billion in 2024 alone. Looking back even further, it becomes clear that pensions are uniquely positioned to weather the storm as they navigate the current market conditions.

In less than 20 years, public pensions have successfully recovered from two major economic crises—the Great Financial Crisis and the COVID-19 pandemic. Following the Great Financial Crisis, which wiped nearly $8 trillion in value from the stock markets between late 2007-2009, the majority of public pensions were able to recover their pre-recession asset levels within six years. Further, state and local retirement systems took significant steps to ensure their resiliency going forward.

Thanks to the implementation of sound governance practices, effective portfolio diversification, and disciplined funding strategies, public pensions have seen continued improvements in fiscal performance. The average funded ratio recently reached a five-year high of 83.1 percent, according to NCPERS 2025 Public Retirement Systems Study.

Long-term fiscal stability does not happen by chance, though. With increasing political, budgetary, and economic uncertainty, it's more important than ever for public pensions to stay informed and connected to peers going through similar experiences.

In just a few weeks, more than 700 public pension trustees, staff, and industry stakeholders will gather in Denver for NCPERS Annual Conference & Exhibition to network and explore strategies to help navigate these challenges. It's not too late to register, and we hope to see you there.

If you're unable to attend, be sure to explore our upcoming in-person conferences to learn about the latest developments impacting our industry and learn how to protect and grow our pension systems. Throughout the year, NCPERS also hosts online learning opportunities and virtual roundtables to bring together leaders at public pension plans to ask questions and share resources with peers.

NCPERS is here as a resource during these uncertain times. Please do not hesitate to reach out to membership@ncpers.org with any questions about how we can support your organization. ◆

**The report was published by Equable, a think tank known for producing research meant to perpetuate the idea that public pensions are unsustainable. The methodology did not capture actual changes in positions for Q1 2025.*

NCPERS **Feature**

Early Ramifications of the Trump Administration on Retirement Plans

By: Tony Roda, Williams & Jensen

Photo Illustration © 2025, AdobeStock.com

President Trump's trade policy, which has manifested itself through on-again, off-again import tariffs, has created significant volatility in U.S. financial and foreign markets. The tariffs are indeed a moving target, and businesses like certainty. That comfort is being denied them at the moment.

As for now, President Trump and the Republican-controlled Congress are proceeding with a strategy that tariffs will produce economic benefit to the U.S., either through direct country-to-country negotiations that will result in a perceived advantage for the U.S., or through the restoration of the U.S. manufacturing base, or some combination thereof.

Potentially mitigating the general economic fallout in the U.S. are the Trump Administration's twin domestic policy priorities of steep tax cuts and deregulation. The Administration's hope is that this will tamp down volatility and temper the uncertainty in the markets.

For those individuals with defined contribution (DC) retirement plans and the trustees of defined benefit (DB) pension plans this would be welcome news. Valuations of account-based DC plans, such as the public sector's 457(b) and 403(b) plans, as well as DB plan trust assets took a tremendous hit following the tariffs imposed by the U.S. in April. In addition to the macroeconomic effects of the tariffs, the pending tax cuts, and the deregulatory policies of the U.S., there are some specific areas that will impact retirement plan investors.

National Security

President Trump is focused on reducing the flow of U.S. investment dollars into companies of foreign adversaries, including investments made by institutional investors, such as retirement and pension plans. The America First Trade Policy requires a complete review of the Biden Administration's final regulation on such investments. Most observers believe that the Trump Administration's review will result in a series of new recommendations to further limit outbound investments.

In addition, President Trump's America First Investment Policy directs the U.S. Department of Labor (DOL) to publish updated fiduciary standards under the Employee Retirement Income Security Act (ERISA) related to investments in public market securities of foreign adversary companies. In particular, DOL is directed to ensure that foreign adversary companies are ineligible for ERISA-governed pension plan investments. The America First Investment Policy defines the term "foreign adversaries" to include the People's Republic of China, including the Hong Kong and Macau Special Administrative Regions.

State and local governmental retirement plans are not governed by ERISA. They are governed by the U.S. tax code. However, state and local governmental plans often consider ERISA's fiduciary standards when formulating their internal rules and investment policies.

ESG and DEI

Environmental, Social, and Governance (ESG) investing long has been a target of some Republican lawmakers at the federal and state levels. They argue this type of investing constitutes a breach of fiduciary responsibility because it is motivated by goals that are not specifically related to investment return. Proponents argue that the sustainability of an enterprise is a risk-and-return factor that fiduciaries are required to investigate. The battle is playing out in state legislatures, the halls of Congress, regulatory bodies, and in the courts.

In a parallel attack the Trump Administration has taken broad aim at any programs, hiring or training practices in the public or private sector that promote Diversity, Equity, and Inclusion (DEI), including any investment practices that are designed to promote DEI goals.

On January 28, twenty-two State financial officers wrote to the acting chairmen of the U.S. Securities & Exchange Commission and Department of Labor expressing concern over the misuse of retirement plan assets to advance ESG and DEI goals. In their letter they offered a blueprint of regulatory actions that the Trump Administration should take, specifically including the:

- Issuance of comprehensive guidance and a formal rulemaking that ERISA plan fiduciaries must discharge their duties solely in the financial interests of the plan participants, explicitly stating that investment decisions or proxy voting cannot be motivated, in part or in whole, by the goal of advancing ESG or DEI.
- Increase of oversight and enforcement of these fiduciary principles on ERISA plan fiduciaries, including heightened scrutiny of proxy voting activities.

These recommendations will find a sympathetic ear in the Trump Administration.

Outside of the investment-driven initiatives discussed above, thus far the Trump Administration has shown little interest in the technical aspects or overarching policies of retirement and pension law. That could come later, however. ◆

__Tony Roda__ is a partner at the Washington, D.C. law and lobbying firm __Williams & Jensen__, where he specializes in legislative, regulatory, and fiduciary matters affecting state and local pension plans. He represents the National Conference on Public Employee Retirement Systems and state-wide, county, and municipal pension plans in California, Colorado, Georgia, Kentucky, Nebraska, Ohio, Tennessee, and Texas. Tony has an undergraduate degree in government and politics from the University of Maryland, J.D. from the Catholic University of America, and LL.M (tax law) from the Georgetown University Law Center.

NCPERS **News from NCPERS**

Public Pension Staff: Compensation, Benefits, and Workforce Trends

By Hank Kim, Executive Director and Counsel, NCPERS

Photo Illustration © 2025, istock.com

NCPERS launched its annual Public Pension Compensation Survey in 2022 to track compensation trends and provide actionable data to guide industry workforce management strategies. At the time, recruiting and retaining skilled talent was a significant challenge, with 63 percent of public pensions indicating this was a problem or was expected to be a problem soon.

Public pensions have made significant progress since then, but recruitment and retention challenges remain. To address these ongoing issues and help public pension professionals navigate an ever-changing and complex human resources landscape, NCPERS launched the HR Roundtable in 2023 and hosted the inaugural Public Pension HR Summit in 2024. Be sure to save the date for the 2025 HR Summit, held September 24-26 in Philadelphia, and sign up here for event updates.

Last year we had another first: NCPERS partnered with CBIZ to execute the 2024 Public Pension Compensation Survey. By joining forces, we were able to dramatically expand the survey to capture compensation and bonus data for more than 80 positions commonly found at public pensions. Following this success, we've partnered with CBIZ again to conduct the 2025 Public Pension Compensation Survey (currently underway).

On April 8, the 2025 survey was distributed to designated contacts at more than 600 public pensions across the U.S. with responses requested by May 13. This year's survey captures compensation and bonus data for 90 positions commonly found at public pensions, as well as details on benefits, fund oversight, compensation philosophy, and salary increase planning. A PDF of the position titles and job summaries captured is available here.

The Public Pension Compensation Survey has become an invaluable tool to help public pensions of all sizes make informed decisions about compensation, benefits, and hiring strategies. Each year, participating organizations get a free copy of the report (a $2,500 value). Participating NCPERS members also receive complimentary access to an interactive dashboard that allows users to filter the data by various criteria—such as region, number of fund staff, or assets under management—enabling them to optimize the mix of funds to which they would like to compare themselves.

By participating in this year's survey your organization will benefit from free access to in-depth data, and the public pension industry benefits from access to an even more robust dataset. If your organization did not receive a copy of the 2025 Public Pension Compensation Survey instrument and is interested in participating, please contact research@ncpers.org. Additional details are available here. ◆

Pension Industry Careers: Job Listings, Hiring, and Retirement Announcements

Brought to you by NCPERS

NCPERS **Feature**

The Campaign to "Green" Canada's Large Defined Benefit Pension Plans: A Mini-Progress Report

By: Neil Hrab

"It was the best of times, it was the worst of times…"

-First sentence in Charles Dickens' immortal novel A Tale of Two Cities

For the environmentalists who have been lobbying Canadian pension funds to adopt more "green" friendly investment policies (and that campaign's tax-exempt foundation supporters), this Charles Dickens quote probably captures how they must feel at this moment.

On the one hand, this Canadian activist lobby campaign has in the last few years come a long way in terms of credibility. The campaign initially focused on identifying environmentally-minded contributing members of the large Canadian public sector pension plans and trying to enlist them in letter-writing campaigns to pressure the pensions and their boards.

Today, this nationally-active campaign is much more sophisticated than when it first launched. It now annually publishes extensive, detailed critiques of the Canadian pensions' investment strategies from a green perspective. This annual study is helpfully also seen as being credible enough to merit regular coverage by Canada's mainstream media.

What a contrast with the US, where US-based environmentalist groups worry about losing cherished influence over investment allocations due to the Wall Street flight from ESG (a phenomenon surely fed by the sharply anti-ESG stance of the Trump administration).

North of the border, no such mass abandonment of ESG by the large public sector pensions seems in evidence. Canadian pension websites still boast about their respective organization's commitment to environmental, social and governance goals.

But while the “best of times” side of the ledger includes a lot for the Canadian greens to cheer, what about the “worst of times?”

Green investments played an outsized role in Canadian business news in the last few months, and not in a way that can have pleased the greens. One example is Azure Power, an Indian renewable power company which, after receiving investments from two Canadian pension funds was delisted from the New York Stock Exchange — and now finds itself in the midst of an alleged bribery scandal.

The other concerns a Swedish car battery manufacturer named Northvolt. Northvolt, after receiving investments from four Canadian pensions, as well as separate Canadian government subsidies to build a plant in the Province of Quebec, has just declared bankruptcy in its home country.

Both assets are fairly representative of the sort of “low carbon” emitting investments that the green investment campaign's spokespeople generally would like to see become more popular with the pension plans, and take the place of the pensions' remaining “high carbon” emitting investments in holdings such as oil and gas companies.

Both of these debacles received widespread domestic and international media attention; and when well-publicized investments lose money for pensioners, frank questions from members and sponsors are soon to follow.

On its own, this extra scrutiny of green assets doesn't mean the Canadian environmentalist campaign around pension investments has to fold up its tents. It does mean, however, that as it demands pensions shift to greener pension investment portfolios, the lobby may find itself subject to harder questioning about its general and specific recommendations, and the investment expertise that backs its public statements.

In response, the green pension lobby may want to change course from what has been up to now its mainly publicity-based campaign targeting the Canadian pension sector. Drawing on funding from its cash-rich foundation backers, for example, the lobby could spend time and money in researching and proposing additional best practices for the pensions to follow, rooted in recommendations from the best expertise available globally, to improve their risk screening of and due diligence around green investment opportunities.

The goal: to help the pension sector avoid repeating the Nothvolt and Azure controversies.

Even skeptical pension members and sponsors would have a hard time looking such a gift horse in the mouth.

About the author: *Neil Hrab worked in the Canadian defined benefit pension sector for 12 years. His views are entirely his own.*

Save the Date: NCPERS 2025 Public Pension Funding Forum

Save the date for NCPERS 2025 Public Pension Funding Forum, held **August 17-19 in Chicago, Illinois**. Join us for an event that brings together the pension community to explore *research-driven solutions for fiscal sustainability.* With an incredible lineup of speakers, this is your opportunity to engage with cutting-edge analysis, real-world case studies, and candid discussions about what's working (and what isn't) in public pension funding today. *Sign up to be notified when registration opens in mid-May.*

Date & Location: August 17–19, 2025 | Chicago, IL

Access registration and hotel details here to start planning your trip.

Why Attend? The forum is your chance to gain a deeper understanding of the fiscal, political, social, and economic forces shaping public pension systems. Attendees will walk away with actionable insights into public pension funding best practices.

The 2025 preliminary agenda includes sessions on:

- How Pension Plans Are Improving Their Funding Status and Making Contributions Above What's Required
- Interaction Between Public Pension Funds and Financial Markets
- The Relationship Between Layered Amortization and Funding Status
- Characteristics of a Great Pension Plan: An Investment Perspective

Who Should Attend? This event is open to all pension plans and industry stakeholders, including those who are not NCPERS members. It's ideal for:

- Trustees of state and local pension funds
- Administrators of state and local pension funds
- Officials of state and local finance departments and treasurer's offices
- Legislators
- Municipal bond community
- Investment community
- Public pension advocacy community
- Academic and pension research community

NCPERS members enjoy significant savings on registration fees. Learn more about our many membership benefits and find out how to join today.

Please direct any questions to events@ncpers.org.

NCPERS Around the Regions

Alaska Lawmakers Say Pension Reform Is A 'Two-Year Project'

Revamping retirement options for Alaska's public sector is "a two-year project," state Senate and House majority leaders... Alaska discontinued its previous defined benefit plan for new public sector workers in 2006, amid an unfunded liability that was fueled by incorrect actuarial analyses. Nearly 20 years later, the state is still paying off its debt to the plan.

READ MORE *Source: Anchorage Daily News*

Pennsylvania House Passes Pension Increase for Oldest Retired Teachers and State Government Workers

The state House has again passed a bill that would give a cost-of-living raise to roughly 59,000 retired teachers and state employees whose pension benefits have been held flat since 2002... Based on current estimates, the added benefits would increase the state's total unfunded pension liability by about $979 million. The first year of rolling this into the pension calculations would increase the 2026-27 fund contributions by $100.5 million for Pennsylvania School Employees Retirement Systems (PSERS) and another $45.2 million for State Employees Retirement System (SERS).

READ MORE *Source: Lehigh Valley Live*

Utah Unions Submit 320K Signatures to Challenge Anti-Union Law

Earlier this year, the Utah legislature passed H.B. 267, the Public Sector Labor Union Amendments. The legislation stripped all Utah public employees of their right to engage in collective bargaining with their employers...If the signatures are verified, H.B. 267 will be put on hold until the November 2026 elections, when voters will have the final say on whether Utah workers retain their voice in the workplace.

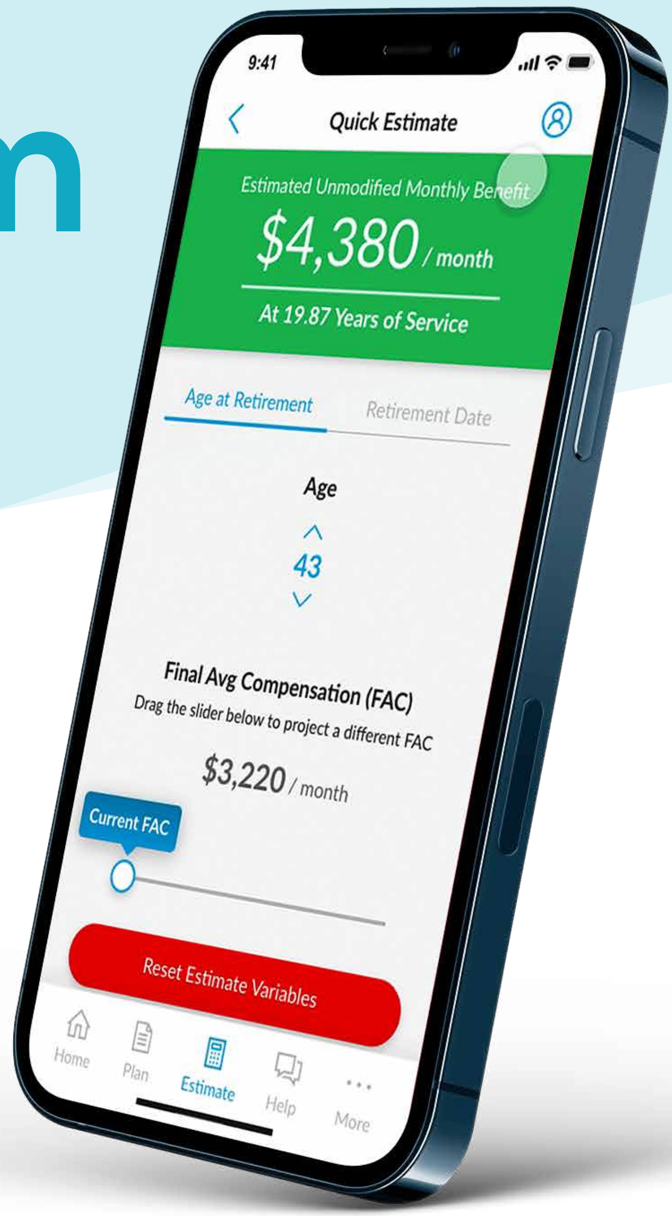
READ MORE *Source: IAFF*

Minnesota Teachers Push for Pension Reform

There is a growing push among educators across Minnesota to reform the teacher pension system. There are a few bills in the state legislature right now that would seek to lower the retirement age to 60 or 62, and one that would remove penalties for teachers who would retire early.

READ MORE *Source: ABC 6 News*

NCPERS PensionX Digital Platform



NCPERS has partnered with Digital Deployment to offer its members a **10% DISCOUNT** on PensionX, the premier digital platform that securely enables pensions to engage with active and retired participants via a mobile self-service app and portal.

NCPERS 1941 | pensionX

Learn more about this new NCPERS member benefit at ncpers.org/pensionx

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UPCOMING EVENTS

May 2025

NCPERS Accredited Fiduciary (NAF) Program

May 17-18
Denver, CO

Trustee Educational Seminar (TEDS)

May 17-18
Denver, CO

Annual Conference & Exhibition (ACE)

May 18-21
Denver, CO

June 2025

Chief Officers Summit

June 16-18
New York, NY

August 2025

Public Pension Funding Forum

August 17-19
Chicago, IL

September 2025

Public Pension HR Summit

September 24-26
Philadelphia, PA

View all upcoming NCPERS conferences at
www.ncpers.org/future-conferences.

The Voice for Public Pensions

The Monitor is published by the National Conference on Public Employee Retirement Systems.
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PERSist
The Voice for Public Pensions
Spring 2025 | Volume 38 | Number 2

NCPERS Message

Public Pension Staff: Compensation, Benefits, and Workforce Trends

Photo Illustration © 2025, istock.com

NCPERS launched its annual Public Pension Compensation Survey in 2022 to track compensation trends and provide actionable data to guide industry workforce management strategies. At the time, recruiting and retaining skilled talent was a significant challenge, with 63 percent of public pensions indicating this was a problem or was expected to be a problem soon.

Public pensions have made significant progress since then, but recruitment and retention challenges remain. To address these ongoing issues and help public pension professionals navigate an ever-changing and complex human resources landscape, NCPERS launched the HR Roundtable in 2023 and hosted the inaugural Public Pension HR Summit in 2024. Be sure to save the date for the 2025 HR Summit, held September 24-26 in Philadelphia, and sign up here for event updates.

Last year we had another first: NCPERS partnered with CBIZ to execute the 2024 Public Pension Compensation Survey. By joining forces, we were able to dramatically expand the survey to capture compensation and bonus data for more than 80 positions commonly found at public pensions. Following this success, we've partnered with CBIZ again to conduct the 2025 Public Pension Compensation Survey (currently underway).

On April 8, the 2025 survey was distributed to designated contacts at more than 600 public pensions across the U.S. with responses requested by May 13. This year's survey captures compensation and bonus data for 90 positions commonly found at public pensions, as well as details on benefits, fund oversight, compensation philosophy, and salary increase planning. A PDF of the position titles and job summaries captured is available here.

The Public Pension Compensation Survey has become an invaluable tool to help public pensions of all sizes make informed decisions about compensation, benefits, and hiring strategies. Each year, participating organizations get a free copy of the report (a $2,500 value). Participating NCPERS members also receive complimentary access to an interactive dashboard that allows users to filter the data by various criteria—such as region, number of fund staff, or assets under management—enabling them to optimize the mix of funds to which they would like to compare themselves

By participating in this year's survey your organization will benefit from free access to in-depth data, and the public pension industry benefits from access to an even more robust dataset. If your organization did not receive a copy of the 2025 Public Pension Compensation Survey instrument and is interested in participating, please contact research@ncpers.org. Additional details are available here. ◆

NCPERS In This issue

NCPERS In This issue

Recent Amendments to Delaware's "Books and Records" Statute and Their Effect on Stockholder Oversight

By: Robert Finkel and Adam Blander, Wolf Popper

Photo Illustration © 2025, istock.com

Section 220 of Delaware's General Corporation Law (DGCL) governs stockholders' rights to inspect corporate books and records and is a critical tool for public investors seeking to investigate corporate mismanagement, assess litigation prospects, or monitor board activity. Recently enacted legislation known as Senate Bill 21 amends Section 220. While the bill's supporters assert that it merely codifies existing caselaw and clarifies inspection procedures, critics, including advocates for pension and retirement fund interests, warn it could constrain much-needed stockholder oversight over directors, executives, and other corporate insiders.

The "Basics" on Books and Records

The books and records request process begins with a formal demand letter outlining the stockholder's "proper purpose" for seeking inspection and identifying the materials sought to further that purpose. If a corporation refuses to comply, the stockholder may petition the Delaware Court of Chancery to compel disclosure in a summary proceeding. Over time, the Court of Chancery has established principles governing Section 220 requests, and there is considerable caselaw defining what constitutes a "proper purpose." Stockholders investigating corporate misconduct, for example, demonstrate a proper purpose through showing a "credible basis" to suspect wrongdoing.

Caselaw has also identified limitations on the types of documents stockholders can access. Thus, to avoid intrusive demands, the term "books and records" has been construed more narrowly than the broad discovery to which litigants are entitled in plenary litigation. For example, courts routinely limit stockholders to formal materials, such as minutes and presentations from board or committee meetings. As one court put it: "The starting point (and often the ending point) for an adequate inspection will be board-level documents that formally evidence the directors' deliberations and decisions and comprise the materials that the directors formally received and considered." If stockholders seek access to additional documents, such as emails among directors and officers, they usually bear the burden of demonstrating that the board materials are insufficient to investigate wrongdoing. This burden can be met by showing that the corporation failed to keep proper board-level records or otherwise comply with "traditional board formalities."

Summary of SB 21

Introduced on February 17, 2025 and enacted into law on March 25, 2025, SB 21 implements multiple amendments to the DGCL (most of which are beyond the scope of this article). The bill for the first time, defines the term "books and records" to include various categories of formal governance materials, such as the corporation's certificate of incorporation, bylaws, and documents incorporated by reference therein (many of which are already public), as well as minutes and materials from board and committee meetings, written communications sent to stockholders, annual financial statements, and director independence questionnaires.

The bill also formalizes procedural requirements already recognized by many Delaware courts, including a stockholder's obligation to state a demand with "reasonable particularity," demonstrate "good faith and a proper purpose" for seeking inspection, and show that the requested materials are "specifically related" to that purpose. SB 21 also permits corporations to impose confidentiality restrictions, redact nonresponsive material, and require stockholders to agree that the full books and records production be "incorporated by reference" into any related pleading in order to prevent cherry-picking of documents in a subsequent complaint.

Importantly, SB 21 requires that the stockholder show a "compelling need" for additional records beyond those expressly listed (such as less formal communications like emails) and only after demonstrating "by clear and convincing evidence that such specific records are necessary and essential" to further the underlying inspection purpose. These provisions may hinder investors' ability to uncover corporate misconduct, particularly in light of the fact that, unlike routine communications, formal board materials are often reviewed by company lawyers and carefully drafted in a manner to minimize litigation risk.

Overall, SB 21 may provide additional specificity and predictability for books and records investigations; however, it reduces the Court of Chancery's flexibility and discretion as a court of equity to fashion context-appropriate relief. For more in-depth analysis of the legislation and its potential impact, please refer to the extended version of this article available here on the Wolf Popper website. ◆

__Robert Finkel__ and __Adam Blander__ are partners at Wolf Popper LLP. Stephanie Bousley, a Wolf Popper legal intern, contributed to the drafting and research of this article.

Delaware Shareholder Recovery Spotlight: Class Actions vs. Appraisal Rights

By: Michael Lange, Financial Recovery Technologies

Photo Illustration © 2025, istock.com

Delaware corporate law remains relevant to shareholders, particularly when merger payments do not fully reflect an issuer's fair value.

In December 2024, for example, a $1 billion settlement related to Dell Technologies' 2018 stock swap deal paid out to minority shareholders. Similar class actions involving Paramount Global ($122.5 million) and Patter Energy Group ($100 million) resulted in settlements last year. Shareholders have two primary legal mechanisms for seeking compensation in Delaware: **breach of fiduciary duty cases** and **appraisal rights matters**. Below, we explore their differences and the recovery implications.

High-Level Considerations

Breach of fiduciary duty cases:

- A specialized class action filed in Delaware Chancery court
- Investors are not required to submit proof of claim forms to receive compensation
- Those giving shares in the transaction are automatically eligible
- These cases are relatively common, with about 25-40 filings per year

Key challenge: While relatively efficient, the disbursement process can create headaches for client operations teams if they are not diligently monitoring the progression of these cases.

Appraisal rights opportunities:

- A representative proceeding focused on a Delaware merger's valuation
- Investors must affirmatively exercise their appraisal rights to participate
- Shares must be held through case resolution
- These actions are less frequent now, but still potentially significant for affected investors

Key challenge: Investors must carefully review any deal announcement by the issuer and determine whether to challenge the valuation before the appraisal rights deadline, which may be as soon as 20 days after final terms are given.

Breach of Fiduciary Duty Cases

Breach of fiduciary duty claims challenge the ***process*** by which a merger agreement came together, alleging that one or multiple parties failed to act in shareholders' best interests, and that they received too little consideration as a result.

Procedurally, these cases mirror standard U.S. securities class actions filed in federal court, meaning all eligible claims are automatically included (unless they opt out). However, unlike federal proceedings, Delaware's class action settlements are distributed to those who previously tendered their shares, eliminating the need for them to provide proof of claim forms. Investors holding eligible securities **when the transaction is effective** and shares are tendered are automatically included in the class, with settlements distributed *pro rata* based on individual holdings at the time.

Settlement administrators directly credit the shareholders of record, with custodians holding shares in street name and allocating funds to the actual beneficial owners. While this approach reduces the administrative cost and burden otherwise borne by investors in most class actions, the custodians vary in the form and timing of their notification and remittance procedures. This can lead to unexpected distributions for custodial clients who are not diligently monitoring these cases and do not know the money is coming – particularly if they must further remit funds to their own customers.

Appraisal Rights Opportunities

Appraisal opportunities are a more selective legal mechanism for shareholders seeking additional value in a Delaware-based transaction. To be eligible for an appraisal action, investors must give notice that they intend to exercise their rights and then hold their shares **through the conclusion of proceedings**.

Importantly, appraisal opportunities do not allege wrongdoing related to deal conception and construction. Rather, they focus on an investor's right to a fair, objective determination of the value of your investment. Both investors and the transacting parties bear equal burden to demonstrate "fair value" through the evidence.

While both fiduciary duty and appraisal claims involve disputes over the sufficiency of deal consideration, that value is measured at different times. For class actions, the value is determined when the deal is struck. Subsequent price movements do not impact class claims. For appraisal, it's measured at deal closing. Thus, price increases between deal conception and closing can strengthen appraisal claims, while price declines can weaken them.

Like class actions, appraisal proceedings are pursued by a representative shareholder. However, because appraisal rights must be actively exercised, only those that do so are included. This is similar to the opt-in approach to group litigation we often see outside the U.S.

When another investor initiates and successfully prosecutes the appraisal petition, shareholders that have exercised their appraisal rights can share in any premium resulting from those efforts, which are then decided either by the court or through direct negotiations.

Conclusion

As Delaware shareholder recovery evolves, a set of timeless principles still applies for investors and fiduciaries navigating this important venue: stay vigilant, stay informed, and consult experts as necessary. ◆

***Michael Lange**, SVP Worldwide Litigation, is a licensed attorney since 1991, Mike Lange has deep working knowledge of securities litigation, a rich network of relationships in the U.S. and abroad with lawyers, case organizers, and other players in the recovery space ® all of which he leverages to help institutional investors and funds make more informed filing decisions.*

Emerging Markets: 6 Key Themes for 2025

By: Paul Birchenough, Todd McClone, Casey Preyss, and Ian Smith, William Blair

Despite economic headwinds and uncertainty surrounding the new U.S. administration, we believe emerging markets (EMs) remain an efficient gateway to powerful secular themes, from technology-driven transformations to consumer growth stories across many regions.

Despite economic headwinds and uncertainty surrounding the new U.S. administration, we believe emerging markets (EMs) remain an efficient gateway to powerful secular themes.

1 | The AI Boom: EMs at the Core of the Supply Chain

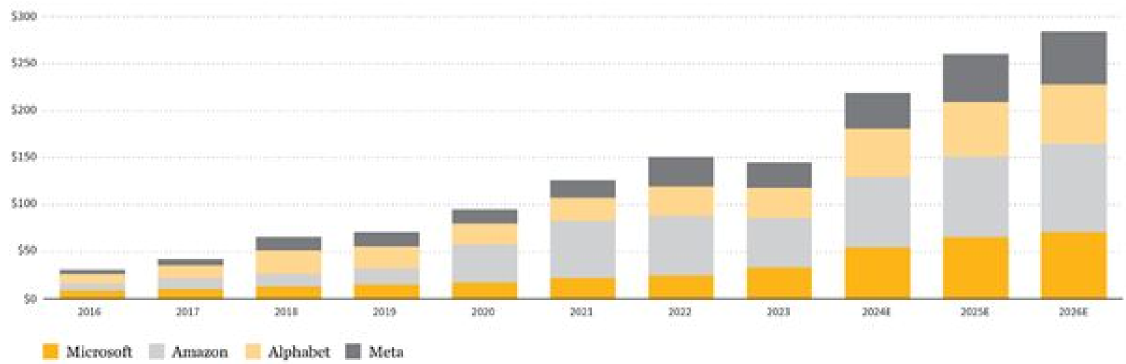
Artificial intelligence (AI) technology has become a central focus for global tech investment, and EMs are integral to the sector's development.

Markets such as Taiwan and South Korea, for example, are critical to the AI supply chain, as they house leading manufacturers and suppliers who produce the hardware essential for AI applications, from high-performance semiconductors to data centers to autonomous vehicles. Taiwan, in particular, is at the forefront as a "picks and shovels" supplier of advanced components used in semiconductors and data centers, further strengthening its role in the AI buildout.

In addition, the growth of AI places unprecedented demands on energy infrastructure. Data centers, which are essential for AI-driven computations, are highly energy-intensive and create a need for reliable power sources and sophisticated grid infrastructure.

Estimated Hyperscale Capex From 2016 to 2026 (in Billions)

Large hyperscale technology companies such as Microsoft, Amazon, Alphabet, and Meta have demonstrated consistent growth in spending, reflecting ongoing investments in data centers and AI capabilities.



Sources: BNP and William Blair, as of January 14, 2025.

2 | India: A Growth Powerhouse, but at a Premium

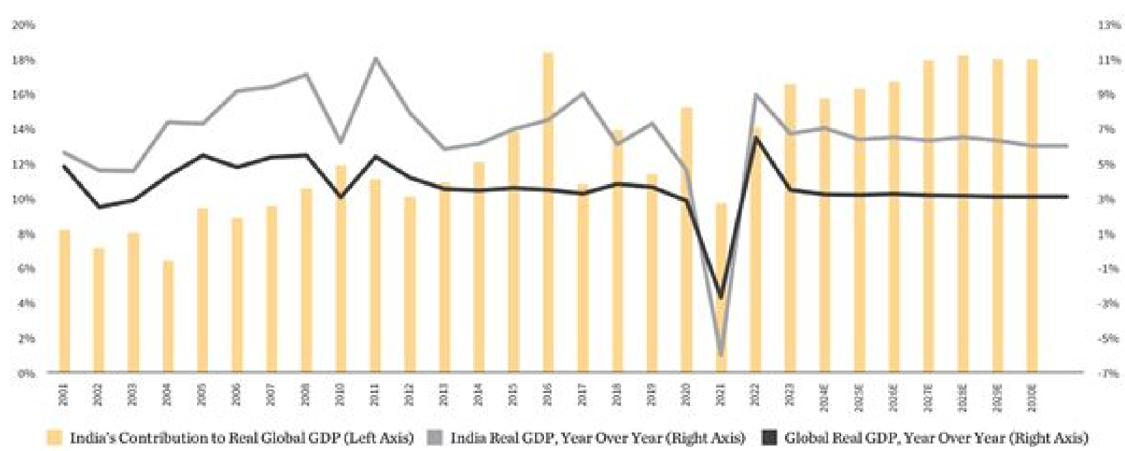
India's growth story is one of the most compelling among EMs, in our view, driven by favorable demographics, a burgeoning middle class, and strong economic policies.

Now the fourth-largest equity market globally in terms of market capitalization, India has risen to become the second-largest market in the MSCI EM Investable Market Index (IMI) as of December 31, 2024, with its weight roughly doubling over the past five years to more than 20%. India's share of global gross domestic product (GDP) growth now exceeds 15% and is expected to trend higher.

Overall, we believe India remains one of the most attractive long-term growth stories in EMs. But the current valuation premium should encourage investors to take a cautious, quality-focused approach in the current environment. As the country continues on its growth trajectory, it holds the potential to echo China's rapid economic ascent during the early 1990s, albeit with a more balanced and sustainable growth model.

India's Share of Global Growth

India's contribution to global GDP is projected to rise significantly over the next decade.



Sources: IMT, Morgan Stanley Research, and William Blair, as of September 2024. E refers to estimated.

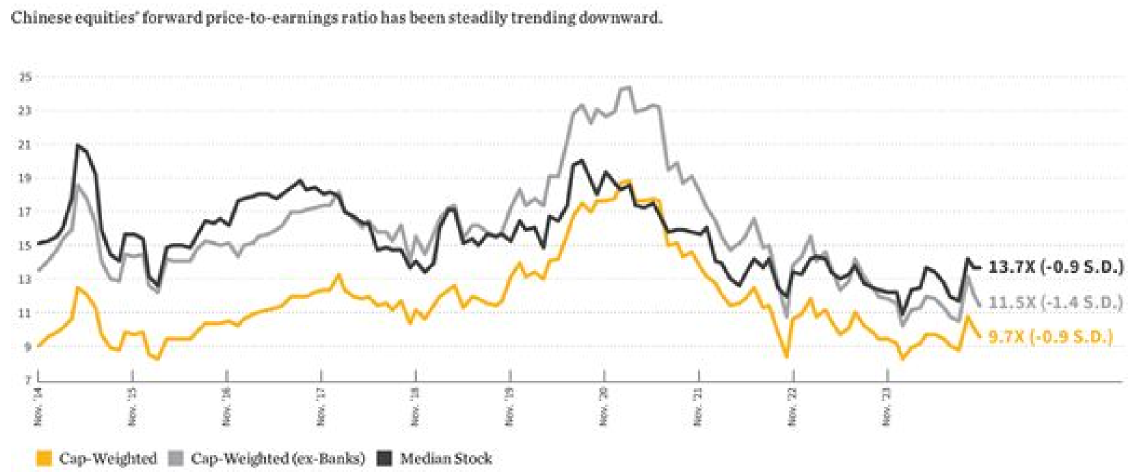
3 | China: A Fragile Rebound Powered by Fiscal Intervention

Despite a heavily indebted local government sector and struggling property market, we believe China is a compelling investment opportunity.

In November, Beijing introduced a substantial 10 trillion renminbi ($1.4 trillion) fiscal package aimed at stabilizing the economy by bailing out local governments and restructuring their debts. While investor response to these measures has been mixed, recent efforts reflect a more forceful and coordinated approach, with both monetary and fiscal measures working in tandem.

In addition, President Xi Jinping appears committed to maintaining economic stability, and we anticipate the series of incremental positive measures will support China's 5% GDP target for 2024 and the growth trajectory for 2025. With valuations still relatively low and company fundamentals improving in certain areas, stimulus efforts could fuel short-term boosts to the equity market as Beijing focuses on stabilizing key economic sectors.

MSCI China Index Forward P/E Ratio



Sources: FactSet, MSCI, Goldman Sachs Global Investment Research, and William Blair, as of November 2024. Based on latest constituents; shows z-score over the last 10 years (monthly). S.D. refers to standard deviation.

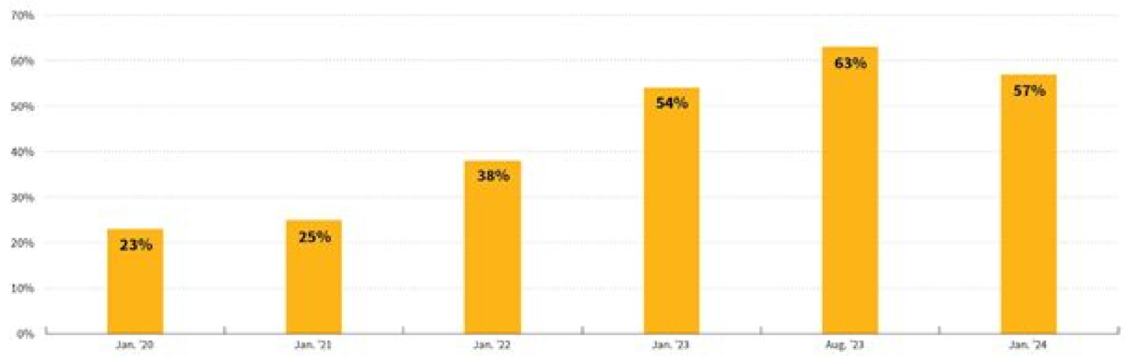
4 | Saudi Arabia: Structural Reforms and Vision 2030

Saudi Arabia's ambitious Vision 2030 program has driven significant economic reforms, aiming to reduce the country's dependence on oil by fostering growth in sectors such as finance, tourism, and technology. The Saudi government's fiscal largesse has spurred investment across these industries, creating opportunities for companies that align with the country's diversification efforts. While the market has grown in size and influence within EM indices, it remains relatively under-owned, suggesting potential for increased foreign investment as reforms continue to unfold.

While the market has grown in size and influence within EM indices, it remains relatively under-owned, suggesting potential for increased foreign investment as reforms continue to unfold.

Global EM Funds That Own Saudi Stocks

Global EM fund ownership of Saudi stocks has been steadily increasing, though they remain relatively under-owned compared to other EMs.



Sources: MSCI, Goldman Sachs, and William Blair, as of September 2024.

5 | South Africa: Signs of Political Improvement

In South Africa, we believe political developments have created a cautiously optimistic outlook for investors. The African National Congress (ANC), South Africa's ruling party since the end of Apartheid in 1994, recently lost its parliamentary majority for the first time, leading it to form a coalition with more conservative, probusiness parties. This shift has raised hopes for economic reforms and improved governance, as the coalition's influence may drive policies more favorable to business and investment. We think early signs of economic recovery, alongside lower inflation and potential rate cuts, make South Africa a more compelling opportunity than it was a year ago.

6 | Mexico: Growth Potential Amid Political Uncertainty

Mexico has become a key player in the global reshoring trend, attracting companies seeking proximity to the United States to reduce supply chain vulnerabilities. The country's competitive labor costs and established manufacturing base position it as an appealing location for production hubs. But the recent election results, which granted the ruling Morena party a supermajority, have introduced uncertainty. Investors are concerned about the constitutional changes impacting the independence of the judiciary and other institutions, raising questions around Mexico's long-term stability. Given these political risks, a more cautious approach may be prudent. ◆

__Paul Birchenough__, Todd McClone, CFA, Casey Preyss, CFA, and Ian Smith are all partners at William Blair and portfolio managers on the global equity team.

Building Diversified Portfolios with CLOs

By: Himani Trivedi, Nuveen

Photo Illustration © 2025, istock.com

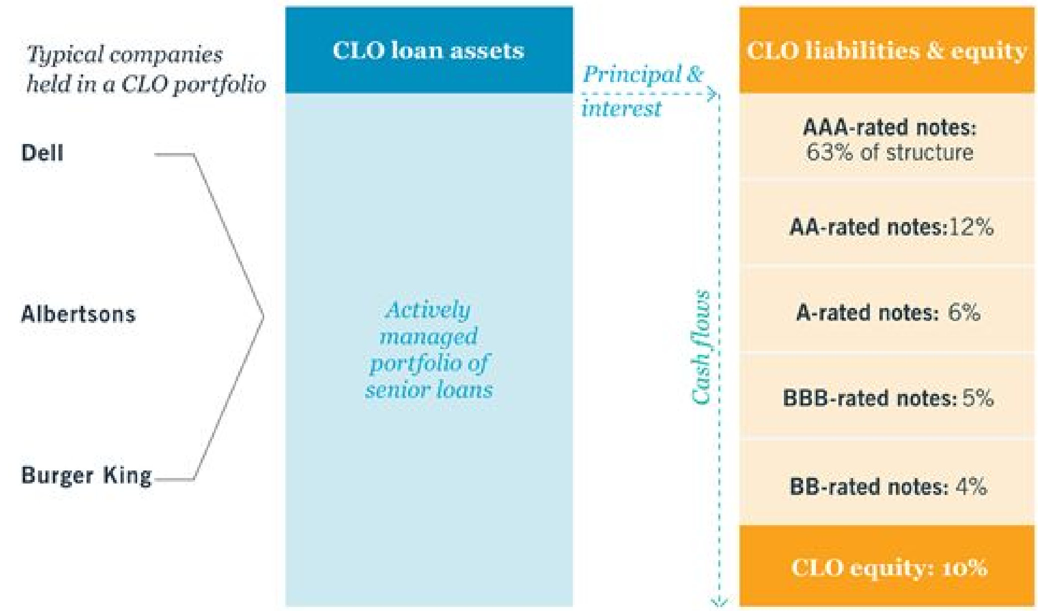
What Are CLOs?

Collateralized loan obligations (CLOs) are diversified, actively managed portfolios of broadly syndicated senior loans issued by corporate borrowers. These are pools of loans that are securitized or repackaged into interest-bearing securities of varying degrees of risk and yield and sold to investors based on their portfolio objectives. These securities, also known as tranches, can trade actively in the secondary market.

CLOs are not impacted by mark-to-market movements in their underlying loan portfolios and are not subject to margin calls or forced selling.

The junior-most tranches, starting with equity, absorb any losses from the portfolio first and are in turn compensated with the highest levels of yield and return. CLOs are not impacted by mark-to-market movements in their underlying loan portfolios and are not subject to margin calls or forced selling. This allows CLO portfolios to be managed through price volatility and potentially create trading gains when loan prices are dislocated.

How CLOs work

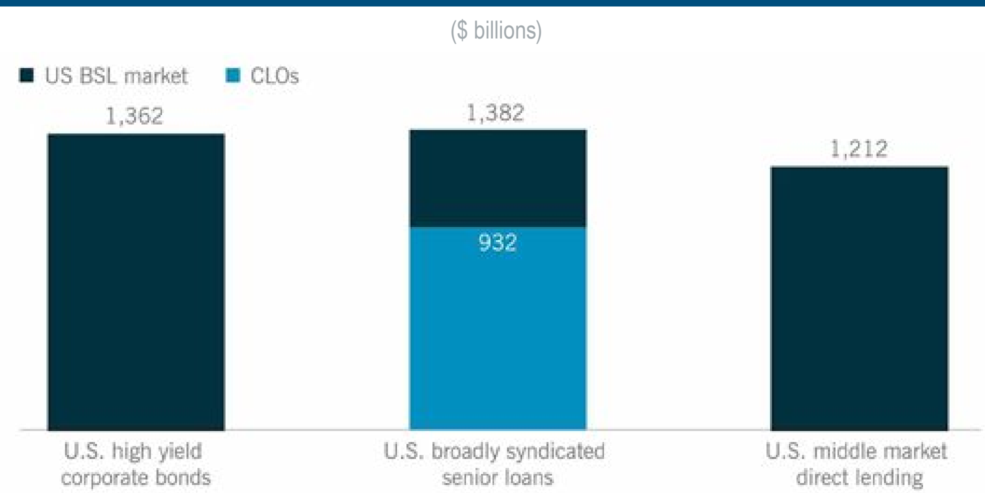


For illustrative purposes only. Asset allocation does not assure a profit or protect against loss. In a CLO structure, senior tranches (generally rated investment grade) have payment priority over junior/mezzanine tranches (generally rated below investment grade or unrated). The subordinate tranche in a CLO structure is frequently referred to as CLO equity or the residual tranche. CLO equity receives the residual cash flows from a CLO portfolio's loan assets after the CLO debt tranches receive their contractual interest payments.

The CLO Market is a Material Drive of Corporate Financing

At nearly $1 trillion in size[1], the CLO market is the largest investor in the broadly syndicated loan (BSL) market, which companies look to for financing, among other options, such as bonds and private credit. Having weathered various market cycles, CLOs continue to witness investor interest grow from a limited set of institutional investors to a broader audience that includes banks, insurance, pensions, family offices and wealth clients.

Outstanding below investment grade market: CLOs represent over two-thirds of the U.S. BSL market

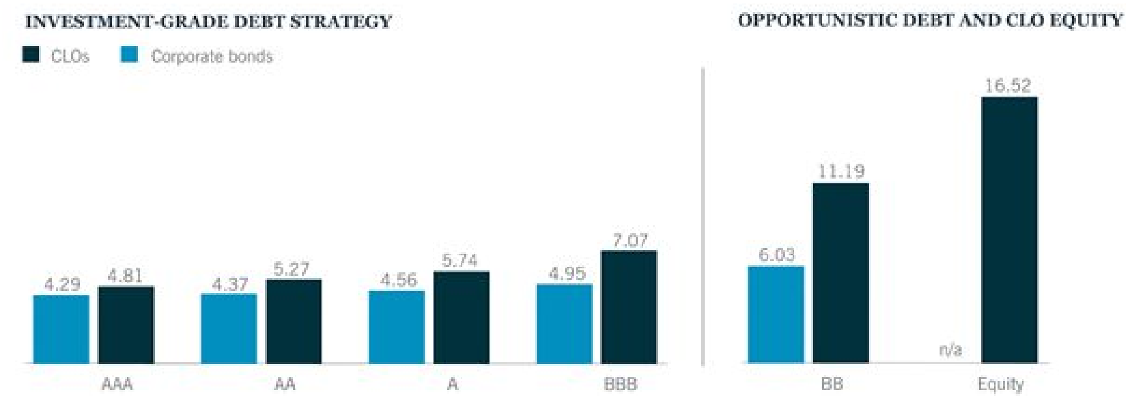


Data sources: BofA CLO Factbook 16 Oct 2024, Preqin, and the U.S. Federal Reserve as of Jun 2023.

Enhanced Income

CLOs offer enhanced yields and return potential compared to similarly rated corporate bonds or loans, as well as other fixed income options.

CLO debt yield compared to similarly rated corporate bonds (%)

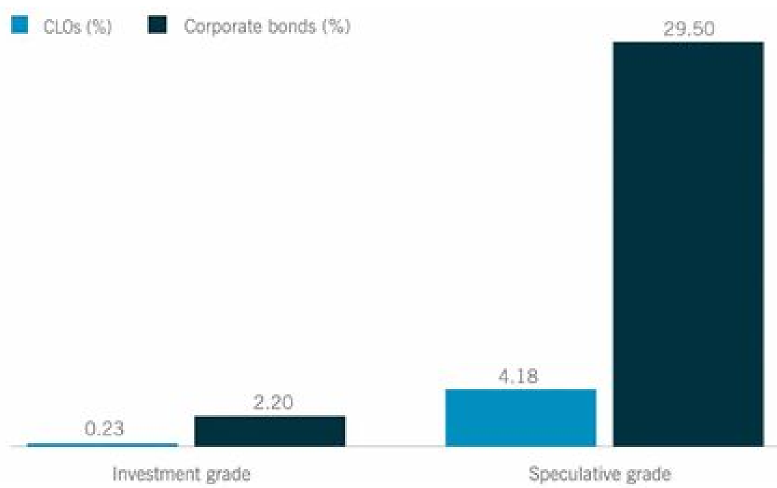


Data sources: Nuveen, Bloomberg, JPMorgan, Bank of America as of 30 Sep 2024. Performance data shown represents past performance and does not predict or guarantee future results. Yield: The yield quoted is yield-to-maturity except for CLO equity which is the median annualized U.S. broadly syndicated loan obligations equity distribution.

Reduced Default Risk

Despite their higher yields, CLOs historically have endured far fewer defaults across the rating spectrum than corporate bonds or loans. Notably, next to zero AAA to A rated CLO tranches have defaulted in the roughly 30-year history of the market.

Cumulative default/impairment rates for CLOs (1993-2023)[2] and corporates (1998-2023)[3]



Data sources: Corporates: 10-year horizon average cumulative issuer-weighted global default rates by alphanumeric rating, 1998-2023 from Moody's "Default Trends – Global: Annual default study: Corporate default rate to moderate in 2024 but remain near its long-term average"; CLOs: US CLOs, 10-year horizon WR-unadjusted cumulative impairment rates by original rating, 1993-2023 from Moody's "Impairment and loss rates of global CLOs: 1993-2023."

CLO Debt Is a Strong Fixed Income Diversifier

Allocating to CLOs may help to further diversify a traditional allocation to fixed income, given the low correlations to core bonds, including Treasuries, mortgages and investment grade corporates. CLOs are a floating-rate asset class and exhibit very little sensitivity to interest rate changes, which reduces both rate risk and correlations to other fixed income sectors. ◆

__Himani Trivedi__ is head of structured credit at Nuveen. She is responsible for managing loans and investments in structured credit across Nuveen-managed CLOs and various fixed income strategies. Previously, Himani served as a co-head of investments and head of structured credit at Nuveen affiliate Symphony Asset Management. She started at Nuveen under Symphony affiliate in 2004 on the convertibles desk, launched the CLO platform in 2005 and became co-Portfolio Manager for all CLOs in 2008. Prior to joining Nuveen, Himani worked on model validation for securitized products at Washington Mutual Bank and started her career in finance at ICICI Bank in India. Himani graduated with a B.S. in Chemical Engineering and an M.B.A. in Finance from Gujarat University, India and a Masters in Financial Engineering (MFE) from the Haas School of Business at University of California, Berkeley.

Endnotes:

[1] Data sources: BofA CLO Factbook 16 Oct 2024.

[2] Data sources: Corporates: Annual issuer-weighted corporate default rates by letter rating from Moody's "Default Trends – Global: Annual default study: Corporate default rate to moderate in 2024 but remain near its long-term average"; CLOs: US CLOs trailing 12-month impairment rates by cohort rating from Moody's "Impairment and loss rates of global CLOs: 1993-2023."

[3] Data sources: Corporates: 10-year horizon average cumulative issuer-weighted global default rates by alphanumeric rating, 1998-2023 from Moody's "Default Trends – Global: Annual default study: Corporate default rate to moderate in 2024 but remain near its long-term average"; CLOs: US CLOs, 10-year horizon WR-unadjusted cumulative impairment rates by original rating, 1993-2023 from Moody's "Impairment and loss rates of global CLOs: 1993-2023."

Third-Party Cyber Risk: Looking at Vendors' Cybersecurity

By: Jay Preall, Segal

Photo Illustration © 2025, istock.com

Your vendors are a critical part of your success, especially if they provide services such as payroll, investing, or actuarial. Managing them is an important part of strong cybersecurity practices, because their helpful services could be putting you at risk. That's why regulatory bodies are now emphasizing the importance of third-party risk management and are expressing their concern during audits.

The more vendors you work with, the greater the chance you'll be impacted by a cybersecurity incident affecting one of them.

Why it's critical to ensure your vendors aren't weak links

The Cyentia Institute and SecurityScorecard reviewed security measurements from more than 232,000 organizations and found that 98% of them have at least one third-party or fourth-party vendor that suffered a data breach in the last two years.[1]

The more vendors you work with, the greater the chance you'll be impacted by a cybersecurity incident affecting one of them. Compounding the risk is the fact that every vendor you work with likely works with other vendors, increasing the probability that you'll be affected by an incident.

Start with your vendor requirements

When choosing a vendor that will have access to any of your confidential data, start with your requirements. Potential vendors need to understand that cybersecurity is crucial and that any work they propose must come with assurances that your data is safe.

Potential vendors need to understand that cybersecurity is crucial and that any work they propose must come with assurances that your data is safe.

The vendor should provide a review of its cybersecurity protection program

If a vendor cannot provide an objective, third-party cybersecurity assessment, like a SOC2 report or other attestation, showing that it has solid cyber protections in place, that's a red flag.

An assessment should include:

- How often external, objective cybersecurity assessments are done
- How the people who will be handling your data are screened
- How the vendor monitors its own vendors from a cybersecurity perspective
- How the vendor tests its own applications to ensure they are secure
- What security governance policies are in place and being enforced, including protecting your data from becoming source material for artificial intelligence language learning models

Put it in writing

Vendors handling your confidential data should be willing to sign an agreement to clearly identify their roles and responsibilities if a cybersecurity incident occurs. This agreement should:

- Identify how the vendor will notify you of a cyber incident at their organization and how quickly that notification will occur.
- Require the vendor to maintain enough cyber liability insurance to cover potential breaches or losses of your data.
- Specify that the vendor is responsible for all of costs relating to a cybersecurity incident, including your costs, if the incident happened as a result of the vendor falling victim to a cyberattack.
- Dictate how much downtime you are willing to accept if the vendor has a cybersecurity incident.
- Confirm that the vendor is willing to participate in cybersecurity testing or simulations at a frequency you identify.
- Describe how your data will be handled during the contract and when the contract ends, including data retention requirements and returning or destroying your data upon contract termination.
- Ensure the vendor has similar agreements in place with all their vendors handling confidential data or having access to their systems.

If you need services from a vendor that does not have the size or financial wherewithal to implement full cybersecurity protection, the risk you are willing to accept from that vendor should be documented clearly in your contract to avoid unnecessary legal issues if an incident occurs.

By monitoring vendor performance, you can manage third-party cyber risk

Once you've contracted with a vendor, you should routinely monitor their performance to ensure they are meeting your contractual cybersecurity requirements. Consider these steps:

- Review daily, weekly, or monthly reports from the vendor's cybersecurity monitoring tools to show their protections are in place and working.
- Audit the vendor site and perform your own cybersecurity review and/or assessment.
- Ask the vendor to provide annual copies of approved and objective third-party cybersecurity assessments.
- Contract with your own cybersecurity experts to do penetration testing against your vendor (with your vendor's knowledge that the tests are occurring, of course).

Taking these steps will help you manage third-party cyber risk. See here for more on cybersecurity consulting. ◆

Jay Preall *is a Senior Consultant in Segal's Administration and Technology Consulting practice. Jay has more than 40 years of experience as a systems integrator. Jay works with pension and benefits systems clients on modernizing business processes and technology solutions.*

Endnotes:

[1] Cyentia Institute and SecurityScorecard, Close Encounters of the Third (and Fourth) Party Kind, February 1, 2023.

The Intersection of AI and Cybersecurity: Organizational Governance

By: Peter Dewar, Linea Solutions

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Artificial Intelligence (AI) is revolutionizing various sectors, including pension fund management. While AI offers opportunities for enhanced productivity and member services, it also introduces new cybersecurity challenges. Implementing robust cybersecurity governance frameworks, such as the National Institute of Standards and Technology (NIST) Artificial Intelligence Risk Management Framework (AI RMF) 1.0, is essential for managing these risks effectively.

The NIST AI Risk Management Framework (AI RMF) 1.0

Released in January 2023, the NIST AI RMF 1.0 is designed to help organizations manage risks associated with AI systems. It provides a voluntary, rights-preserving, and non-sector-specific framework that emphasizes flexibility, allowing organizations of all sizes to implement its guidelines. The framework is structured around four core functions: Govern, Map, Measure, and Manage. These functions guide organizations in establishing governance structures, understanding and documenting AI systems, assessing risks, and implementing strategies to manage those risks.

Integrating AI into Cybersecurity Governance

Incorporating AI into business operations necessitates a comprehensive governance strategy. Organizations can utilize the NIST AI RMF 1.0 to create a culture of AI by assembling an AI team, creating a governance charter, and developing an AI use policy. Understanding opportunities, building excitement, refining use cases, training, iterating, and maintaining are crucial steps in this process.

Despite its benefits, integrating AI into cybersecurity is not without challenges. Adversaries can exploit AI systems, using techniques like adversarial attacks to deceive machine learning models. Additionally, the reliance on large datasets raises concerns about data privacy and the potential for biases in AI algorithms. Organizations must implement robust validation processes, ensure transparency in AI decision-making, and maintain human oversight to mitigate these risks.

AI has become an indispensable component of modern cybersecurity strategies. Its ability to detect threats proactively, automate responses, and augment human expertise positions organizations to better defend against the ever-evolving landscape of cyber threats. However, careful implementation and ongoing vigilance are necessary to address the associated challenges and fully realize AI's potential in enhancing cybersecurity. ◆

__Peter Dewar__, President, Linea Secure, leads the cybersecurity practice for the Linea group of companies that provide services across the United States and Canada. Under his leadership Linea has developed a Pension Cyber Security Framework (PCSF) to complement the generalized standards for protecting information systems. The PCSF focuses on the business process employed, services provided, and technology utilized by pension and benefits organizations, and devises controls to minimize and mitigate the inherent cybersecurity risk experienced by the industry.

Peter has a Master's degree in Information Systems from the George Washington University, a Bachelor's degree in Information Systems from the University of the District of Columbia, is a Certified Information Systems Security Professional (CISSP), Certified Information Systems Auditor (CISA), and has received certificates of achievements from the Harvard Kennedy School of Government, Gartner CIO Academy, and International Foundation of Employee Benefit Plans.

Trade Wars: What Institutional Investors Need to Know

By: Ortec Finance

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Earlier this year, President Trump announced that trade tariffs will be imposed on several countries. This report from Ortec Finance provides an in-depth look at the impact these trade tariffs might have on financial market behavior in the short and long-term, and – crucially – the implications for institutional investors. Our analysis considers several scenarios, including the bigger picture of U.S. policies and growing geopolitical turmoil.

The bigger picture: an uncertain outlook

Although we focus our attention on tariffs, it is important to point out that tariffs are not the only factor affecting the current economic outlook. In order to provide a broad and all-encompassing picture, we must also consider the growing uncertainty around debt levels, the decisions of the Department of Government Efficiency (DOGE), and the Federal Reserve, coupled with countries rethinking their positions on the world stage. Shifting from an academic take on trade wars to sketching economic scenarios, we highlight four key uncertainties:

1. U.S. debt levels and sovereign bond rates
2. Inflationary pressure
3. A Federal Reserve balancing act
4. Geopolitical turmoil

Although we focus our attention on tariffs, it is important to point out that tariffs are not the only factor affecting the current economic outlook.

What are the implications for institutional investors?

Institutional investors may have to consider both the short- and long-term implications of the effects described in this report. For example, a decrease in expectations of long-term yields will have the impact of increasing liabilities for pension funds and insurance balance sheets which can be sensitive to government yields under different valuation measures. Similarly, there may be impacts on regulatory measures, such as funding and capital management. This liability exposure of course depends on the level of hedging inherent in any investment strategy and the immediate costs of unwinding these positions, should that be necessary.

Another implication for institutional investors is the impact on liquidity, considering the implementation of tariffs and subsequent short-term market movements. As allocations to private asset classes have increased in recent years due to yield and liability/cashflow matching requirements over the full liability horizon, liquidity may be a more prominent risk in times of financial market volatility.

Insurers may also be concerned with managing policyholder behavior in case of sudden large-scale allocations to less volatile asset classes. Impacts on pension funds will be influenced by the maturity of the fund, its plans for run-off, pension risk transfer or other endgame solutions, and the extent to which the need for short-term liquidity arises.

We cannot expect to know how financial markets will behave under the Trump Administration given this range of potential paths. While there is value in thinking through such narratives, how can we know what the tail risks of an extreme scenario will be?

Scenario modeling

One way to navigate the financial markets' uncertainty is through stochastic scenario analysis. While we don't know what the impact of a second Trump term will be on financial markets, we can look at a set of possible scenarios to understand the risks facing U.S. policies in the next four years.

By aggregating thousands of scenarios together, we can view a cloud of possible outcomes, including tail risk scenarios. The graphs below represent a band of potential scenarios which capture what might happen. Interest rate risk is a key driver of total portfolio returns through their influence on bond performance and currency hedging costs. Additionally, rates indirectly impact the returns of other asset classes, such as equities, currencies, and alternatives. In a well-diversified portfolio, interest rate risk is partially mitigated through diversification across asset classes, leveraging the correlations between them. Therefore, this risk should not be analyzed in isolation, as correlations and diversification benefits with other asset classes must be considered.

The second chart illustrates the stochastic scenario-based projection of the cumulative total portfolio return over the next four years for an average U.S. public pension fund. The cloud of total portfolio returns incorporates multiple risk drivers (e.g. interest rate risk, credit risk, equity risk, and currency risk) and captures their diversification effects, showing the uncertainty around the central expectation (blue line). As such, scenario-analysis can help investors understand tail risks and the impact of policy adjustments on their strategic risk profile.

Although no one can predict what path our economic markets will follow in the wake of President Trump's policies – whether the path will be paved by U.S. government debt or an escalating trade war – we will only learn with time which scenario is realized. But we do expect that increased uncertainty will drive financial market volatility.

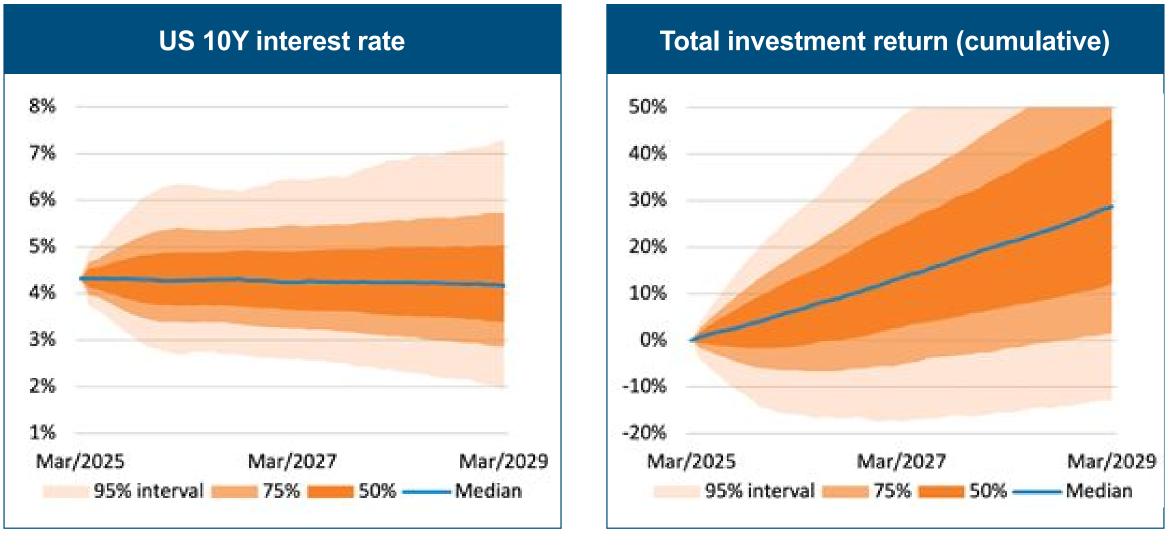

Figure 1. Distribution of 5000 scenarios of U.S. interest rates and portfolio return of a typical U.S. public pension fund. Expectations per March 1, 2025.

For more insights, we invite you to read the complete report from Ortec Finance. ◆

Ortec Finance *is the leading provider of technology and solutions for risk and return management. We model and map the relevant uncertainties to help institutional investors monitor their goals and decisions. We design, build, and deliver high-quality software models for asset-liability management, risk management, impact investment, portfolio construction, performance measurement & attribution, and financial planning.*

Ortec Finance's strength lies in an effective combination of advanced models, innovative technology, and in- depth market knowledge. This combination of skills and expertise supports investment professionals in achieving a better risk-return ratio and thus better results.

Founded in the Netherlands, Ortec Finance has eight global offices in Amsterdam, Rotterdam, London, Zurich, Melbourne, Singapore, Toronto, and New York.

Promoting Retirement Stability Through Governance, Portfolio Allocation, and Plan Design

By: Zhikun Liu, MissionSquare Retirement

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Public retirement systems are vital for the financial security of millions of workers. Defined benefit (DB) pension plans, with their guaranteed lifetime income, remain effective for ensuring retirement security. However, the rise of defined contribution (DC) plans has introduced new dynamics. While DC plans can complement DB plans, they are not substitutes. Together, these plans can create a more comprehensive and resilient retirement system. Achieving public sector retirement stability requires integrating the strengths of both plan types through good governance, responsible portfolio allocation, and thoughtful plan design.

The Role of Good Governance

Good governance is the foundation of a stable retirement system. For DB plans, governance ensures funding policies, actuarial assumptions, and investment strategies align with the plan's long-term obligations to retirees. These plans provide predictable, guaranteed income, making them uniquely effective in addressing retirement security challenges. Strong governance ensures DB plans remain well-funded and sustainable, even during economic uncertainties.

For DC plans, governance focuses on empowering participants to make sound investment decisions while providing safeguards, such as well-designed default options. While DC plans offer flexibility and portability, they shift investment risk and decision-making to participants, which can lead to suboptimal outcomes without proper oversight. Governance structures for both DB and DC plans should encourage collaboration among stakeholders, including pension boards, investment committees, and plan administrators, to ensure strategies are effectively implemented and communicated to participants.

Responsible Portfolio Allocation

Portfolio allocation is critical to retirement system stability. For DB plans, the focus is on managing a diversified portfolio that balances risk and returns to meet funding obligations. Liability-driven investment (LDI) strategies, which align asset allocation with plan liabilities, are particularly effective in reducing funding volatility and ensuring commitments to retirees are met.

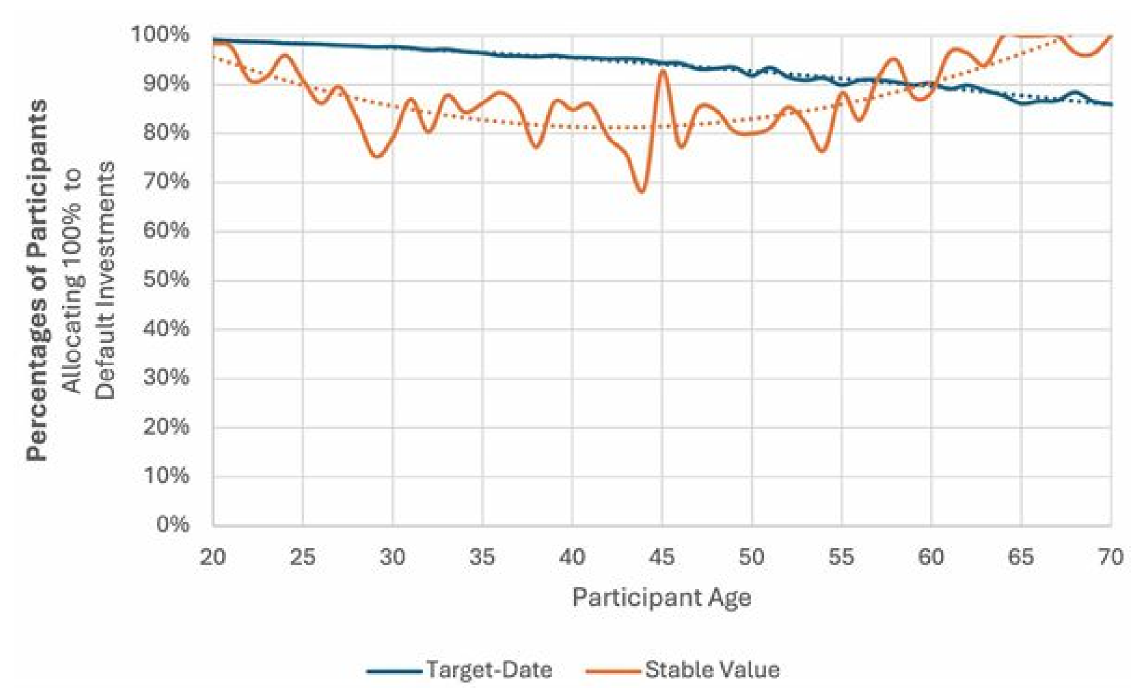
In DC plans, portfolio allocation shifts responsibility to individual participants, making the design of default investment options crucial. A well-diversified default portfolio can help participants achieve long-term growth while managing risk. Together, DB and DC plans provide a more comprehensive retirement solution, with DB plans offering stability and DC plans adding flexibility.

Insights from Default Investment Research

Recent research highlights the importance of default investment design in public DC plans. A study[1] analyzing the investment decisions of 340,000 newly enrolled public DC plans participants reveals:

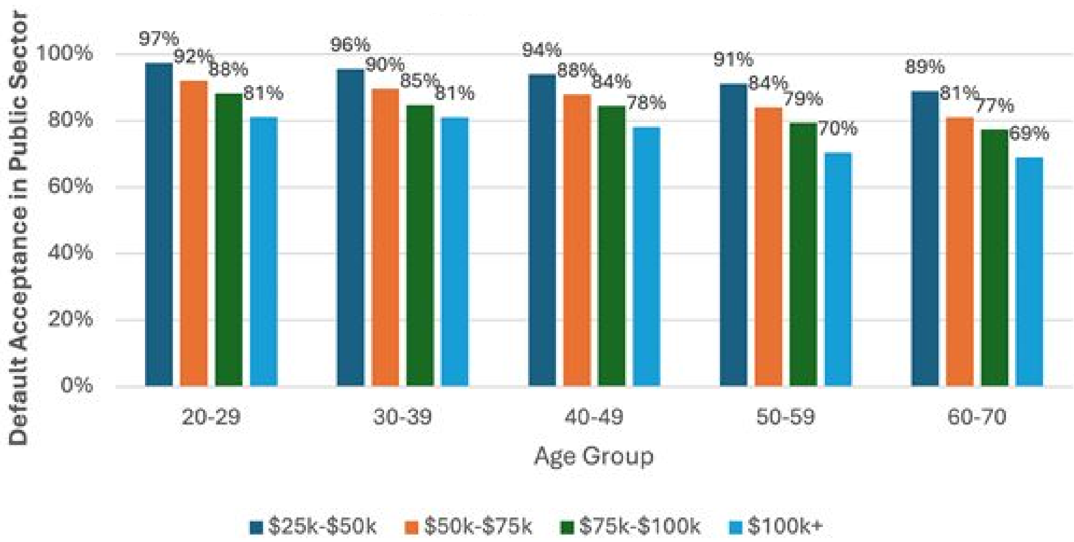
- **High Default Acceptance Rates:** Over 80% of participants across all age groups accept default investment options, a rate higher than in private sector 401(k) plans.

Initial Default Investment Acceptance
by Age and Default Investment Types



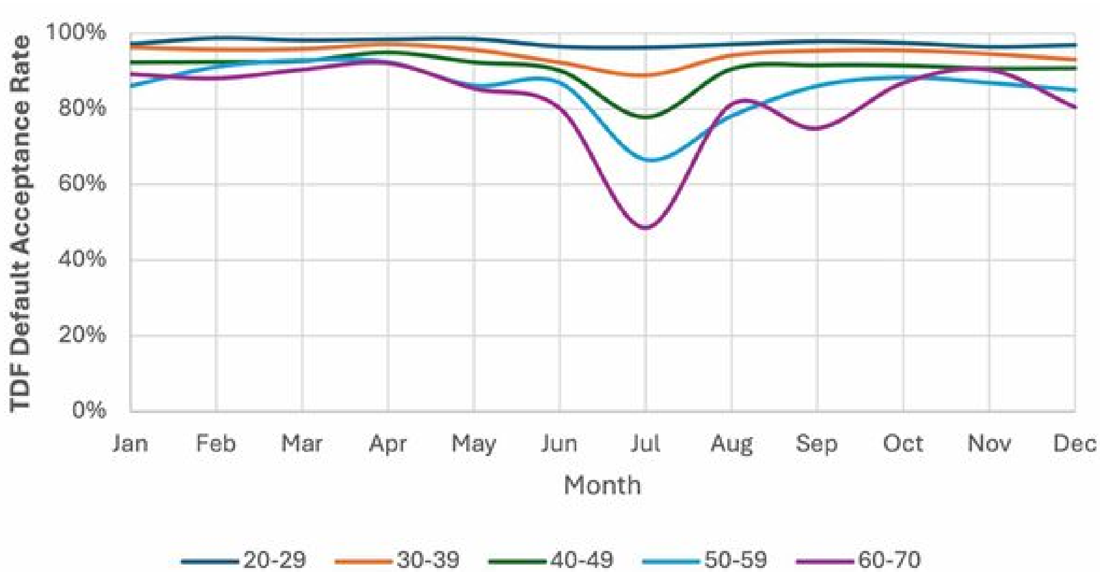
- **Demographic Influences:** Default acceptance rates decline with age and income but are higher among female participants.

Target-Date Initial Default Investment Acceptance
by Age and Income



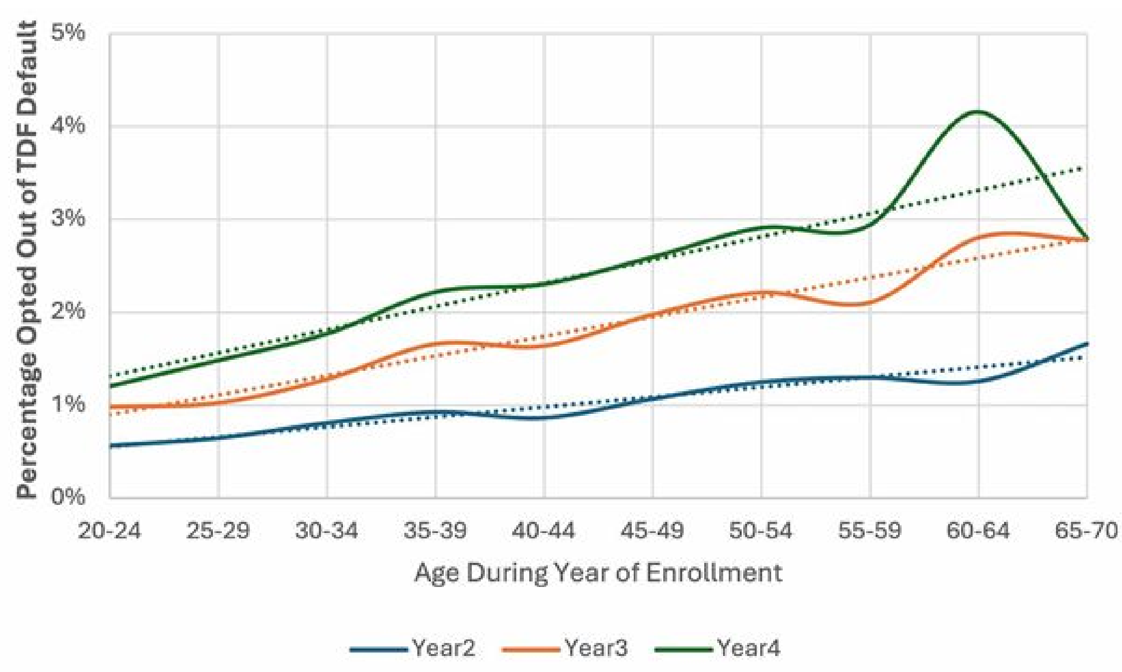
- **Market Volatility Impact:** Market conditions significantly influence default investment decisions. Reassessing default investment decisions during economic uncertainty remains important.

Default Acceptance in the 2020 Calendar Year
by Month and Age Group



- **Opt-Out Trends:** While public plan participants' default opt-out rates are relatively lower, they increase with age and income.

Opt-Out Rate Over Time



These findings emphasize the importance of designing default options that align with participants' demographics and retirement goals.

DB and DC Plans: A Complementary Approach

DB and DC plans can complement each other to create a robust and sustainable retirement system. DB plans provide the stability and predictability of guaranteed income, while DC plans offer additional savings opportunities and flexibility. Together, they address the diverse needs of public sector employees, ensuring both short-term and long-term retirement goals are met.

> *DB and DC plans can complement each other to create a robust and sustainable retirement system.*

For example, DB plans can serve as the foundation of retirement security, providing a stable income floor throughout retirement. DC plans, on the other hand, allow participants to save for additional expenses, invest for growth, and tailor their strategies to individual circumstances. By integrating the strengths of both plan types, public retirement systems can better withstand economic challenges and meet the evolving needs of participants.

Recommendations for Public Retirement System Leaders

To promote public retirement system stability, leaders should focus on the following:

1. **Preserving and Strengthening DB Plans:** Policymakers and plan sponsors should prioritize the sustainability of DB plans, which provide the most reliable and efficient retirement income. Ensuring adequate funding and adopting sound investment strategies are critical to maintaining these plans for future generations.

2. **Enhancing DC Plan Design:** Plan sponsors should ensure default investments are well-suited to participants' demographics and retirement goals. Strategies like re-enrollment campaigns can encourage participants to periodically revisit their investment choices.

3. **Integrating DB and DC Plans:** Public retirement systems should leverage the strengths of both DB and DC plans. DB plans provide a stable income floor, while DC plans offer additional savings opportunities and flexibility. Together, they create a more comprehensive and resilient retirement system. ◆

__Zhikun Liu, Ph.D., CFP®,__ is an experienced financial planning research director, specializing in retirement planning, behavioral economics, and wealth management. He currently serves as Vice President and Head of the MissionSquare Research Institute at MissionSquare Retirement. Dr. Liu's prior career includes research director roles at Empower Retirement and Employee Benefit Research Institute, where he made significant contributions to the retirement and financial planning industry. Zhikun received his Ph.D. in Personal Financial Planning from Texas Tech University and holds multiple advanced degrees in fields including Mathematics, Economics, and Finance.

Endnotes:

[1] *Default Investment Acceptance among Public Defined Contribution Plan Participants* MissionSquare Research Institute, February 2025

What You Can't See Can Hurt You: Best Practices for Managing Participant Risk in Pension Plans

By: Ryk Tierney, The Berwyn Group

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As a plan administrator, you juggle actuarial assumptions, investment policies, governance protocols, compliance audits, and reporting deadlines. But what about the variables you can't predict – like participants who move without updating their address, pass away without notice, or become unresponsive?

These are the cracks where good governance can begin to falter – *not because of negligence, but because life happens.*

In this article, we explore how even the most diligent governance frameworks can be disrupted by missing or unresponsive participants – and what proactive strategies plans can use to reduce their impact and safeguard long-term stability.

Participants: The Overlooked Governance Risk

When pension governance practices focus primarily on investment portfolios, fiduciary oversight, and regulatory compliance, it's easy to overlook the human factor: the participants themselves. Yet, pension participants are crucial actors within the governance ecosystem. Their behaviors and circumstances – often beyond the administrator's control – can significantly affect plan outcomes. Address changes, beneficiary updates, and mortality reporting are all participant-driven actions that can profoundly impact your governance effectiveness.

Unreported participant deaths or relocations result in pension plans continuing payments erroneously, skewing actuarial calculations, and complicating efforts toward pension risk transfers or plan termination. Such issues compromise the accuracy of financial disclosures and can create significant fiduciary and compliance risks.

Proactive Measures for Uncontrollable Variables

Proactive governance requires administrators to move beyond reactive measures to structured, preventative practices embedded into regular plan management cycles. Here are best practices pension administrators can adopt:

1. **Routine Data Health Checks:** Implement regular assessments of participant data quality. Periodic scans for incomplete, outdated, or inconsistent participant information help catch discrepancies before they become problematic. Healthy data means fewer surprises when actuarial assumptions and funding statuses are reviewed.

2. **Regular Participant Communications:** Create ongoing outreach strategies rather than relying solely on participant-initiated contact. Regular communications – via letters, emails, or portal alerts – serve not just as governance practices but also foster a culture of transparency and accountability, prompting participants to update critical information proactively.

3. **Systematic Death Audit Programs:** Integrate ongoing mortality monitoring into your governance protocol. Systematic death audits allow plans to promptly identify deceased participants, stopping unnecessary payments and recalibrating plan liabilities. Regular death audits minimize fiduciary risks and enhance financial accuracy. Engaging with a specialized vendor can bring refined data sources and validated methodologies to this process, providing greater confidence and defensibility in audit results.

4. **Comprehensive Participant Locate Strategies:** Include participant location activities in regular governance reviews. Structured locate strategies reconnect lost or unresponsive participants, enabling accurate benefit delivery, reduced escheatment issues, and improved fiduciary responsibility. Again, partnering with vendors who specialize in participant location can offer deeper investigative capabilities and improve outreach outcomes, particularly when internal resources are limited.

Regulatory Expectations Are Rising

Federal oversight agencies such as the Department of Labor (DOL) and Pension Benefit Guaranty Corporation (PBGC) have increasingly emphasized proactive governance regarding participant data accuracy. Recent DOL guidance explicitly underscores fiduciaries' responsibility to maintain current, complete participant records and actively locate missing or nonresponsive participants.

Regulators recognize that unchecked, uncontrollable participant variables can materially impact a plan's fiscal health and overall compliance status. As these expectations continue to rise, proactive governance becomes not just prudent, but essential.

A proactive approach to participant-related administrative challenges fundamentally enhances the resilience of your pension plan.

Building Governance Resilience

A proactive approach to participant-related administrative challenges fundamentally enhances the resilience of your pension plan. By embedding participant monitoring and management into governance frameworks, administrators can confidently address the unexpected – participant relocations, deaths, and communication lapses – with minimal disruption.

Administrators who anticipate and strategically mitigate the impact of uncontrollable variables protect their plan's stability, maintain regulatory compliance, and uphold fiduciary responsibilities. Effective governance isn't solely about controlling known variables – it's equally about preparing robustly for the unknown.

In pension administration, uncertainty is inevitable. But uncertainty doesn't have to mean vulnerability. Proactive governance practices help manage even the most uncontrollable variables effectively, promoting sustainable and stable pensions for generations to come. ◆

__Ryk Tierney__ is the General Manager of the Berwyn Group's pension team. Before joining Berwyn, he served as the Executive Director of The Educational Employees Supplementary Retirement System of Fairfax County in Virginia. He previously held executive leadership roles with the National IAM Benefit Trust Fund, Pension Fund, and 401(k) Fund, as well as the NYC and District Council of Carpenters' Benefit Funds. Additionally, Ryk held a leadership position at Associated Administrators, a third-party administrator (TPA) serving multiemployer funds.

Ryk holds the Certified Employee Benefit Specialist (CEBS) designation through the Wharton School of the University of Pennsylvania and the International Foundation of Employee Benefits.

Understanding and Measuring Risk

By: Lauren Gellhaus, Wilshire

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We invest using insights from historical data, our understanding of the present, and our expectations for the future. However, risk exists because the future is unknown. Given the uncertainty of risk, it is important that investors understand their risk tolerance levels.

Risk Lenses

Risk is multi-faceted and can be viewed across a spectrum. Investors must consider how different risks influence performance, and boards must decide which guardrails are necessary to manage these risks, working with staff and consultants, and codifying governing document guardrails.

Given the uncertainty of risk, it is important that investors understand their risk tolerance levels.

Wilshire's Risk Lenses

- Shortfall: Support distributions and long-term growth
- Behavioral: Instill strong governance
- Drawdown: Limit portfolio losses
- Inflation: Preserve long-term purchasing power
- Liquidity: Balance near-term needs, long-term opportunities
- Active: Ensure unique exposures
- Emerging and Long-Term: ESG risks

For illustrative purposes only.

Tracking Error

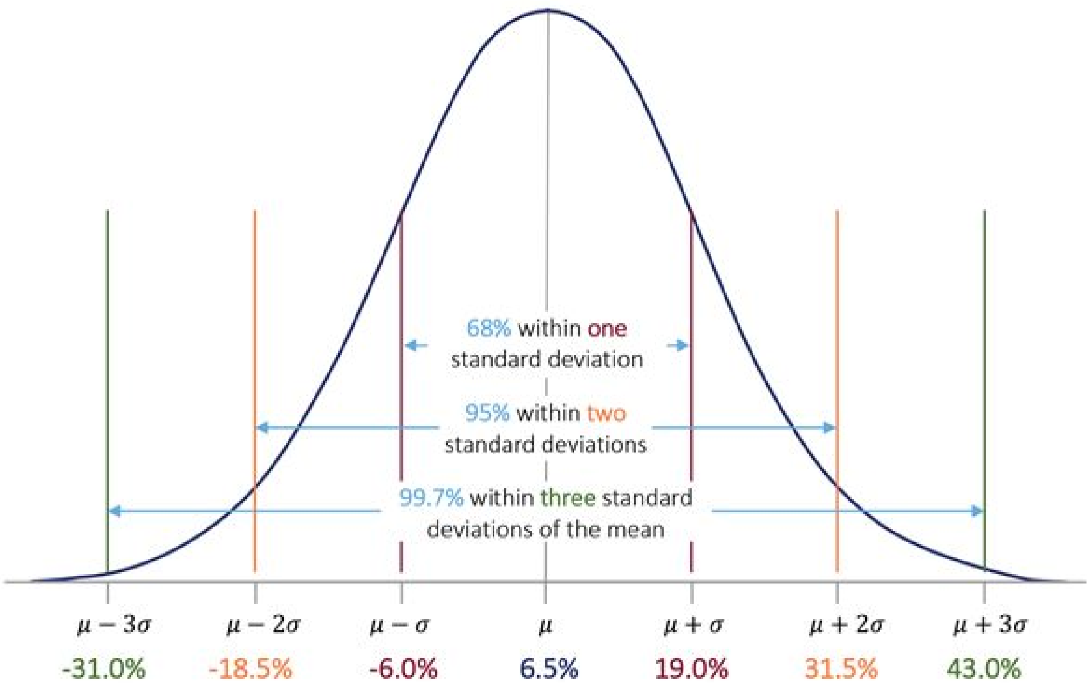
Tracking error is either the realized or expected volatility of excess returns. Plans should only accept tracking error if: 1) they expect compensation through generating additional return, or 2) that risk is unavoidable to access the underlying beta.

When assessing risk, consider total fund tracking error or the aggregate active risk of all investments versus the strategic policy. This can, and should, be split up among the various stakeholders (e.g., decisions made by staff/board and decisions made by active managers).

When assessing risk, consider total fund tracking error or the aggregate active risk of all investments versus the strategic policy.

Standard Deviation

Boards should consider the range of outcomes inherent in adding risk to the portfolio, along with which risks and how much risk they are willing to endure. Standard deviation measures variation around a central point. In this case, the central point is expected return.



For illustrative purposes only.

Value at Risk

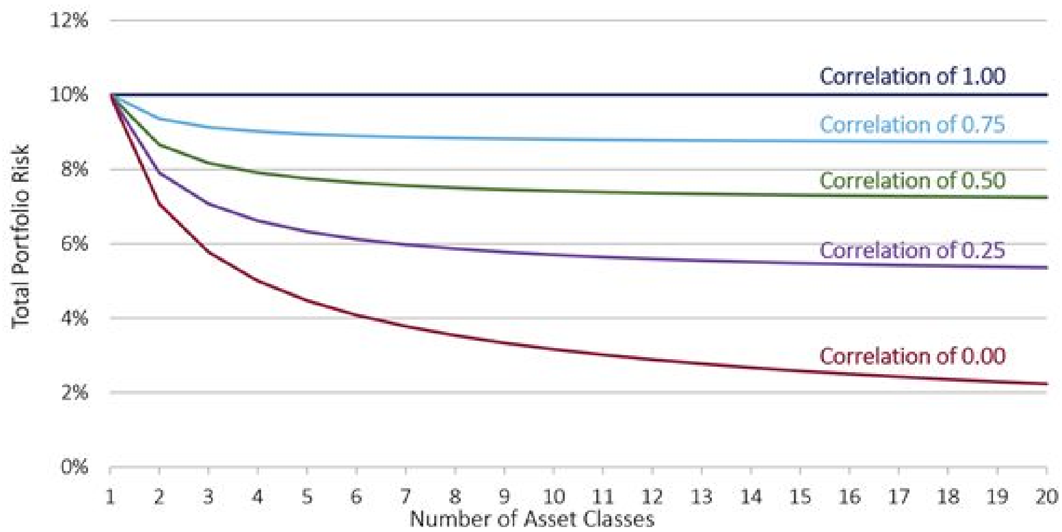
Value at risk (VaR) and conditional value at risk (CVaR) methods are more complex and seek to link underlying risk factors to portfolio performance. Both VaR and CvaR require decomposition of portfolio performance into risk factors with stress testing and scenario analysis to assess risk under different market conditions.

Diversification of Asset Classes

The importance of diversification stems from asset classes having different correlations – the movement of asset class returns in relation to one another. Increasing the number of asset classes across a portfolio can reduce total portfolio risk.

The importance of diversification stems from asset classes having different correlations – the movement of asset class returns in relation to one another.

Impact of Correlation on Risk Reduction

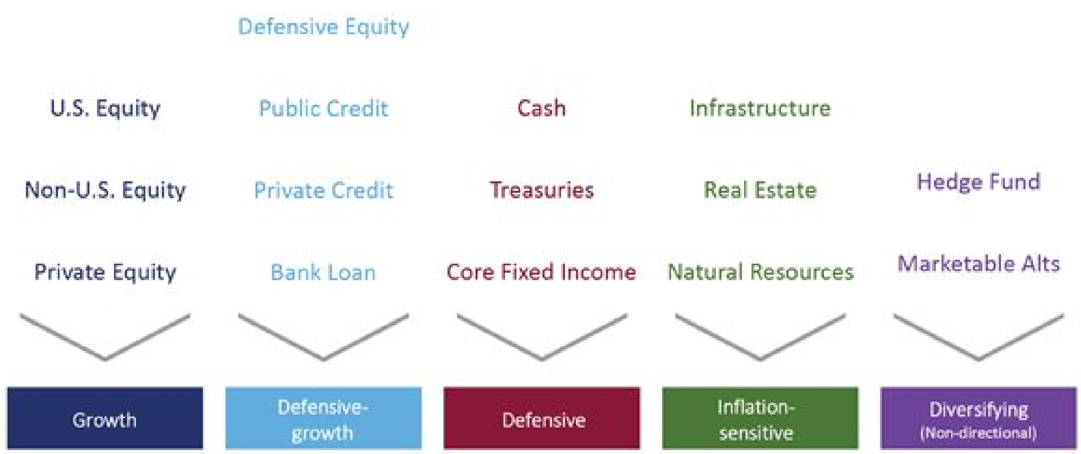


Source: Wilshire Advisors. For illustrative purposes only.

Investors should seek to avoid DINO, Diversification in Name Only. DINO occurs when adding an asset class increases the number of assets yet provides minimal portfolio benefit in terms of minimizing risk or enhancing returns.

Select asset classes from across the various buckets to help capture the benefits of diversification and avoid DINO.

Wilshire Asset Class Categorization



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Conclusion

While often viewed as something to avoid, risk is an important part of investing. Moreover, understanding risk is essential to achieving optimal risk-adjusted returns. ◆

Disclosures:

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Lauren Gellhaus*, CAIA is a Vice President serving on the client solutions team, focusing on pension plans and sustainability. Prior to joining Wilshire in 2022, Lauren was the head of environmental, social and governance (ESG) investing at the Teacher Retirement System of Texas where she developed the ESG strategic vision and roadmap for the investment management division's initiatives. She received her bachelor's degree in corporate finance from the University of Texas at Austin and is a CAIA Charterholder. Lauren has a certification in ESG investing from the CFA Institute. She also earned the Foundations in Responsible Investment certificate from the Principles for Responsible Investment (PRI).*

The Rise of Private Credit Secondaries: A Differentiated Strategy Offering Investors a Diversified Pool of Defensive and Low Market Correlated Assets with Current Yield and Equity Upside

By: Ravi Ugale, Star Mountain Capital

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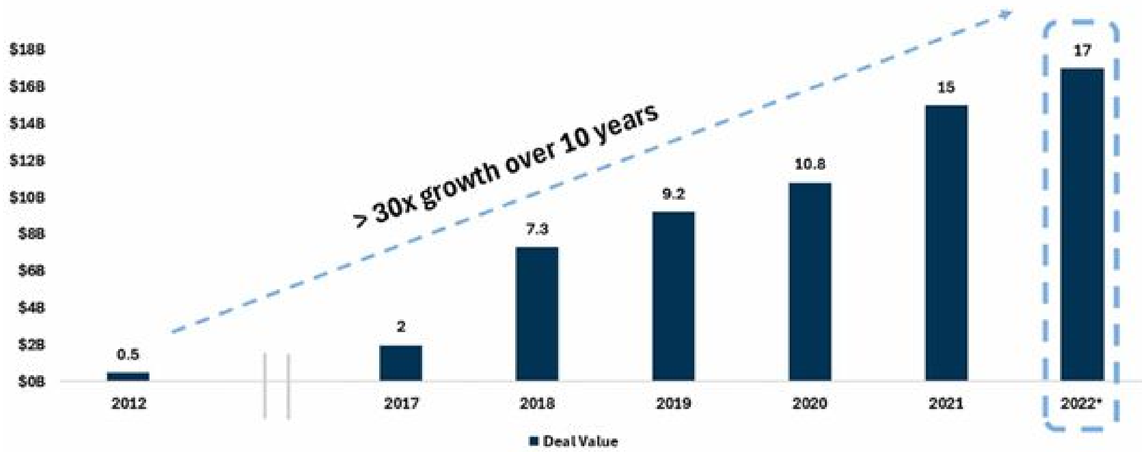
As financial markets evolve, new asset classes are formed, and innovative solutions are identified. Following the growth of the private equity market in the 1990s, some investors found themselves holding long-term, illiquid fund investments at a time when they needed liquidity for various reasons. Naturally, this gave rise to a private equity secondaries market where other investors were able to provide liquidity by purchasing these illiquid fund positions, often at a discount, in volumes great enough to form an asset class of its own, now known as secondaries.

Following in the footsteps of the boom in the private equity market, the Global Financial Crisis accelerated the growth of a flourishing private credit market. Inherently, like we saw in private equity, this growing pool of illiquid private credit fund investments creates opportunities for investors to buy and sell existing investments in private credit funds in the same way, creating what we now call the private credit secondaries market. Just as there are dierences in the private equity secondaries market based on the underlying fund strategies across geographies, company sizes, or type of equity investments, there are also numerous focus areas within private credit secondaries and the competitiveness and attractiveness for investors can vary based on simple supply demand dynamics. Limited buyers exist with the origination capability, due diligence skills, and strategic focus to acquire smaller credit-oriented secondary assets, creating high barriers to entry and opportunities for specialized lower middle-market private credit secondaries managers to benefit from this supply-demand imbalance.

The private credit secondary market has grown 30x since 2012,[1] which has led to the current supply-demand imbalance as there are not enough capital providers to satisfy the deal flow in this space. Therefore, experienced buyers can be extremely selective in this market; however, new entrants will need to pay close attention to the quality and terms of their purchases, as risk tolerances and rates fluctuate.

Private Credit Secondary Deal Activity Has Grown 30X Since 2012



Source: Coller Capital - *2022 deal value includes estimates

According to Private Debt Investor's LP Perspectives 2024 Study, investors are more interested than ever in capitalizing on the opportunities available in private credit secondaries. In all, 21% of LPs now plan to commit capital to secondaries funds in private credit over the next 12 months, the highest proportion ever seen in the survey and up from 7% as recently as 2022[2]. Investors are now taking notice of private credit secondaries as a method of achieving immediate diversification, reducing dispersion in returns, yield enhancement, and j-curve mitigation, while capitalizing on the market dislocation.

Private credit secondaries transactions can take various forms, including the purchase of individual loans or debt portfolios, the acquisition of LP interests in private credit funds as well as fund solutions like Net Asset Value (NAV) lending and continuation vehicles. These transactions often occur in a bilateral or negotiated manner between buyers and sellers, with pricing and terms reflecting factors such as credit quality, collateral characteristics, and prevailing market conditions.

MARKET OPPORTUNITY

Market Ineffciencies and Information Asymmetry:

The private credit secondaries market is characterized by information asymmetry and limited liquidity, creating opportunities for skilled investors to capitalize on market ineciencies and mispricing. Active management, rigorous due diligence, and specialized expertise are critical for identifying and unlocking value in private credit secondaries transactions.

Structural Tailwinds:

Favorable macroeconomic trends, such as rising corporate indebtedness, credit market dislocations, and regulatory changes impacting traditional banks, can create structural tailwinds for private credit secondaries. Additionally, demographic shifts, technological innovation, and evolving capital market dynamics are driving demand for alternative credit solutions and financing alternatives.

Liquidity Needs and Portfolio Optimization:

Institutional investors, including pension funds, endowments, and insurance companies, often face liquidity needs and portfolio rebalancing requirements. Private credit secondaries oer a solution by providing liquidity for existing investments, enabling investors to optimize their portfolios and redeploy capital into new opportunities or other asset classes.

Diverse Investment Opportunities:

The private credit secondaries market encompasses a wide range of investment opportunities, including the purchase of individual loans, distressed debt portfolios, structured credit products, and private credit fund interests. Investors can gain exposure to various credit sectors, geographies, and risk profiles, allowing for customized portfolio construction and risk management.

Potentially Attractive Risk-Adjusted Returns:

Private credit secondaries, especially in the lower middle-market, have the potential to generate attractive risk-adjusted returns similar to the returns in Private Equity Secondaries, and higher returns than traditional fixed income and public market alternatives. ◆

Endnotes and Disclosures:

[1] *https://pitchbook.com/news/articles/private-debt-secondaries-market-2023*
[2] *https://www.privatedebtinvestor.com/the-growing-appeal-of-credit-secondaries/*

Investing in the Growth Engine of America ® Star Mountain is a $4+ billion (as of 5/31/24 inclusive of debt facilities) specialized lower middle-market investor providing: (i) Strategic Debt & Equity Capital to private businesses that have at least $15 million of revenue or under $50 million of EBITDA and (ii) Liquidity Solutions to investors and fund managers ("Secondaries") including purchasing LP interests and direct investments in lower middle-market private credit and private equity funds in addition to providing fund managers with NAV loans.

Ravi Ugale *is Managing Director and Investment Committee Member at Star Mountain Capital. Mr. Ugale has 30+ years of private credit, secondaries, private equity, venture capital, investment banking and business operations experience. Expertise spans direct and fund investments, investment and operational due diligence, implementation, manager selection, portfolio allocation and construction for the benefit of clients in the UHNW Private Wealth Management, Foundations & Endowments market segments. He was a Young Presidents' Organization (YPO) member for 10 years and has substantial board and c-level executive operating experience. He was also an active member of the governance and thought leadership Institutional Limited Partners Association (ILPA). Mr. Ugale leveraged a proven track record in principal investing, portfolio management, finance, M&A, executive leadership, marketing and business development to shepherd early, expansion and growth stage companies in bottom-line growth, recruit world-class talent, create win-win strategic partnerships as well as exit planning and execution.*

Optimizing Opportunities: Public Pension Plans Reassess Allocations Amid Higher Fixed Income Yields

By: Som Priestley, Christopher Tarui, and Ryan Wagner, T. Rowe Price

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After an extended period of near-zero interest rates, public defined benefit plans have become overweight risk assets in an effort to achieve their return targets. However, central bank rate hikes have led to higher-yielding fixed income assets, and capital market assumptions (CMAs) have risen in many asset classes, offering new pathways that could meet their return targets. In this piece, we discuss the opportunity that public pension plans have to reassess asset allocations amid higher CMAs. The Crisil Coalition Greenwich 2024 study, sponsored by T. Rowe Price, highlighted that many plans maintained significant exposures to risk assets despite improved fixed income yields. This environment presents a chance to reduce risk by reallocating assets, potentially lowering portfolio risk while still achieving expected returns. The analysis suggests that plans can maintain their expected return on assets (EROAs) with less reliance on equities, leveraging higher yields in fixed income sectors. ◆

Click here to read the entire analysis at the T. Rowe Price website.

Som Priestley, *CFA, Regional Head of Multi-Asset Solutions*
Christopher Tarui, *Head of Global Institutional Alternatives Distribution, U.S. Consultant Relations, and OCIO*
Ryan Wagner, CFA, *Institutional Client Service Executive*

Investing at Inflections: Real Estate Equity in a Changing Rate Environment

By: Ohm Devani and James Williams, Humphreys Capital

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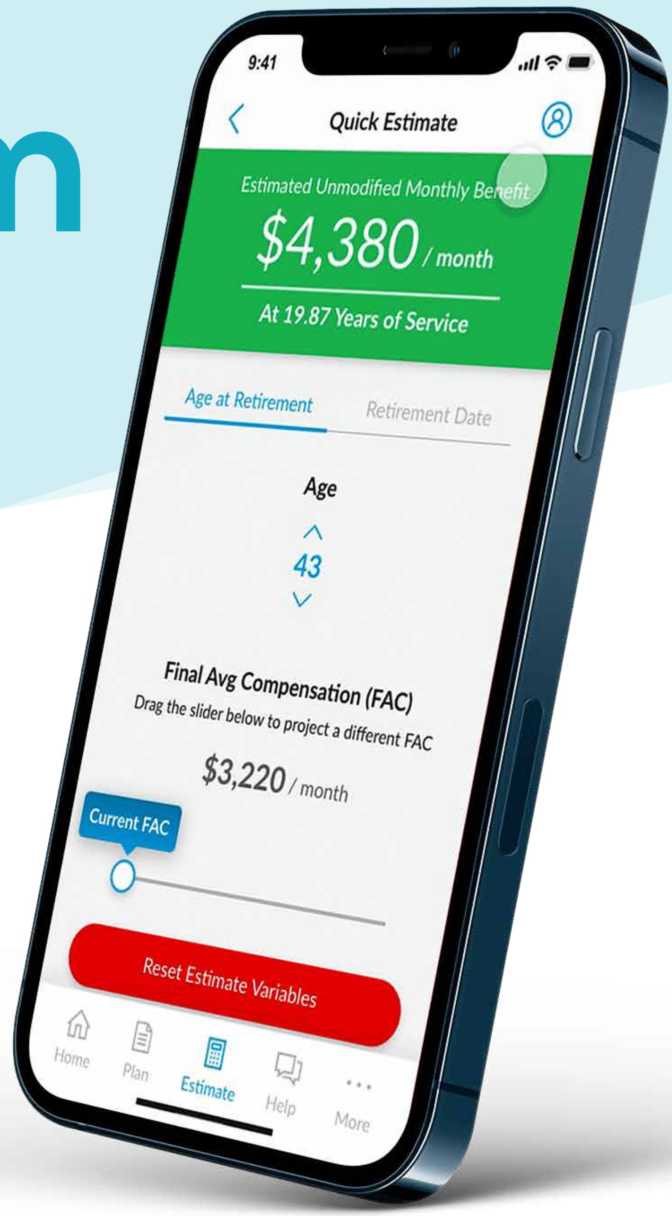
"Investing in Inflections" explores the resilience of real estate investments amid rising interest rates and shifting macroeconomic conditions. By examining the impact on valuations, particularly within the multifamily sector, it highlights the historical correlation between cap rates and U.S. Treasury yields. The analysis suggests that while current cap rates have only partially adjusted to recent rate increases, future opportunities may emerge as the market stabilizes and real estate fundamentals begin to normalize. Through a study of the growing support for alternative investments from public pension plans, this white paper highlights the evolution of investment allocations towards private real estate.

For 30 years, the median private fund investing in North American real estate has delivered reliably positive returns. This proved true even as the real estate sector experienced periods of volatility across multiple credit cycles, evolving demographic trends, and structural changes to the American economy. In light of this track record, it is worth considering why real estate funds have been so resilient and what we should expect in this current cycle. ◆

Click here to read the full white paper from Humphreys Capital.

***Ohm Devani**, Director, Analytics, and James Williams, Senior Analyst, Analytics work at Humphreys Capital.*

NCPERS PensionX Digital Platform



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May 17-18
Denver, CO

Annual Conference & Exhibition (ACE)

May 18-21
Denver, CO

June 2025

Chief Officers Summit

June 16-18
New York, NY

August 2025

Public Pension Funding Forum

August 17-19
Chicago, IL

September 2025

Public Pension HR Summit

September 24-26
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