AGENDA



Date: November 3, 2023

The regular meeting of the Dallas Police and Fire Pension System Board of Trustees will be held at 8:30 a.m. on Thursday, November 9, 2023, 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 October 12, 2023

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

- 1. Independent Preliminary Actuarial Analysis and Recommendations
- 2. Quarterly Financial Reports
- 3. Board Officer Election
- 4. Report on Professional Services Committee Meeting
- 5. Second Reading and Discussion of the 2024 Budget
- 6. Financial Audit Status
- 7. Benefit Underpayment Notification
- 8. Required Training Manual Delivery
- 9. Executive Director Approved Pension Ministerial Actions
- 10. Monthly Contribution Report

11. Board approval of Trustee education and travel

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

12. Portfolio Update

13. Real Estate Overview - AEW Portfolio Update

Portions of the discussion under this topic may be closed to the public under the terms of Section 551.072 of the Texas Government Code.

14. 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.

D. BRIEFING ITEMS

- 1. Public Comment
- 2. Executive Director's report
 - a. Associations' newsletters
 - NCPERS Monitor (November 2023)
 - NCPERS PERSist (Fall 2023)
 - **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, 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, and Section 551.078 for review of medical records.

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MOMENT OF SILENCE

In memory of our Members and Pensioners who recently passed away

NAME	ACTIVE/ RETIRED	DEPARTMENT	DATE OF DEATH
Donald R. Richie	Retired	Police	October 8, 2023
Thomas E. Pugh	Retired	Police	October 12, 2023
C. R. Benefield	Retired	Police	October 13, 2023
Luther J. Smith Jr.	Retired	Fire	October 23, 2023
Allen Heckard	Retired	Fire	October 23, 2023
Guillermo Luna	Retired	Fire	October 24, 2023

Regular Board Meeting –Thursday, November 9, 2023



DISCUSSION SHEET

ITEM #C1

Topic: Independent Preliminary Actuarial Analysis and Recommendations

Attendees: Bill Hallmark, Consulting Actuary, Cheiron, Inc.

Jake Libauskas, Consulting Actuary, Cheiron, Inc. Elizabeth Wiley, Consulting Actuary, Cheiron, Inc. Jeff Williams, Vice President, Segal Consulting

Discussion: Section 2.025 of Article 6243a-1 requires the Texas Pension Review Board to

select, and DPFP to hire, an independent actuary to perform an actuarial analysis of DPFP's most recently completed actuarial valuation to (i) determine if DPFP meets Texas statutory funding requirements and (ii) recommend changes to benefits and contribution rates for employees and the City of Dallas.

This analysis is due on or before October 1, 2024.

Cheiron, Inc. was hired as the independent actuary. Cheiron has prepared a preliminary report based upon DPFP's January 1, 2022 actuarial valuation. Cheiron's official report under Section 2.025 will be based upon DPFP's January 1, 2023 actuarial valuation. Cheiron's official report is expected to be completed by March 31, 2024. Representatives of Cheiron will be present to discuss their preliminary report. Jeff Williams of Segal Consulting, DPFP's actuary since 2016, will also be present to answer questions.

Regular Board Meeting - Thursday, November 9, 2023

Dallas Police & Fire Pension System



Independent Actuarial Analysis and Recommendations

Preliminary Recommendations
Based on 2022 Actuarial Valuation

November 9, 2023

Bill Hallmark, ASA, EA, FCA, MAAA Elizabeth Wiley, FSA, EA, FCA, MAAA Jake Libauskas, FSA, EA, FCA, MAAA

Agenda Background **Benefit and Contribution Considerations Preliminary Recommended Alternatives** Questions



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Independent Actuarial Analysis



- Pension Review Board selected Cheiron as the Independent Actuary
- Analysis required
 - Does system meet funding guidelines of Chapter 802 of Texas Government Code?
 - Funding period achieved and maintained <= 30 years
 - Make recommendations regarding:
 - Changes to benefits
 - Changes to member contributions
 - Changes to City contributions
- Board action by 11/1/2024
 - Complying with funding requirements of Chapter 802
 - Taking into consideration recommendations of Independent Actuary



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Process



- ✓ Replicate 2022 Valuation Performed by Segal
- ✓ Build Interactive Models
- ✓ Develop Alternative Contribution/Benefit Scenarios (At least 3)
- Draft Report and Presentation Based on 2022 Actuarial Valuation
 - Feedback from Board
 - Refinement of Options
- Replicate 2023 Valuation Performed by Segal
- Preliminary Report and Presentation
- Final Report
 - Texas Pension Review Board
 - Dallas Police & Fire Pension System Board
 - City of Dallas

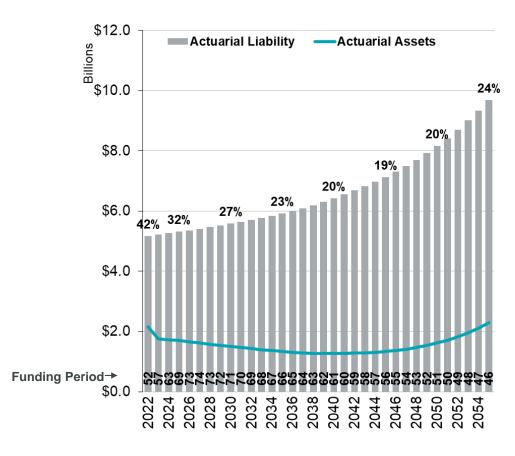


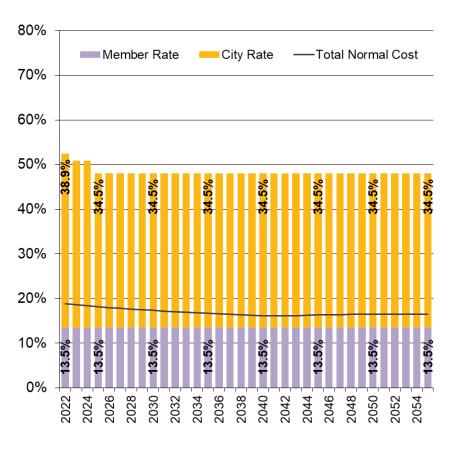
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Current Situation – 2022 Valuation Projections







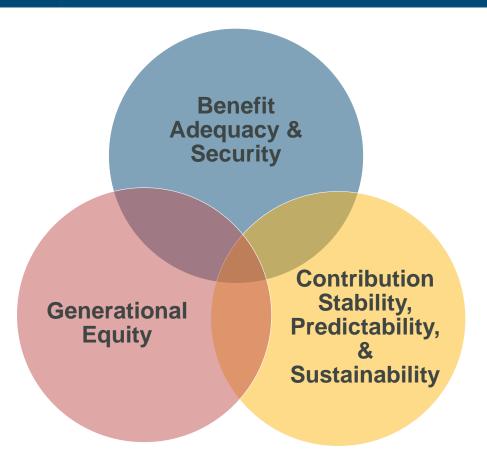


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Any Solution Must Balance Competing Objectives





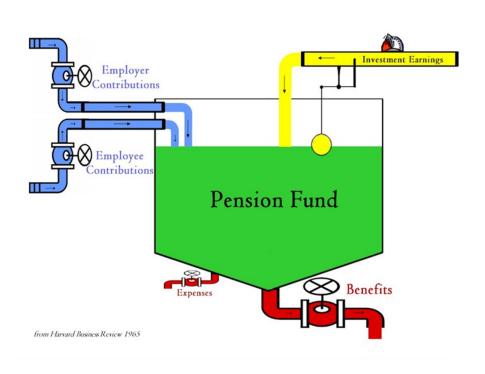


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Pension Systems





Contributions

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Investment Returns

Benefits

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Expenses



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Cheiron's Preliminary Recommendations



- City's fixed rate contribution needs to move to an Actuarially Determined Contribution (ADC)
- Member contribution rate shouldn't increase any further and may need to decrease over time
- Member benefits
 - No change recommended to the benefit multiplier (2.5%) or retirement age (58)
 - Consider granting some COLAs sooner to protect the adequacy of retirees' lifetime income and to be competitive with other public safety plans



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Key Considerations for Alternative Scenarios



- Benefits need to be competitive
 - Not too high
 - Not too low
- Contributions need to be sufficient to meet funding guidelines
- Automatic adjustment mechanisms
 - Meeting funding guidelines now doesn't guarantee meeting them in the future
 - Current COLA provides some adjustment, but expected to be 0% for decades
 - Member and City contributions need to adjust to circumstances
- Any significant contribution adjustments should be in steps to allow time to adjust budgets

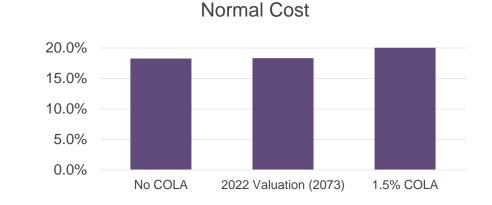


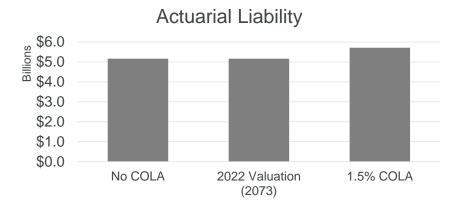
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Meeting Funding Requirements Increases COLA Liability



- Current COLA
 - Must be 70% funded
- 2022 Valuation COLA assumption
 - No COLA until 2073
 - Average COLA after 2073 = 1.5%
- Meeting funding requirements (30 years) necessitates exceeding 70% funded much earlier than 2073
 - COLA will be payable sooner
 - Liability & normal cost will thus increase





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City Contribution Considerations



- City contributions will need to increase and remain higher for some time
- Structural Options Considered
 - Increase fixed rate
 - Fixed rates do not automatically adjust to meet the needs of the system
 - May be too high or too low depending on the system's experience
 - Rates can be adjusted by the legislature, but the process is cumbersome
 - Not recommended.
 - Recommend Change to Actuarially Determined Contributions (ADC)
 - · Adjust annually for actual experience
 - Eliminates risk of not meeting funding requirements in Chapter 802
 - One-time cash infusion would reduce future contribution requirements
 - Not part of our recommendation, but does not conflict with our recommendation



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Employee Contribution Rates (Most Recent Tiers)

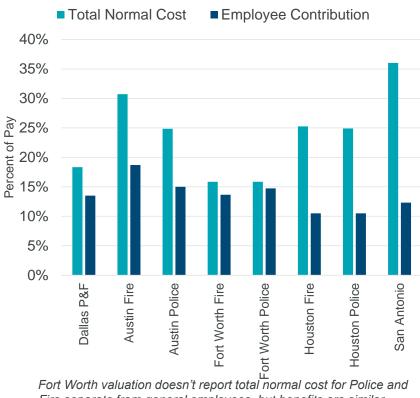


- Current DPFP employee contribution rate is over 70% of the total normal cost
 - Even higher percentage for new employees
 - Highest portion of normal cost in comparison group except for Fort Worth
 - Average of group is about 60%
 - Reflecting current temporary increases due to funded status for some Systems
- Hard to reduce employee contributions until better funded
 - DPFP employee rate reduces to 50% of total normal cost once 100%+ funded
- Consider setting the employee contribution rate equal to 50% of total normal cost plus an additional amount based on funded ratio
 - Current rate remains the same
 - As funding improves, employee contribution rate would gradually decline

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Employee Contributions vs Normal Cost



Fire separate from general employees, but benefits are similar.

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Benefit Change Considerations



- Benefits have already been reduced
 - 2011 reductions members hired after March 1, 2011
 - 2017 reductions
 - Benefit multiplier reduced and retirement age increased (service after September 1, 2017)
 - · Supplemental benefit eliminated
 - COLA eliminated until 70% funded
- Key benefit changes considered
 - Multiplier
 - Currently maximum of 2.50%
 - · Could further reduce (e.g., to 2.25%) for future service, but not recommended
 - No increase considered
 - Retirement age
 - Full benefits currently available at age 58
 - · Could extend (e.g., to age 60) for future service, but not recommended
 - No earlier normal retirement age considered
 - COLA currently projected to remain 0% until 2073
 - · No further reductions considered
 - May consider providing some COLA earlier



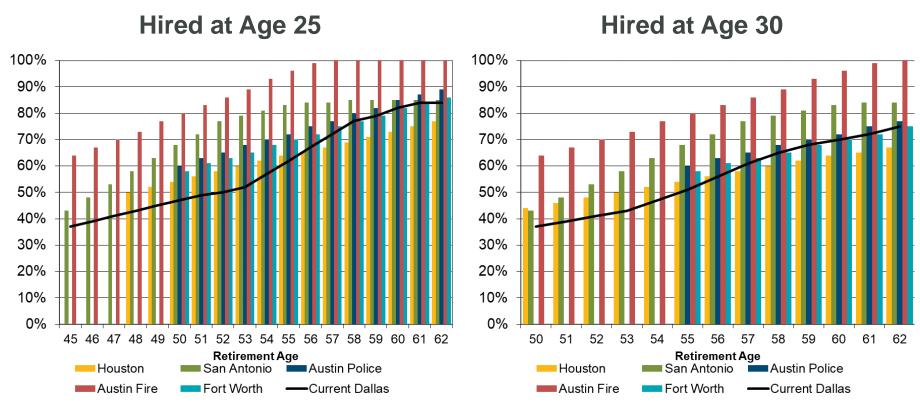
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Income Replacement Ratios* – Most Recent Safety Tiers





Fort Worth Police can retire after 25 years of service, but Fire must satisfy the Rule of 80

*Income replacement ratios are at retirement and do not reflect COLAs after retirement



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COLA Considerations



- DPFP members are not covered by Social Security
 - Social Security would provide a base level of benefit that is fully indexed to inflation
 - DPFP benefits are generally higher than Social Security at retirement, but DPFP benefits currently have no adjustment for inflation expected for 20+ years
- Lack of COLA may be an issue in attraction and retention of employees
- Current funding situation makes it difficult to provide a full COLA immediately
 - Consider an option to make some COLA available earlier



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Other System COLAs – Most Recent Tier



- Austin
 - Police no COLAs permissible unless statutes amended by Legislature
 - Fire ad hoc COLAs based on affordability under Board's COLA policy
- Ft. Worth no COLA permissible without Legislative action
- Houston
 - Five-year average return minus 4.75%/5.00% (Fire/Police)
 - Minimum = 0.0%
 - Maximum = 4.0%
 - No funded ratio requirement
- San Antonio Fire & Police
 - 75% of CPI
 - Possible additional payments
 - 13th check if five-year average return exceeds assumption by at least 100 basis points
 - 14th check if five-year average return exceeds assumption by at least 300 basis points



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Overview of Recommended Alternative Scenarios



	1	2	3			
Scenario	Graded ADC	Graded ADC Adjustable EE Rate	Graded ADC Adjustable EE Rate Partial COLA			
City Contribution	Actuarially Determined Contribution Layered amortization grading up over a short period and back down at the end of 30 years					
Employee Contribution	13.5%	50% of normal cost + additional contribution depending on funded ratio				
COLA	Five-year retu If 70% Not more	Five-year return minus 5% times funded ratio Not more than 4%				
Benefit Multiplier (2.5%)	No Changes Recommended					
Retirement Age (58)	No Changes Recommended					



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Actuarially Determined Contribution (ADC)



- Current fixed rate implicitly pays:
 - City's normal cost rate
 - City's expected cost of benefits attributable to the current year of service
 - An amount towards the Unfunded Actuarial Liability (UAL)
 - UAL payment is thus the excess of fixed rate over the City's normal cost rate
 - UAL payment is independent of actual UAL
- An ADC consists of the City's normal cost contribution plus an explicitly calculated payment on the UAL
 - Set City's normal cost as a percentage of pay
 - Designed to be a percentage of pay
 - Set City UAL payment as a dollar amount based on the amortization schedule
 - Designed to pay off UAL over a specified period
 - · Independent of actual payroll



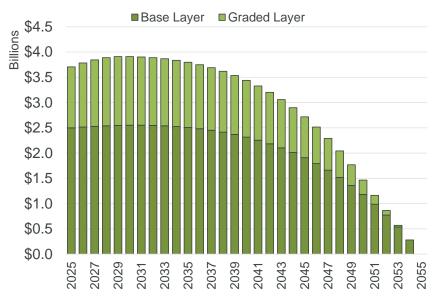
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UAL Amortization Schedule

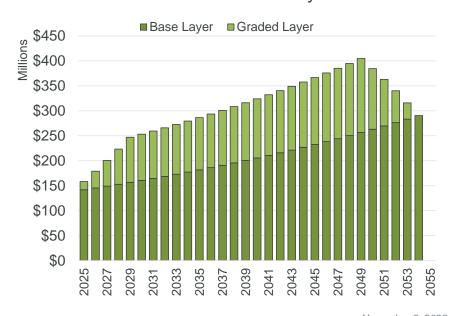


- Recommend amortizing the current UAL in two layers
 - 30-year layer approximating current fixed rate contributions
 - Graded layer that steps into the full contribution over as short a period as financially possible and grades down at the end of the period. We modeled a five-year grading period
 - See appendix for description of schedule for future layers

Remaining UAL Balance



UAL Amortization Payments



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Projected 2025 City Contribution



- 2024 City Contribution
 - Last year of current additional \$13 million payments
 - City normal cost reflects expectation of no COLAs until 2073
- 2025 Recommended City Contribution (Scenario 1)
 - Step increase from 2024 contribution
 - Normal cost increases reflecting expectation of COLA paid earlier
 - City's normal cost contribution is a percent of pay, but the UAL contribution is a dollar amount independent of actual payroll

Projected 2025 City Contribution Current vs. Recommended Scenario 1



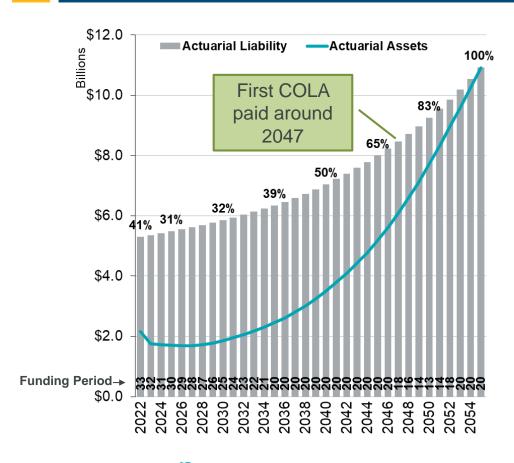


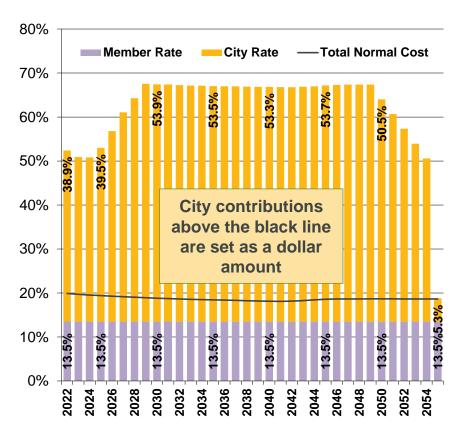
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Scenario 1 – Graded ADC









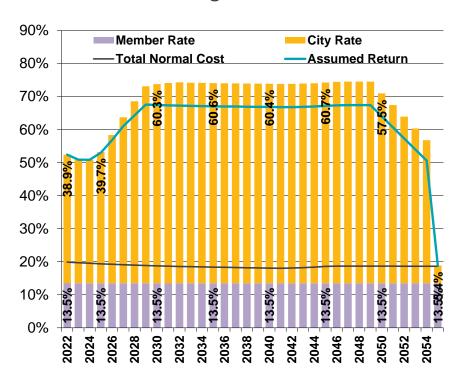
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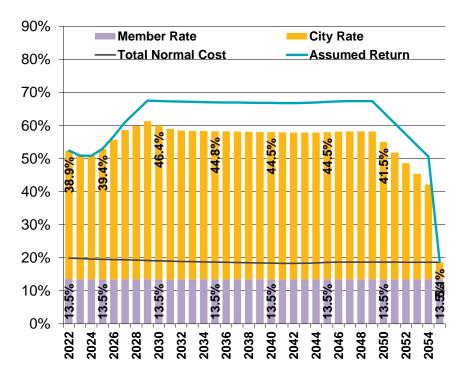
Scenario 1 – Contribution Sensitivity to Investment Returns



Very Poor Returns
2023 through 2027 = -1.0%



Very Good Returns 2023 through 2027 = 14.0%



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Scenario 2 – Adjustable Employee Contribution Rate



- Set base employee contribution rate to 50% of the normal cost rate applicable for members hired on/after March 1, 2011
 - Similar to current law once System is fully funded
 - Round to nearest 0.5%
 - 8.5% for this scenario
- Add adjustment designed to maintain current 13.5% contribution rate initially, with rate decreases as the System becomes better funded
- Adjustments proposed for this scenario shown in the table below:

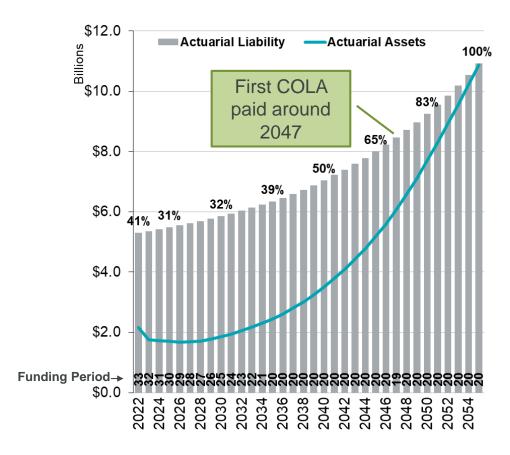
Funded Ratio	<45%	45- 49%	50- 54%	55- 59%	60- 64%	65- 69%		75- 79%	80- 84%	85- 89%	90%+
EE Rate Adjustment	5.0%	4.5%	4.0%	3.5%	3.0%	2.5%	2.0%	1.5%	1.0%	0.5%	0%

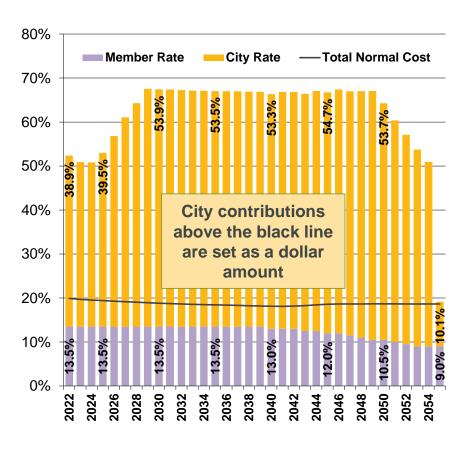


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Scenario 2 – Graded ADC / Adjustable EE Rate









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Scenario 3 – Partial COLA



- Current COLA is not payable until System reaches 70% funded ratio
 - Projected to be in 2040s even with recommended additional City contributions
- Consider a partial COLA option
 - Eliminate funded ratio threshold
 - Multiply COLA by funded ratio ([5-yr return 5.0%] x funded ratio up to 100%)
 - Keep maximum COLA of 4.0%
- Observations
 - Partial COLA available immediately
 - Only paid when investment returns support it, and Board approves
 - Lower COLA than current COLA provisions when between 70% and 100% funded



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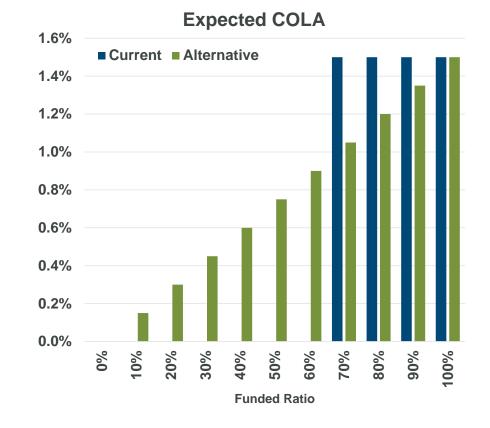
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COLA Option Comparison



- When current COLA is available (>70% funded), it is expected to be 1.5%
 - 6.5% expected return minus 5.0%
- Alternative COLA is always available, but the expected 1.5% COLA is multiplied by the funded ratio (up to 100%)
 - Higher than current COLA when less than 70% funded
 - Lower than current COLA when 70% to 100% funded
- Both COLA options
 - Based on 5-year average returns
 - Minimum = 0.0%
 - Maximum = 4.0%



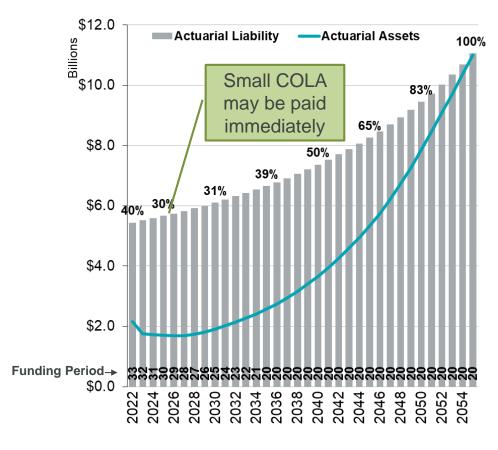


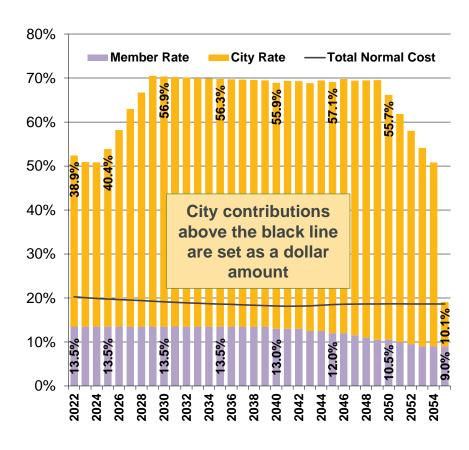
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Scenario 3 – Graded ADC / Adjustable EE Rate / Partial COLA









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Summary of Recommended Alternative Scenarios



	1	2	3			
Scenario	Graded ADC	Graded ADC Adjustable EE Rate	Graded ADC Adjustable EE Rate Partial COLA			
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Employee Contribution	13.5%	50% of normal cost + additional contribution depending on funded ratio				
COLA	Five-year retu If 70% Not more	Five-year return minus 5% times funded ratio Not more than 4%				
Benefit Multiplier (2.5%)	No Changes Recommended					
Retirement Age (58)	No Changes Recommended					



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Questions







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Certification



- The purpose of this presentation is to present the initial independent actuarial analysis providing alternative benefit and contribution scenarios that comply with the requirements of Texas Government Code Section 802 to the Dallas Police and Fire Pension System Board. The initial analysis is based on our replication of the 2022 actuarial valuation performed by Segal.
- In preparing our presentation, we relied on information, some oral and some written, supplied by the Dallas Police and Fire Pension System. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23. A summary of the data, assumptions, methods, and plan provisions used to prepare our analysis can be found in Segal's 2022 actuarial valuation report supplemented by additional information in the appendix of this presentation.
- Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.
- This presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.
- This presentation was prepared exclusively for the Dallas Police and Fire Pension System Board for the purpose described herein. This presentation is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

William R. Hallmark, ASA, EA, FCA, MAAAA Consulting Actuary Elizabeth Wiley, FSA, EA, FCA, MAAA Consulting Actuary Jake Libauskas, FSA, EA, FCA, MAAA Consulting Actuary



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Appendix – Basis for Analysis



- The preliminary analysis shown in this presentation is based on the data, assumptions, methods, and plan provisions as summarized in Segal's January 1, 2022 actuarial valuation
- In addition, the following assumptions were used, unless otherwise noted:
 - Investment return for 2022: -13.0%
 - Investment return for 2023 and thereafter: 6.5%
 - Payroll growth of 2.5% per year
- The final analysis will be based on Segal's January 1, 2023 actuarial valuation, which will differ due to:
 - Asset and liability experience during 2022
 - Any assumption or plan changes that differ from those used for the 2022 valuation
- As a result, cost estimates and projections in the final analysis are likely to differ from those presented in this preliminary analysis
- This analysis would be materially changed if the System receives an adverse result in pending litigation on annual benefit adjustments

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Appendix – Models



- Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.
- Deterministic projections in this report were developed using *P-Scan*, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the System.
- P-Scan uses standard roll-forward techniques that implicitly assume a stable active population. Because P-Scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.



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Appendix – 2022 Valuation Replication



Present	Val	lue of B	ene	fits	
		Segal	С	heiron	Percent Difference
Actives					
Hired Before 3/1/2011	\$	1,807	\$	1,818	0.6%
Hired On/After 3/1/2011		486		490	0.8%
Retirees & Beneficiaries		3,554		3,551	-0.1%
Inactive Members	_	27		26	-2.5%
Total	\$	5,875	\$	5,885	0.2%
Actı	ıari	al Liabi	lity		
Actives					
Hired Before 3/1/2011	\$	1,434	\$	1,441	0.5%
Hired On/After 3/1/2011		143		147	2.6%
Retirees & Beneficiaries		3,554		3,551	-0.1%
Inactive Members		27		26	-2.5%
Total	\$	5,159	\$	5,165	0.1%

N	orm	al Cost			
	5	Segal	Cł	neiron	Percent Difference
Hired Before 3/1/2011	\$	47.4	\$	47.5	0.2%
Hired On/After 3/1/2011		27.2		26.3	-3.4%
Total Normal Cost	\$	74.7	\$	73.8	-1.1%
Total Normal Cost with interest to reflect mid-year contribution timing	\$	77.0	\$	76.2	-1.1%
Payroll	\$	437.0	\$	437.3	0.1%
Normal Cost Rate					
Hired Before 3/1/2011		18.7%		18.7%	0.0%
Hired On/After 3/1/2011		16.0%		15.5%	-0.5%
Total Normal Cost Rate		17.6%		17.4%	-0.2%

Amounts in Millions

Amounts in Millions

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Appendix – Recommended UAL Payment Structure



Structure and Initial Layers

- Layered amortizations with 2.5% rate of annual payment increases
 - Separate amortization layer for each year of experience, assumption changes, and plan changes
- Start with two initial layers that add up to the full UAL
 - 30-year base layer approximating the current UAL payment
 - Graded layer that steps into the full contribution over as short of a period as financially possible and grades back down at the end of 30 years

Future Amortization Layers

- Experience and assumption changes = Maximum of 20 years or remaining period on base layer
 - Prevents any gains from being amortized faster than the base layer
- Plan changes
 - Active employees = Average future service of those affected by change or 15 years
 - Retirees = Average remaining lifetime of those affected by change or 10 years
- · Lump sum contributions
 - In first four years, first reduce or eliminate any remaining graded increases
 - After four years or after future graded increases have been eliminated, reduce the base layer



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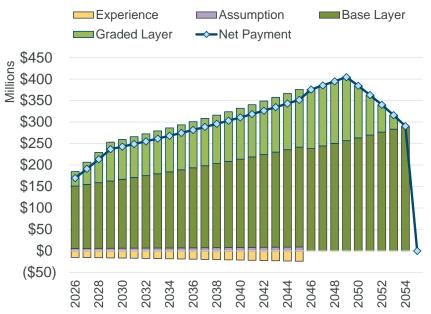
Appendix – Layered Amortization Illustration – 2nd Year



Make first year's payment. Add a new closed layer amortizing any new gains or losses and another layer for any assumption changes.

Remaining UAL Balance ■ Assumption **Experience** Graded Layer ■ Base Layer \$4.5 Billions →Net Remaining Balance \$4.0 \$3.5 \$3.0 \$2.5 \$2.0 \$1.5 \$1.0 \$0.5 \$0.0 (\$0.5)2036 2040 2042 2044 2034 2038

UAL Amortization Payments



Hypothetical experience and assumption layer for illustrative purposes

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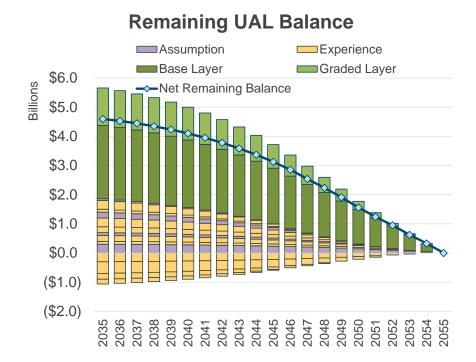
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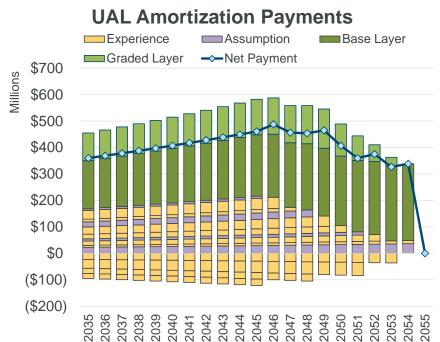
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Appendix – Layered Amortization Illustration – 10 Years Later



Repeat process. The different layers tell the history of the system.





Hypothetical experience and assumption layers for illustrative purposes

November 9, 2023

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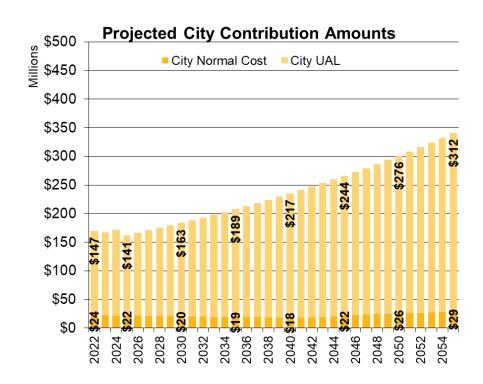
HEIRON

36

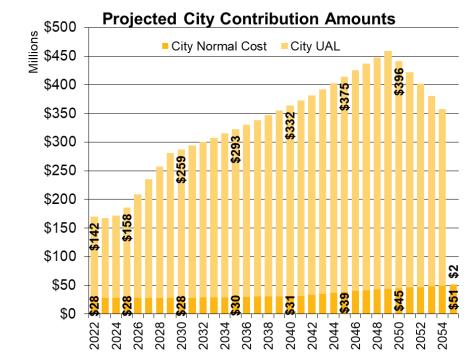
Projected City Contribution Amounts



2022 Actuarial Valuation



Scenario 1: Graded ADC



November 9, 2023

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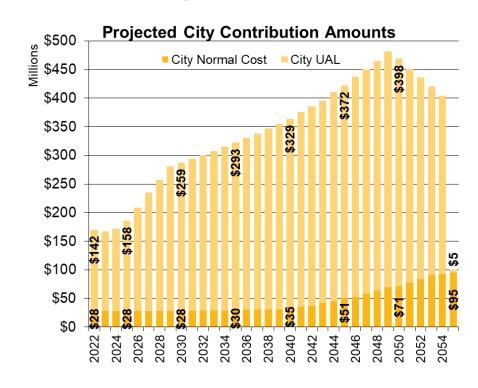
CHEIRON

Classic Values, Innovative Advice

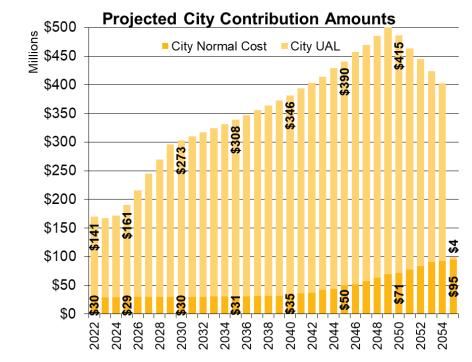
Projected City Contribution Amounts



Scenario 2 – Graded ADC Adjustable EE Rate



Scenario 3 – Graded ADC Adjustable EE Rate / Partial COLA



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ITEM #C2

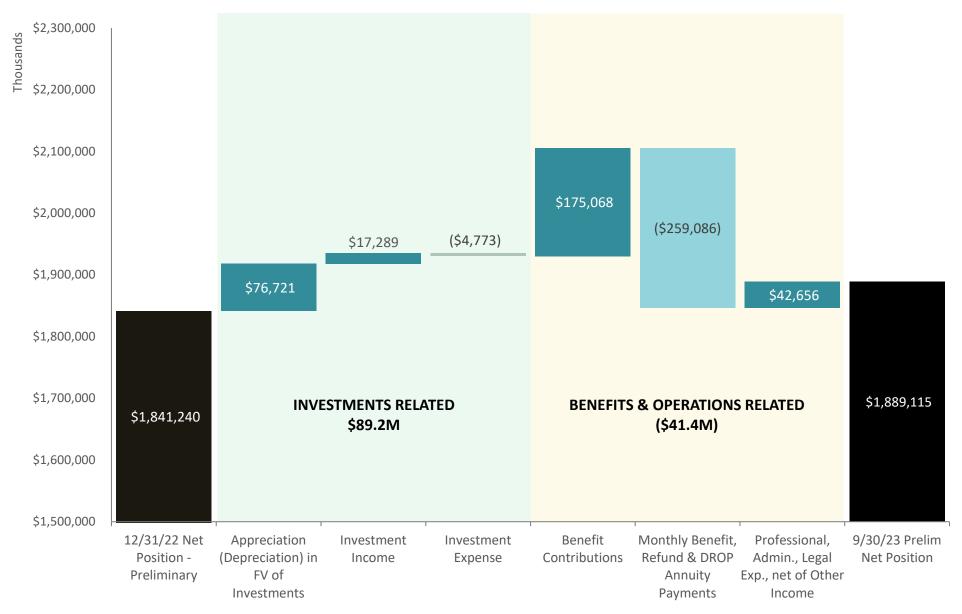
Topic: Quarterly Financial Reports

Discussion: The Chief Financial Officer will present the third quarter 2023 financial

statements.

Change in Net Fiduciary Position

PRELIMINARY - December 31, 2022 - September 30, 2023



Components may not sum exactly due to rounding.

DALLAS POLICE & FIRE PENSION SYSTEM Combined Statements of Fiduciary Net Position

	Sej	otember 30, 2023	PRELIMINARY ecember 31, 2022		\$ Change	% Change
Assets						
Investments, at fair value						
Short-term investments	\$	17,496,421	\$ 14,890,840	\$	2,605,581	17%
Fixed income securities		343,518,249	321,363,734		22,154,515	7%
Equity securities		940,079,347	826,996,060		113,083,287	14%
Real assets		301,221,979	347,647,569		(46,425,590)	-13%
Private equity		236,292,473	237,488,864		(1,196,391)	-1%
Forward currency contracts		(32)	(970)		938	-97%
Total investments		1,838,608,437	1,748,386,097		90,222,340	5%
Receivables						
City		1,881,885	5,140,929		(3,259,044)	-63%
Members		688,382	1,819,338		(1,130,956)	-62%
Interest and dividends		4,225,454	3,788,204		437,250	12%
Investment sales proceeds		2,799,386	1,152,406		1,646,980	143%
Other receivables		57,681	49,887		7,794	16%
Total receivables		9,652,788	11,950,764		(2,297,976)	-19%
Cash and cash equivalents		38,311,629	75,285,576		(36,973,947)	-49%
Prepaid expenses		576,685	403,166		173,519	43%
Capital assets, net		11,436,602	11,605,932		(169,330)	-1%
Total assets	\$	1,898,586,141	\$ 1,847,631,535	\$	50,954,606	3%
Liabilities						
Payables						
Securities purchased		5,355,526	1,138,945		4,216,581	370%
Accounts payable and other accrued liabilities		4,115,313	 5,252,748		(1,137,435)	-22%
Total liabilities		9,470,839	 6,391,693		3,079,146	48%
Net position restricted for pension benefits	\$	1,889,115,302	\$ 1,841,239,842	* \$	47,875,460	3%

^{*}The ending period amounts are preliminary and may change as the 2022 results are finalized.

DALLAS POLICE & FIRE PENSION SYSTEM Combined Statements of Changes in Fiduciary Net Position

		ne Months Ended otember 30, 2023	e Months Ended otember 30, 2022	\$ Change	% Change
Contributions	'	_	_		
City	\$	128,268,252	\$ 127,060,334	\$ 1,207,918	1%
Members		46,799,948	 44,652,558	 2,147,390	5%
Total Contributions		175,068,200	171,712,892	3,355,308	2%
Investment income					
Net appreciation (depreciation) in fair value of					
investments		76,721,262	(339,528,202)	416,249,464	123%
Interest and dividends		17,288,663	 16,441,751	 846,912	5%
Total gross investment income		94,009,925	(323,086,451)	417,096,376	129%
less: investment expense		(4,772,719)	 (6,642,412)	 1,869,693	28%
Net investment income		89,237,206	(329,728,863)	418,966,069	127%
Other income		47,625,801	2,259,735	45,366,066	2008%
Total additions		311,931,207	 (155,756,236)	467,687,443	300%
Deductions					
Benefits paid to members		255,233,628	248,469,394	6,764,234	3%
Refunds to members		3,852,709	2,892,205	960,504	33%
Legal expense		157,675	266,133	(108,458)	-41%
Legal expense reimbursement		-	-	-	0%
Legal expense, net of reimbursement		157,675	266,133	 (108,458)	-41%
Staff Salaries and Benefits		2,651,001	2,574,994	76,007	3%
Professional and administrative expenses		2,160,734	1,983,122	177,612	9%
Total deductions		264,055,747	256,185,848	 7,869,899	3%
Net increase (decrease) in net position		47,875,460	(411,942,084)		
Beginning of period		1,841,239,842	2,176,501,141		
End of period	\$	1,889,115,302	\$ 1,764,559,057		



ITEM #C3

Topic: Board Officers Election

Discussion: The Board Vice Chairman (William Quinn) and the Board Deputy Vice

Chairman (Armando Garza) are no longer on the Board of Trustees. Board

action is needed to elect their replacements.

Recommendation: Elect a Vice Chairman and Deputy Vice Chairman.



ITEM #C4

Topic: Report on Professional Services Committee Meeting

Discussion: According to the Committee Policy and Procedure, the Professional Services

Committee is responsible for meeting privately with the external service providers, without DPFP staff present, at a minimum on an annual basis. The purpose of such a meeting is to provide a forum for the service provider to

provide candid comments to the Professional Services Committee.

The Professional Service Committee met separately with Leandro Festino and

Aaron Lally of Meketa on October 25, 2023 and Jeff Williams of Segal

November 9, 2023.

Staff

Recommendation: The Professional Services Committee shall report to the Board any material

comments and recommend to the Board any appropriate actions needed as a

result of the meetings with Meketa and Segal.



ITEM #C5

Topic: Second Reading and Discussion of the 2024 Budget

Discussion: Attached is the budget proposal for Calendar Year 2024.

The budget has been prepared in total for both the Combined Pension Plan and the Supplemental Plan. Total expenses are then allocated to the Supplemental Plan based upon the Group Trust allocation reported by JPMorgan.

Significant changes from the prior year's budget and/or projected 2023 actual expenses are explained in the comments accompanying the proposed budget.

The first reading of the proposed budget was at the October 12, 2023, Board meeting. The proposed budget was posted on the DPFP website on October 17, 2023, and submitted to the City of Dallas for comment.

The following two changes have been made to the 2024 proposed budget since the first reading.

- Added \$550,000 for the IT project discussed at the October board meeting
- Added \$75,000 for a custodian search consultant

Staff

Recommendation: Approve the proposed 2024 budget.

DALLAS POLICE AND FIRE PENSION SYSTEM OPERATING BUDGET SUMMARY FOR THE YEAR 2024

				Varianc	es	Varian	ces
				2024 2023		2024	2023
				Budget vs	Budget	Budget vs	Proj. Act.
Expense Type	2023 Budget	2023 Projected Actual	2024 Budget	\$	%	\$	%
Administrative Expenses	6,190,265	5,508,986	6,166,096	(24,169)	(0.4%)	657,110	11.9%
Investment Expenses	10,770,886	9,618,661	9,647,817	(1,123,069)	(10.4%)	29,156	0.3%
Professional Expenses	1,277,050	1,226,853	1,600,950	323,900	25.4%	374,097	30.5%
Total	\$ 18,238,201	\$ 16,354,500	\$ 17,414,863	\$ (823,338)	(4.5%)	\$ 1,060,363	6.5%

Dallas Police & Fire Pension System Operating Budget Calendar Year 2024

		2023	2024	\$ Change	% Change	\$ Change	% Change						
Description	2023	Projected	Proposed	2024 Prop. Bud.	2024 Prop. Bud.	2024 Prop. Bud.	2024 Prop. Bud.						
	Budget	Actual*	Budget	vs. 2023 Bud.	vs. 2023 Bud.	vs. 2023 Proj. Actual	vs. 2023 Proj. Actual						
Administrative Expenses			_ uugu	10.2020 200.	10.2020 200.		10.12020110,17101000						
1 Salaries and benefits	3,709,489	3,569,370	3,674,704	(34,785)	(0.9%)	105,334	3.0%						
2 Employment Expense	46,350	78,136	26,350	(20,000)	(43.1%)	(51,786)	(66.3%)						
3 Memberships and dues	20,201	19,867	20,276	75	0.4%	409	2.1%						
4 Staff meetings	500	-	500	-	0.0%	500	100.0%						
5 Employee service recognition	5,000	3,188	4,000	(1,000)	(20.0%)	812	25.5%						
6 Member educational programs	3,350	· -	3,350	-	0.0%	3,350	100.0%						
7 Board meetings	4,420	1,644	2,700	(1,720)	(38.9%)	1,056	64.2%						
8 Conference registration/materials - Board	12,000	5,000	12,000	-	0.0%	7,000	140.0%						
9 Travel - Board	22,000	4,719	22,000		0.0%	17,281	366.2%						
10 Conference/training registration/materials - Staff	33,200	15,376	31,000	(2,200)	(6.6%)	15,624	101.6%						
11 Travel - Staff	44,700	33,076	43,300	(1,400)	(3.1%)	10,224	30.9%						
12 Liability insurance	888,533	573,072	558,990	(329,543)	(37.1%)	(14,082)	(2.5%)						
13 Communications (phone/internet)	21,180	18,861	30,528	9,348	44.1%	11,667	61.9%						
14 Information technology projects	190,000	159,107	635,000	445,000	234.2%	475,893	299.1%						
15 IT subscriptions/services/licenses	239,860	137,681	194,615	(45,245)	(18.9%)	56,934	41.4%						
16 IT software/hardware	25,000	9,040	25,000	-	0.0%	15,960	176.5%						
17 Building expenses	459,697	473,460	464,120	4,423	1.0%	(9,340)	(2.0%)						
18 Repairs and maintenance	94,582	92,676	108,709	14,127	14.9%	16,033	17.3%						
19 Office supplies	28,475	21,639	29,025	550	1.9%	7,386	34.1%						
20 Leased equipment	25,000	21,857	25,000	-	0.0%	3,143	14.4%						
21 Postage	29,746	16,510	20,700	(9,046)	(30.4%)	4,190	25.4%						
22 Printing	4,350	4,884	5,100	750	17.2%	216	4.4%						
23 Subscriptions	2,506	2,752	2,881	375	15.0%	129	4.7%						
24 Records storage	2,179	2,863	3,000	821	37.7%	137	4.8%						
25 Administrative contingency reserve	12,000	173	12,000	ı	0.0%	11,827	6836.4%						
27 Depreciation Expense	240,947	236,325	201,248	(39,699)	(16.5%)	(35,077)	(14.8%)						
28 Bank fees	25,000	7,710	10,000	(15,000)	(60.0%)	2,290	29.7%						
Investment Expenses													
29 Investment management fees	9,375,000	8,527,423	8,292,000	(1,083,000)	(11.6%)	(235,423)	(2.8%)						
30 Investment consultant and reporting	455,000	396,429	553,000	98,000	21.5%	156,571	39.5%						
31 Bank custodian services	235,000	218,009	235,000	-	0.0%	16,991	7.8%						
32 Other portfolio operating expenses (legal, valuation, tax)	644,500	430,590	512,000	(132,500)	(20.6%)	81,410	18.9%						
33 Investment due diligence	61,386	46,210	55,817	(5,569)	(9.1%)	9,607	20.8%						
Professional Services Expenses													
34 Actuarial services	159,500	159,500	397,750	238,250	149.4%	238,250	149.4%						
35 Accounting services	61,950	59,000	61,950	-	0.0%	2,950	5.0%						
36 Independent audit	115,000	130,000	143,300	28,300	24.6%	13,300	10.2%						

Dallas Police & Fire Pension System Operating Budget Calendar Year 2024

		2023	2024	\$ Change	% Change	\$ Change	% Change
Description	2023	Projected	Proposed	2024 Prop. Bud.	2024 Prop. Bud.	2024 Prop. Bud.	2024 Prop. Bud.
	Budget	Actual*	Budget	vs. 2023 Bud.	vs. 2023 Bud.	vs. 2023 Proj. Actual	vs. 2023 Proj. Actual
37 Legal fees	180,000	165,636	200,000	20,000	11.1%	34,364	20.7%
38 Legislative consultants	159,000	159,000	168,000	9,000	5.7%	9,000	5.7%
39 Public relations	-	-			100.0%	-	100.0%
40 Pension administration software & WMS	292,000	293,052	309,000	17,000	5.8%	15,948	5.4%
41 Business continuity	14,000	13,700	38,000	24,000	171.4%	24,300	177.4%
42 Network security monitoring	180,000	217,591	225,000	45,000	25.0%	7,409	3.4%
43 Disability medical evaluations	16,250	1,000	7,000	(9,250)	(56.9%)	6,000	600.0%
44 Elections	15,250	11,863	-	(15,250)	(100.0%)	(11,863)	(100.0%)
45 Miscellaneous professional services	84,100	16,511	50,950	(33,150)	(39.4%)	34,439	208.6%
Total Budget	18,238,201	16,354,500	17,414,863	(823,338)	(4.5%)	1,060,363	6.5%
Less: Investment management fees	9,375,000	8,527,423	8,292,000	(1,083,000)	(11.6%)	(235,423)	(2.8%)
Adjusted Budget Total	8,863,201	7,827,077	9,122,863	259,662	2.9%	1,295,786	16.6%

SUPPLEMENTAL BUDGET

Total Budget (from above)	18,238,201	16,354,500	17,414,863	(823,338)	(4.5%)	1,060,363	6.5%
Less: Allocation to Supplemental Plan Budget**	155,207	141,630	150,813	(4,394)	(2.8%)	9,183	6.5%
Total Combined Pension Plan Budget	18,082,994	16,212,870	17,264,050	(818,944)	(4.5%)	1,051,180	6.5%

^{*} Projected based on 7/31/23 YTD annualized or estimated

0.87% per JPM Unitization report as of 7/31/23

^{**} Allocation to Supplemental is based on JPM allocation between accounts as of 7/31/23 of .0087%

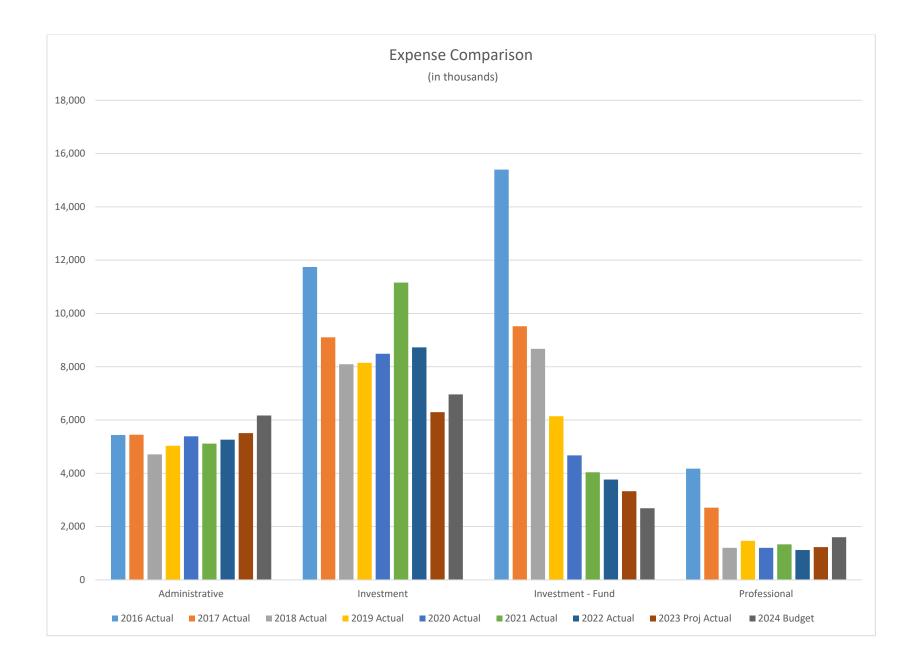
Significant Budget Changes - 2024 Budget Changes (>5% and \$25K) SORTED BY THE \$ CHANGE FROM 2023 BUDGET TO 2024 BUDGET

		2023	2023	2024	\$ Change	% Change	\$ Change	% Change	
	Item	Budget	Projected Actual**	Budget	2024 Budget vs. 2023 Bud.	2024 Budget vs. 2023 Bud.	2024 Budget vs. 2023 Proj. Act.	2024 Budget vs. 2023 Proj. Act.	Explanation
	W0054050								
	INCREASES:	400.000	159.107	635.000	445.000	234.2%	475.893	299.1%	A 15 75 15 15 15 15 15 15 15 15 15 15 15 15 15
1	Information technology projects	190,000	159,107	635,000	445,000	234.2%	475,893	299.1%	A new digital imaging project is planned for 2024.
2	Actuarial services	159,500	159,500	397,750	238,250	149.4%	238,250	149.4%	The increase reflects the actuarial work associated with the statutorily required independent actuarial analysis and additional actuarial work anticipated in 2024 ahead of the 2025 legislative session.
3	Investment consultant and reporting	455,000	396,429	553,000	98,000	21.5%	156,571	39.5%	The increase includes custodian consultant services and increased private markets services.
4	Network security monitoring	180,000	217,591	225,000	45,000	25.0%	7,409	3.4%	Some services budgeted in 2023 under subscriptions and licenses expenses are now included with the vCISO and vSOC services in Network Security Monitoring for the 2024 budget. The change in Network Security monitoring without the reallocation would have been a decline of \$27K or 15% in this account.
5	Independent audit	115,000	130,000	143,300	28,300	24.6%	13,300	10.2%	Independent audit services RFP will be issued in 2024 for the 2023 audit. Expect increases in quoted fees.
	REDUCTIONS:								
6	Investment management fees	9,375,000	8,527,423	8,292,000	(1,083,000)	(11.6%)	(235,423)	(2.8%)	Declines in budgeted fees due to negotiated Public Equity fee reductions, a higher allocation to passive equity and projected sales of legacy real assets investments.
7	Liability insurance	888,533	573,072	558,990	(329,543)	(37.1%)	(14,082)	(2.5%)	The reduction from the prior year budget reflects the Board decision after the 2023 budget was adopted to reduce the liability insurance coverage level.
8	Other portfolio operating expenses (legal, valuation, tax)	644,500	430,590	512,000	(132,500)	(20.6%)	81,410	18.9%	Expected fees related to some private equity investments are expected to decline.
9	IT subscriptions/services/licenses	239,860	137,681	194,615	(45,245)	(18.9%)	56,934	41.4%	Some services budgeted in 2023 under subscriptions and licenses expenses are now included with the vCISO and vSOC services in Network Security Monitoring for the 2024 budget. Without the reallocation of this expense IT subscriptions would have had an increase of \$27K or 11% YOY. Product licenses for workflow (an IT project in 2023) and upgraded Office 365 licenses for enhanced security would have accounted for the increase without the reallocation.
10	Depreciation Expense	240,947	236,325	201,248	(39,699)	(16.5%)	(35,077)	(14.8%)	Some capitalized expenses became fully depreciated in 2023 or will become fully depreciated in 2024 resulting in lower depreciation expense.
11	Miscellaneous professional services	84,100	16,511	50,950	(33,150)	(39.4%)	34,439	208.6%	Decreased budget for contract Communications consultant.

^{**} Projected based on 7/31/22 YTD annualized or estimated

Significant Budget Changes - 2024 Budget Changes (>5% and \$25K) SORTED BY THE \$ CHANGE FROM 2023 PROJECTED ACTUAL TO 2024 BUDGET

		2023	2023	2024	\$ Change	% Change	\$ Change	% Change	
	Item	Budget	Projected Actual**	Budget	2024 Budget vs. 2023 Bud.	2024 Budget vs. 2023 Bud.	2024 Budget vs. 2023 Proj. Act.	2024 Budget vs. 2023 Proj. Act.	Explanation
1	INCREASES: Information technology projects	190,000	159,107	635,000	445,000	234.2%	475,893	299.1%	A new digital imaging project is planned for 2024.
2	Actuarial services	159,500	159,500	397,750	238,250	149.4%	238,250	149.4%	The increase reflects the actuarial worked associated with the statutorily required independent actuarial analysis and additional actuarial work anticipated in 2024 ahead of the 2025 legislative session.
3	Investment consultant and reporting	455,000	396,429	553,000	98,000	21.5%	156,571	39.5%	Budgeted private markets services in 2023 did not occur, but have been rebudgeted for 2024. Also, includes fees for a custodian consultant services.
4	Other portfolio operating expenses (legal, valuation, tax)	644,500	430,590	512,000	(132,500)	(20.6%)	81,410	18.9%	Fees related to some private equity investments were less than expected in 2023 but are projected to increase in 2024.
5	IT subscriptions/services/licenses	239,860	137,681	194,615	(45,245)	(18.9%)	56,934	41.4%	Product licenses for workflow (an IT project in 2023) and upgraded Office 365 licenses for enhanced security are primarily responsible for increased costs in 2024.
6	Miscellaneous professional services	84,100	16,511	50,950	(33,150)	(39.4%)	34,439	208.6%	2023 budgeted communications services were not engaged. Rebudgeted for 2024 at a reduced amount.
7	Legal fees	180,000	165,636	200,000	20,000	11.1%	34,364	20.7%	Expected expenses based on current status of cases.
	REDUCTIONS:								
8	Employment Expense	46,350	78,136	26,350	(20,000)	(43.1%)	(51,786)	(66.3%)	Fewer open employee positions requiring agency fees expected in 2024.
9	Depreciation Expense	240,947	236,325	201,248	(39,699)	(16.5%)	(35,077)	(14.8%)	Some capitalized expenses will become fully depreciated in 2024 resulting in lower depreciation expense.





ITEM #C6

Topic: Financial Audit Status

Discussion: The Chief Financial Officer will provide a status update on the annual financial

audit.



ITEM #C7

Topic: Benefit Underpayment Notification

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 regarding an underpayment, notification of which is

required to be given to the Board under the Correction of Errors in Benefits

Payments Policy.



ITEM #C8

Topic: Required Training Manual Delivery

Discussion: Section 3.013(c) of Article 6243a-1 requires the Executive Director annually

deliver a training manual covering certain subject areas set forth in Section 3.013(b). The Executive Director will provide an overview of the contents, address new items in the manual and answer any questions concerning the

training manual.

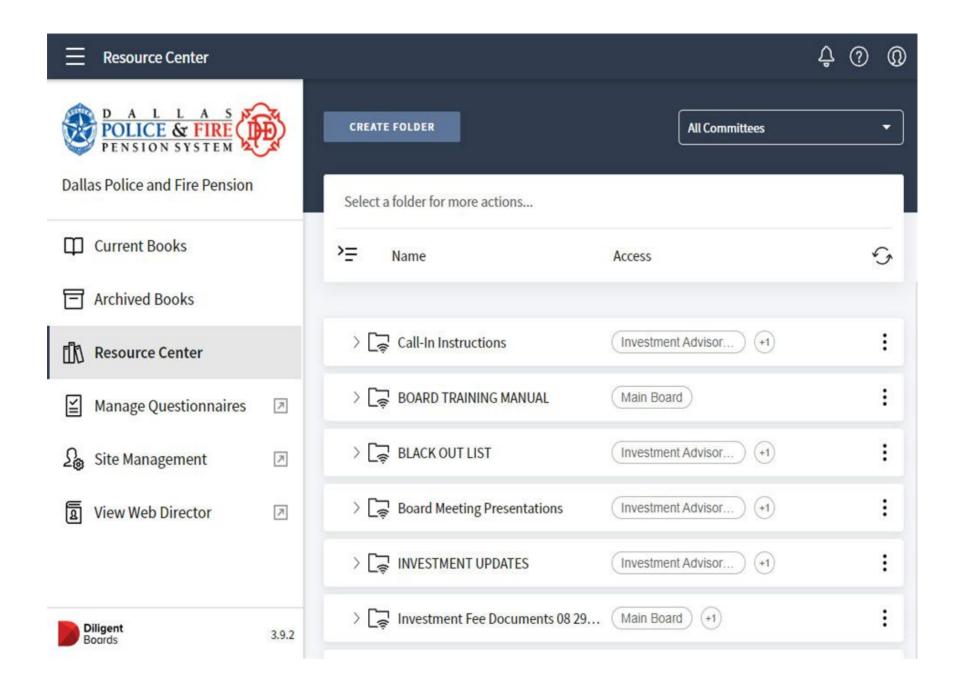
Trustees can access the training manual electronically through Diligent under

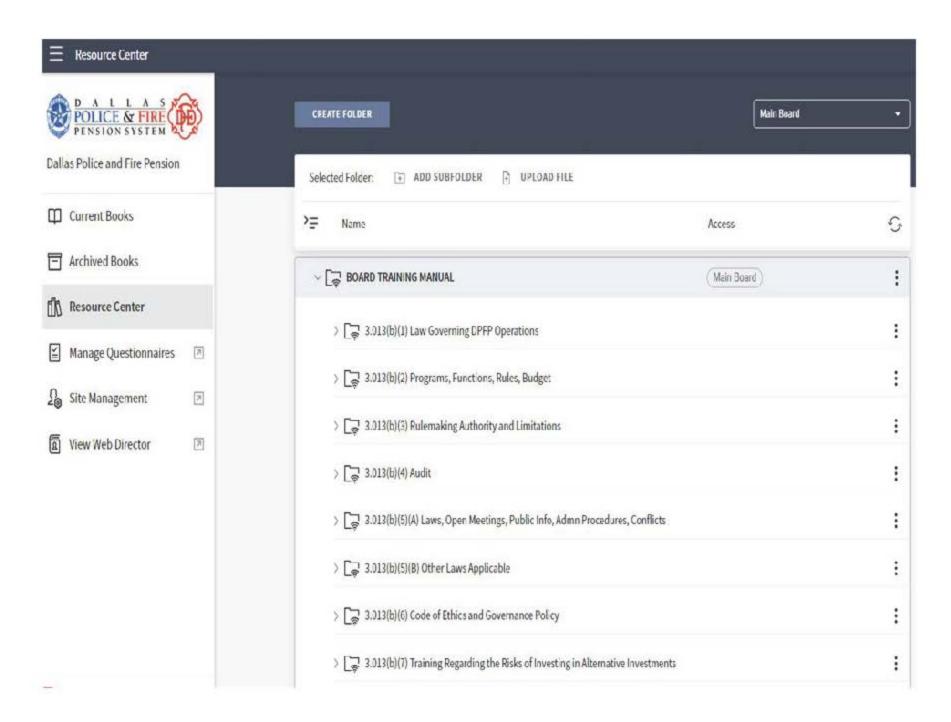
the Resource Center.

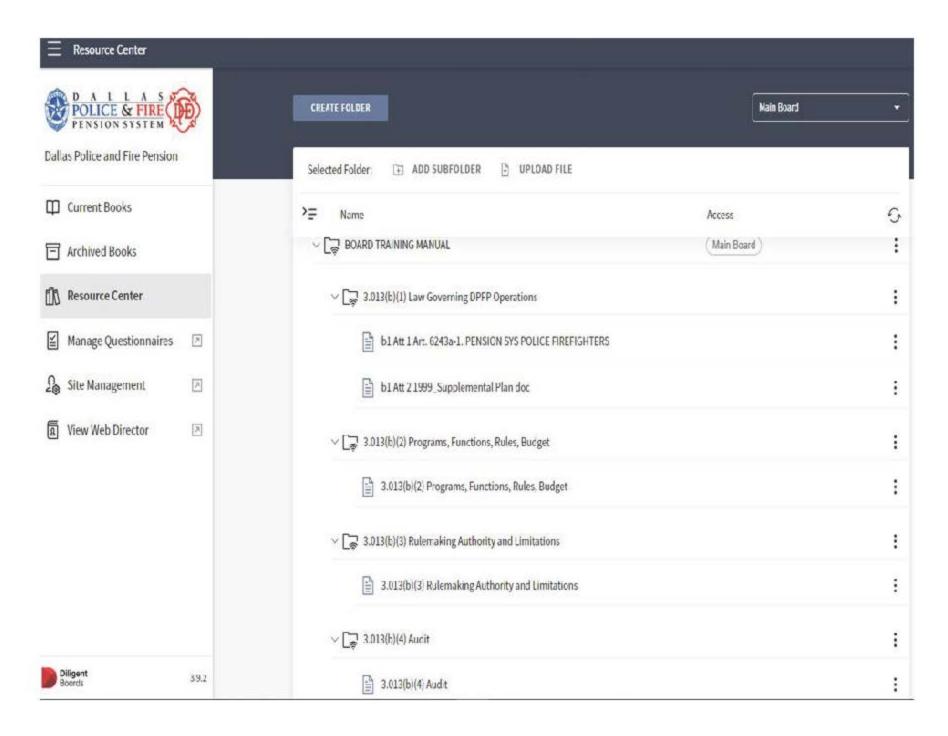
Staff

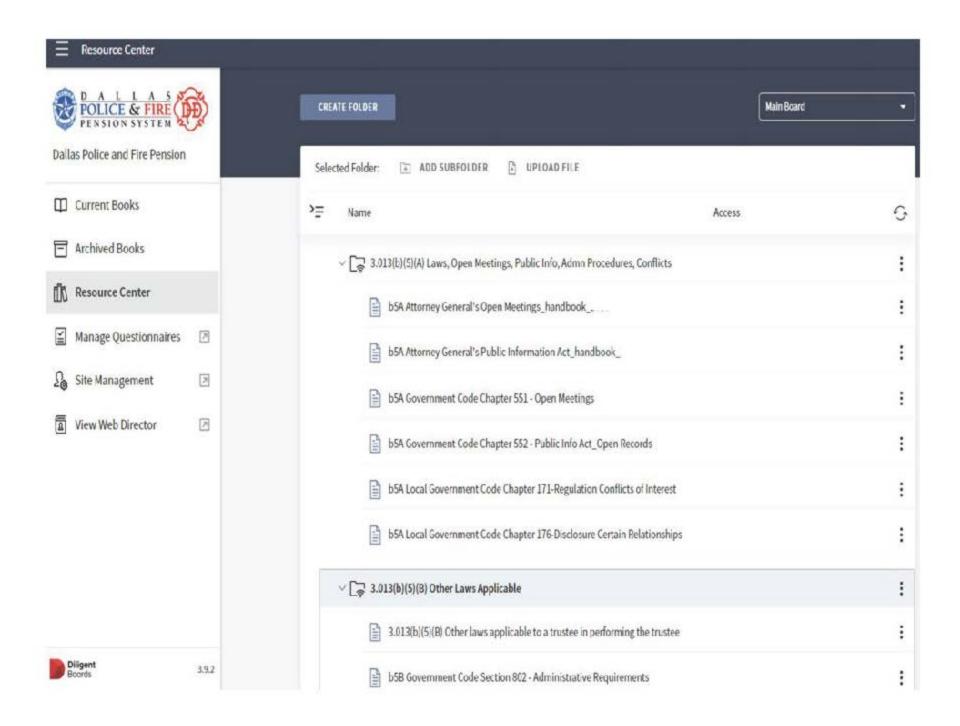
Recommendation: Acknowledgement by each Trustee of receipt of the training manual by signing

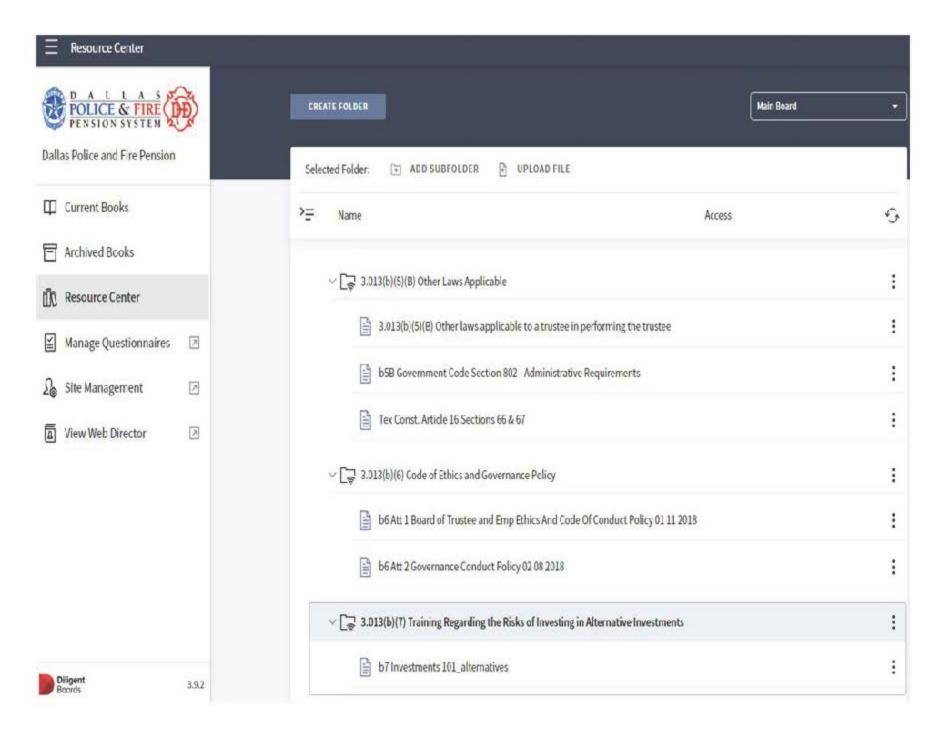
and submitting the Trustee acknowledgment form.













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.

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		265
DROP - Join	3	3	0	2	2	2	0	0	3	0	3		18
Estate Payments	0	5	7	5	1	2	4	92	5	3	5		129
Survivor Benefits	1	6	8	6	4	3	5	6	6	2	3		50
Retirements	12	16	11	14	11	12	10	13	10	17	6		132
Alternate Payees	0	2	1	0	2	3	1	3	2	0	0		14
Spouse Wed After Retirement	1	0	0	0	0	0	0	0	1	1	1		4
Service Purchases	2	0	0	1	0	2	0	1	0	0	2		8
Earnings Test	0	0	0	0	0	9	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 and October is due to the Refund Project

87 of the Estate Payments in August are approvals for the Pending Death Project

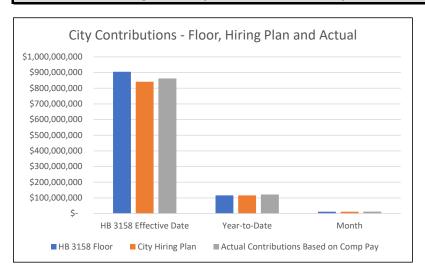


ITEM #C10

Topic: Monthly Contribution Report

Discussion: Staff will review the Monthly Contribution Report.

Contribution Tracking Summary - November 2023 (September 2023 Data)



Actual Comp Pay was 102% of the Hiring Plan estimate since the effective date of HB 3158.

The Floor decreased for 2023 to equal the Hiring Plan, this was a decreased by 3.82% in 2023 for the Floor. The Hiring Plan increased by 3.79% in 2023. It is expected that actual contributions will exceed the Floor through 2024.

Through 2024 the HB 3158 Floor is in place so there is no City Contribution shortfall.

The combined actual employees was 82 less than the Hiring Plan for the pay period ending October 10, 2023. Fire was over the estimate by 129 Fire Fighters and Police under by 211 Police Officers.



Employee contributions exceeded the Hiring Plan estimate for the month, the year and since inception.

There is no Floor on employee contributions.

Contribution Summary Data

City Contributions													
Sep-23	Number of Pay Periods Beginning in the Month		B 3158 Floor	Cit	ty Hiring Plan		Actual Contributions ed on Comp Pay	Additional Contributions to Meet Floor Minimum	Comp Pay Contributions as a % of Floor Contributions	Comp Pay Contributions as a % of Hiring Plan Contributions			
Month	2	\$	11,624,000	\$	11,623,846	\$	12,225,672	\$ -	105%	105%			
Year-to-Date		\$	116,240,000	\$	116,238,462	\$	122,008,608	\$ -	105%	105%			
HB 3158 Effective Date		\$	905,461,000	\$	841,348,846	\$	862,312,499	\$ 48,990,866	95%	102%			

Due to the Floor through 2024, there is no cumulative shortfall in City Contributions Does not include the flat \$13 million annual City Contribution payable through 2024. Does not include Supplemental Plan Contributions.

Sep-23	Number of Pay Periods Beginning in the Month		Actual Employee Contributions Based on Comp Pay	Actual Contribution Excess Compared to Hiring Plan		Actual Contributions as a % of Hiring Plan Contributions		
Month	2	\$ 4,548,462	\$ 4,785,689	\$ 237,228	\$ 4,236,924	105%	1139	
Year-to-Date		\$ 45,484,615	\$ 47,756,650	\$ 2,272,034	\$ 42,369,240	105%	113%	
HB 3158 Effective Date		\$ 329,223,462	\$ 337,246,862	\$ 8,023,400	\$ 319,108,906	102%	106%	

Potential Earnings Loss from the Shortfall based on Assumed Rate of Return

\$

Does not include Supplemental Plan Contributions.

Reference Information

City Contributions: HB 3158 Bi-weekly Floor and the City Hiring Plan Converted to Bi-weekly Contributions									
		HB 3158 Bi- weekly Floor		/ Hiring Plan- Bi-weekly		HB 3158 Floor ompared to the Hiring Plan	Hiring Plan as a % of the Floor	% Increase/ (decrease) in the Floor	% Increase/ (decrease) in the Hiring Plan
2017	\$	5,173,000	\$	4,936,154	\$	236,846	95%		
2018	\$	5,344,000	\$	4,830,000	\$	514,000	90%	3.31%	-2.15%
2019	\$	5,571,000	\$	5,082,115	\$	488,885	91%	4.25%	5.22%
2020	\$	5,724,000	\$	5,254,615	\$	469,385	92%	2.75%	3.39%
2021	\$	5,882,000	\$	5,413,846	\$	468,154	92%	2.76%	3.03%
2022	\$	6,043,000	\$	5,599,615	\$	443,385	93%	2.74%	3.43%
2023	\$	5,812,000	\$	5,811,923	\$	77	100%	-3.82%	3.79%
2024	\$	6,024,000	\$	6,024,231	\$	(231)	100%	3.65%	3.65%
The HB 3158 Bi-weekly Floor	he HB 3158 Bi-weekly Floor ends after 2024								

Employee Contributions: City Hiring Plan and Actuarial Val. Converted to Bi-weekly Contributions							
		Con	y Hiring Plan verted to Bi- weekly Employee ntributions	Actuarial Valuation Assumption Converted to Bi- weekly Employee contributions		Actuarial Valuation as a % of Hiring Plan	
2017		\$	1,931,538	\$	1,931,538	100%	
2018		\$	1,890,000	\$	1,796,729	95%	
2019		\$	1,988,654	\$	1,885,417	95%	
2020		\$	2,056,154	\$	2,056,154	100%	
2021		\$	2,118,462	\$	2,118,462	100%	
2022		\$	2,191,154	\$	2,191,154	100%	
2023		\$	2,274,231	\$	2,274,231	100%	
2024		\$	2,357,308	\$	2,357,308	100%	

The information on this page is for reference. The only numbers on this page that may change before 2025 are the Actuarial Valuation Employee Contributions Assumptions for the years 2020-2024 and the associated percentage.

Reference Information - Actuarial Valuation and GASB 67/68 Contribution Assumptions

Actuarial Assumptions Used in the Most Recent Actuarial Valuation - These assumptions will be reevaluated annually & may change.

City Contributions are based on the Floor through 2024, the Hiring Plan from 2025 to 2037, after 2037 an annual growth rate of 2.75% is assumed Employee Contributions for 2018 are based on the 2017 actual employee contributions inflated by the growth rate of 2.75% and the Hiring Plan for subsequent years until 2038, when the 2037 Hiring Plan is increased by the 2.75 growth rate for the next 10 years

Actuarial/GASB Contribution Assumption Changes Since the Passage of HB 3158

Actuarial Valuation	GASB 67/68
	•
\$ (2,425,047)	*
\$ 9,278	*
\$	\$ (2,425,047)

*90% of Hiring Plan was used for the Cash Flow Projection for future years in the 12/31/2017 GASB 67/68 calculation. At 12-31-17, 12-31-18 and 12-31-2019 this did not impact the pension liability or the funded percentage.

The information on this page is for reference. It is intended to document contribution related assumptions used to prepare the Actuarial Valuation and changes to those assumptions over time, including the dollar impact of the changes. Contribution changes impacting the GASB 67/68 liability will also be included.

		Computation Pay		Number of Employees				
Year	Hiring Plan	Actual	Difference	Hiring Plan	Actual EOY	Difference		
2017	\$ 372,000,000	Not Available	Not Available	5,240	4,935	(305)		
2018	\$ 364,000,000	\$ 349,885,528	\$ (14,114,472)	4,988	4,983	(5		
2019	\$ 383,000,000	\$ 386,017,378	\$ 3,017,378	5,038	5,104	66		
2020	\$ 396,000,000	\$ 421,529,994	\$ 25,529,994	5,063	4,988	(75		
2021	\$ 408,000,000	\$ 429,967,675	\$ 21,967,675	5,088	4,958	(130)		
2022	\$ 422,000,000	\$ 439,104,541	\$ 17,104,541	5,113	5,074	(39)		
2023	\$ 438,000,000			5,163				
2024	\$ 454,000,000			5,213				
2025	\$ 471,000,000			5,263				
2026	\$ 488,000,000			5,313				
2027	\$ 507,000,000			5,363				
2028	\$ 525,000,000			5,413				
2029	\$ 545,000,000			5,463				
2030	\$ 565,000,000			5,513				
2031	\$ 581,000,000			5,523				
2032	\$ 597,000,000			5,523				
2033	\$ 614,000,000			5,523				
2034	\$ 631,000,000			5,523				
2035	\$ 648,000,000			5,523				
2036	\$ 666,000,000			5,523				
2037	\$ 684,000,000			5,523				

Comp Pay by Month - 2023	Anı	nual Divided by 26 Pay Periods	Actual	Difference	2022 Cumulative Difference	Number of Employees - EOM	Difference
January	\$	33,692,308	\$ 35,387,168	\$ 1,694,860	\$ 1,694,860	4922	(241)
February	\$	33,692,308	\$ 35,344,223	\$ 1,651,915	\$ 3,346,776	5045	(118)
March	\$	50,538,462	\$ 53,203,452	\$ 2,664,991	\$ 6,011,766	5080	(83)
April	\$	33,692,308	\$ 35,355,815	\$ 1,663,507	\$ 7,675,273	5060	(103)
May	\$	33,692,308	\$ 35,314,654	\$ 1,622,347	\$ 9,297,620	5046	(117)
June	\$	33,692,308	\$ 35,226,620	\$ 1,534,312	\$ 10,831,932	5044	(119)
July	\$	33,692,308	\$ 35,244,675	\$ 1,552,367	\$ 12,384,299	5056	(107)
August	\$	50,538,462	\$ 53,134,804	\$ 2,596,342	\$ 14,980,641	5058	(105)
September	\$	33,692,308	\$ 35,436,729	\$ 1,744,422	\$ 16,725,063	5081	(82)
October	\$	33,692,308					
November	\$	33,692,308					•
December	\$	33,692,308					



ITEM #C11

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 – November 9, 2023

ATTENDING APPROVED

1. Conference: NCPERS Legislative Conference

Dates: January 22-24, 2024 **Location:** Washington, DC

Est Cost: \$2,250

2. Conference: TEXPERS Basic Trustee Training

Dates: April 6, 2024 **Location:** Dallas, TX

Est Cost: \$225

3. Conference: TEXPERS Advance Trustee Training

Dates: April 6, 2024
Location: Dallas, TX

Est Cost: TBD

4. Conference: TEXPERS Annual Conference

Dates: April 7-10, 2024

Location: Dallas, TX

Est Cost: TBD

5. Conference: NCPERS Trustee Educational Seminar (TED)

Dates: May 18-19, 2024

Location: Seattle, WA

Est Cost: TBD

Page 1 of **2**

Future Education and Business Related Travel & Webinars Regular Board Meeting – November 9, 2023

ATTENDING APPROVED

6. Conference: NCPERS Annual Conference

Dates: May 19-22, 2024

Location: Seattle, WA

Est Cost: TBD

7. Conference: TEXPERS Summer Educational Forum

Dates: August 18-20, 2024 **Location:** San Antonio, TX

Est Cost: TBD

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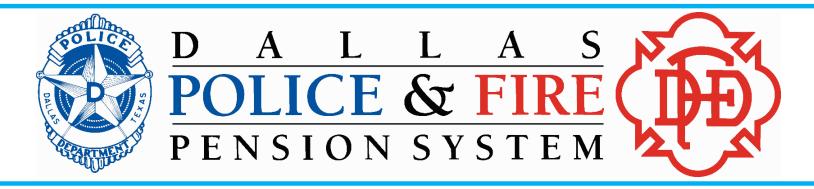


ITEM #C12

Topic: Portfolio Update

Discussion: Investment Staff will brief the Board on recent events and current developments

with respect to the investment portfolio.



Portfolio Update

November 9, 2023 Board Meeting

Executive Summary

- Liquidation of private market assets remains the top focus.
 - \$67M in distributions received YTD, with vast majority coming from AEW Camel Square and JPM Maritime fund.
- Safety Reserve & Rebalancing: At the September 2023 Board meeting, staff
 notified the Board that the Safety Reserve would be restored to target through
 rebalancing.
 - In October, \$43M was withdrawn from Global Equity and \$42M from Public Fixed Income (\$20M from Aristotle redeemed on 11/1) to restore the Safety Reserve to the full 9% target allocation.
- Estimated Year-to-Date Return (as of 10/31/23): 3.2% for DPFP portfolio



Investment Initiatives – 2023/24 Plan

Q4 2023

- Global Growth Manager Approval
- IPS Updates
- WCM Contracting and Funding

Q1 2024

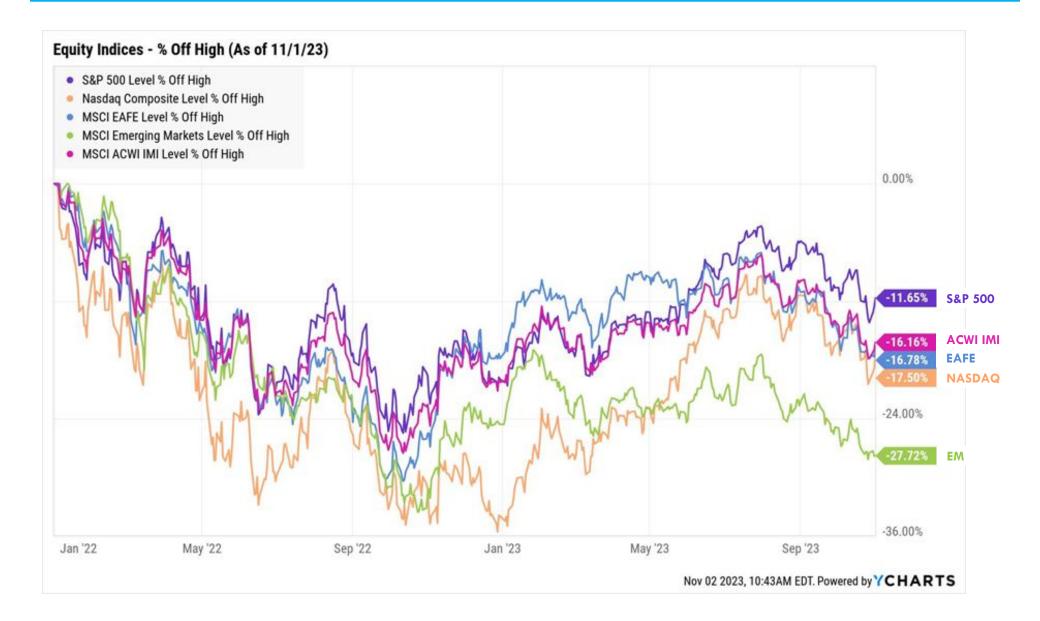
- Begin Custodian Search
- Asset Allocation Study

Q2 2024 & Beyond

• Private Market Planning – Update IPS provision, pacing studies, etc.

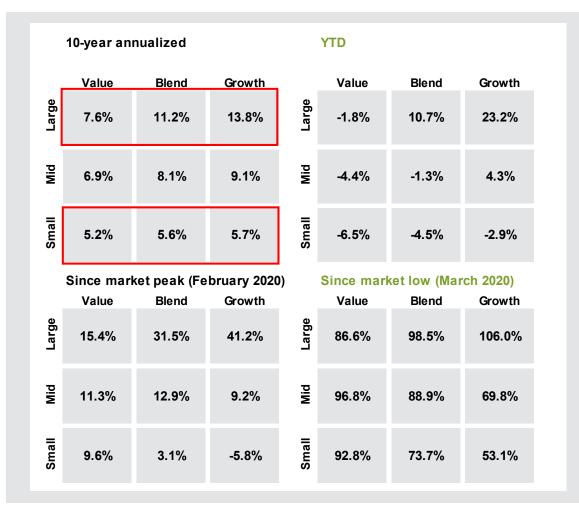


Equity Market Drawdown (1/1/22 to 11/1/23)





US Equity Returns by Style & Size



Current P/E vs. 20-year avg. P/E								
	Value	Blend	Growth					
Large	13.1	17.2	23.6					
Ľ	13.7	15.6	18.8					
Mid	12.6	14.4	22.2					
≥	14.5	16.4	20.5					
Small	13.0	17.5	27.8					
Sn	16.7	21.3	33.1					
Cur	rent P/E as	% of 20-yea	ar avg. P/E					
	Value	Blend	Growth					
Large	95.5%	110.7%	125.2%					
Mid	87.0%	88.0%	108.7%					
Small	77.8%	82.1%	84.0%					

Source: FactSet, Refinitiv Datastream, Russell Investment Group, Standard & Poor's, J.P. Morgan Asset Management.

All calculations are cumulative total return, including dividends reinvested for the stated period. Since market peak represents period from 2/19/2020 to 9/30/2023. Since market low represents period from 3/23/2020 to 9/30/2023. Returns are cumulative returns, not annualized. For all time periods, total return is based on Russell style indices except for the large blend category, which is based on the S&P 500 Index. Past performance is not indicative of future returns. The price-to-earnings is a bottom-up calculation based on the most recent index price, divided by consensus estimates for earnings in the next 12 months (NTM) and is provided by FactSet Market Aggregates and J.P. Morgan Asset Management.

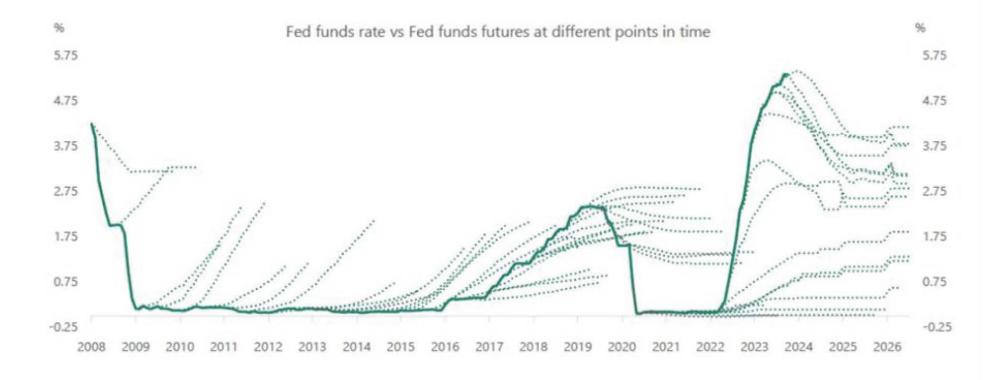
Guide to the Markets – U.S. Data are as of October 31, 2023.



Fed Funds Rate vs Fed Funds Futures

The market is almost always wrong about what the Fed will do





Source: Bloomberg, Apollo Chief Economist





Public Markets Performance Snapshot

Public Markets (ex-Cash) currently make up 70% of DPFP Investment Portfolio.

DPFP | As of October 31, 2023

Performance Summary									
	Endi	Ending October 31, 2023							
	Market Value (\$)	1 M o (%)	YTD (%)	3 Yrs (%)	5 Yrs (%)				
Total Public Portfolio (ex-Cash)	1,245,449,040	-2.7	4.2	3.1	4.5				
60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index		-2.5	2.1	0.9	3.8				
Public Equity	879,597,230	-3.3	4.6	6.5	7.3				
MSCI ACWI IMI Net USD		-3.3	5.7	6.5	7.1				
Global Equity	796,487,890	-3.3	5.1	7.3	7.7				
MSCI ACWI IMI Net USD		-3.3	5.7	6.5	7.1				
Boston Partners Global Equity Fund	101,201,295	-4.1	-0.3	14.3	6.9				
MSCI World Net		-2.9	7.9	8.1	8.3				
Manulife Global Equity Strategy	102,935,633	-1.4	7.5	9.2	8.2				
MSCI ACWI Net		-3.0	6.7	6.7	7.5				
Russell Investments ACWI Growth	101,305,699	-2.2							
MSCI ACWI Growth NR USD		-2.6	15.1	3.7	9.9				
Walter Scott Global Equity Fund	101,884,322	-2.2	7.0	6.1	8.7				
MSCI ACWI Net		-3.0	6.7	6.7	7.5				
NT ACWI Index IMI	290,091,718	-3.3	6.1						
MSCI ACWI IMI Net USD		-3.3	5.7	6.5	7.1				
Eastern Shore US Small Cap	51,225,622	-6.2	-3.6						
Russell 2000		-6.8	-4.5	3.9	3.3				
Global Alpha International Small Cap	47,843,600	-7.7	-7.8						
MSCI EAFE Small Cap		-5.9	-4.2	0.3	1.6				



Public Markets Performance Snapshot

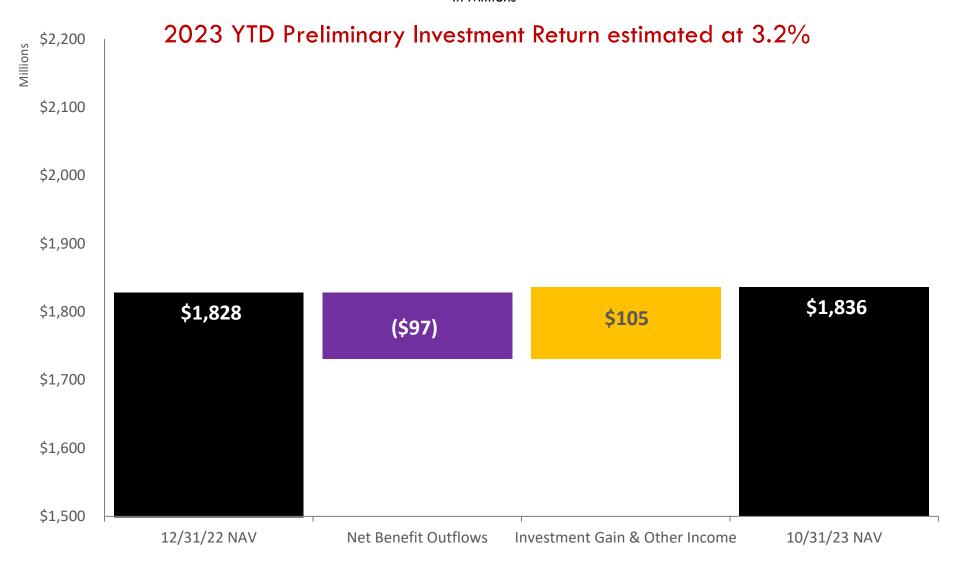
DPFP | As of October 31, 2023

	Ending October 31, 2023						
	Market Value (\$)	1 M o (%)	YTD (%)	3 Yrs (%)	5 Yrs (%)		
Emerging Markets Equity	83,109,340	-2.9	-0.4	-1.5	3.1		
MSCI Emerging Markets IMI Net		-4.0	-0.8	-2.2	2.3		
RBC Emerging Markets Equity	83,109,340	-2.9	-0.4	-1.5	3.1		
MSCI Emerging Markets IMI Net		-4.0	-0.8	-2.2	2.3		
Public Fixed Income	365,851,810	-1.1	3.3	-1.3	0.9		
Bloomberg Multiverse TR		-1.2	-3.1	-7.0	-1.5		
IR&M 1-3 Year Strategy	111,741,240	0.2	2.6	-0.3	1.7		
Bloomberg US Aggregate 1-3 Yr TR		0.3	2.2	-0.6	1.2		
Longfellow Core Fixed Income	58,507,665	-1.7	-2.6	-5.3			
Bloomberg US Aggregate TR		-1.6	-2.8	-5.6	-0.1		
Aristotle Pacific Capital Bank Loan	79,243,648	0.1	10.8	6.1	4.6		
Credit Suisse Leveraged Loan		0.0	10.0	5.9	4.3		
Loomis US High Yield Fund	58,010,344	-1.9	2.8	-	_		
Bloomberg US High Yield 2% Issuer Cap TR	V201 34	-1.2	4.6	1.2	3.0		
Metlife Emerging Markets Debt Blend	58,348,913	-2.8	1.6		-		
35% JPMEMBI Global Index/35% JPM CEMBI Broad Diversified Index/ 30% JPMGBI-EM Diversified Global Index		-1.1	1.7				



2023 - Change in Market Value Bridge Chart

In Millions

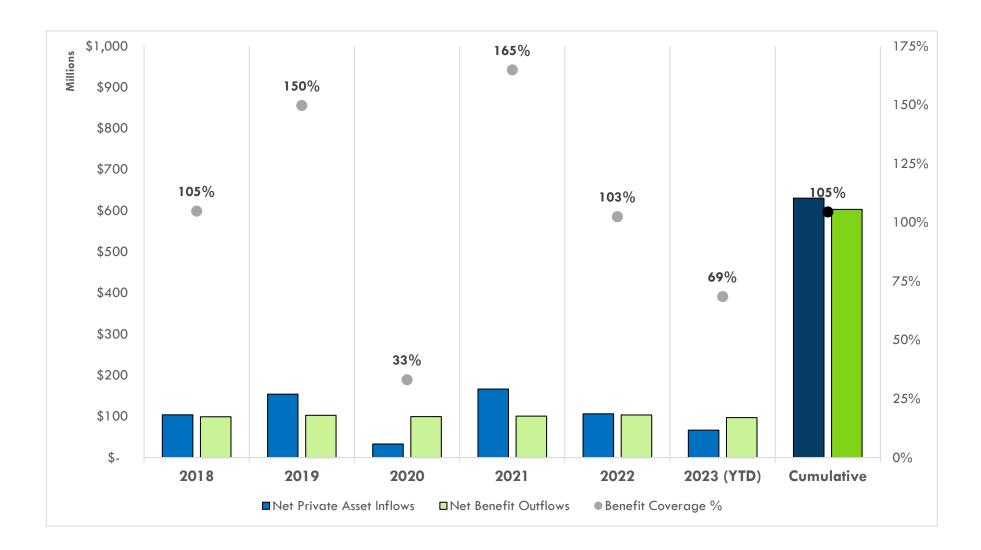


The beginning 12/31/22 value is from the Q4 2022 Meketa Performance Report and includes a one-quarter lag on private assets. Numbers may not foot due to rounding.



Benefit Outflow Coverage

Since 2018, net Private Asset inflows have covered 105% of net benefit outflows.

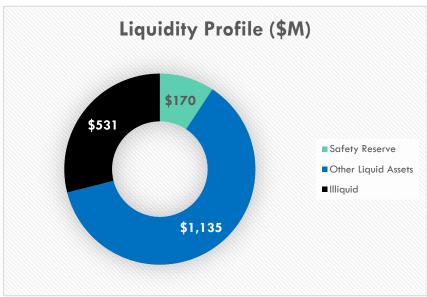




Safety Reserve Dashboard



Projected Net Monthly outflows of \$9.6M per month. Safety Reserve of \$170M would cover net monthly outflows for next 17 months or through March 2025.



Expected Cash Activity	Date	Amount (\$M)	Projected Cash Balance (\$M)	Projected Cash (%)
	10/31/23		\$58.3	3.2%
Aristotle Pacific Redemption	11/2/23	\$20.0	\$78.3	4.3%
City Contribution	11/10/23	\$9.0	\$87.3	4.8%
City Contribution	11/24/23	\$9.0	\$96.4	5.2 %
Pension Payroll	11/23/23	(\$28.4)	\$67.9	3.7%
City Contribution	12/8/23	\$9.0	\$76.9	4.2%
City Contribution	12/22/23	\$9.0	\$85.9	4.7%
Pension Payroll	12/29/23	(\$28.4)	\$57.5	3.1%

Numbers may not foot due to rounding



Asset Allocation Detail

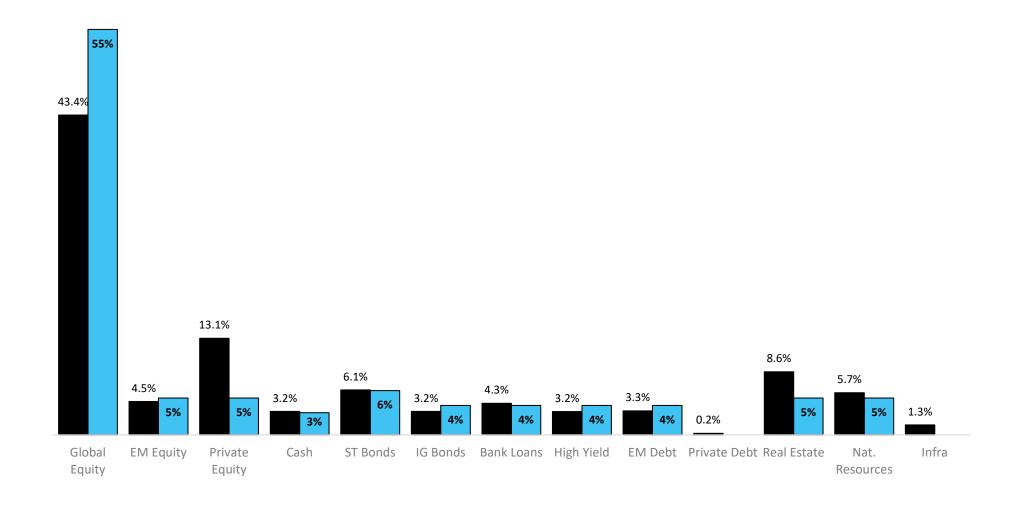
DPFP Asset Allocation	10/31/	2023	Targ	ets		Varia	nce
DITT ASSET Allocation	NAV	%	\$ mil.	%	% of Target		%
Equity	1,120	61.0%	1,194	65%	94%	-73	-4.0%
Global Equity	797	43.4%	1,010	55%	79%	-213	-11.6%
Boston Partners	101	5.5%	110	6%	92%	-9	-0.5%
Manulife	103	5.6%	110	6%	93%	-7	-0.4%
Russell Transition - ACWI Growth	101	5.5%	110	6%	92%	-9	-0.5%
Walter Scott	102	5.5%	110	6%	92%	-8	-0.5%
Northern Trust ACWI IMI Index	290	15.8%	459	25%	63%	-169	-9.2%
Eastern Shore US Small Cap	51	2.8%	55	3%	93%	-4	-0.2%
Global Alpha Intl Small Cap	48	2.6%	55	3%	87%	-7	-0.4%
Emerging Markets Equity - RBC	83	4.5%	92	5%	91%	-9	-0.5%
Private Equity*	241	13.1%	92	5%	262%	149	8.1%
Fixed Income	429	23.4%	459	25%	93%	-30	-1.6%
Cash	58	3.2%	55	3%	106%	3	0.2%
S/T Investment Grade Bonds - IR+M	112	6.1%	110	6%	101%	2	0.1%
Investment Grade Bonds - Longfellow	59	3.2%	73	4%	80%	-15	-0.8%
Bank Loans - Aristotle Pacific	79	4.3%	73	4%	107%	5	0.3%
High Yield Bonds - Loomis Sayles	58	3.2%	73	4%	79%	-15	-0.8%
Emerging Markets Debt - MetLife	60	3.3%	73	4%	82%	-14	-0.7%
Private Debt*	4	0.2%	0	0%		4	0.2%
Real Assets*	287	15.6%	184	10%	156%	103	5.6%
Real Estate*	157	8.6%	92	5%	171%	65	3.6%
Natural Resources*	105	5.7%	92	5%	114%	13	0.7%
Infrastructure*	25	1.3%	0	0%		25	1.3%
Total	1,836	100.0%	1,836	100%		0	0.0%
Safety Reserve ~\$162M=18 mo net CF	170	9.3%	165	9%	103%	5	0.3%
*Private Market Assets	531	28.9%	275	15%		256	13.9%

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



Asset Allocation – Actual vs Target

■10/31/2023 ■Target







ITEM #C13

Topic: Real Estate Overview - AEW Portfolio Update

Portions of the discussion under this topic may be closed to the public under the

terms of Section 551.072 of the Texas Government Code.

Attendees: Ron Pastore - Senior Portfolio Manager (by phone)

Mark Morrison - Assistant Portfolio Manager (by phone)

Discussion: Representatives of AEW Capital Management ("AEW") will update the Board

on the status and plans for DPFP's investments in RED Consolidated Holdings ("RCH"). AEW took over management of these investments in February of

2015.



ITEM #C14

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.



ITEM #D1

Topic: Public Comment

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



ITEM #D2

Topic: Executive Director's Report

- a. Associations' newsletters
 - NCPERS Monitor (November 2023)
 - NCPERS PERSist (Fall 2023)
- **b.** Open Records

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



The Latest in Legislative News

November 2023

NCPERS

Executive Director's Corner

NCPERS Expands Pension Fund Roundtables to Create Space for HR Professionals



By Hank Kim, Executive Director and Counsel, NCPERS



s our final in-person meeting of the year wrapped up last month, it was hard not to reflect on the importance of bringing industry members together for networking and learning. One of the things I love most about the public pension community is the willingness to share ideas and support one another. I continue to be impressed by our members' enthusiasm for helping their peers and working together to advance the industry as a whole.

When our in-person events were disrupted by the COVID-19 pandemic, we knew we needed to find a solution to continue to facilitate this networking and peer-to-peer learning. One way we filled this void was creating the CEO and CIO Roundtables—where pension leaders could regularly connect via Zoom in a vendor-free setting to ask questions and crowdsource solutions to their most pressing challenges. O

Even after we returned to business as usual with our educational events, we recognized the value these virtual roundtables brought to our members. They can help bridge the gap between in-person events and provide answers to urgent questions throughout the year. They provide a safe space to share ideas and get feedback. Since their start in 2020, our roundtables have continued to grow and expand, and we realized more pension staff—not just CEOs and CIOs—could benefit from these peer groups.

In 2022, we created the Communications Roundtable as a virtual space for pension staff tasked with managing their fund's communications. Shortly after, roundtable members had the opportunity to connect in-person for the inaugural Pension Communications Summit. We're looking forward to bringing communications professionals together again in January for the 2024 summit.

Now, NCPERS is pleased to announce our latest addition: the HR Roundtable. What's interesting about the HR Roundtable is that unlike the other Roundtables, the HR Roundtable pre-dates COVID-19. A dedicated group of public pension HR professionals volunteered their time to organize events for their peers. However, as the group grew and the burdens of managing it become overwhelming, they decided to partner with NCPERS.

The HR Roundtable will meet virtually each quarter - in February, May, August, and November. The first meeting will take place via Zoom on Wednesday, Nov. 15, 2023 at 2:00pm ET. Whether you are a dedicated HR professional or it's just one of your many responsibilities, we encourage you to sign up here to learn more and participate.

To further support industry HR professionals, NCPERS will host an in-person educational conference - the HR Summit - in September 2024 to address the unique workforce challenges the public pension industry faces. The agenda will be set by peers (members of NCPERS HR Roundtable) and will feature peer-to-peer learning, networking opportunities, and hands-on training from industry experts.

Ithasn't been an easy few years for HR professionals—from ongoing recruitment and retention issues to navigating remote work to integrating intergenerational teams. We hope this new roundtable and in-person event will help your team find solutions to current or future issues and create a network of peers to learn from and share ideas to help our industry grow.

If you have any questions about our roundtables, please don't hesitate to reach out directly at hank@ncpers.org. •



NCPERS

Feature

2023 Public Pension Compensation Survey: Mid- and Senior Level Staffing Trends

By: Lizzy Lees, Director of Communications, NCPERS



ecognizing the unique challenges that pension funds face with recruitment and retention, NCPERS developed the annual Public Pension Compensation Survey to help pension funds benchmark compensation and benefits packages against their peers and ensure key positions are filled with skilled and qualified staff.

Following the success of last year's inaugural survey—which focused on nine c-suite positions—NCPERS partnered again with the non-profit research firm Cobalt Community Research to develop the 2023 Public Pension Compensation Survey. This year's survey focused on mid- and senior-level positions at public retirement systems. We received 176 responses to the survey, with data representing 425 public employee retirement systems.

In addition to the report, the data are presented online in an interactive dashboard created in Tableau. Funds are able to filter data in a number of ways to help optimize the mix of funds to which they would like to compare themselves. Filters include elements such as type of participants served, size of fund by participant, number of systems administered, number of fund staff, number of fund investment staff, and how assets are managed. In addition, each position can also be filtered by assets, tenure, full time/part time, and if the position has multiple roles. Based on feedback from the pilot study, we've also added the option to filter by state(s) to further refine comparisons.

The report have been made available at no cost to all survey participants. Survey participants that are NCPERS members also have access to the dashboard. If you didn't participate in the 2023 survey but are interested in purchasing it, please complete this form and return to info@ncpers.org.

NCPERS hosted a webinar last month to preview the 2023 survey findings and discuss broader hiring trends and creative strategies that smaller plans are implementing to attract and retain quality staff. 3

The results of the 2023 Public Pension Compensation Survey suggest the industry has made some progress with recruitment and retention efforts. Approximately 42 percent of respondents indicated they are having no problems attracting and retaining skilled staff, up from 38 percent in the previous year.

Lead researcher William SaintAmour noted that investment-focused positions, such as private equity and public equity portfolio managers, received the highest median salaries and bonuses. Conversely, positions like the Director of Customer Service had lower salaries and bonuses. Traditional benefits such as health plans, dental and vision coverage, defined benefit plans, and life insurance were found to be widespread. Consistent with the 2022 survey results, flexible and remote work continue to be popular benefits, he said, with approximately 54 percent of respondents providing these options to staff.

Fellow webinar panelists Tyler Grossman, executive director of the El Paso Firemen and Policemen's Pension Fund, and Dan Cummings, executive vice president and managing director of EFL, agreed that flexibility and remote work are highly valued benefits today that can help funds stay competitive. Grossman added that his organization has been offering a 4/10 schedule—Monday through Thursday with 10-hour days—since 2013. This helps accommodate fire and policemen's graveyard shifts while giving staff added flexibility. They've maintained a remote-first, hybrid schedule as well, he added.

Turning to recruitment strategies, Cummings suggested pension funds consider implementing internship programs to support their talent pipelines. He also emphasized the importance of 'mission alignment' or exploring talent pools with previous public sector or service-oriented work experience. Grossman said his fund encourages staff retention by promoting from within, offering opportunities for tuition reimbursement, and frequently evaluating pay levels to stay competitive.

Wrapping up the webinar, moderator Hank Kim, executive director and counsel for NCPERS, shared additional insights into the short- and long-term goals of the survey. Most immediately, he said, the goal is to bring transparency and insight into compensation and benefits packages at state and local pension plans. The second, but more long-term goal, is to help policymakers, taxpayers, and the media understand that public sector pensions should not be viewed as just another state or local agency. "It is more akin to a financial services entity than a pure government agency and, as a result, compensation for public plans may need to be looked at with a different lens. We want to show policymakers and the public what resources plans need in order to attract and retain high-functioning and qualified staff," he said.

Watch the webinar recording here, and find out how to order your copy of the Public Pension Compensation Survey.



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Feature

SECURE Act 2.0 Regulatory Guidance

By: Tony Roda, Partner, Williams & Jensen



n October 19, an attorney-adviser with the U.S. Department of the Treasury spoke to the American Bar Association's tax section and announced that "grab-bag" regulatory guidance is being prioritized and would be released soon. This guidance will be related to the major retirement legislation enacted at the end of 2022, which is commonly referred to as the SECURE Act 2.0.

There are over 90 provisions in SECURE 2.0 and collectively they touch on almost all parts of U.S. tax law related to retirement and pension plans and their plan participants. The expected "grab-bag" guidance will address provisions that are either effective already or will take effect soon. Possible examples are the optional treatment of employer matching or nonelective contributions as designated Roth contributions, the waiver of the early withdrawal penalty for public safety employees with 25 years of service, and distributions related to natural disasters.

According to the Treasury representative, the guidance will not touch on 401(k) contributions tied to student loan repayments, pension-backed emergency savings accounts (PLESA), automatic enrollment rules, and the 50 percent savers match.

Previous Treasury guidance has already addressed an issue related to the changes to required minimum distributions (RMD). This guidance, which is found in Treasury Notice 2023-54, provided relief to certain distributions made during 2023 to individuals that were characterized as RMDs but are not actually RMDs due to the age trigger changes contained in SECURE 2.0. ①

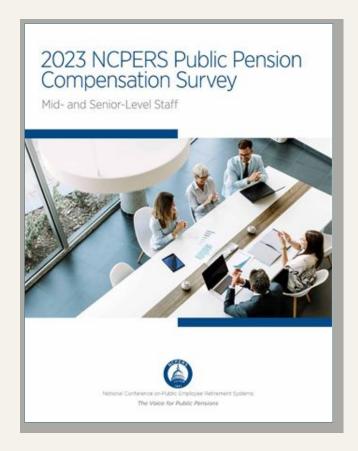
Likewise, in August, Treasury issued Notice 2023-62, which provides initial guidance on the new Roth catch up contribution requirement that applies to employees who participate in 401(k), 403(b) or governmental 457(b) plans and whose prior-year Social Security wages exceeded \$145,000. In welcome news contained in the Notice, Treasury created a two-year administrative transition period to provide breathing room for retirement systems to implement the new law, which was originally set to take effect on January 1, 2024.

The Notice also clarified that the SECURE Act 2.0 does not prohibit plans from permitting catch up contributions. Therefore, plan participants who are age 50 and over can still make catch up contributions after 2023. The underlying statutory authority for catch ups was questioned by some tax experts because of what they believe is a drafting error in the SECURE Act 2.0.

Earlier this year, the Chairmen and Ranking Members of the House Ways and Means Committee and the Senate Finance Committee (commonly referred to as the "four corners" of Congressional tax jurisdiction), wrote to the Secretary of the Treasury and the IRS Commissioner to convey their intention to introduce technical corrections legislation to address the four items mentioned in the letter - RMD age trigger overlap for those born in 1959, underlying authority for the catch up, Roth contribution limit and its interrelation with SIMPLE IRA and SEP contributions, and the small employer pension startup credit. The letter also said that other technical issues might be addressed in the corrections bill.

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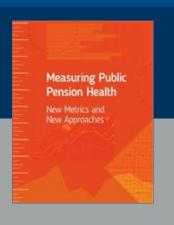
As of this writing, technical corrections legislation has not yet been introduced in Congress. In addition, the actions taken by the Treasury Department in Notice 2023-62 to delay for two years the effective date of the Roth requirement on certain catch ups and to make clear that the underlying statutory authority for catch ups was not negated by SECURE 2.0 remove a great deal of the urgency for Congress to act this year.

The usual path for this type of legislation to move through Congress is for it to be attached to a larger, must-pass bill, such as an end-of-year funding measure. Given the uncertainty in the House on its leadership and priorities, it is unclear whether an end-of-year bill will be developed.

Please be assured that NCPERS will keep a close eye on any new regulatory guidance and technical corrections legislation related to the SECURE Act 2.0. As always, we will keep you apprised of any significant developments.

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, Ohio, Tennessee, and Texas. He 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.

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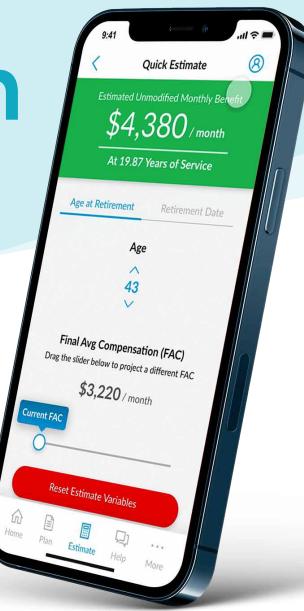
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Around the Regions

Oklahoma PERS Weighs Next Move in Tussle Over ESG-Blacklist Law

The board of trustees of the \$11.1 billion Oklahoma Public Employees Retirement System is scrambling to respond to Oklahoma Treasurer Todd Russ in an escalating squabble over a law requiring public pension funds to cut ties with firms perceived to be hostile to the oil and gas industry. Russ sent the board a scathing 17-page letter rebuking it for its decision to take a fiduciary exemption from having to comply with the law.

READ MORE

Source: Pensions & Investments

NYC Pension Funds Argue ESG Lawsuit Hinges on 'Legal Errors'

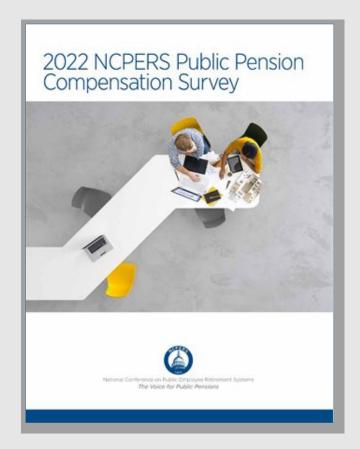
New York City pension funds slammed their opposition's request for the New York State Supreme Court to reject the funds' motion to dismiss complaints brought against three of the five funds for allegedly jeopardizing the retirement security of participants by permitting environmental, social and governance factors to be considered in investment decisions.

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Source: PlanSponsor

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Around the Regions

PERS Plans to Ask for Funding from Mississippi Legislature

Concerns have been raised regarding the long-term financial stability of the pension fund. PERS Executive Director Ray Higgins said the PERS Board will reach out to the Mississippi Legislature for funding during the next session.

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Source: WJTV

Morningstar Added to Florida's Israel-boycott List

Florida State Board of Administration, Tallahassee, has added Morningstar to its list of "Scrutinized Companies that Boycott Israel." Trustee meeting materials did not provide any further information on the reason for inclusion on the list, except for a reference to Morningstar's ESG research subsidiary Sustainalytics.

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Source: Pensions & Investments

N.J. Public Worker Pension Fund Posts Surprisingly Strong Gains Despite Volatile Fiscal Year

New Jersey's public worker pension fund gained more than \$5 billion in market value in the fiscal year that ended June 30, lifting its total value to about \$91.4 billion as it continued to rebound from heavy losses in 2022. That amounted to a 9.1% gain on investments, outperforming the fund's benchmark and its long-term assumed rate of return.

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Source: NJ Advance Media

NCPERS 2023 Public Retirement Systems Study:

Trends in Fiscal, Operational, and Business Practices

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Upcoming Events

January

Pension Communications Summit

January 21–22 Washington, DC

Legislative Conference

January 22–24 Washington, DC

May

NCPERS Accredited Fiduciary (NAF) Program

May 18-19 Seattle, WA

Trustee Educational Seminar (TEDS)

May 18-19 Seattle, WA

May

Annual Conference & Exhibition (ACE)

May 19-22 Seattle, WA

June

Chief Officers Summit

June 17-19 Nashville, TN

August

Public Pension Funding Forum

August 18-20 Boston, MA

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The Voice for Public Pensions

Fall 2023 | Volume 36 | Number 4



NCPERS Message



2023 Public Pension Compensation Survey: Mid- and Senior-Level Staffing Trends



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In addition to the report, the data are presented online in an interactive dashboard created in Tableau. Funds are able to filter data in a number of ways to help optimize the mix of funds to which they would like to compare themselves. Filters include elements such as type of participants served, size of fund by participant, number of systems administered, number of fund staff, number of fund investment staff, and how assets are managed. In addition, each position can also be filtered by assets, tenure, full time/part time, and if the position has multiple roles. Based on feedback from the pilot study, we've also added the option to filter by state(s) to further refine comparisons. ① The report and dashboard access have been made available at no cost to survey participants. If you are interested in purchasing the 2023 survey, please complete this form and return to info@ncpers.org.

The results of the 2023 Public Pension Compensation Survey suggest the industry has made some progress with recruitment and retention efforts. Approximately 42 percent of respondents indicated they are having no problems attracting and retaining skilled staff, up from 38 percent in the previous year.

More broadly, unemployment rates have remained at near-record lows throughout 2023, but with economic uncertainty and the ongoing debates about remote versus in-person work, workers are beginning to stay in their current jobs longer as many employers begin to focus more on retention rather than recruitment.

Job growth remains strong—particularly in the public sector. In the first eight months of the year, public sector jobs in the U.S. government made up nearly one-fifth of all new jobs. Hiring in the public sector remains a challenge, though, with public-sector roles generally receiving significantly fewer applicants compared to the private sector.

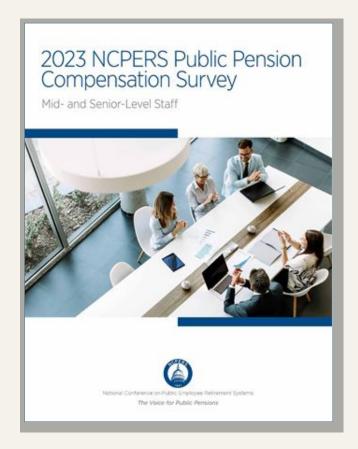
To continue to support NCPERS members with their ongoing human resources-related challenges, we're pleased to announce the launch of a new roundtable dedicated to HR professionals at public pensions. Starting on Nov. 1, 2023, we will begin hosting virtual meetings on a quarterly basis to facilitate discussions around the issues public pensions are facing in this space and to provide a venue for professionals to ask questions and connect with peers. Sign up here to participate, and stay tuned for additional details about this new initiative in the coming weeks.

If you have any questions about the Public Pension Compensation Survey or the HR Roundtable, please contact info@ncpers.org. •

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In This Issue

Page 5 How Much Capacity Does Your Plan Have for Illiquid Assets?

This article summarizes research on how characteristics of different public pension plans affect their capacity to invest in illiquid assets. Of the characteristics analyzed, a plan's funding policy had the largest impact on its ability to invest in illiquid assets.

Page 7 Goldman Sachs Secures Class Decertification

Pension funds that serve as Lead Plaintiffs in a class action securities lawsuit should understand that the class certification stage is a hurdle to jump over. The recent Second Circuit decision: Ark. Teacher Ret. Sys. v. Goldman Sachs Grp., Inc., 2023 U.S. App. LEXIS 20815 (2d Cir. Aug. 10, 2023), is an illustration on how a class can become decertified.

Page 9 Income Generator: Back in Bonds

Bonds are once again becoming a cornerstone allocation within portfolios. George Bory, from Allspring Global Investments' Fixed Income team, explains five actions bond investors could consider to capitalize on current trends we've identified.

Page 12 A Value Investor's Guide to Impact Investing

For impact investing to succeed and continue to attract investor interest and flows, it has to do more than just deliver a social or environmental return; it must also generate a good financial return. This is where a value approach can help.

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As the conversation on lifetime income continues to grow following the SECURE Act of 2019, Nuveen examines the considerations for plan sponsors when evaluating potential lifetime income solutions.

Page 19 Private Credit: Optimism is in the Air

The private credit market is currently offering investors some of the most attractive dynamics in years—but there are also some headwinds on the horizon.

Page 21 New MissionSquare Research Institute Report Reveals Insights on Young Public Service Workers

MissionSquare Research Institute sheds light on the experiences of younger public service employees in a groundbreaking new report, "35 and Under in the Public Sector: Why Younger Workers Enter and Why They Stay (or Don't)."

Page 23 No Recession Yet, But Risks Are Rising. Are You Prepared?

In this paper, Jamie Newton, Head of Global Fixed Income Research at Allspring Global Investments, discusses why we have not yet seen a recession, why one is likely coming, and how investors can best prepare for it in the months ahead.

Page 29 The Facts on SPACs: Why Wall Street Darlings Fell Back to Earth

After an eye-popping surge in the number of special purpose acquisition companies—SPACs—in the first two years of this decade, these merger vehicles have lost their bloom for many institutional investors. ①

NCPERS In This issue

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A new Actuarial Standards Board requirement for reporting public pension liabilities may prompt plan sponsors to consider allocations to actively managed long duration fixed income.

Page 34 Maximizing Returns Through Asset Protection and Recovery

This article discusses recent scholarly work examining the prevalence of undetected corporate misconduct and the importance of institutional investors in seeking to recover losses to maximize asset values

Page 37 Data Driven Pension Funds via Right-Sized Solutions: A Guide for Mid-Market Public Pension Plans

The path towards a data-driven future for mid-market public pension plans is paved with the right partnerships and right-sized solutions.

Page 40 Institutional Investors Increasingly Using REITs in Portfolio Completion Strategies

Nareit's Investor Outreach team has met with some of the world's largest institutional investors over the past several years. Based on these conversations, Nareit expects more institutional investors will be considering REITs as part of portfolio completion strategies to gain access to a broad range of property types and geographic diversification, or to enhance their portfolios' ESG attributes.

Page 43 Considering an In-house Modernization: What You Need to Know

Pension organizations often face a critical decision between rewriting their current systems, upgrading with commercial vendors, or pursuing in-house modernization. This article delves into why some organizations are going the in-house route, the advantages and disadvantages of doing so, and the planning that an in-house modernization requires.

Page 45 U.S. Lower Middle-Market Private Credit Thoughts: Lower Leverage = Lower Defaults

There is a general perception that smaller companies are riskier due to, among other reasons, less scale and diversification potential. Independent research conducted by S&P and Moody's helps shed light on this question and their findings suggest otherwise.

Page 48 The Untold Story of Trailing Returns

Every trailing return reviewed for an investment strategy, portfolio or index has an "untold story" each time its performance is updated for a new time period.

Page 50 Managing Private Market Asset Allocations

Private market assets provide investors with additional sources of potential return, but how the journey is managed from commitment of capital to the implementation of the allocation is crucial.

NCPERS Investment Services

How Much Capacity Does Your Plan Have for Illiquid Assets?

By: Eric Friedman and John Sullivan, Aon



any public pension funds find value in illiquid assets such as private equity, private credit, and real assets, but they are often uncertain about how much capacity they have for illiquidity. We did research to answer that question, including understanding how different plan characteristics impact the answer. There are several factors affecting a public pension plan's ability to invest in illiquid assets: plan demographics and maturity, funded ratio, and funding policy, to name a few. While all of these factors are important, what we found may be surprising: of all the plan characteristics we analyzed, a plan's funding policy had the largest impact on a plan's ability to invest in illiquid assets.

Specifically, the biggest driver of the capacity for illiquid assets is how the funding policy responds to periods of poor investment performance. Actuarial funding policies result in increased funding when the funded ratio decreases, thus creating a source of additional liquidity when it is most needed. That is, in a market downturn, a plan in a net cash outflow position (more benefit payments than contributions) will turn more neutral or potentially to a net inflow position as contributions increase, which makes the portfolio more resilient and able to have higher allocations to illiquid assets.

Alternatively, plans with contribution policies that are insensitive to the funded ratio (such as contributions that are defined by statute as a level percentage of payroll) are less equipped to navigate challenging market environments and indicate a lower capacity for illiquid assets. The plans most at risk of a liquidity event are those with low funded ratios, static or non-actuarial contribution policies, and high allocations to illiquid assets.

The biggest driver of the capacity for illiquid assets is how the funding policy responds to periods of poor investment performance.

We came to this conclusion through a stress testing analysis. Liquidity risk manifests itself in stressed economic environments when the actual asset allocation deviates from the target allocation and the investor is unable to rebalance. Therefore, we analyzed how far actual allocations to illiquid assets would drift from their target allocations in stressed economic environments. We did this for several representative pension plans with varying characteristics such as funded ratio, demographic profile, liability duration, and contribution policy. While all of these characteristics had some influence on a plan's capacity for illiquid assets, it was the contribution policy that was the most influential.

We find this result to be particularly interesting because contribution policy is not considered by many public funds in assessing their capacity for illiquid assets. It is common to consider the cash flow profile (maturity) of the plan, but too often investors look at cash flow projections only in a normal economic environment, rather than a stressed one. This approach doesn't provide critical information about how the contributions will change in a stressed environment. For public funds with high allocations to illiquid assets, this is an opportunity for improvement.

Our experience from doing this type of analysis is that most public pension plans can tolerate a higher level of illiquid assets from a liquidity management perspective. It is also worth noting that some plans have contribution

"policies," but those policies may not always be followed, especially in times of stress when the actuarial contributions increase. Fiduciaries should be realistic about the likelihood that contributions will be made in stressed economic environments, and study scenarios accordingly.

Disclosures:

The opinions referenced are as of the date of publication and are subject to change. The information contained herein is for informational purposes only and should not be considered investment advice. This content summarizes a longer paper that can be provided upon request.

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will be made in stressed
economic environments.

Eric Friedman is a Partner with Aon's Investment Policy Services team in the U.S. In his role as the U.S. Director of Content Development, he leads the firm's U.S. efforts in developing intellectual capital to improve its



investment advice to institutional investors. Eric holds the designations of Fellow of the Society of Actuaries, Enrolled Actuary, and Chartered Financial Analyst. John Sullivan is an Associate Partner with Aon's Investment Policy Services team in the U.S. John's specialty is Asset-Liability Management for corporate and public sector defined benefit and postretirement welfare plans with a particular emphasis on the public sector.



NCPERS Legal Services

Goldman Sachs Secures Class **Decertification**

By: Robert Finkel and Sasha Marseille, Wolf Popper LLP



n August 10, 2023, the Second Circuit Court of Appeals issued an order to decertify a class action securities lawsuit against Goldman Sachs.1 The lawsuit has been ongoing for over a decade and stems from allegations of conflicts of interest related to collateralized debt obligations (CDOs) and an enforcement action by the U.S. Securities and Exchange Commission (SEC) against Goldman Sachs.

The Plaintiffs in the lawsuit alleged that Goldman Sachs maintained an inflated share price caused by misrepresentations concerning its business principles and conflict-of-interest policies. The Plaintiffs further alleged that the true facts were revealed to the market when the SEC sued Goldman Sachs on April 16, 2010 "for making material misleading statements and discussions in connection with" ABACUS 2007 AC-1. Almost immediately, the price of Goldman Sachs common stock fell sharply. The stock fell further when the Department of Justice announced that it was

The issue before the Second Circuit Court was the District Court's application of the U.S. Supreme Court's guidance on the "fraud-on-the-market" theory.

commencing a criminal investigation. These disclosures are said to have caused Goldman's stock price to drop by 21% from \$184.27 on April 15, 2010, to \$145.20 on April 30, 2010.2

The issue before the Second Circuit Court was the District Court's application of the U.S. Supreme Court's guidance on the "fraud-on-the-market" theory. The fraud on the market theory is based on the principle that "stock trading on theoretically efficient markets like the New York Stock Exchange or Nasdaq incorporates all public, material information, including material misrepresentations, into its share price." Defendants must rebut that presumption by severing the link between the misrepresentation and the price paid by Plaintiffs for the Goldman Sachs shares. The Second Circuit also had to assess the generic nature of Goldman Sachs' business principles statements and whether a reasonable investor would have relied on the truth of those statements.4 ①

Generally, plaintiffs in securities litigation lawsuits argue that shares are inflated during the class period by the amount by which the stock price declines at the end of the class period when the truth about the company is revealed. However, the Supreme Court in *Goldman* stated that the inference that the back-end price drop equals front-end inflation weakens when there is a mismatch between the contents of the misrepresentation and the corrective disclosure.⁵

Following the Supreme Court's 2021 decision in *Goldman*, courts were directed to compare, at the class certification stage, the relative genericness of a misrepresentation with its corrective disclosure. Ultimately, the Second Circuit agreed with Goldman Sachs that the District Court failed to meaningfully apply the inflation-theory framework established by the Supreme Court because there was no evidence that investors relied on Goldman Sachs' generic statements of its business principles. The Second Circuit reversed the District Court's class certification order, and remanded the case back to the District Court with instructions to decertify the class.

Endnotes:

- ¹ Ark. Teacher Ret. Sys. v. Goldman Sachs Grp., Inc., 2023 U.S. App. LEXIS 20815, at *18 (2d Cir. Aug. 10, 2023) ("ATRS III").
- ² Richman v. Goldman Sachs Group, Inc., 274 F.R.D. 473, 474-75 (S.D.N.Y. 2011).
- ³ ATRS III at *18 (citing *Basic Inc. v. Levinson*, 108 S. Ct. 978, 991 (1988)).
- 4 ATRS III at *32.
- ⁵ Goldman Sachs Grp., Inc. v. Ark. Tchr. Ret. Sys. (Goldman), 141 S. Ct. 1951, 1961 (2021).
- 6 ATRS III at *8.

Robert C. Finkel is a senior partner and member of the executive committee at Wolf Popper LLP. Robert is a graduate of the Columbia Law School, Class of 1981 (where he was a Harlan Fiske Stone Scholar), and the University of Pennsylvania, Class of 1978, where he obtained a B.S. in accounting from the Wharton School of Business and a B.A. in history from the College of Arts and Sciences. Robert began his employment in the 1980s with two large New York City defense firms. Robert became a partner at Wolf Popper LLP effective January 1, 1992. He has been repeatedly designated a Super Lawyer in Securities Litigation.



Robert has written for The New York Law Journal on subjects including shareholder voting rights and ERISA class actions. He can be reached at rfinkel@wolfpopper. com or (212) 451-9620.

Sasha Marseille is a graduate of The George Washington University Law School (J.D., 2020). While in law school Sasha was a student attorney in the Public Justice Advocacy clinic, where she represented low-income clients in wage and hour cases. After law school, Sasha served as an attorney advisor at The U.S. Department of Health and Human Services, Departmental Appeals Board, where she assisted the administrative appeals judges in adjudicating Medicare related exclusions imposed by Medicare providers or suppliers.



Sasha is admitted to the bar of the State of New York.

NCPERS Asset Management

Income Generator: Back in Bonds

By: George Bory, CFA, Allspring Global Investments

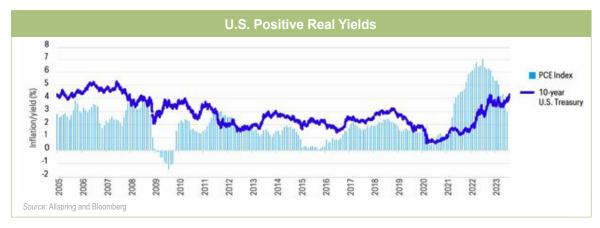


n early 2023, many financial pundits declared "bonds are back." In reality, though, bonds never left—and after suffering violent revaluation in 2022 as well as significant yield increases across the entire curve and up and down the ratings spectrum, we believe they're back to doing what bonds are designed to do:

- 1. Generate a steady stream of predictable income.
- 2. Provide a buffer against future price volatility.
- 3. Diversify a broad investment portfolio against cyclical economic risks.

Delivering Generous Income

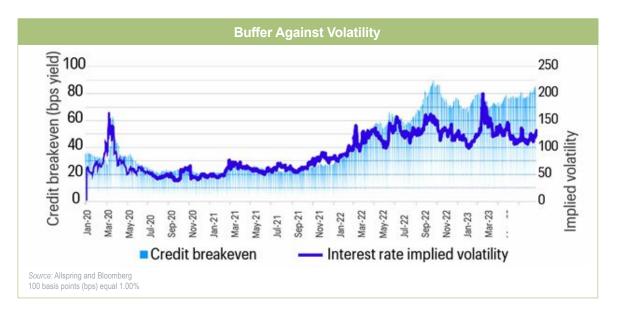
Today, a broadly diversified bond portfolio can potentially generate sufficient income that compounds above the expected rate of inflation and compensates for the possibility of an uptick in credit risk. For example, the average yield of U.S. Treasury notes and bonds currently stands around 4.35%. The spot level of inflation (as measured by the Personal Consumption Expenditures [PCE] Index) currently stands just above 4%, and longer-term implied rates of inflation are hovering near 2.5%. As a result, U.S. Treasuries offer a positive real yield that many investors are likely to find attractive over time. ③



Investors willing to go down the rating spectrum and/or into global bond markets will find real yields even higher.

Buffering Against Volatility

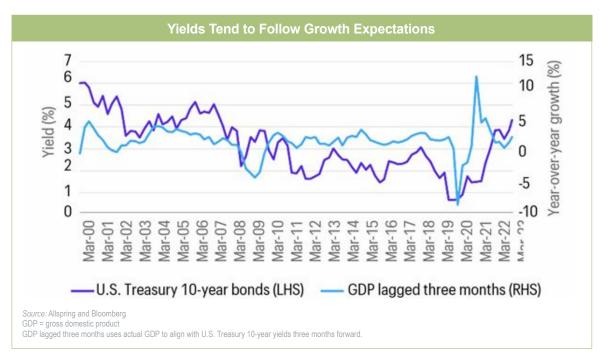
In 2022, the marked increase in price volatility unnerved many bond investors as inflation surged and prices plunged. Tightening monetary policy in the U.S. and other countries and lack of clear forward guidance from policymakers drove materially higher interest rate volatility and yields.



While an "uncertainty premium" is certainly warranted given the long list of risks facing investors, base rates in many countries are above the level of spot inflation, banks' lending standards are tightening, and financial liquidity continues to drain from the system.

Diversifying

Bonds are a good hedge against slower economic growth and/or a recession, but they are not a good hedge against inflation. However, as inflation pressures have started subsiding, bond prices have begun diverging from the prices of more cyclically exposed financial assets—namely, equities.



To be fair, inflation remains a dominant factor in today's market. Looking ahead, though, we expect bond prices to continue diverging from more growth-sensitive assets as inflation pressures subside and growth pressures emerge.

Riding the curve

To capitalize on these trends, here are five ideas for bond investors:

- **Extending duration:** Consider extending along the yield curve and adding duration as yields rise.
- Maximizing yield: Short-duration, lower-quality securities could help boost a fixed income portfolio's overall yield without adding significant interest rate risk.
- Moving up in quality: In our view, issuers with strong cash flow, diversified sources of funding, and a low percentage of variable-rate debt are well poised to thrive in today's economic environment.
- Adding munis for stability: In an environment of slowing economic growth and potential recession, general obligation bonds have generally outperformed revenue sectors.
- Going global: Global bond markets have started diverging from one another after the initial inflation shock of 2021/22, offering a good opportunity to diversify interest rate exposure and position in countries/regions with tight monetary policy and falling inflation.

Glad to be back

Bonds are continuing to do exactly what they are supposed to: generating income, buffering volatility, and hedging cyclical risks. It's time for them to again become a portfolio's cornerstone investment.

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George Bory, CFA is the chief investment strategist for Fixed Income at Allspring Global Investments. In this role, he is responsible for partnering across the fixed income platform to help each team set investment strategies for our full range of products and collaborating with clients to identify appropriate investment strategies. In addition, he leads the Fixed Income team of portfolio specialists and serves as a portfolio specialist for the Global High Yield team. Prior to this, he served as head of fixed income research for Wells Fargo Securities and earlier served as the head of credit strategy. George began his investment industry career in 1992. He earned a bachelor's degree in economics from Siena College and completed the London School of Economics' General Course.

NCPERS Asset Management

A Value Investor's Guide to **Impact Investing**

By: John Mullins, Lyrical Asset Management



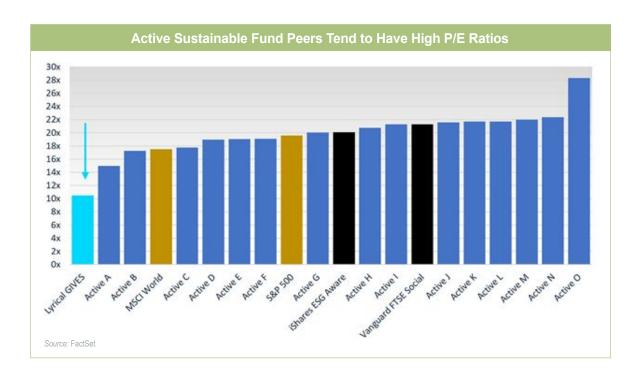
mpactful businesses are hard to screen for and measure. There is no standardized measurement methodology and ESG ranking services don't help. For example, if we consider Refinitiv's top ESG rankings of the largest 2,500 developed market stocks, you'll find an oil and gas powerhouse and a provider of shale drilling equipment ■ in the top 15. Industry classifications don't help. Of Standard & Poor's' 158 sub-industries there are only two obvious impact categories—Renewable Electricity and Environmental Services—which comprise only 22 stocks. 3

ESG Scores Don't Find Impact							
Ticker	Company Name	GICS Sub-Industry	Refinitiv ESG Score	ESG Grade			
AZN.L	AstraZeneca PLC	Pharmaceuticals	95.77	A+			
BNPP.PA	BNP Paribas SA	Diversified Banks	95.53	A+			
ROG.S	Roche Holding AG	Pharmaceuticals	95.02	A+			
SRG.MI	Snam SpA	Gas Utilities	94.96	A+			
OC.N	Owens Corning	Building Products	94.77	A+			
ENELAM.SN	Enel Américas S.A.	Electric Utilities	93.99	A+			
ISP.MI	Intesa Sanpaolo SpA	Diversified Banks	93.80	A+			
BAYGn.DE	Bayer AG	Pharmaceuticals	93.67	A+			
GASI.MI	Assicurazioni Generali SpA	Multi-line Insurance	93.56	A+			
6502.T	Toshiba Corp	Industrial Conglomerates	93.51	A+			
SAN.MC	Banco Santander SA	Diversified Banks	93.44	A+			
BKR.OQ	Baker Hughes Co	Oil & Gas Equipment & Services	93.40	A+			
INFY.NS	Infosys Ltd	IT Consulting & Other Services	93.05	A+			
SHEL.L	Shell PLC	Integrated Oil & Gas	92.94	A+			
002475.SZ	Luxshare Precision Industry Co Ltd	Electronic Components	92.60	A+			

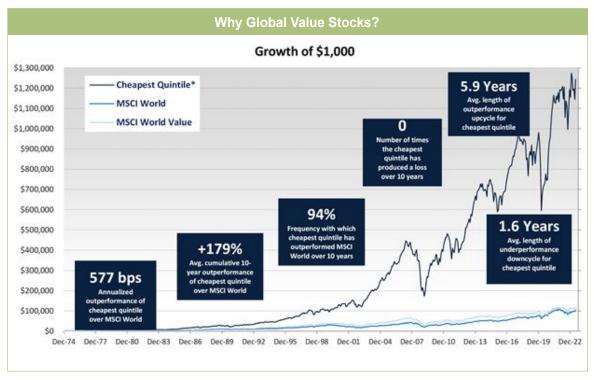
Impact is also difficult to measure - it is complex and not standardized. We think measurement must be done on a bottom-up basis. For example, take Elis, a cleaner of linens and uniforms, based in France. Elis purchases linens for their clients and cleans them using efficient industrial washers in a centralized location, reusing them as much as possible before recycling them. Elis is an obvious promoter of the circular economy, but that won't show up in ESG rankings or emissions data. To validate and measure the impact of Elis, we worked with the executive team to estimate that the company's operations use, on average, 48% less water and 29% less energy than onsite cleaning. Because it is both a cheaper and more environmentally friendly option, Elis is taking share from insourced cleaning, and we expect volume gains from the company to result in 54 billion liters over 4 years. This process might sound arduous because it is. However, the result is a true assessment of how a company's products impact the world as shown below.

Calculating Impact Often Requires Engagement and Independent Research									
Year	Elis' Overall Water Efficiency* (L/ kg)	Annual Laundry Washed (mm kg)^	Total Water Consumption (mm L)	Elis' Industrial Washers Reduced Water Usage	Estimated Water Consumption (bn L)	Estimated Water Savings (bn L)			
2022	8.1	1.8	14.8	48%	28.4	13.6			
2023	7.7	1.9	14.7	48%	28.2	13.6			
2024	7.4	2.0	14.6	48%	28.0	13.5			
2025	7.0	2.1	14.4	48%	27.8	13.3			
Total Cumulative		7.8	58.5		112.4	54.0			

Perhaps because identifying Impact is hard, we observe that most active and passive sustainable funds look similar. The two largest passive funds look much like the S&P 500 with >75% overlap. These passive funds essentially remove bad industries like tobacco and leave everything else. Most active impact funds crowd into the same names. Of eVestment's 15 largest actively managed "Sustainable" or "Impact" funds, 14 stocks are owned in at least five of them. What's more, none of these funds qualify as value funds, trading on average for more than 20x earnings.



We believe combining value investing with impact is important to driving strong financial returns. Going back to 1975, the cheapest quintile of global stocks has outperformed the MSCI World by almost 600bps, annualized. This is why we believe valuation should be the bedrock of any investment strategy.



Investing in impactful public companies is necessary to achieve the UN's 17 Sustainable Development Goals, but finding and evaluating impactful companies is difficult. We believe you must employ a bottom-up approach, working closely with companies and industry experts to identify and measure impact. For impact investing to succeed and continue to attract investor interest and flows, it has to do more than just deliver a social or environmental return; it must also generate a good financial return. This is where a value approach can help. Using our portfolio as an example, it currently trades at a 10.5x forward P/E despite producing the impact shown below. Bottom-up value investing is achievable with impact.



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John Mullins, Portfolio Manager joined Lyrical in February 2017. He has more than 15 years of experience investing across public and private markets. Prior to Lyrical, he served as a Senior Analyst at Clearfield Capital Management from May 2016 to January 2017 and as an Analyst at Elm Ridge Capital from September 2014 to April 2016. He worked as an investment analyst in the San Francisco office of Orbis Investment Management from 2011 to 2014. Before attending business school, John evaluated early-stage investment managers and financial services businesses as an analyst at MD Sass Macquarie Financial Strategies. John graduated cum laude with distinction from Yale University and received an MBA from the Stanford Graduate School of Business.



NCPERS Asset Management

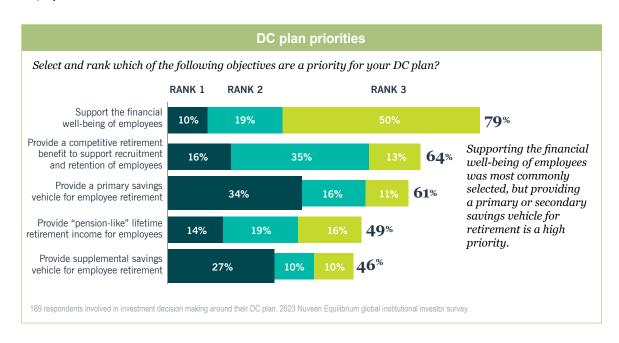
Now is the Time for a Pension Reinvention

By: Brendan McCarthy, Nuveen



he conversation around guaranteed lifetime income has been steadily growing since the SECURE Act of 2019 changed safe harbor provisions to protect in-plan annuities. Participants have long wanted lifetime income built within their retirement plans, to mirror the benefits of now essentially extinct defined benefit plans.

When asked about the overarching objective of a retirement plan, respondents¹ in our third annual Equilibrium survey prioritized the traditional role of a DC plan, namely providing a savings vehicle for plan participants. However, the most selected answer across rankings was the broadest and most aspirational; to support the financial well-being of employees. 3

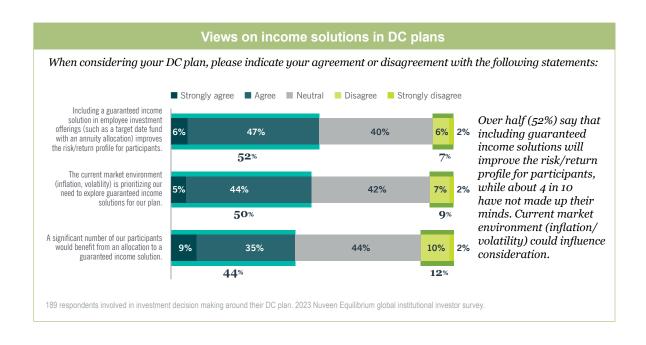


Research shows though that for plan participants, a guaranteed lifetime income in retirement is a significantly larger concern and could be used to motivate recruitment, retention and allow employees to retire on time. Seventy percent of participants surveyed by TIAA expressed a preference for a company that offers a guaranteed lifetime income solution in retirement. Even higher numbers expressed a preference for income stability over just principal protection, with 78% of respondents to an EBRI survey asking for income. These numbers are not necessarily indicative of a disconnect between participants and plan sponsors, but they could be a growing sign that participants want the next evolution in their retirement plan.

They are not simply looking for a tax-advantaged savings vehicle that opens at retirement. Participants understand that guaranteed income has a significant role in securing their retirement and they are, rightly, looking to their employer to help them in that process.

When asked about their views specifically on guaranteed income, a majority of plan sponsors see that a guaranteed income solution can improve the risk/return profile for participants, and they see a growing need to explore the available options for lifetime income given the current market environment.

The other telling portion of the dataset is just how large the 'neutral' portion of respondents is. The education around the role and benefits of a lifetime income solution within a retirement plan is still at a relatively nascent stage. Those who have an opinion on the matter are largely in favor, with only around 10% of respondents disagreeing with the potential role and benefits of lifetime income solutions. It is the role of asset managers as well as advisors and consultants to help educate plan committees on the role that guaranteed lifetime income solutions can provide. The solution isn't right for every plan sponsor, but it appears that on balance, once a sponsor has a firm opinion of lifetime income, they view it positively.



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Endnotes:

1 Nuveen Equilibrium Survey 2023. Out of the 800 institutional investors, 189 respondents are actively involved in their DC plans, across the U.S., Canada

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Brendan McCarthy is the Head of Retirement Investing for Nuveen where he is responsible for the firm's DCIO efforts in the U.S. In this role, he leads strategy and distribution for Nuveen investment and TIAA lifetime income solutions in the 401(k), 403(b) and 457 marketplaces. He joined the organization in 2015. Brendan has more than two decades of retirement leadership experience in the financial services industry. Prior to joining TIAA, he was Chief Operating Officer of F-Squared Retirement Solutions, a subsidiary of F Squared Investments. Previously, he was a Senior Vice President at Putnam Investments responsible for Defined Contribution Investment Only Business Development. Brendan graduated with a B.S. in Business Administration from St. Joseph's College and an M.B.A. from the Carroll School of Management at Boston College.



NCPERS Asset Management

Private Credit: Optimism is in the Air

By: Ian Fowler, CFA, Barings



oday's private credit market is benefiting from higher base rates, attractive spreads, and a thawing origination landscape.

Earlier this year, the slowdown in high yield and broadly syndicated loan markets combined with volatility in the banking sector to create a shortage of capital in the traditional middle market. The result was that with less capital competing for deals, borrowers faced a higher cost of capital as well as improved credit documentation.

For investors, this turned out to be a good thing—in the form of higher yields and better structural protections. And it's also had the positive knock-on impact of preventing borrowers from taking on the excessive levels of leverage, leading to lower levered, more resilient capital structures.

Now, with base rates at ~5%, we are seeing all-in yields in the 10-12% range for senior "down the middle" deals with lower leverage and first-lien risk.¹ From a historical basis, the risk-return on offer looks extremely attractive today. These tailwinds appear to be setting up for an attractive direct lending vintage in 2023 and 2024.

There are, however, some headwinds.

Output

Description:

Today's private credit market is benefiting from higher base rates, attractive spreads, and a thawing origination landscape.

Will Managers be Able to Put Capital to Work?

One of these comes down to deployment—the lifeblood of private debt. With the M&A market slower, there are fewer new deals available to private lenders.

However, for lenders with large and established portfolios, there are opportunities to generate deal flow from current portfolio companies as their private equity owners continue to execute on buy and build strategies. At Barings, our existing portfolio is generating significant deal flow for us this year—in North America, approximately 70% of our deal activity has come from the existing portfolio. This is particularly notable not just in terms of the visibility of deal flow and the ability to reliably deploy capital, but also because it does not require any sacrifices in quality to do so. These are typically accretive add-on acquisitions for companies that we have underwritten and invested in for years.

Across the market, there are also indications that the origination pipeline to support private equity firms in traditional LBO structures will look much more robust in the coming months. In other words, we think it's about to get easier to deploy capital.

The Default Picture

Another headwind comes in the form of the elevated risks of default. The higher returns that private debt enjoys, means higher interest costs for the borrowers and therefore greater pressure on margins and profitability. We are therefore likely to see an increase in defaults as a result, but these are likely to impact more highly levered businesses and more cyclical industries.

Those who have built more aggressive portfolios in the recent post-Covid 'good times' may come to regret some of the excessive risks taken. As a result, we do expect to see a bifurcation in terms of manager performance with those more disciplined and conservative managers outperforming—but this could be a positive evolution as it will reaffirm the importance of discipline and caution in delivering a stable and defensive income.

It remains to be seen what the macro backdrop has in store, but given the yields currently on offer, along with improved structures, less leverage and a thawing origination backdrop, a variety of factors are converging that suggest that 2023 and 2024 private credit vintages could be some of the most attractive we have seen in years.

Endnotes:

¹ Source: Barings' observations. As of August 9, 2023.

lan Fowler is Co-Head of Barings' Global Private Finance Group, a member of the group's North American, European and Asia-Pacific Private Finance Investment Committees and President of Barings BDC, Inc. (NYSE: BBDC). He is responsible for leading a team that originates, underwrites and manages global private finance investments. Ian has worked in the industry since 1988 and his experience has encompassed middle market commercial finance, including originating, underwriting and managing senior secured loans, mezzanine and co-investment transactions. Prior to joining the firm in 2012, he was a Senior Managing Director with Harbour Group and co-founded Freeport Financial LLC where he was a member of the Executive Credit Committee and responsible for all business development and capital market initiatives. Ian holds a B.A. (Honors) from the University of Western Ontario and is a member of the CFA Institute.

NCPERS Financial Wellness

New MissionSquare Research Institute Report Reveals Insights on Young Public **Service Workers**

By: Rivka Liss-Levinson, Ph.D., MissionSquare Research Institute



groundbreaking report by MissionSquare Research Institute sheds light on the experiences of younger public service employees. The findings indicate that most individuals aged 35 and under (64%) hold positive morale regarding their jobs, expressing satisfaction with their job security, community service, and the quality of their colleagues. Moreover, the majority (70%) believe that their benefits compensation is competitive in the labor market.

However, the report underscores that younger public service workers face financial challenges and high levels of stress. Over three-quarters (76%) report feeling significantly or somewhat stressed in the past six months, with personal finances (61%) and work/career (58%) being the primary stressors.

These findings are detailed in a new research report, 35 and Under in the Public Sector: Why Younger Workers Enter and Why They Stay (or Don't). Read the research.

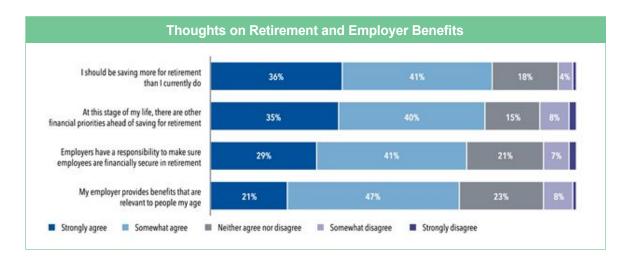
Watch a video highlighting key survey results.

Other key findings include:

- Top priorities for respondents include workplaces that contribute to community improvement (67%), strong team dynamics (65%), intellectual engagement, and alignment with personal values (both 64%).
- Factors that initially attracted respondents to their current public service jobs include job security (32%), work/life balance (29%), health insurance, and job satisfaction (both 28%). 3

However, the report underscores that younger public service workers face financial challenges and high levels of stress.

- While 70% believe their benefits compensation is competitive, only 53% think their wage compensation is.
- The majority (70%) consider their debt level problematic, with 22% viewing it as a major problem, and only 7% reporting no debt.
- 77% acknowledge the need to save more for retirement, citing affordability, competing savings priorities, and debt as the primary obstacles.
- Nearly half (48%) are highly likely to recommend a public service career to friends or family, and 46% plan to stay in public service until retirement.
- Words like caring, compassionate, empathetic, and understanding are most frequently used to describe an ideal public sector worker.



This report is based upon a nationally representative online survey of 1,004 state and local government employees aged 35 and under conducted by Greenwald Research in March and April 2023. The survey assessed motivations for working in the public sector, attitudes about current finances and financial outlook, views on employer benefits, thoughts on retirement, morale and job satisfaction, and retention issues.

Rivka Liss-Levinson, Ph.D. is Senior Research Manager at MissionSquare Research Institute, where she conducts research on public sector retirement plans, health and wellness benefits, and workforce demographics and skillset needs. With 15 years of experience designing, implementing, reporting, and disseminating rigorous, practitioner-oriented research, she is dedicated to leveraging data and stories to improve the health and wellbeing of public sector workers and others who serve their communities.

NCPERS Asset Management

No Recession Yet, But Risks Are Rising. **Are You Prepared?**

By: Jamie Newton, CFA, Allspring Global Investments



Where has the continued economic strength come from?

he recession that many have been talking about has yet to arrive. Will we ultimately face one? I can point to three reasons why the long-awaited slowdown has yet to set in:

Companies and individuals have amassed low coupon debt since the Global Financial Crisis. Borrowers used the COVID era to extend maturities at even lower rates, muting some of the effects of rapid rate increases.

Fiscal stimulus from COVID-related packages persists in the economy. Excess savings of companies and consumers have lasted longer than expected, and student loan payment deferrals have increased consumers' spending capacity.

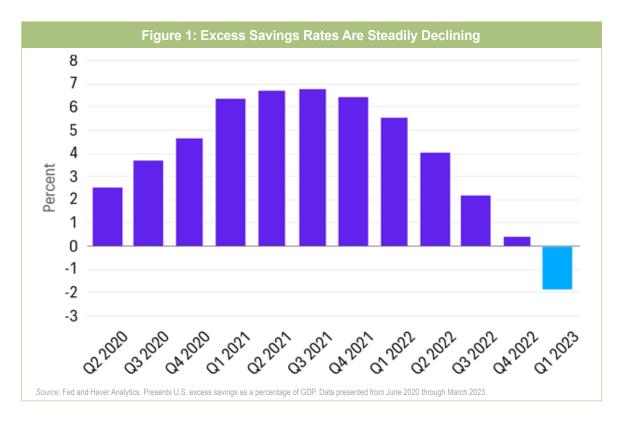
The work-from-home movement continues to be influential. While businesses supported by traditional work arrangements have lost out from this shift, workers are saving money on transportation and meals, further extending their spending capacity. ⁽²⁾

Is a recession on the horizon?

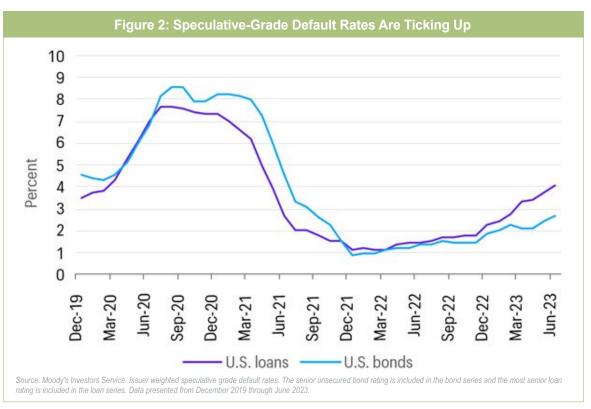
While these factors have extended the business cycle, I expect we may enter a recession in late 2023 or early 2024 for several reasons:

1. Excess savings are running off. Cracks are appearing in consumer-focused lending. Delinquency rates for credit card, auto, and consumer loans are pushing higher. Further, student loan payments should restart for many borrowers this fall.

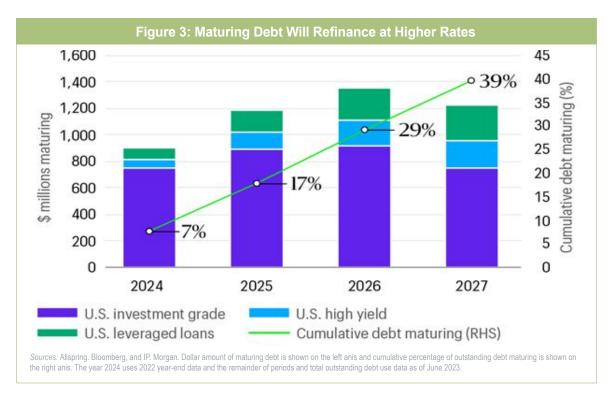
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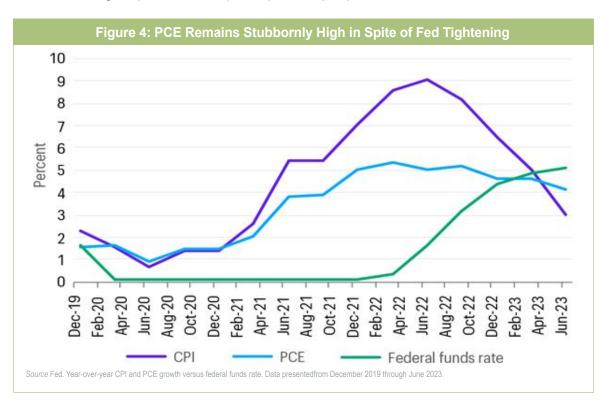
2. Interest rates are starting to bite. Companies dependent on short-term debt and/or variable-rate debt are feeling the pain. We see this particularly with lower-quality debt, as companies are struggling to absorb increasing interest costs.



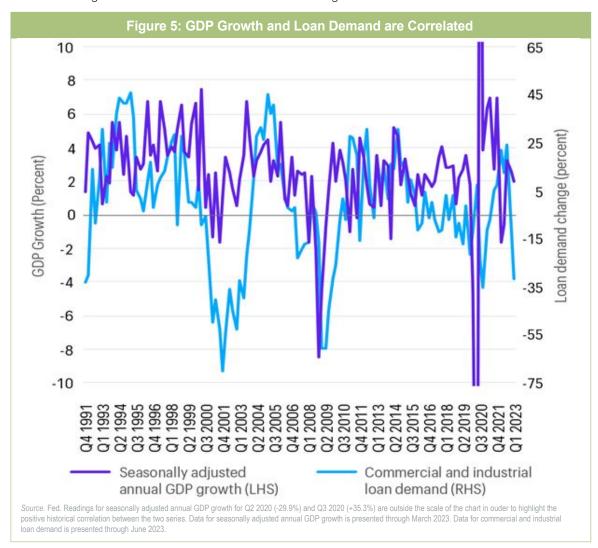
3. Higher rates hurt as companies roll their debt. About U.S. \$900 billion in corporate bonds and leveraged loans must be paid down or refinanced in 2024 at higher rates. Nearly 30% of the corporate market matures within the next three years.



4. Rate hikes may not be over. While the Consumer Price Index (CPI) is well off its peak, the jobs market remains strong and personal consumption expenditure (PCE) inflation remains elevated.



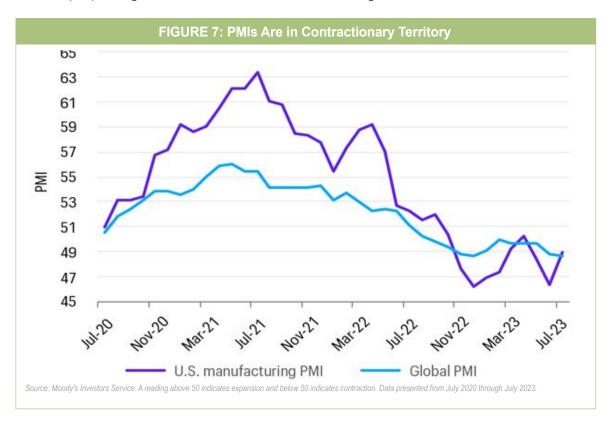
5. Banks are tightening lending standards and reducing exposures. Access to debt and capital is deteriorating for some borrowers in the wake of the banking turmoil earlier in 2023.



6. Commercial real estate (CRE) faces tighter access to bank lending, reduced rents, and lower occupancies. However, not all CRE sectors are the same—specific locations, lease terms, and financing structures will influence which assets become stressed.



7. Manufacturing, by many accounts, is already in recession. Manufacturing Purchasing Managers' Index (PMI) readings have weakened in the U.S. and around the globe.





What can investors do about it?

Against this backdrop, I believe that investors can protect themselves by taking the following actions:

- Don't get caught in the cash trap. Currently attractive short-term rates could be cut quickly near a recession, and longer-term rates could fall as well. Investors can extend their duration over the next several months, lock in higher yields for longer, and position to benefit from lower yields.
- Stay diversified. The effects of any recession would likely be felt unevenly across fixed income markets and present an attractive opportunity for sector and issue selection. Broadly speaking, your equity and fixed income exposures should be proactively deployed.
- **Bias toward quality.** Current valuations suggest there will be little reward for reaching down in quality. Focusing on fundamentals—especially leverage, interest coverage, and margins—should be as important as ever as markets and valuation evolve. ◆

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Jamie Newton, CFA is the head of the Global Fixed Income Research team and the deputy head of the Sustainability team at Allspring Global Investments. He joined Allspring from its predecessor firm, Wells Fargo Asset Management (WFAM), where he served as head of the Global Credit Research team and previously as a senior analyst. Jamie began his investment industry career in 1992. He earned a bachelor's degree in economics with an emphasis in accounting from Albion College and a master's degree in business administration with an emphasis in finance from the University of Michigan.



NCPERS Legal Services

The Facts on SPACs: Why Wall Street **Darlings Fell Back to Earth**

By: Michael Dark and Nathaniel Orenstein, Berman Tabacco



fter an eye-popping surge in the number of special purpose acquisition companies—SPACstwo years of this decade, these merger vehicles have lost their bloom for many institutional investors. Skepticism has grown among both regulators and the investment community about not only the lack of information these entities provide for investors, but their vulnerability to abuse.

A SPAC is, in simplest terms, a vehicle for companies to go public without the need to follow some of the strict regulatory requirements governing traditional initial public offerings, or "IPOs". A SPAC begins life as a shell company listed on a stock exchange—typically NASDAQ—for the purpose of acquiring a private company and then taking it public. The SPAC pools funds to finance mergers or acquisitions even before a specific target company has been identified. By avoiding the intensive compliance requirements of the normal IPO process, SPACs can avoid certain regulatory burdens and save time in bringing a company to the public market.

After an eye-popping surge in the number of SPACs in the first two years of this decade, these merger vehicles have lost their bloom for many institutional investors.

While SPACs have been used since the 1990s, their combination of reduced regulatory burden and speed to market proved irresistible to financial firms and venture capitalists over the last few years.

O

But this cost- and time-saving device is a double-edged sword—one that can be problematic for defrauded investors because the regulatory scheme that these vehicles avoid is one aimed at ensuring that investors have access to adequate information for making investment decisions. When the Securities Act of 1933 was passed ninety years ago, the lessons of the stock market crash and the great depression were fresh in the minds of legislators. One of the primary objectives of the statute was to ensure that investors receive financial and other significant information concerning securities being offered for public sale through the registration process, which requires that companies seeking access to the public market provide essential facts to investors.

Not surprisingly, the looser regulatory regime to which SPACs are subject can foster abuse.

Not surprisingly, the looser regulatory regime to which SPACs are subject can foster abuse. A congressional investigation into SPACs resulted in a 2022 report that detailed several significant concerns, including hidden fees levied by financial institutions in the transactions and disclosures that sometimes are alleged to cross the line into outright fraud. In conjunction with the issuance of the report, the U.S. Securities and Exchange Commission introduced a package of regulations that seek to address many of the problems identified in the report, including inadequate disclosures, the misuse of forward-looking statements, and conflicts of interest or breach of fiduciary duties owed to investors by SPAC officers, directors, and sponsors.

Institutional investors will be key partners to government regulators in reforming SPACs to better protect the markets, and the last two years have seen a significant uptick in the number of shareholder derivative and federal securities law cases being brought by pension funds and other investors to rein in some of the opaqueness from SPAC practices and misinformation contained within SPAC disclosures. Until new regulations are adopted, private civil litigation may still represent the best recourse for many funds to help beneficiaries recover losses resulting from SPAC abuses. •

Michael Dark is Of Counsel to Berman Tabacco, where his practice focuses on securities litigation on behalf of institutional investors.

Nathaniel Orenstein is a Partner at the Firm, and his practice focuses on both securities and shareholder derivative actions on behalf of institutional investors.

NCPERS Asset Management

Public Pensions: New Discount Rate, New Strategy?

By: Colyar Pridgen, Capital Group



recent change in actuarial reporting standards may make this an opportune moment for public pension plan sponsors to take a fresh look at their fixed income allocations. The Actuarial Standards Board now requires that actuarial reports for public pensions reflect plan liabilities using a discount rate based on the yields of high-quality bonds, as corporate pension plans do. This does not replace public plans' longstanding approach to the discount rate, which is based on long-term expected returns.

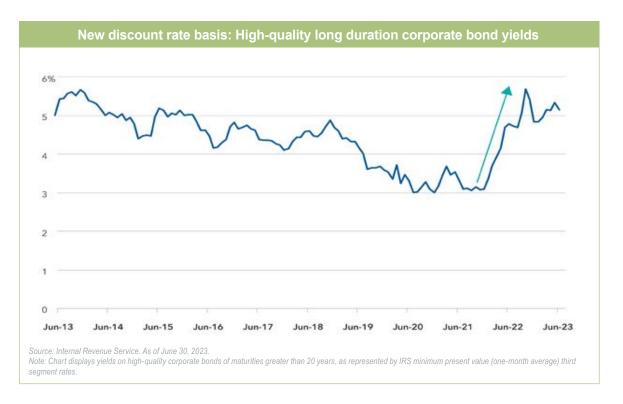
The actuarial reporting change is unlikely to drastically alter public plans' use of their traditional discount rate or their overarching investment philosophy. However, it creates a secondary implied funded status that could experience greater volatility and create "bad optics." Mitigating some of that volatility could be worthwhile to plans, especially if achievable within the confines of the existing investment philosophy.

Consequently, public pension plan sponsors may want to consider whether allocations to actively managed long duration credit would better align with long-term return goals compared to existing fixed income.

Here are three other points for public pensions to consider:

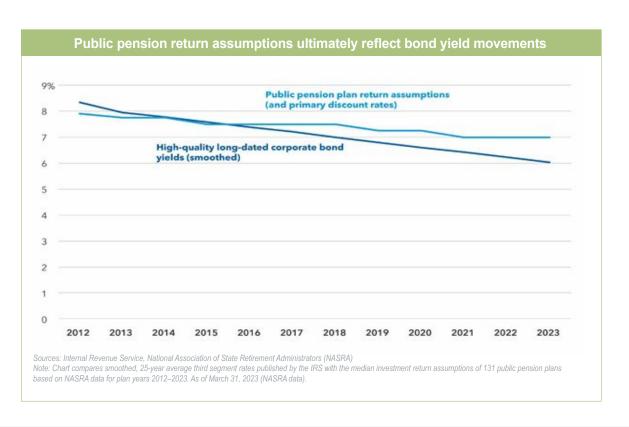
1. Long bonds may be the fixed income style of choice for many long-term total return investors

Many public plans shun longer dated bonds, which can cause them to miss out on potential risk-mitigating benefits when return correlations between equities and bonds are low. These benefits, along with long-dated fixed income return expectations, have only become more attractive with the run-up in bond yields that began last year. ③



2. Public plans' discount rates tend to follow the direction of long-term bond yields

For corporate pensions, discount rates are tied directly to market yields on long duration bonds, so they have tended to be more responsive to shifts in fixed income markets. However, even under their traditional expected returns-based discount rate, public pension plans' liabilities are sensitive to bond yields in the long run, which is what typically matters for long-term investors.



3. Long bonds can offer a measure of protection during rare (black swan) events

The Governmental Accounting Standards Board (GASB) requires public pension plans with insufficient funding levels to use high-quality 20-year tax-exempt general obligation municipal bond rates as a portion of the primary discount rate. Whether or not a plan is sufficiently funded to avoid this GASB 67 requirement, the high-quality bond-yield-based discount rate represents a "shadow liability" that can emerge in black swan situations. Investing in long bonds can help mitigate the potential double whammy of an extreme market drawdown and imposition of a muni bond component to the discount rate.

Conclusion

Public pensions have historically not utilized much long duration fixed income. While there are sensible reasons why use of these instruments may differ in manner or scale as compared to corporate plans, it may be time for public pensions to take a fresh look at long duration. The new actuarial reporting requirements are the latest and highest profile reason, but a close inspection through a variety of other lenses may confirm the strategic suitability of the asset class. Incorporating long bonds into strategic allocations — particularly long credit — should not require a wholesale adoption of LDI across the board but should dovetail well with some existing investment philosophies.

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Colyar Pridgen is a lead pension solutions strategist at Capital Group. He has 16 years of industry experience and has been with Capital Group for five years. Prior to joining Capital, Colyar worked as a senior LDI strategist at Standish Mellon Asset Management. Before that, he was a consultant and actuary at Towers Watson. He holds a bachelor's degree in economics from Cornell University. He also holds both the Chartered Financial Analyst and Chartered Alternative Investment Analyst designations, and is a Fellow of the Society of Actuaries and an Enrolled Actuary under ERISA. Colyar is based in Los Angeles.

NCPERS Legal Services

Maximizing Returns Through Asset Protection and Recovery

By: Javier Bleichmar, Erin Woods, Nancy Kulesa, and Ross Shikowitz, Bleichmar Fonti & Auld LLP



ension trustees and staff are currently navigating a volatile and uncertain economic environment. Runaway inflation over the past two years and the resultant spike in interest rates (which appears primed to persist) have dented and jeopardized the predictability of returns across a variety of asset classes.1

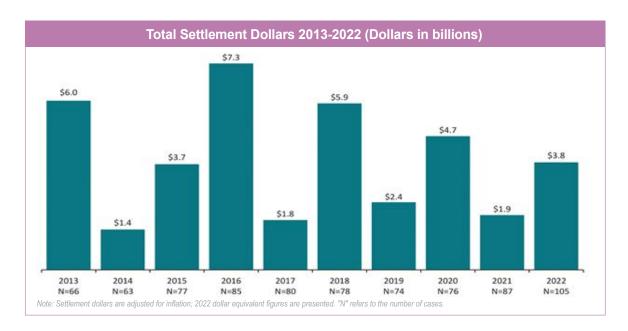
To help maximize returns, certain trustees and staff have established procedures to monitor and ferret-out corporate misconduct that may have impacted the fund's portfolio. Through these procedures, a plan can pursue litigation to potentially recover funds lost as the result of misconduct, and thereby enhance the value of plan assets. Indeed,

over the past ten years, investors have recovered nearly \$39 billion through securities class action litigation.² Many of the largest and most significant of these cases were led by institutional investors, particularly public pension plans.3

Recent scholarly work indicates that the opportunity to increase returns through securities litigation may be even more significant than these historical results might suggest. According to a recent academic study titled How Pervasive is Corporate Fraud published in Review of Accounting Studies—which seeks to publish original

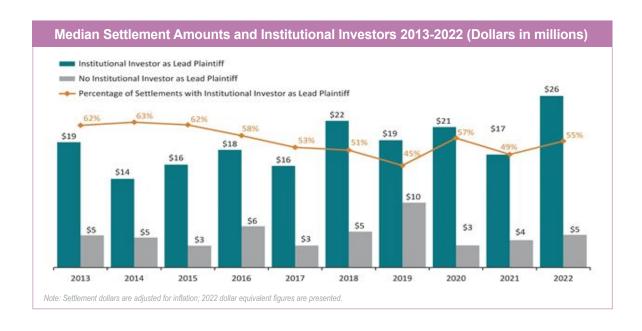
Over the past ten years, investors have recovered nearly \$39 billion through securities class action litigation.

research that makes empirical, theoretical, or methodological contributions to demography or other population-related fields—"evidence suggests that in normal times only one-third of corporate frauds are detected. We estimate that on average 10% of large publicly traded firms are committing securities fraud every year. . . . we estimate that corporate fraud destroys 1.6% of equity value each year, equal to \$830 billion in 2021." The authors further explained how "[a]ccounting violations are widespread: in an average year, 41% of companies misrepresent their financial reports, even when we ignore simple clerical errors."5 0



The New York Times wrote that the study made waves "in the world of academia" in 2023 and "has become a fascination among general counsels, corporate leaders and investors." According to Professor Alexander Dyck, one of the lead authors for the study who serves as a Professor of Finance and Economic Analysis and Policy at the University of Toronto, "[w]hat people don't get is how widespread the problem of corporate fraud is.... the amount of fraud perpetrated at any given time stays pretty steady." What's more, the study only involved audited public companies. Professor Dyck explained that "misconduct is likely even more pervasive in privately held business, particularly in crypto, which is only loosely regulated."8

Significantly, history further suggests that it remains important for public pension plans to continue to take the mantle and lead these cases to maximize potential recoveries and protect asset values. In every year over the past decade, securities class actions that were led by an institutional investor resulted in median settlement amounts that were multiples larger than those led by non-institutional investors. ⁹ Last year, institutional investors achieved median settlement amounts over five times larger than non-institutions, which represents one of the largest disparities over the past decade.¹⁰



In short, recent academic research indicates that there is a raft of misconduct (both detected and undetected) that has been negatively impacting plan asset values. Public pension plans have achieved great results in identifying fraud and subsequently recovering assets through securities class action litigation. By continuing to take an active role in these matters, trustees and staff can help maximize asset values, particularly during this time of economic uncertainty.

Javier Bleichmar, Erin Woods, Nancy Kulesa, and **Ross Shikowitz** are Partners of Bleichmar Fonti & Auld LLP focusing on securities class action and shareholder litigation as well as settlement claim form filing on behalf of institutional investors. Each of their biographies is available at www.bfalaw.com.

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Endnotes:

- See e.g., What to do When Interest Rates Rise, VANGUARD (Sept. 20, 2022), https://investor.vanguard.com/investor-resources-education/article/what-to-do-when-interest-rates-rise.
- ² See CORNERSTONE RESEARCH, SECURITIES CLASS ACTION SETTLEMENTS 2022 REVIEW AND ANALYSIS 3.
- 3 See Id. at 12
- ⁴ See Alexander Dyck, Adair Morse, Luigi Zingales, How Pervasive is Corporate Fraud, REV. ACCOUNT. STUD., 1 (Jan. 5, 2023) https://doi.org/10.1007/s11142-022-09738-5 (emphasis added).
- 5 See Id. at 3
- ⁶ See Ephrat Livny, Just How Common Is Corporate Fraud, N.Y. TIMES (Jan. 14, 2023) https://www.nytimes.com/2023/01/14/business/dealbook/how-common-is-corporate-fraud.html#: ":text=A%20new%20study%20estimates%20that,commit%20securities%20fraud%20each%20year.&text=The%20Deal-Book%20Newsletter%20Our%20columnist,power%2Dbrokers%20who%20shape%20them.
- 7 See Id.
- 8 See Id.
- ⁹ See CORNERSTONE RESEARCH, supra note 2, at 12.
- 10 See CORNERSTONE RESEARCH, supra note 2, at 12.



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NCPERS Asset Management

Data Driven Pension Funds via Right-Sized Solutions: A Guide for Mid-Market Public Pension Plans

By: Lou Eperthener, ICS



n the realm of public pensions, the management of investment data stands as a cornerstone for enhanced investment decisions and transparent reporting to your members and regulators. The journey towards becoming a data-driven organization begins with partnering with a solution that is "right-sized" for your organization.

Investment Data: The Bedrock of Informed Decision-Making

Investment data, encompassing a wide array of metrics and analytics, serves as the bedrock for informed decisionmaking. It provides a clear lens through which the risk, performance and potential of investments can be assessed.

Right-Sizing – A Critical Factor in Success

The concept of right-sizing is critical for the mid-tier market. Understanding that we have different challenges to tackle compared to the large tier 1 organizations is essential.

- Being Right-Sized? Being right-sized in investment data management signifies a balanced approach where the solution neither overwhelms with complexity nor underwhelms with inadequacy or flexibility. It's about having the right level of functionality and scalability to meet the evolving needs of your organization.
- Your Partner: A Catalyst for Enhanced Capabilities A right-sized partner and solution resonates with the unique needs and scale of your organization. It's about having a data platform that aligns with your operational dynamics, ensuring a seamless integration and an enhanced data analytics capability. ②

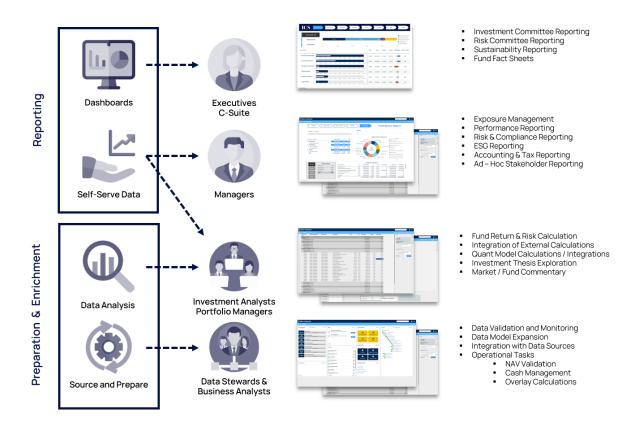
Data Challenges: The Hurdles Mid-Tier Public Pension Funds Face

Mid-tier public pension funds often grapple with fragmented data sources, which hinder a consolidated view of assets. The lack of a unified data platform can lead to inefficiencies, inaccuracies, and a prolonged decision-making process. Moreover, the evolving regulatory landscape and the need for enhanced data access further accentuate data management challenges.

Empowering the Business Users: The Essence of Data Democratization

The concept of the citizen developer, individuals who can create or modify systems and data without formal coding skills, is a testament to the democratization of data. This paradigm shift empowers a broader spectrum of personnel within a pension fund to engage with and leverage data to drive informed decisions.

Data democratization enables business users to access the data for the specific tasks they are required to perform, with fit-for-purpose tools and channels to access the data. See below for a diagram that outlines the typical roles/ personas and how these engage with data across an organization:



Mid-tier firms simply do not have the same resources as tier 1 peers - especially when it comes to IT resources. Hence, it is essential that to drive firms towards becoming more data-driven, solutions have to be geared towards the business user. This means empowering these users with the capability to perform, what has historically been seen as, complex data tasks without the need or reliance on advanced technical skills.

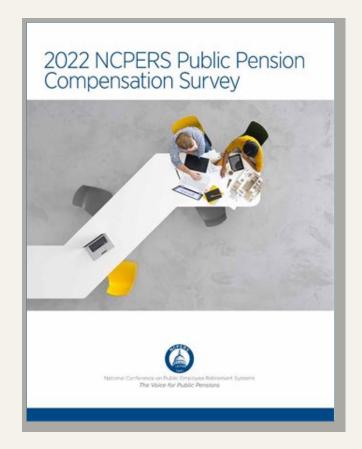
Final Thought

The path towards a data-driven future for mid-market public pension plans is paved with the right partnerships and right-sized solutions. It's about unlocking the potential of investment data to foster a culture of informed decisionmaking and sustainable growth.

Lou Eperthener is a FinTech executive with over 25 years of experience. His experience spans the landscape of software solutions supporting the front, middle and back office functions. Lou specializes in helping Investment Officers, portfolio managers, investment analysts and operations directors understand the benefits of embracing technology to harness the power of data, increase operational efficiency and improve the investment decision process. Prior to helping ICS launch in North America in 2022, Lou has held leadership roles at Eagle Investment Systems, SimCorp and Princeton Financial Systems (a State Street company). He graduated from Washington & Jefferson College with a Bachelor of Arts in Economics.

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NCPERS Real Estate

Institutional Investors Increasingly Using **REITs in Portfolio Completion Strategies**

By: David Sullivan, Nareit



EITs are widely used in the real estate strategies of nearly two-thirds of the largest and most sophisticated institutional real estate investors in the United States and globally. Approximately 64% of the top 25 largest defined benefit and sovereign plans in both North America and elsewhere use REITs to optimize their real sestate investment portfolios. This trend is continuing to play out in 2023, as more institutional investors are

using REITs as part of portfolio completion strategies to optimize, or complete, their real estate portfolios.

That's partly because REITs have long been recognized as playing a key role in helping institutional investors meet their real estate allocation objectives by taking advantage of relative valuation opportunities and improving their portfolios' overall risk/return profile. For example, research by Nareit and CEM Benchmarking shows that REIT returns have consistently outperformed private real estate by around 2% per year.

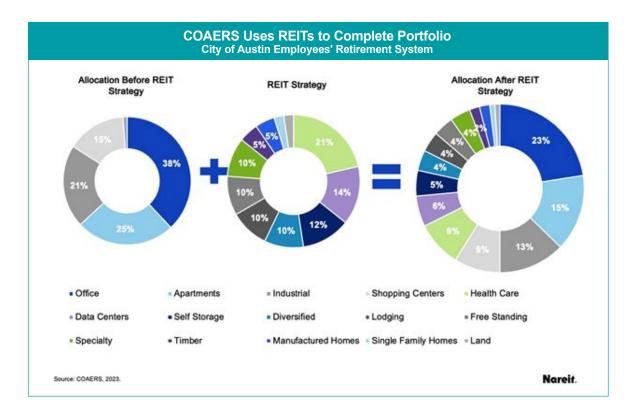
REITs provide sector diversification, geographic diversification, and can enhance a portfolio's ESG attributes.

Institutional investors also increasingly understand that investing with REITs gives them access to modern economic sectors, offers geographic diversification, and enhances ESG attributes. ③

REITs Offer Access to Modern Economic Sectors

Many legacy institutional real estate portfolios are currently overweight in office and retail, and correspondingly underweight in modern economy sectors. REITs are becoming increasingly attractive to those investors looking to increase their exposure to newer, alternative economy sectors, including data centers, self-storage, health care, cell towers, and others. Case studies include:

- A U.S. healthcare system using an active REIT strategy to radically reconfigure its real estate allocation.
- The National Pension System of Korea allocating \$1 billion to an active strategy benchmarked against a custom completion-oriented index.
- The City of Austin Employees' Retirement System (COAERS) using a passive completion REIT index to improve property sector diversification.



The chart above shows COAERS' REIT completion portfolio, which significantly increased its exposure to new and emerging sectors. COAERS reduced its exposure to office, industrial, apartments, and shopping centers from nearly 100% to around 60%, and added health care, data centers, self-storage, lodging, and others to gain strategic exposure to modern sectors.

REITs Offer Geographic Diversification

As of year-end 2022, there were 893 listed REITs with a combined equity market capitalization of approximately \$1.9 trillion in more than 40 countries and regions around the world. Investors can easily diversify the geographic footprint of their real estate portfolio using REITs and listed real estate without the need to build out dedicated international teams or an on-the-ground presence.

REITs Enhance Environmental, Social, and Governance Attributes

Over the past decade, institutional investors have become increasingly aware of the sustainability and social responsibility profile of their investment portfolios. For these investors, REITs provide access to some of the bestin-class performers of environmental, social, and corporate responsibility. For example, Nareit's ESG Dashboard, which looks at the top 100 largest REITs by market capitalization, shows that in 2022, 87% publicly reported carbon emissions, up from 38% in 2017. Meanwhile, 99% publicly reported on their diversity, equity, and inclusion policies, up from 49% in 2018. In addition, a new article in The Journal of Portfolio Management shows that REITs have historically outperformed private real estate funds in terms of sustainability performance.

REITs provide sector diversification, geographic diversification, and can enhance a portfolio's ESG attributes. Institutional investors increasingly understand this and are using REITs as part of portfolio completion strategies because of these benefits.

David Sullivan is the senior vice president, investment affairs at Nareit. He leads institutional pension plan, foundation, and endowment outreach for Nareit, which entails promoting and facilitating real estate investment through REITs to institutional investors and their consultants worldwide. This includes organizing roadshows, hosting meetings, and other marketing outreach targeted to institutional real estate investment officers around the world.

Prior to joining Nareit, Sullivan was an institutional real estate capital raising and marketing professional focused on the global real estate market, a role he held for 20 years at firms including Schroders, Barings, and CBRE Investment Management. During this time, he raised billions of dollars for public and private real estate equity and debt investment strategies from institutional investors across the U.S. and Canada.

Sullivan has an MBA from Columbia Business School, an MPhil in international relations from Cambridge University, and a BA in international relations from Boston University.

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NCPERS Pension Administration/Database

Considering an In-house Modernization: What You Need to Know

By: Kevin Lynch, Linea Solutions



e've seen it many times before: Pension organizations like yours get to a fork in the road where you need to decide whether to rewrite the code of your current system, upgrade with a commercial offthe-shelf vendor, or modernize to a more cohesive technology.

There may be multiple issues that get you to this place:

- Processes that heavily rely on paper or "digital" paper (PDFs) requiring time consuming manual entry
- Outdated legacy technology that is difficult to support
- Insufficient access to comprehensive dashboards with metrics and reports
- Minimal front-end validations on employer contribution files allow for incomplete or inaccurate data
- Lack of data security and potential cybersecurity risks
- The inability to program legislative and technology changes in a timely and cost-effective manner

Faced with this decision, some pension funds saddled with these issues are choosing to modernize in-house. Why are they doing this? Because they believe that retaining control over their systems, resources and priorities is the best way to continue delivering excellent customer service. (5)

Some pension funds saddled with these issues are choosing to modernize in-house.

Going the in-house modernization route has several advantages:

- Controls the priority and pace of change
- Gives your organization an opportunity to streamline your system and use business process improvement strategies
- Allows your organization to prioritize your implementation schedule and maintain it
- Ensures your membership needs are being met by technology you control

However, there are also many challenges you need to consider.

Implementing a new system is a once in a career undertaking and many on staff will not have the experience or expertise to perform this transformation effectively, or there are not enough staff to dedicate their time to assisting in this transformation.

The new architecture will be even more complicated to manage technologically and even for large organizations, outside contractors will often have to be used for coding.

These initiatives require lots of internal leadership over a long period of time. Your leadership needs to get behind this, and will need to continue motivating others over the course of several years to ensure that staff and stakeholders can also get behind the changes. Implementing a new system is a once in a career undertaking.

They also require documented governance structures for decision-making, and that structure needs to be

followed or there will be breakdowns in how important decisions are made and are accepted by others.

These projects also require lots of resources, and typically more resources than currently exist on staff. Purchasing COTS software means you are outsourcing many things to a vendor; if you decide to do this in-house, it means those resources need to be available internally, or need to be hired (many just for this project, and others in an ongoing capacity.)

To address these challenges before fully going down the path of a modernization, your organization needs to conduct a full assessment to address Risks/Timelines and Budgets based on market knowledge, peer interviews and vendor demos. This needs to be performed to ensure you are confident in the path selected and it is the best fit based on your organization's priorities, needs, and skillsets.

If your organization determines that the in-house modernization route is the correct one, you will need to ensure you have tracking of the project, testing plans in place before you begin, training for stakeholders on how your new system will work, and development of a cybersecurity structure in tandem. •

Kevin Lynch has been involved in solutioning for the Pension administration business for over 20 years across a variety of roles and organizations in North America. He has pension administration operations, implementation, and business development experience. He has worked on both public and private sector pension plans in Canada and the United States. He has worked for multiple pension administration providers in both a third-party administration capacity and at a software vendor. Kevin has lead an entire Pension Administration practice at a global consulting firm responsible for over 200 colleagues worldwide and over 100 clients. His expertise lies across pension administration best practices, process improvements, and customer satisfaction initiatives.

NCPERS Asset Management

U.S. Lower Middle-Market Private **Credit Thoughts: Lower Leverage = Lower Defaults**

By: John Ide, CFA and Leanne Schmitt, Star Mountain Capital



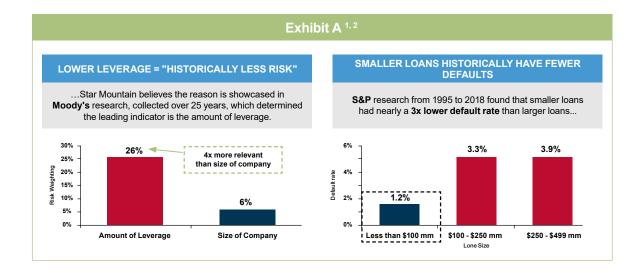
re loans to smaller companies riskier? There is a general perception that smaller companies are riskier due to, among other reasons, less scale and diversification potential. Independent research conducted by S&P and Moody's helps shed light on this question and their findings suggest otherwise. The research looked at various factors that have driven default rates, including loan size and leverage.

Moody's Analytics RiskCalc 4.0 reviewed 110,000 financial statements, 25,000 firms, and 1,600 defaults collected over 25 years. Moody's study of risk suggests leverage is the highest predictor of defaults, with the size of the company being the lowest. Moody's research concluded that leverage had the single biggest correlation to predicting default rates - four times more relevant than the size of company size.

S&P LCD Institutional Loan Default Review conducted a study that included all loans closed between 1995 and Q3 2018 and found that larger loans had three times higher default rates than smaller loans. Despite the narrative that smaller businesses are riskier to invest in, both reports show that larger businesses, which typically have higher leverage multiples and fewer covenants, tend to be riskier. Lower Middle-Market companies are substantial businesses that have long operating histories, significant revenues, and predictable cash flows. 3

There is a general perception that smaller companies are riskier due to, among other reasons, less scale and diversification potential.

Most investors understand the single factor correlated most closely with default rates is leverage, balance sheet, or capital structure. More leverage is available in the market to larger companies than to smaller companies, therefore larger companies see a higher default rate, notwithstanding scale, diversification, or other perceived advantages larger companies might have. Simply put, higher leverage swamps all other factors when it comes to default risk.



So why invest in the U.S. Lower Middle-Market as opposed to the middle and larger market?

- It is large and fragmented with over 200,000 businesses representing one-third of the private sector GDP and employing 48 million people.⁴ Furthermore, 95% of these middle-market businesses are not owned by a private equity sponsor.³
- Large direct lenders do not focus on the lower middle market because it is labor-intensive and loan sizes are too small.
- From a risk-adjusted return perspective, we believe the lower middle-market has lower leverage, lower default rates, more protective financial maintenance covenants, and higher spreads than the core middle market.
- It offers attractive diversification to most of the traditional asset classes including global bonds, macro hedge funds, US real estate, and global infrastructure.

We believe all these factors make direct lending in the U.S. Lower Middle-Market an attractive investment opportunity for investors today.

Endnotes:

¹ Moody's Analytics, Moody's Analytics RiskCalc 4.0 U.S, April 30, 2012. Based on private firm data, including 110,000 financial statements, 25,000 firms, and 1,600 defaults collected over 25 years. The size of a company is measured in total assets.

² S&P LCD Institutional Loan Default Review; comprises all loans closed between 1995 and Q3 2018. Independent axis labels reflect loan amount ranges.

 $^{^{\}rm 3}$ "Everything Is Private Equity Now." ${\it Bloomberg.com},\,{\it Bloomberg},\,{\it 3}$ Oct. 2019.

⁴ Nesbitt, Stephen L. "Overview of the US Middle-Market Corporate Direct Lending." Private Debt: Opportunities in Corporate Direct Lending, Wiley, Hoboken, NJ, 2019.

John Ide, CFA, Managing Director joined Star Mountain Capital in 2021 and is a senior executive with 30+ years of experience advising some of the world's largest and most sophisticated institutions and family offices on their investments as well as strategically guiding operating companies as their trusted corporate banker and lender.

Mr. Ide spent approximately 22 years at JPMorgan Asset Management. As a Managing Director and member of the Strategic Client Group, he managed some of the largest and most sophisticated institutional client relationships at JPMorgan. He oversaw approximately \$20 billion of client capital invested across a broad range of global strategies including JPMorgan's then-affiliated \$15+ billion AUM Highbridge Principal Strategies' private credit, mezzanine, and special situations funds. Mr. Ide is a graduate of Lawrence University and has an MBA from Loyola University of Chicago. Mr. Ide also holds the Chartered Financial Analyst (CFA) designation.

Leanne Schmitt, Managing Director joined Star Mountain Capital in 2023. Mrs. Schmitt is an investor relations, portfolio management, and financial systems investment professional with over 20 years of experience.

Mrs. Schmitt was most recently a Managing Director at Intech Investment Management, a global institutional quantitative equity firm that spun out from the Janus Henderson Group in 2022. She has advised some of the world's largest and most sophisticated institutions and private clients on their investments across asset classes including quantitative public equities and alternatives.

Mrs. Schmitt is a graduate of Fordham University with a Bachelor of Science in Computer Science. She obtained her Master of Business Administration from Keller Graduate School of Business with a concentration in International Business with Entrepreneurial Focus and is FINRA Series 63 and 7 licensed. Mrs. Schmitt received the Diversity, Equity & Inclusion in the Workplace Certificate from the University of South Florida.

NCPERS 2023 Public Retirement Systems Study:

Trends in Fiscal, Operational, and Business Practices

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NCPERS Investment Consultant

The Untold Story of Trailing Returns

By: Daniel Johnson and Troy Brown, CFA, AndCo Consulting



egardless of your level of sophistication as an investor, when reviewing public investment strategies, the start of your evaluation process is likely often the same: "What do the trailing returns look like?" In other words, are the 1, 3, 5, and 10-year trailing performance numbers better, worse, or largely similar relative to other active or passive options being considered? This tendency to rely on trailing performance does not apply exclusively to comparisons between competing investment options, we also commonly use trailing performance to evaluate if a portfolio's objectives are being met over time and/or if an asset class (represented by an index) is worthy of new or ongoing inclusion in a portfolio. Unfortunately, trailing performance simply doesn't tell the whole story.

Every trailing return reviewed for an investment strategy, portfolio or index has an "untold story" each time its performance is updated for a new time period (e.g., September 30th vs. December 31st trailing performance). This is because there is a largely unsung "rolling-return" factor associated with updating trailing performance for each period, and while we all know the factor exists, it rarely gets a second thought when evaluating trailing returns. This "out with old, in with the new" methodology is commonly referred to as "endpoint sensitivity." In simpler terms, when you choose to start the evaluation period and when it ends can have a dramatic impact on the presentation of the results. ³

Every trailing return reviewed for an investment strategy, portfolio, or index has an 'untold story' each time its performance is updated for a new time period.

To further illustrate this point, consider that most client portfolios were recently faced with an example of the extreme impact that end point sensitivity can have on the presentation of trailing results. The table below contains the trailing benchmark performance of a traditional balanced investment portfolio (50% Russell 3000 / 10% MSCI EAFE / 40% Bloomberg US Aggregate) using two different endpoints one year apart. As you can see, adding 2022's negative performance to the trailing period calculations has a significant impact on the presentation of long-term performance results. To further visualize how a cursory review of these results could potentially lead to inaccurate snap judgements of portfolio success or failure, we also highlighted returns above 7.5% as a reference point for a hypothetical pension plan's assumed rate of return.

Realized Performance									
Period Ending	1 Year	3 Year	5 Year	7 Year	10 Year	15 Year	20 Year	30 Year	40 Year
9/30/2021	17.55%	11.11%	10.63%	9.01%	10.45%	7.81%	7.79%	8.56%	10.47%
9/30/2022	-16.69%	2.72%	4.42%	6.17%	6.68%	5.65%	7.22%	7.56%	9.51%

Return > 7.5% highlighted.

Source: Morningstar Direct. Blended return stream rebalanced annually. Return data is provided for historical and informational purposes only. Past performance does not quarantee future results.

The simple addition of 2022's performance to the trailing return calculation shifts the hypothetical pension portfolio from achieving its return target for each trailing period, to requiring 30 years of trailing results to exceed the static hurdle.

What's the primary takeaway? First, it is a fascinating piece of mathematical market trivia. Second, we believe it is important for clients to understand the significant impact that 2022 had on investment results and notably trailing performance results. Third, extreme swings in short-term market performance can create the perception and/or urgency among stakeholders that long-term, successful strategies may need to be changed. Finally, and most importantly, we would like to emphasize patience, and to the extent possible, removal of emotion when evaluating trailing performance results, especially after periods of market distress.

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NCPERS Custodian

Managing Private Market Asset Allocations

By: Susan M. Doyle, State Street Global Advisors



emand for private assets has grown as institutional investors seek alternative sources of potential return and diversification, along with lower volatility relative to public markets. Because there can be a long lead time between committing capital to private assets and when that cash is called, investors should adopt a clear strategy on how those earmarked funds are invested in the interim. As volatility in the public markets has increased, investors face questions on how to build out, benchmark, and manage their private allocations in a period of volatile public markets.

Building out a Private Asset Allocation

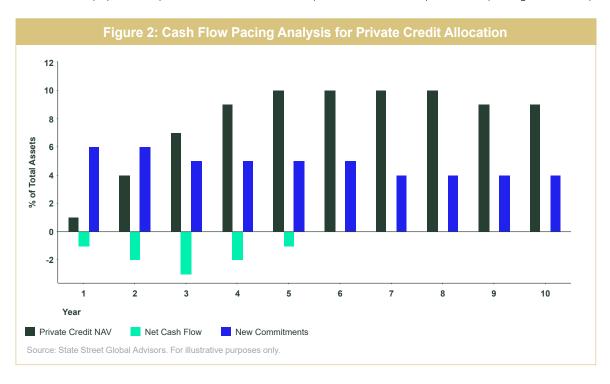
One challenge when investing in private assets centers on managing the current asset allocation towards the longterm target. Investors typically review their Strategic Asset Allocation (SAA) every one-to-three years. An Investment Policy Statement (IPS) that adds private asset allocation to might look like this: ①

Asset Class Group	Current Target (%)	Long-Term Target (%)	Difference (%)
Liquid Growth	70	60	-10
Private Growth	_	10	+10
Real Assets	10	10	_
Fixed Income	20	20	

It can take years to build a 10% allocation to private growth assets. The question becomes how to measure portfolio performance relative to an investable benchmark. Options include:

Interim Benchmarks

We start with a cash flowpacing analysis for private assets, estimating the required commitments and corresponding net cash flows (expected capital called minus distributions) to reach 10% of total plan assets (see Figure 2, below).



The table below shows the investible benchmark we would adopt for the first year, and we typically revisit the cash flow pacing analysis annually.

Asset Class Group	Current Target (%)	Year 1 Target	Long-Term Target (%)
Liquid Growth	70	65	60
Private Growth	-	5	10
Real Assets	10	10	10
Fixed Income	20	20	20
Total Assets	100	100	100

Split Management of Public and Private Assets

Another approach is managing publicly traded assets to a public-only benchmark that sums to 100%, while letting the private asset weight float as the allocation grows. As in the previous instance, we would revisit the cash flow pacing analysis annually.

Asset Class Group	Current Target (%)	Actual Year 1 Allocation	Public Scaled to 100%	Long-Term Target (%)	
Liquid Growth	70	65	68.4	60	
Real Assets	10	10	10.5	10	
Fixed Income	20	20	21.1	20	
Total Public Assets	100	95	100	90	
Private Growth	_	5	_	10	
Total Private Assets	-	5	-	10	
Total Assets	100	100	-	100	

How to Fund Private Asset Allocations

Private equity is the most common private market allocation. We typically benchmark private equity against MSCI World + 2% p.a., which is the long-term aspiration for private equity over public equity.

Funding private equity from public equity is a natural choice given the abundance of liquidity. Similarly, we could use combinations of bank loans and high yield for private and opportunistic credit.

Private real assets can be proxied with combinations of liquid real assets. Private infrastructure is a good example, with listed infrastructure having a similar long-term return but almost double the volatility. However, the correlation between private and listed infrastructure is around 90% if the listed infrastructure is held for over two years.

The Bottom Line

Private assets can provide additional sources of potential return, increased diversification, and lower volatility. However, their illiquid nature and the lag time between the commitment and drawdown of capital makes managing the implementation of a private asset allocation particularly important — especially when deciding how to fund the allocation, how to benchmark it, and how to manage volatility and currency hedging needs. Each investor must balance different governance and structural considerations when determining how best to implement an illiquid allocation.

Disclosure:

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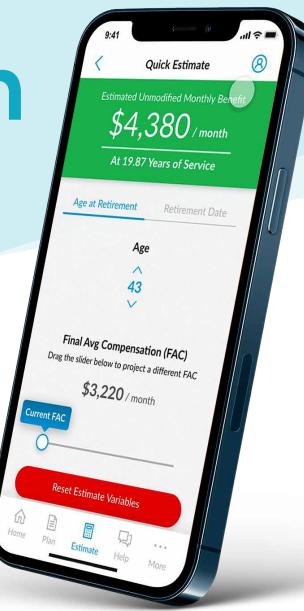
Susan M. Doyle is a Managing Director of State Street Global Advisors and the Global Head of the Private Markets Funds Investment Team. Susan joined SSGA in July 2016 through its acquisition of GE Asset Management (GEAM). She joined GEAM in 1991 and currently leads the Alternatives team responsible for selecting private equity, private credit, and real estate asset classes across the platform. She also has oversight of the private markets commercial activities.

Susan received a BS in Business Administration from the University of Connecticut and an MBA from the University of North Carolina at Chapel Hill.

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