AGENDA

Date: February 2, 2024

The regular meeting of the Dallas Police and Fire Pension System Board of Trustees will be held at **8:30 a.m. on Thursday, February 8, 2024, 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 January 11, 2024

C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. **2022 Financial Audit**

2. **Report on Audit Committee Meeting**

3. **Independent Actuarial Analysis and Recommendations and Section 2.025 Update**

4. **2022 Annual Comprehensive Financial Report**

5. **Quarterly Financial Reports**

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

7. **Monthly Contribution Report**

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

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

9. **TMRS Restricted Service Credit Request**

10. **Potential Budget Amendment – Information Technology**

11. Report on Investment Advisory Committee Meeting

12. Portfolio Update

13. Clarion – Possible Sale of CCH Lamar

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 (February 2024)
- NCPERS PERSist (Winter 2024)
- TEXPERS Pension Observer (Vol. 1 2024)
  https://online.anyflip.com/mxfu/wdkk/mobile/index.html

b. Open Records

c. Staffing Update

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

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

DALLAS POLICE & FIRE PENSION SYSTEM

MOMENT OF SILENCE

In memory of our Members and Pensioners who recently passed away

NAME	ACTIVE/ RETIRED	DEPARTMENT	DATE OF DEATH
Harvie G. Eady	Retired	Police	12/02/2023
Sam C. Gonzales	Retired	Police	12/25/2023
Danny R. Wampler	Retired	Fire	12/30/2023
Albert H. Strebeck	Retired	Police	01/09/2024
Dwayne R. McBride	Retired	Fire	01/11/2024
Bobby D. Wade	Retired	Fire	01/16/2024
Billy E. Shaffer	Retired	Police	01/22/2024
R A. Mullins	Retired	Fire	01/23/2024
Paul D. Tilton	Retired	Police	01/24/2024
Steven Torres	Retired	Police	01/26/2024

Regular Board Meeting –Thursday, February 8, 2024

Dallas Police and Fire Pension System
Thursday, January 11, 2024
8:30 a.m.
4100 Harry Hines Blvd., Suite 100
Second Floor Board Room
Dallas, TX

Regular meeting, Nicholas A. Merrick, Chairman, presiding:

ROLL CALL

Board Members

Present at 8:31 a.m.	Nicholas Merrick, Tina Hernandez Patterson, Michael Taglienti, Michael Brown, Mark Malveaux, Matthew Shomer, Marcus Smith, Tom Tull, Steve Idoux
By telephone	Anthony Scavuzzo
Present at 8:38 a.m.	Nancy Rocha
Absent	None
Staff	Kelly Gottschalk, Josh Mond, Brenda Barnes, Ryan Wagner, Christina Wu, Akshay Patel, John Holt, Nien Nguyen, Milissa Romero, Cynthia J. Thomas
Others	Ben Mesches, David Harper, William Mazade, Cara Mendelsohn
By telephone	Leo Festino

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

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A. MOMENT OF SILENCE

The Board observed a moment of silence in memory of retired police officers Billy W. Williams, Ricardo Silva, and retired firefighters Cynthia M. Manion, James R. Wilcher, K.D. Searcey.

No motion was made.

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Regular Board Meeting
Thursday, January 11, 2024

B. APPROVAL OF MINUTES

Regular meeting of December 14, 2023

After discussion, Mr. Tull made a motion to approve the Regular minutes of the meeting of December 14, 2023. Mr. Taglienti seconded the motion, which was unanimously approved by the Board.

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C. DISCUSSION AND POSSIBLE ACTION REGARDING ITEMS FOR INDIVIDUAL CONSIDERATION

1. Financial Audit Status

The Chief Financial Officer provided a status update on the annual financial audit.

No motion was made.

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2. Executive Director Approved Pension Ministerial Actions

The Executive Director reported on the December pension ministerial actions.

No motion was made.

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3. Monthly Contribution Report

The Executive Director reviewed the Monthly Contribution Report.

No motion was made.

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4. Board approval of Trustee education and travel

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

The Board and staff discussed future Trustee education. There was no future investment-related travel scheduled.

No motion was made.

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Regular Board Meeting
Thursday, January 11, 2024

5. **Portfolio Update**

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

No motion was made.

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6. **Private Asset Cash Flow Projection Update**

Staff provided the quarterly update on the private asset cash flow projection. The cash flow model projects estimated contributions to, and distributions from, private assets through the end of 2024. These estimates are intended to assist the Board in evaluating the expected time frame to reduce DPFP's exposure to these assets and the implications for the public asset redeployment, overall asset allocation, and expected portfolio risk and return.

No motion was made.

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7. **Update on Activities involving Section 2.025 of Article 6243a-1**

Staff briefed the Board on the status of the work related to Section 2.025 of Article 6243a-1.

No motion was made.

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

The Board went into closed executive session – Legal at 9:32 a.m.

The meeting reopened at 10:55 a.m.

The Board and staff discussed legal issues.

No motion was made.

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Regular Board Meeting
Thursday, January 11, 2024

9. Closed Session - Board serving as Medical Committee

The Board went into closed executive session - Medical at 9:32 a.m.

The meeting was reopened at 10:55 a.m.

The Executive Director reviewed the disability application 2024-1D and materials for the Board's consideration.

After discussion, Mr. Malveaux made a motion to approve an on-duty permanent disability for applicant 2024-1D not subject to future medical recalls but would be subject to annual earnings tests. Mr. Smith seconded the motion, which was approved by the following vote:

For: Mr. Merrick, Ms. Hernandez Patterson, Mr. Taglienti, Mr. Brown, Mr. Idoux, Mr. Malveaux, Ms. Rocha, Mr. Scavuzzo, Mr. Smith, Mr. Tull

Opposed: Mr. Shomer

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10. Executive Director Performance Evaluation

The Board went into closed executive session – Personnel Matters at 9:32 a.m.

The meeting was reopened at 10:55 a.m.

The Board met with the Executive Director to review performance and provided recommendations concerning yearly objectives, goals, and performance.

After discussion, Mr. Taglienti made a motion to approve a 3.04% salary increase for 2024 for the Executive Director. Mr. Brown seconded the motion, which was unanimously approved by the Board.

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D. BRIEFING ITEMS

1. Public Comments

Prior to commencing items for Board discussion and deliberation, the Chairman extended an opportunity for public comment. No one requested to speak to the Board.

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Regular Board Meeting
Thursday, January 11, 2024

2. Executive Director's report

a. Associations' newsletters
- NCPERS Monitor (January 2024)

b. Open Records

The Executive Director's report was presented.

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Ms. Gottschalk stated that there was no further business to come before the Board. On a motion by Mr. Malveaux and a second by Mr. Taglienti, the meeting was adjourned at 10:57 a.m.

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Nicholas A. Merrick,
Chairman

ATTEST:

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Kelly Gottschalk
Secretary

Regular Board Meeting
Thursday, January 11, 2024

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DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C1

Topic:	**2022 Financial Audit**
Attendees:	Jill Svoboda, BDO, Partner Matt Liu, BDO, Audit Senior Manager
Discussion:	Representatives from BDO, DPFP's independent audit firm, will be present to discuss the results of their audit for the year ended December 31, 2022.
Staff Recommendation:	**Approve** issuance of the 2022 audit report.

Regular Board Meeting – Thursday, February 8, 2024

REPORT TO THOSE CHARGED WITH GOVERNANCE

DALLAS POLICE & FIRE PENSION SYSTEM

Audit Wrap Up:
Year Ended

December31, 2022

Contents

QUICK ACCESS TO THE FULL REPORT

The following communication was prepared as part of our audit, has consequential limitations, and is intended solely for the information and use of those charged with governance (e.g., Board of Directors and audit committee) and, if appropriate, management of the Company and is not intended and should not be used by anyone other than these specified parties.

Welcome

February 8, 2024

Board of Trustees and Audit Committee

Dallas Police & Fire Pension System

Professional standards require us to communicate with you regarding matters related to the plan audit that are, in our professional judgment, significant and relevant to your responsibilities in overseeing the financial reporting process. On May 11, 2023 we presented an overview of our plan for the audit of the financial statements of the Dallas Police and Fire Pension System (the System) as of and for the year ending December 31, 2022, including a summary of our overall objectives for the audit, and the nature, scope, and timing of the planned audit work.

This communication is intended to elaborate on the significant findings from our audit, including our views on the qualitative aspects of the System's accounting practices and policies, Plan management's judgments and estimates, financial statement disclosures, and other required matters.

We are pleased to be of service to the Plan and look forward to meeting with you to discuss our audit findings, as well as other matters that may be of interest to you, and to answer any questions you might have.

Respectfully,

BDO USA, P.C.

Status of our Audit

Status of Our Audit

We have completed our audit of the financial statements, including procedures applied to the supplemental schedule, of Dallas Police and Fire Pension System (the System) as of and for the year ended December 31, 2022. Our audit was conducted in accordance with auditing standards generally accepted in the United States of America (GAAS). This audit of the financial statements does not relieve Plan management or those charged with governance of their responsibilities. The term "those charged with governance" encompasses the term Board of Directors or Audit Committee or other formally designated body that has financial oversight responsibilities.

Status of Our Audit

- The objective of our financial statement audit was to obtain reasonable - not absolute - assurance about whether the financial statements are free from material misstatements.
- The scope of the work performed was substantially the same as that described to you in our earlier Audit Planning communications.
- We expect to issue an unmodified opinion on the financial statements and release our report upon final approval of the Board and obtaining the final signed representation letter.
- Our responsibility for other information in documents containing the System's audited financial statements does not extend beyond the financial information identified in the audit report, and we are not required to perform procedures to corroborate such other information. However, in accordance with professional standards, we have read the information included by the System and considered whether such information, or the manner of its presentation, was materially inconsistent with its presentation in the financial statements. Our responsibility also includes calling to management's attention any information that we believe is a material misstatement of fact. We have not identified any material inconsistencies or concluded there are any material misstatements of facts in the other information that management has chosen not to correct.
- All records and information requested were freely available for our inspection.
- Management's cooperation was excellent. We received full access to all information that we requested while performing our audit, and we acknowledge the full cooperation extended to us by all levels of System personnel throughout the course of our work.

Results of our Audit

RESULTS OF OUR AUDIT

Accounting Practices, Policies, and Estimates

The following summarizes the more significant required communications related to our audit concerning the System's accounting practices, policies, and estimates:

The System’s significant accounting practices and policies are those included in the notes to the financial statements. These accounting practices and policies are appropriate, comply with the applicable financial reporting framework and industry practice, were consistently applied, and are adequately described within the notes to the financial statements.

- A summary of recently issued accounting pronouncements is included in Note 2 to the System's financial statements.
- There were no changes in significant accounting policies and practices during 2022.

Significant estimates are those that require management’s most difficult, subjective, or complex judgments, often as a result of the need to make estimates about the effects of matters that are inherently uncertain. The System's significant accounting estimates, including a description of management’s processes and significant assumptions used in development of the estimates, are disclosed in Note 2 , 4 and 5 of the financial statements.

- Significant accounting estimates include:
    - Actuarial Estimates
    - Fair Value Measurements
- Plan management did not make any significant changes to the processes or significant assumptions used to develop the critical accounting estimates in 2022.

RESULTS OF OUR AUDIT

Corrected and Uncorrected Misstatements and Quality of the System's Financial Reporting

CORRECTED AND UNCORRECTED MISSTATEMENTS

There were no corrected misstatements, other than those that were clearly trivial, related to accounts and/or disclosures that we brought to the attention of management.

There were no uncorrected misstatements, other than those that were clearly trivial, related to accounts and/or disclosures that we presented to management. We concur with System management’s assessment that the effects of not recording such adjustments are, both individually and in the aggregate, immaterial to the consolidated financial statements taken as a whole, considering both qualitative and quantitative factors. None of the proposed adjustments could potentially cause future-period financial statement to be materially misstated.

QUALITY OF THE SYSTEM’S FINANCIAL REPORTING

A discussion was held regarding the quality of the System’s financial reporting, which included the following:

- Qualitative aspects of significant accounting policies and practices
  - BDO has no issues with the quality of the System’s accounting policies and practices.
- Our conclusions regarding significant accounting estimates
  - BDO concurs with the System’s critical accounting policies and practices with respect to significant estimates.
- Financial statement presentation
  - BDO does not note exceptions to the System’s financial statements.
- New accounting pronouncements
  - Refer to Note 2 of the financial statements and as noted on the preceding page under accounting practices, policies and estimates.
- Alternative accounting treatments
  - BDO notes that there were no alternative accounting treatments adopted by the System during the year.

Results of Our Audit (continued)

Below is a Summary of Select Policies, Areas, and Findings:

Internal Controls

Summary of procedures:
- Reviewed internal controls in place over financial reporting, distributions, payroll data, investments, system expenses, and system obligations.
- Obtained and reviewed the Service Organization Controls reports for JPMorgan, the System's Custodian, and STP Investment Services, LLP, the System's investment accounting service provider.

Findings:
No issues were noted during our review of internal controls which caused us to adjust planned audit procedures.

Actuarial Valuation

Summary of procedures:
- Obtained actuarial reports and related requested data directly from the actuary.
- Ensured the census information provided was complete, accurate, and as of benefit information date.
- Tested census information in correlation with eligibility testing.
- Considered cash flow projections and determination of GASB 67 discount rates.
- Reviewed the actuarial valuation reports and utilized BDO's Actuarial Managing Director to perform an independent review of the reports and assumptions used. Primary areas of focus included demographic assumptions (mortality, termination prior to retirement, retirement and DROP participation eligibility which affect DROP utilization and retirement rates, disability) and economic assumptions (discount rate, inflation rate, investment rate of return, salary scale, administrative expenses, interest on DROP accounts) as well as the actuarial methods used (asset smoothing, actuarial cost method, amortization of unfunded actuarial accrued liability).
- Reviewed actuarial disclosures for completeness and accuracy during the review of the financial statements.

Findings:
Based on the review by BDO and BDO's experts, the actuarial methods employed by the System meet the requirements under GASB and Actuarial Standards of Practice.

Eligibility

Summary of procedures:
- Agreed demographic information to the census data used by the actuary.
- Ensured members were properly included or excluded from the System or census based on system requirements.

Findings:
No issues were identified in our testing.

Results of Our Audit (continued)

Benefit Payments

Summary of procedures:

- Reviewed reconciliation of annuity payments.
- Tested a sample of participants receiving benefits and ensured the participants selected were eligible to receive payment.
- For sample selected, traced amounts of benefit payments to the actual payments recorded per the payment register. Additionally, ensured proper tax was withheld and proper authorization of benefit payments was made.
- For each selection, obtained the calculation of benefits and recomputed the benefit amount based upon the participant data and ensured it was in accordance with the System documents.
- Reviewed annuity payments by month for any unusual variations.

Findings:

No issues were identified in our testing

Investments

Summary of procedures:

- Tested investments by selecting a sample using statistical sampling techniques.
- Obtained confirmations from investment managers and reviewed audited financial statements for investments selected. Reviewed confirmations for unusual items and misclassifications. Additionally, performed recalculations based on the unit values in the audited financials.
- A majority of the real estate investments have audited financial statements. Consideration of those internally managed real estate investments included review of subsequent sales contracts.
- Reviewed all complex investment valuation techniques and utilized BDO Valuation experts where necessary.
- Reviewed purchase agreements and letters of intent for properties sold or currently for sale.
- Reviewed Management's valuation memos in obtaining an understanding of the supporting process for establishing fair value.
- Confirmed all cash balances.
- Reconciled unit information recorded by the System to JPMorgan and to the fund's financial statements.
- Selected a sample of transactions for investment transaction testing and agreed the purchase/sales price to approved pricing sources.
- Recalculated the exchange rate used for certain investments by comparing the rate to a third-party source such as Oanda.com.
- Reviewed the investment policy and reviewed for deviations from policy.
- Reviewed Management's fair value considerations and fair value hierarchy by investment in correlation with GASB No. 72.

Findings:

No issues were identified in our testing.

Results of Our Audit (continued)

Other Receivables, Payables, and System Expenses

Summary of procedures:

- Confirmed and reviewed contributions receivables.
- Reviewed the reasonableness of interest and dividend receivables.
- Reviewed management's policy for securities lending and the accounting treatment of such transactions.
- Reviewed the schedule of accrued expenses. Tested fund management fees payable and accrued uncompensated balances.
- Performed a search for unrecorded liabilities to ensure all subsequent payments after year end which related to 2022 were appropriately accrued.
- Reviewed investment contracts in correlation with testing system expenses.
- Sampled administrative fees and selected individual transactions to test.
- Sampled management fee expenses and agreed the expense to confirmation received from investment managers where applicable. Reviewed and recalculated the breakout of fees and agreed amounts to actual invoices and payment support.

Findings:

No issues were identified in our testing.

Investment Income

Summary of procedures:

- Selected a sample of dividends received and verified to an independent market source.
- Tested interest earned by recalculating individual transactions and performing a reasonableness test.
- Reconciled investment value and investment income to JPMorgan.
- Recalculated realized and unrealized gains and losses for a sample of transactions.

Findings:

No issues were identified in our testing.

Fraud, Commitments and Contingencies, and Subsequent Events

Fraud procedures:

- Performed interviews with a sample of members of the Board of Trustees, Management, and other individuals and considered responses received in determining necessary audit procedures.
- The nature, timing and extent of our procedures across areas of the audit were also varied, mainly by auditing items that would be considered below our normal vouching scope.
- Performed detailed journal entry testing to review for any potential unusual or fraudulent transactions.

Results of Our Audit (continued)

Fraud, Commitments and Contingencies, and Subsequent Events

Commitments and Contingencies:

- Although legal expenses are not material, we performed a test of legal expense transactions and reviewed legal invoices carefully for any unusual matters that were not already disclosed to us. No such matters were identified.
- Based on the legal confirmation responses received the System is appropriately disclosing legal matters in the financial statements.

Subsequent Events:

- Reviewed Board Meeting Minutes.
- Obtained legal update letters prior to issuance.
- Performed final subsequent event procedures, including inquiries of Management to be updated prior to issuance.

Reportable Findings and Internal Control Over Financial Reporting

Reportable Findings and Internal Control Over Financial Reporting

We are required to communicate, in writing and in a timely manner, to those charged with governance all reportable findings and all material weaknesses and significant deficiencies that have been identified in the System's internal control over financial reporting. The definitions of a reportable finding, control deficiency, significant deficiency and material weakness are as follows:

Category	Definition
Reportable Finding	Matters that are one or more of the following: a. An identified instance of noncompliance or suspected noncompliance with laws or regulations b. A finding arising from the audit that is, in the auditor's professional judgment, significant and relevant to those charged with governance regarding their responsibility to oversee the financial reporting process c. An indication of deficiencies in internal control identified during the audit that have not been communicated to management by other parties and that, in the auditor's professional judgment, are of sufficient importance to merit management's attention
Deficiency in Internal Control	A deficiency in internal control over financial reporting exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis.
Significant Deficiency	A deficiency or a combination of deficiencies in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.
Material Weakness	A deficiency or a combination of deficiencies in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the financial statements will not be prevented or detected on a timely basis.

A reportable finding may also be considered a deficiency in internal control, a significant deficiency or a material weakness.

We considered the System's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

Our consideration was for the limited purpose described above and was not designed to identify all deficiencies in internal control that might be significant deficiencies or material weaknesses and/or all reportable findings.

In conjunction with our audit of the Plan financial statements, we noted no material weaknesses.

Additional Required Communications

Additional Required Communications

Following is a summary of those required items, along with specific discussion points as they pertain to the Plan.

Requirement	Discussion Point
Independence	Our engagement letter to you dated May 1, 2023 describes our responsibilities in accordance with professional standards and certain regulatory authorities with regard to independence and the performance of our services. This letter also stipulates the responsibilities of the System with respect to independence as agreed to by the System. Please refer to that letter for further information.
Significant changes to planned audit strategy or significant risks initially identified	There were no significant changes to the planned audit strategy or significant risks initially identified and previously communicated to those charged with governance as part of our Audit Planning communications.
Obtain information from those charged with governance relevant to the audit	There were no matters noted relevant to the audit, including, but not limited to: violations or possible violations of laws or regulations; risk of material misstatements, including fraud risks; or tips or complaints regarding the System's financial reporting that we were made aware of as a result of our inquiry of those charged with governance.
Nature and extent of specialized skills or knowledge needed related to significant risks	The nature and extent of specialized skills or knowledge needed to perform the planned audit procedures or evaluate audit results related to significant risks were communicated previously during our Audit Planning communications. • Utilized BDO’s Actuarial Managing Director and Actuarial Manager to review the assumptions presented in the actuarial report. • Utilized BDO Valuation specialists for review of the fair value of certain funds selected for testing.
Consultations with other accountants	We are not aware of any consultations about accounting or auditing matters between management and other independent public accountants. Nor are we aware of opinions obtained by management from other independent public accountants on the application of generally accepted accounting principles.
Our evaluation of the System’s relationships and transactions with related parties and their impact on the financial statements	We have evaluated the System’s process to identify, authorize and approve, account for, and disclose its relationships and transactions with related parties and noted no significant issues.
Disagreements with management	There were no disagreements with management about matters, whether or not satisfactorily resolved, that individually or in aggregate could be significant to the System’s financial statements or to our auditor’s report.
Significant difficulties encountered during the audit	There were no significant difficulties encountered during the audit.

Additional Required Communications

Following is a summary of those required items, along with specific discussion points as they pertain to the Plan.

Requirement	Discussion Point
Significant findings and issues arising during the audit in connection with the System's related parties	We have evaluated whether the identified related party relationships and transactions have been appropriately identified, accounted for, and disclosed and whether the effects of the related party relationships and transactions, based on the audit evidence obtained, prevent the financial statements from achieving fair presentation.
Other matters significant to the oversight of the System's financial reporting process, including complaints or concerns regarding accounting or auditing matters	There are no other matters that we consider significant to the oversight of the System's financial reporting process that have not been previously communicated.
Representations requested from management	Please refer to the management representation letter.

At BDO, our purpose is helping people thrive, every day. Together, we are focused on delivering exceptional and sustainable outcomes — for our people, our clients and our communities. Across the U.S., and in over 160 countries through our global organization, BDO professionals provide assurance, tax and advisory services for a diverse range of clients.

BDO is the brand name for the BDO network and for each of the BDO Member Firms. BDO USA, P.C., a Virginia professional corporation, is the U.S. member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms. www.bdo.com

Material discussed in this publication is meant to provide general information and should not be acted on without professional advice tailored to your needs.

Dallas Police and Fire Pension System

(An Independently Governed Component Unit of the City of Dallas, Texas)

Combining Financial Statements, Required Supplementary Information and Supplementary Schedule

December 31, 2022 and 2021

(With Independent Auditor's Reports Thereon)

Contents Page

Independent Auditor's Reports

Tel: 214-969-7007
Fax: 214-953-0722
www.bdo.com

600 North Pearl, Suite 1700
Dallas, Texas 75201

To the Board of Trustees
Dallas Police and Fire Pension System
Dallas, TX

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the Dallas Police and Fire Pension System (DPFP), including the Combined Pension Plan and the Supplemental Police and Fire Pension Plan of the City of Dallas (Supplemental Plan), collectively referred to as the "Plans", for the fiscal years ended December 31, 2022 and 2021, and the related notes to the combining financial statements, which collectively comprise the DPFP's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements present fairly, in all material respects, the fiduciary net position of DPFP as of December 31, 2022 and 2021, and the changes in fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of DPFP and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibility of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the DPFP's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the DPFP's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the DPFP's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis (MD&A) and the required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the MD&A and required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the basic financial statements as a whole. The accompanying supplementary schedule of Administrative, Investment and Professional Services Expenses is presented for the purpose of additional analysis and is not a required part of the basic financial statements.

Such information is the responsibility of DPFP management and was derived from and related directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated February 1, 2024 on our consideration of DPFP's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of DPFP's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering DPFP's internal control over financial reporting and compliance.

BDO USA, P.C.

Dallas, Texas
February 1, 2024

Tel: 214-969-7007
Fax: 214-953-0722
www.bdo.com

600 North Pearl, Suite 1700
Dallas, Texas 75201

Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards*

To the Board of Trustees
Dallas Police and Fire Pension System
Dallas, TX

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Dallas Police and Fire Pension System (DPFP), including the Combined Pension Plan and the Supplemental Police and Fire Pension Plan of the City of Dallas (Supplemental Plan), collectively referred to as the "Plans", for the fiscal years ended December 31, 2022 and 2021, which comprise the combining statements of fiduciary net position, and the related combining statements of changes in fiduciary net position for the years then ended, and the related notes to the combining financial statements, and have issued our report thereon dated February 1, 2024.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered DPFP's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of DPFP's internal control. Accordingly, we do not express an opinion on the effectiveness of DPFP's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency or a combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of DPFP's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency or a combination of deficiencies in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit, we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Dallas Police and Fire Pension System's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, and contracts, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of DPFP's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering DPFP's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

BDO USA, P.C.

Dallas, Texas
February 1, 2024

Management's Discussion and Analysis

(Unaudited)

Overview

Management's Discussion and Analysis (MD&A) provides an overall review of the financial activities of the Dallas Police and Fire Pension System (DPFP), including the Combined Pension Plan and the Supplemental Police and Fire Pension Plan of the City of Dallas (Supplemental Plan), collectively referred to as the Plans, for the fiscal years ended December 31, 2022 and 2021. This discussion and analysis is intended to serve as an introduction to the financial statements, which reflect the Plans' resources available for payment of benefits and other related expenses. MD&A should be read in conjunction with the combining financial statements, notes to the combining financial statements, required supplementary information, and additional supplementary information provided in this report.

Financial Statements

The combining financial statements consist of the following:

Combining Statements of Fiduciary Net Position which reflect a snapshot of the Plans' financial position and reflect resources available for the payment of benefits and related expenses at year end. The resulting Net Position (Assets – Liabilities = Net Position) represents the value of the assets held in trust for pension benefits, net of liabilities owed as of the financial statement date.

Combining Statements of Changes in Fiduciary Net Position which reflect the results of all transactions that occurred during the fiscal year and present the additions to and deductions from the net position. Effectively, these statements present the changes in plan net position during the fiscal year (Additions – Deductions = Net Change in Net Position). If the change in net position increased, additions were more than deductions. If the change in net position decreased, additions were less than deductions.

Notes to Combining Financial Statements, which are an integral part of the combining financial statements, include additional information that may be needed to obtain an adequate understanding of the overall financial status of the Plans.

Required Supplementary Information (Unaudited) and additional Supplementary Information provide historical and additional information considered useful in obtaining an overall understanding of the financial positions and activities of the Plans.

Financial Highlights

The combining financial statements are presented solely on the accounts of the Plans. The accrual basis of accounting is utilized, whereby revenues are recognized when they are earned and collection is reasonably assured, and expenses are recognized when the related liability has been incurred. Investments are reported at fair value.

A summary of the Combining Statements of Fiduciary Net Position of the Plans is as follows (in thousands):

DECEMBER 31:	2022	2021	2020
Assets			
Investments, at fair value	$ 1,730,354	$ 2,100,504	$ 1,856,965
Receivables	11,951	9,964	19,233
Cash and cash equivalents	75,286	60,032	88,491
Prepaid expenses	403	411	545
Capital assets, net	11,606	11,847	12,088
Total assets	**1,829,600**	**2,182,758**	**1,977,322**
Liabilities			
Securities purchased	1,139	358	11,784
Accounts payable and accrued liabilities	5,253	5,899	5,463
Total liabilities	**6,392**	**6,257**	**17,247**
Net position restricted for pension benefits	**$ 1,823,208**	**$ 2,176,501**	**$ 1,960,075**

The assets of the Combined Pension Plan and the Supplemental Plan are co-invested through a Group Master Trust (Group Trust). The rate of return on Group Trust investments during 2022 was -2.77%, net of fees, compared to a rate of return of 5.52% for 2021 and 1.48% for 2020. Meketa Investment Group, Inc., DPFP's investment consultant at December 31, 2022, provides the rate of return for all years. The methodology used by the investment consultants to calculate the money-weighted rate of return incorporates a one-quarter lag on fair value adjustments for private equity, private debt, and real assets investments. This "lagged with cash flow adjustments" methodology is consistent with standard industry practice and allows for timely reporting to the Board of Trustees (Board). Gains and losses on lagged investments, which occur in the fourth quarter of any year, are recognized in the following year's rate of return.

The Plans' net position decreased by $353 million in 2022 due to investment losses and benefit payments exceeding contribution payments, which were slightly offset by increased cash and receivables.

The Plans' net position increased by $216 million in 2021 due primarily to investment gains, which were partially offset by benefits payments exceeding contribution payments.

Changes in receivables are primarily a result of the timing of settlement of pending investment trades, as well as the timing of the last payroll of the year for the City of Dallas as such timing impacts the collection of benefit contributions.

The cash balance increased in 2022 as cash distributions from investments were received at the end of the year.

A summary of the Combining Statements of Changes in Fiduciary Net Position of the Plans is as follows (in thousands):

YEARS ENDED DECEMBER 31:	2022	2021	2020
Additions			
Contributions			
City	$ 172,719	$ 167,640	$ 163,727
Members	59,962	58,788	57,551
Total contributions	**232,681**	**226,428**	**221,278**
Net income(loss) from investing activities	(245,390)	323,489	(9,432)
Net income from securities lending activities	-	-	35
Other income	2,318	338	347
Total additions	**(10,391)**	**550,255**	**212,228**
Deductions			
Benefits paid to members	332,031	324,098	318,452
Refunds to members	4,450	3,285	2,276
Professional and administrative expenses	6,421	6,446	6,590
Total deductions	**342,902**	**333,829**	**327,318**
Net increase (decrease) in net position	(353,293)	216,426	(115,090)
Net position restricted for pension benefits			
Beginning of period	**2,176,501**	**1,960,075**	**2,075,165**
End of period	**$ 1,823,208**	**$ 2,176,501**	**$ 1,960,075**

The 2022 Contribution rates for both members and the City were statutorily defined. Contributions for all active members (including members in DROP) were 13.5% of Computation Pay. Computation Pay is defined as base pay, education incentive pay and longevity pay. City contributions for the Combined Pension Plan were 34.5% of Computation Pay, plus a floor amount to meet the minimum required contribution, plus an additional amount of $13 million in 2022. The floor was greater than the 34.5% of Computation Pay for all pay periods in 2022 and most pay periods in 2021. See Note 1 for additional information on City contribution rates.

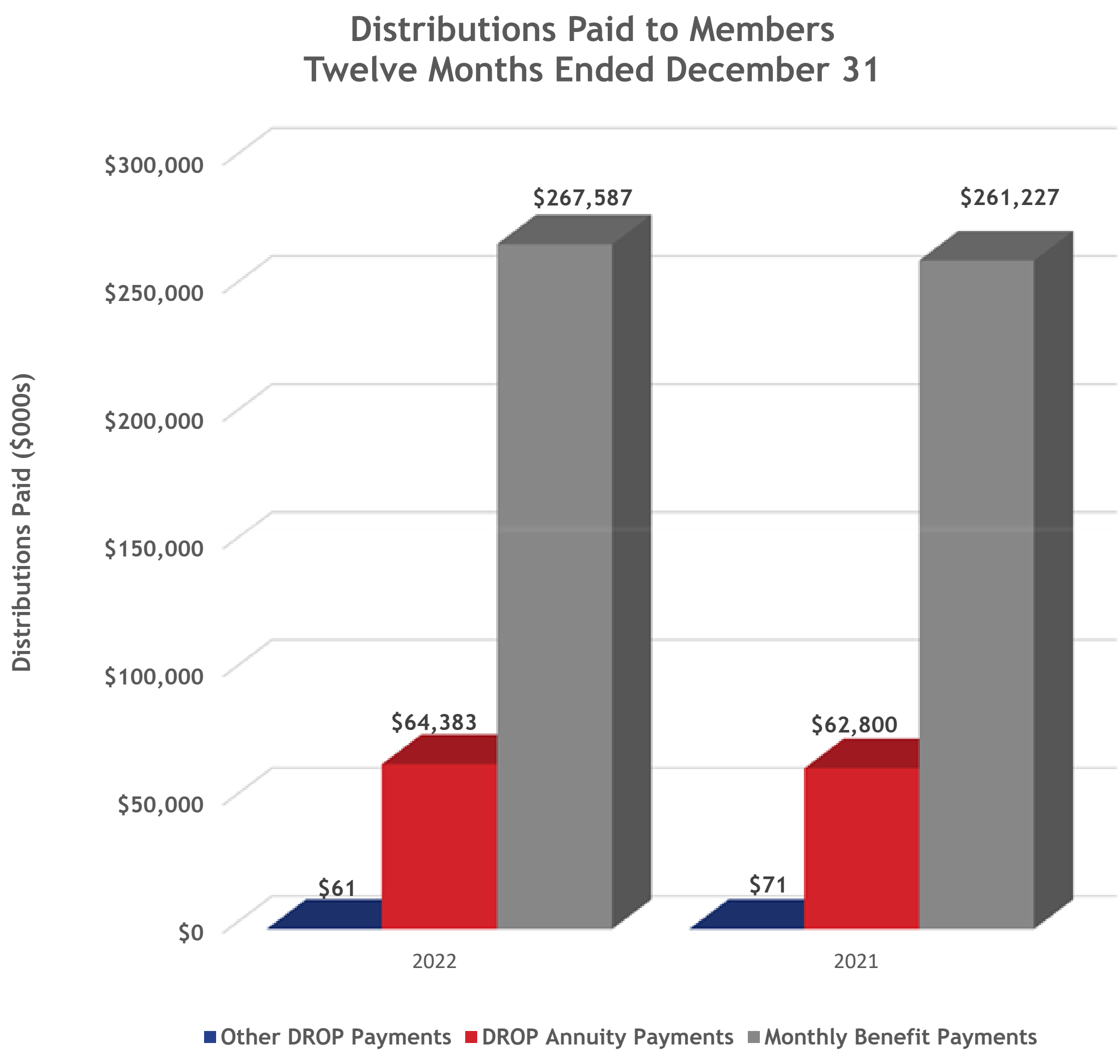
City contributions to the Plans increased by $5.1 million or 3.0% in 2022 due to an increase in the bi-weekly floor amount. Member contributions of $60.0 million exceeded 2021 contributions by $1.2 million because of increased salaries.

City Contributions to the Combined Pension Plan increased $4.4 million or 2.6% in 2022 due to the scheduled increase in the bi-weekly floor amount.

The City is required by ordinance to contribute amounts necessary to ensure the payment of benefits in the Supplemental Plan. The City's contributions shall be made in accordance with actuarial requirements established by the actuary and the board. City contributions to the Supplemental Plan in 2022 increased by $708 thousand over 2021 contributions and City contributions to the Supplemental Plan in 2021 increased by $321 thousand over 2020 contributions.

Net investment income/(loss) is presented net of investment expenses and is comprised of interest, dividend income, gains/(losses) from the sale of investments and net unrealized appreciation(depreciation) in the fair value of investments. Net investment loss for 2022 was driven by both public market changes and by changes in the fair value of private equity assets, while the net investment income during 2021 was driven by changes in the fair value of private equity assets.

Distributions to members consist of monthly payments of retirement, disability, and survivor benefits, as well as monthly DROP annuity payments and other DROP payments made in accordance with Section 6.14 of Article 6243a-1 of the Texas Statutes. The chart on the next page compares the components of distributions paid to members for the years ended December 31, 2022 and 2021.



Total benefits paid in 2022 increased $7.9 million or 2.4% over 2021. Monthly benefit payments increased $6.4 million or 2.4% due to an additional 75 retirees and beneficiaries receiving monthly benefits in 2022. Distributions from DROP balances in 2022 totaled $64.4 million, paid as DROP annuity payments, up $1.6 million from 2021. See Note 6 for additional information on DROP.

Refund expense increased $1.2 million in 2022 and increased $1.0 million in 2021.

The cost of administering the benefit plans, including administrative costs and professional fees, decreased approximately $25 thousand in 2022. Decreased non-investment legal expenses, down $131 thousand, were offset by increases in risk insurance, up $158 thousand. The cost of administering the benefit plans, including administrative costs and professional fees, decreased approximately $144 thousand in 2021. Increased legal expenses, up $195 thousand, were offset by decreases in salaries and benefits, down $343 thousand.

A pro rata share of the total expenses of the Plans is allocated to the Combined Pension Plan and the Supplemental Plan according to the ratio of Combined Pension Plan and Supplemental Plan investment assets to the total investment assets of the Group Trust. Any expenses specific to either the Combined Pension Plan or the Supplemental Plan are charged directly as a reduction of such plan's net position.

Funding Overview

DPFP's actuarial firm, Segal Consulting (Segal), conducts the annual actuarial valuations to determine if the assets and contributions are sufficient to provide the prescribed benefits (funding positions) of the Plans.

The January 1, 2023 actuarial valuation reported a funded ratio of 39.1%, based on the actuarial value of assets, an unfunded actuarial accrued liability of $3.2 billion and an expected fully funded date of 2105 for the Combined Pension Plan compared to a funded ratio of 41.1%, based on the actuarial value of assets, an unfunded actuarial accrued liability of $3.0 billion and an expected fully funded date of 2090 for the Combined Pension as reported in the January 1, 2022 actuarial valuation. These projections may vary on an annual basis due to actual experience and demographics, which may vary from the current actuarial assumptions. Beginning in 2025, once the City is contributing based solely on Computation Pay with no floor as discussed below, differences between actual payroll and the City's current projections may have a significant impact on the projected funding period.

The Actuarially Determined Contribution (ADC) is equal to the City normal cost payment and a payment on the unfunded actuarial accrued liability. As of January 1, 2023, for the Combined Plan, the total ADC was $314 million or 67.9% of Computation Pay. The total ADC as of January 1, 2022 was $288 million or 65.8% of Computation Pay. The funding policy used to calculate the ADC is based on a closed 25-year amortization of the UAL as of January 1, 2020 and a closed, 20-year amortization of any changes in the UAL thereafter. The ADC rate compares to the City's actual contribution rate of 34.5% of Computation Pay, which is subject to a minimum floor for the next two years, plus the member contribution of 13.5%, plus an additional $13 million per year from the City until December 31, 2024.

The January 1, 2023 actuarial valuation for the Supplemental Plan reports a funded ratio of 38.7% and an unfunded actuarial accrued liability of $26.4 million compared to a funded ratio of 45.7% and an unfunded actuarial accrued liability of $22.2 million as reported in the January 1, 2022 actuarial valuation. These projections may vary on an annual basis due to actual experience and demographics, which may vary from the current actuarial assumptions. The City's contributions for the Supplemental Plan are based on the ADC as determined by the actuary.

The Board's funding policy for the Supplemental Plan was changed in 2020 from an open 10-year amortization period to a closed 20-year period. Beginning in 2021, future gains or losses each year will be amortized over separate, closed 10-year periods.

Governmental Accounting Standards Board Statement No. 67, *Financial Reporting for Pension Plans –An Amendment of GASB Statement No. 25*, (GASB No. 67) requires disclosure of the Net Pension Liability (NPL). The GASB No. 67 valuation is prepared by Segal and is a calculation for accounting purposes as opposed to the actuarial valuation, which is completed to determine the funding adequacy of the Plans. The NPL is the difference between the Total Pension Liability (TPL) and the fair value of assets. GASB No. 67 requires the determination of the TPL using the individual entry age method, level percent of pay actuarial cost method, and a discount rate. The GASB No. 67 for December 31, 2022 reports a NPL of $3.4 billion, which is an increase of $442 million from the NPL reported at December 31, 2021 for the Combined Pension Plan. The Fiduciary Net Position as a Percentage of Total Pension Liabilities (FNP) is 34.4% at December 31, 2022 compared to 41.8% at December 31, 2021 for the Combined Pension Plan. The Supplemental Plan had a NPL of $26.4 million and $22.2 million at December 31, 2022 and 2021, respectively. The Supplemental Plan had a FNP of 38.7% and 45.7% at December 31, 2022 and 2021, respectively.

Information about whether the Plans' net positions are increasing or decreasing over time relative to the TPL is provided in the accompanying Schedule of Changes in the Net Pension Liability and Related Ratios.

Contacting DPFP's Financial Management

This financial report is designed to provide members and other users with a general overview of DPFP's finances and present the Plans' accountability for the funding received. If you have questions about this report, you may contact the Executive Director of the Dallas Police and Fire Pension System at 4100 Harry Hines Boulevard, Suite 100, Dallas, Texas 75219, by phone at 214-638-3863, or by email at info@dpfp.org.

Combining Statements of Fiduciary Net Position

	2022			2021		
DECEMBER 31,	COMBINED PENSION PLAN	SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	TOTAL	COMBINED PENSION PLAN	SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	TOTAL
Assets						
Investments, at fair value						
Short-term investments	$ 14,754,633	$ 136,207	$ 14,890,840	$ 12,828,848	$ 111,127	$ 12,939,975
Fixed income securities	318,424,211	2,939,523	321,363,734	416,490,402	3,607,764	420,098,166
Equity securities	819,431,503	7,564,557	826,996,060	960,008,108	8,315,876	968,323,984
Real assets	344,739,510	3,182,452	347,921,962	405,937,634	3,516,353	409,453,987
Private equity	217,177,506	2,004,867	219,182,373	287,199,831	2,487,810	289,687,641
Forward currency contracts	(961)	(9)	(970)	(46)	-	(46)
Total investments	1,714,526,402	15,827,597	1,730,353,999	2,082,464,777	18,038,930	2,100,503,707
Receivables						
City	5,140,928	-	5,140,928	4,558,571	-	4,558,571
Members	1,811,630	7,708	1,819,338	1,606,902	6,488	1,613,390
Interest and dividends	3,753,553	34,651	3,788,204	3,415,034	29,582	3,444,616
Investment sales proceeds	1,141,865	10,541	1,152,406	221,356	1,917	223,273
Other receivables	49,431	456	49,887	123,544	1,070	124,614
Total receivables	11,897,407	53,356	11,950,763	9,925,407	39,057	9,964,464
Cash and cash equivalents	74,596,937	688,639	75,285,576	59,516,881	515,553	60,032,434
Prepaid expenses	399,478	3,688	403,166	407,763	3,532	411,295
Capital assets, net	11,499,772	106,160	11,605,932	11,745,139	101,740	11,846,879
Total assets	**1,812,919,996**	**16,679,440**	**1,829,599,436**	**2,164,059,967**	**18,698,812**	**2,182,758,779**
Liabilities						
Other Payables						
Securities purchased	1,128,527	10,418	1,138,945	355,189	3,077	358,266
Accounts payable and other accrued liabilities	5,224,128	28,620	5,252,748	5,864,348	35,024	5,899,372
Total liabilities	**6,352,655**	**39,038**	**6,391,693**	**6,219,537**	**38,101**	**6,257,638**
Net position restricted for pension benefits	**$ 1,806,567,341**	**$ 16,640,402**	**$ 1,823,207,743**	**$ 2,157,840,430**	**$ 18,660,711**	**$ 2,176,501,141**

See accompanying notes to combining financial statements.

Combining Statements of Changes in Fiduciary Net Position

YEARS ENDED DECEMBER 31,	2022 COMBINED PENSION PLAN	2022 SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	2022 TOTAL	2021 COMBINED PENSION PLAN	2021 SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	2021 TOTAL
Additions (Reductions)						
Contributions						
City	$ 169,911,420	$ 2,806,863	$172,718,283	$ 165,541,265	$ 2,098,588	$ 167,639,853
Members	59,706,574	255,703	59,962,277	58,559,980	227,893	58,787,873
Total contributions	229,617,994	3,062,566	232,680,560	224,101,245	2,326,481	226,427,726
Investment income (loss)						
Net appreciation (depreciation) in fair value of investments	(255,777,638)	(2,318,539)	(258,096,177)	303,367,916	2,611,699	305,979,615
Interest and dividends	21,233,270	196,014	21,429,284	28,422,669	246,206	28,668,875
Total gross investment income	(234,544,368)	(2,122,525)	(236,666,893)	331,790,585	2,857,905	334,648,490
Less: Investment expense	(8,643,345)	(79,791)	(8,723,136)	(11,063,408)	(95,835)	(11,159,243)
Net investment income (loss)	(243,187,713)	(2,202,316)	(245,390,029)	320,727,177	2,762,070	323,489,247
Other income	2,296,327	21,198	2,317,525	335,712	2,908	338,620
Total additions	**(11,273,392)**	**881,448**	**(10,391,944)**	**545,164,134**	**5,091,459**	**550,255,593**
Deductions						
Benefits paid to members	329,187,721	2,843,026	332,030,747	321,348,320	2,749,573	324,097,893
Refunds to members	4,449,977	-	4,449,977	3,285,148	-	3,285,148
Professional and administrative expenses	6,361,999	58,731	6,420,730	6,390,829	55,359	6,446,188
Total deductions	**339,999,697**	**2,901,757**	**342,901,454**	**331,024,297**	**2,804,932**	**333,829,229**
Net increase/(decrease) in fiduciary net position	(351,273,089)	(2,020,309)	(353,293,398)	214,139,837	2,286,527	216,426,364
Net position restricted for pension benefits						
Beginning of period	2,157,840,430	18,660,711	2,176,501,141	1,943,700,593	16,374,184	1,960,074,777
End of period	$ 1,806,567,341	$ 16,640,402	$ 1,823,207,743	$ 2,157,840,430	$ 18,660,711	$ 2,176,501,141

See accompanying notes to combining financial statements.

Notes to Combining Financial Statements

1. Organization

General

The Dallas Police and Fire Pension System (DPFP) is an independently governed component unit of the City of Dallas (City, or Employer) and serves as a single-employer pension and retirement fund for police officers and firefighters employed by the City. The general terms “police officers” and “firefighters” also include fire and rescue operators, fire alarm operators, fire inspectors, apprentice police officers, and apprentice firefighters. DPFP is comprised of a single defined benefit pension plan (Combined Pension Plan) designed to provide retirement, death, and disability benefits for police officers and firefighters (collectively, members). DPFP was originally established under former Article 6243a of the Revised Civil Statutes of Texas and, since 1989, derives its authority to continue in operation under the provisions of Article 6243a-1 of the Revised Civil Statutes of Texas (the Governing Statute). All active police officers and firefighters employed by the City are required to participate in the Combined Pension Plan.

The Supplemental Police and Fire Pension Plan of the City of Dallas (Supplemental Plan) was created in 1973 to supplement DPFP’s Plan B Defined Benefit Pension Plan (Plan B). Former Plan B members are now denominated as Group B members of the Combined Pension Plan. The intent of the Supplemental Plan is to provide additional retirement benefits to those members of the Supplemental Plan holding a rank higher than the highest corresponding civil service rank as provided in the Combined Pension Plan. Members receive a supplemental pension based upon the difference between compensation for the civil service position held before entrance into the Supplemental Plan and compensation while in the Supplemental Plan. The Supplemental Plan was established and derives its authority from a City ordinance.

The Combined Pension Plan and Supplemental Plan are collectively referred to as the Plans.

As of December 31, 2022 and 2021, the Combined Pension Plan’s membership consisted of:

	2022	2021
Retirees and beneficiaries	5,142	5,071
Beneficiaries, DROP Only	147	125
Non-active vested members not yet receiving benefits	252	233
Non-active non-vested members not yet refunded	474	462
Total non-active members	**6,015**	**5,891**
Vested active members	3,732	3,661
Non-vested active members	1,353	1,427
Total active members	**5,085**	**5,088**

As of December 31, 2022 and 2021, the Supplemental Plan's membership consisted of:

	2022	2021
Retirees and beneficiaries	151	147
Non-active vested members not yet receiving benefits	1	1
Non-active non-vested members not yet refunded	-	1
Total non-active members	**152**	**149**
Vested active members	51	49
Non-vested active members	1	1
Total active members	**52**	**50**

No changes to benefit, contribution or administration plan provisions were made to the Combined Pension Plan or the Supplemental Plan in 2022.

The benefit, contribution and administration plan provisions discussed below are as of December 31, 2022 and 2021.

Benefits

Members hired by the City before March 1, 1973 are Group A members of the Combined Pension Plan. Members hired on or after March 1, 1973 are Group B members of the Combined Pension Plan.

Group A members of the Combined Pension Plan have elected to receive one of two benefit structures as of December 31, 2022:

- Members with 20 years or more of pension service are entitled to monthly pension benefits beginning at age 50 equal to 50% of base pay, defined as the maximum monthly civil service pay established by the City for a police officer or firefighter at the time of retirement, plus 50% of the longevity pay the member was receiving either at the time he or she left active service with the City or the effective date the member joined the Deferred Retirement Option Plan (DROP). Benefit payments are adjusted annually according to changes in active service base pay, if any. Additionally, a member is eligible to receive 50% of the difference between any annualized City service incentive pay granted to the member less annual longevitypay.

- Members with 20 years or more of pension service are entitled to monthly pension benefits beginning at age 55 equal to 3% of their base pay, computed as noted in the prior paragraph, for each year of pension service with a maximum of 32 years. In addition, a member receives 50% of the longevity pay and 1/24th of any City service incentive pay the member was receiving either at the time he or she left active service with the City or the effective date the member joined DROP. Pension benefit payments are eligible for an ad hoc cost of living increase as approved by the Board, if certain funding requirements are met. It is not anticipated that the funding requirements necessary to grant an ad hoc cost of living increase will be met for several decades.

Group B members of the Combined Pension Plan receive one of two benefit structures as of December 31, 2022:

- Members who began membership before March 1, 2011 with 5 or more years of pension service are entitled to monthly pension benefits beginning at age 50 equal to 3% of the member's average base pay plus education and longevity pay (Computation Pay) determined over the highest 36 consecutive months of Computation Pay, multiplied by the number of years of pension service prior to September 1, 2017. The monthly pension benefit for service earned after September 1, 2017 is based on the highest 60 consecutive months of Computation Pay multiplied by a 2.5% multiplier at age 58. The multiplier is reduced to between 2.0% and 2.4% for retirement prior to age 58. The member cannot accrue a monthly pension benefit that exceeds 90% of the member's average Computation Pay. Certain members may receive a 2.5% multiplier for pension service after September 1, 2017 prior to age 58 if the combination of their pre and post September 1, 2017 pension service calculations using the 2.5% multiplier for post September 1, 2017 meets or exceeds the 90% maximum benefit. Certain members who meet the service prerequisite or were 45 prior to September 1, 2017 may elect to take early retirement with reduced benefits starting at age 45, or earlier if the member has 20 years of pension service.

- Members who began membership after February 28, 2011 are entitled to monthly pension benefits after accruing 5 years of pension service and the attainment of age 58. Pension benefits are equal to the member's average Computation Pay determined over the highest 60 consecutive months of Computation Pay, multiplied by 2.5% for the number of years of pension service. The member cannot accrue a monthly pension benefit that exceeds 90% of the member's average Computation Pay. Members who have 20 years of service may elect to take early retirement. Vested members may take a reduced benefit starting at age 53.

- A Group B member who has accrued 20 or more years of pension service and who has been on active service at any time on or after January 1, 1999 may take a pension benefit regardless of age except that the percent multiplier would be based on the member's age at the time of applying for the pension, or earlier if the member has 20 years of pension service.

- Group B benefits for all members are eligible for an ad hoc cost of living increase as approved by the Board if certain funding requirements are met. It is not anticipated that the funding requirements necessary to grant an ad hoc cost of living increase will be met for several decades.

Additional provisions under the Combined Pension Plan as of December 31, 2022 are as follows:

- Prior to September 1, 2017 members with over 20 years of pension service, upon attaining age 55, received a monthly supplement equal to the greater of $75 or 3% of their total monthly benefits (excluding the benefit supplement amount). After September 1, 2017, no additional members will receive the monthly supplement and no increases will be made to the amount of the supplement received by those members receiving the supplement prior to September 1, 2017.

- Service-connected disability benefits are available for members in active service who began service prior to March 1, 2011 and have not entered DROP who become disabled during the performance of their duties from the first day of employment. Members receiving service-connected disability benefits are given credit for the greater of actual pension service or 20 years of pension service. A benefit of 3% times the average of the highest 36 consecutive months of Computation Pay times the number of years of pension service prior to September 1, 2017, plus a multiplier, based on their age at the time the disability is granted, for pension service after September 1, 2017, times the average of the highest 60 consecutive months of Computation Pay times the number of years of pension service. If needed, additional service time necessary to reach 20 years of service credit will be included with pension service after September 1, 2017. Members who began membership after February 28, 2011 and have not entered DROP are entitled to a disability benefit based on the average of the highest 60 consecutive months of Computation Pay times a 2.5% multiplier regardless of their age. If a member has more than 20 years of service and was hired prior to March 1, 2011, the benefit is calculated in the same manner as their service retirement pension. If the member has fewer than 36 or 60 months of service, based on hire date, the benefit is based on the average Computation Pay during their entire pension service. All service-connected disability benefits are subject to a minimum benefit of $2,200 per month.

- Members who began membership before March 1, 2011, who are determined to be eligible for a non-service connected disability benefit are entitled to a benefit of 3% times the average of the highest 36 consecutive months of Computation Pay times the number of years of pension service prior to September 1, 2017, plus a multiplier based on their age at the time the disability is granted for pension service after September 1, 2017 times the average of the highest 60 consecutive months of Computation Pay. Total service is rounded to the nearest whole year.

- Members who began membership after February 28, 2011, are entitled to a disability benefit based on the average of the highest 60 consecutive months of Computation Pay, times a 2.5% multiplier regardless of their age. All non-service-connected disability benefits are subject to a minimum benefit of $110 for every year of pension service. The minimum benefit cannot exceed $2,200 per month. If the member has fewer than 36 or 60 months of service, based on hire date, the benefit is based on the average Computation Pay during their entire pension service.

- Members who are eligible to retire are eligible to enter the DROP program, which is an optional method of accruing monthly pension benefits prior to leaving active service. Members who are receiving disability benefits are not eligible to enter the DROP program. The amount of an active member's DROP balance is based on the accumulation of the member's monthly benefit each month while in active DROP, and interest accrued prior to September 1, 2017. DROP balances of retired members and other DROP account holders, excluding active member DROP account holders, were converted to annuities (a stream of payments) on November 30, 2017. DROP balances of active members are annuitized upon retirement. The life expectancy of a DROP account holder at the time of annuitization determines the term of the annuity. Interest is included in the annuity calculation for balances accrued prior to September 1, 2017. The interest rate is based on the provisions of HB 3158 and rules adopted by the Board. See Note 6 for information about the changes in the DROP program resulting from the passage of HB 3158. See below, under Contributions, for discussion of required DROP contributions. The total DROP account balance and the present values of the annuitized balances for the Combined Pension Plan was $943.9 million and $978.49 million at December 31, 2022 and 2021, respectively. The total DROP balances include amounts that may be paid out of the Excess Benefit Plan and Trust.

- A minimum benefit is paid to vested retired members of $2,200 per month subject to any restrictions contained in the Combined Pension Plan. The minimum benefit is prorated for members who retire with less than 20 years of service credit and equals $1,200 monthly for a qualified surviving spouse if there are no qualified surviving children receiving benefits. The minimum benefit is $1,100 monthly for qualified surviving children combined and qualified surviving spouses if qualified surviving children are receiving or had received benefits.

Additional provisions under the Supplemental Plan as of December 31, 2022 are as follows:

- The Supplemental Plan's benefits are designed to supplement Group B benefits for those members holding a rank higher than the highest civil service rank because their Combined Pension Plan benefits are capped by the Combined Pension Plan's definition of considered compensation. Accordingly, when Group B benefits are amended, the Supplemental Plan's benefit calculation is also affected. The basis for a member's benefits is the difference between the monthly rate of pay a member is due as the base pay for the rank the member currently holds and the monthly rate of pay the member is due for the highest civil service rank (and pay step) the member held as a result of competitive examinations. The service time used to determine the member's Group B benefit is used to determine the member's benefit under the Supplemental Plan so that the same length of time is used for both plans. Average Computation Pay is calculated for each plan separately and combined to determine the benefit. Application for benefits under the provisions of the Combined Pension Plan is deemed to be an application for benefits under the Supplemental Plan and no additional application need be filed.

- Members of the Supplemental Plan who enter the DROP program in the Combined Pension Plan also enter the DROP program in the Supplemental Plan. The total DROP account balance and the present value of the annuitized balances related to the Supplemental Plan was $6.0 million and $6.5 million on December 31, 2022 and 2021, respectively. The total DROP balances include amounts that may be paid out of the Excess Benefit Plan and Trust.

Death benefits are available to a surviving spouse, dependent children, disabled children, or dependent parents in the event of the death of a member either after disability or service retirement, prior to leaving active service or retirement eligible deferred vested members.

Contributions

Employee contribution rates did not change in 2022. The employee contribution rate is 13.5% of Computation Pay for all active members.

City contribution rates did not change in 2022. The City contributes the greater of (i) 34.5% of Computation Pay and (ii) a bi-weekly minimum (floor) amount defined in the bill, plus $13 million annually until 2024. The floor amounts were $6.043 and $5.882 million, respectively, for 2022 and 2021. After 2024, the floor amount and the additional $13 million annual amount are eliminated.

During 2024 an independent actuary selected by the Texas State Pension Review Board (PRB) must perform an analysis that includes the independent actuary's 1) conclusion regarding whether the pension system meets State Pension Review Board funding guidelines and 2) recommendations regarding changes to benefits or to member or city contribution rates. The Board must adopt a plan that complies with the funding and amortization period requirements under Subchapter C, Section 802 of the Texas Government Code.

The City is required by ordinance to contribute amounts necessary to ensure the payment of benefits in the Supplemental Plan. The City's contributions shall be made in accordance with actuarial requirements established by the actuary and the board. Member contributions in the Supplemental Plan follow the same rules as the Combined Pension Plan on Computation Pay over the compensation of the highest civil service rank held as a result of competitive examinations.

City contributions can be changed by section 2.025 of Article 6243a-1, by the legislature, by a majority vote of the voters of the city or in accordance with a written agreement entered into between the city and the pension system, where at least eight trustees have approved the agreement, provided that the change does not increase the period required to amortize the unfunded accrued liability of the Combined Pension Plan. Decreases in employee contributions require the approval of the legislature. Increases in employee contributions require the approval of at least a two-thirds vote of all trustees of the Board.

The Supplemental Plan's plan document can be amended only by the City Council in accordance with City ordinance. The benefit and contribution provisions of the Supplemental Plan follow those of the Combined Pension Plan.

Members of Group B are immediately vested in their member contributions. If a member's employment is terminated and the member is not vested, or the member elects not to receive present or future pension benefits, the member's contributions are refunded, without interest, upon written application. If application for a refund is not made within three years of normal retirement age, the member forfeits the right to a refund of his or her contribution; however, a procedure exists whereby the member's right to the contributions can be reinstated and refunded by the Board after the three-year period.

Administration

Collectively, the Combined Pension Plan Board of Trustees and the Supplemental Plan Board of Trustees are referred to as the Board. The Board is responsible for the general administration of DPFP and has the full power to invest the Plans' assets.

The Plans are administered by an eleven-member Board consisting of six Trustees appointed by the mayor of the City of Dallas, in consultation with the City Council; one current or former police officer, nominated and elected by active members; one current or former firefighter, nominated and elected by active members; and three non-member Trustees (who may not be active members or retirees) elected by the active members and retirees from a slate of nominees vetted and nominated by the Nominations Committee. The Nominations Committee consists of representatives from 11 named police and fire associations and the Executive Director of DPFP. The Executive Director is a nonvoting member of the committee.

To serve as a Trustee, a person must have demonstrated financial, accounting, business, investment, budgeting, real estate or actuarial expertise and may not be an elected official or current employee of the City of Dallas, with the exception of a current police officer or firefighter.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements are presented in accordance with accounting principles generally accepted in the United States (GAAP). In doing so, DPFP adheres to guidelines established by the Governmental Accounting Standards Board (GASB). The accompanying financial statements include solely the accounts of the Plans on a combined basis, which include all programs, activities and functions relating to the accumulation and investment of the net position and related income necessary to provide the service, disability and death benefits required under the terms of the governing statutes and amendments thereto.

Basis of Accounting

The accrual basis of accounting is used for the Plans. Revenues are recognized in the period in which they are earned, and collection is reasonably assured. Expenses are recognized when the liability is incurred. Member and employer contributions are recognized in the period in which the contributions are due. Accrued income, when deemed uncollectible, is charged to operations.

Contributions for the final biweekly payroll of the year for the years ended December 31, 2022 and 2021 were not received by DPFP until after year end and accordingly, uncollected contributions are recorded as receivables in the accompanying financial statements. Benefits, lump sum payments, and refunds are recognized when due and payable. Dividend income is recorded on the ex-dividend date. Other income consists primarily of rental income, which is recognized on a straight-line basis over the lease term. Realized gains and losses on sales of securities are recognized on the trade date. The cost of investments sold is determined using the average cost method.

Reporting Entity

DPFP is an independently governed component unit of the City and the basic financial statements and required supplementary information of the Plans are therefore included in the City's Annual Comprehensive Financial Report.

Administrative Costs

All costs of administering the Plans are paid from the Plans' assets pursuant to an annual fiscal budget approved by the Board.

Federal Income Tax

Favorable determinations that the Plans are qualified and exempt from Federal income taxes were received on October 20, 2014. The Board believes that the Plans are designed to meet and operate in material compliance with the applicable requirements of the Internal Revenue Code.

Use of Estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the actuarial information included in the notes to the financial statements as of the benefit information date, the reported amounts of income and expenses during the reporting period, and when applicable, disclosures of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Cash and Cash Equivalents

DPFP considers only demand deposits as cash. Cash equivalent securities, which are composed of all highly liquid investments with a maturity of three months or less when purchased, are considered to be cash equivalents. Highly liquid securities invested by third party investment managers as part of a short-term investment fund are not considered cash equivalents and are classified as short-term investments.

Plan Interest in the Group Master Trust

Effective January 1, 2006, the Board elected to establish a Group Master Trust (Group Trust) in order to unitize the investments of the Combined Pension Plan and the Supplemental Plan. JPMorgan Chase Bank, N.A. (JPMorgan) served as custodian of the Group Trust for the years ended December 31, 2022 and 2021. The fair value of the Combined Pension Plan's interest and the Supplemental Plan's interest in the Group Trust is based on the unitized interest that each plan has in the Group Trust. The Combined Pension Plan's interest in the Group Trust's investments was approximately 99.1% on December 31, 2022 and 2021, while the remaining interest belongs to the Supplemental Plan. The allocation of investment income and expenses between the Combined Pension Plan and the Supplemental Plan is based on percentage interest in the Group Trust. Shared professional and administrative expenses are allocated to each plan directly in proportion to each plan's ownership interest. Benefits and contributions are attributed directly to the plan that such receipts and disbursements relate to and are not subject to a pro-rated allocation.

Investments

Investment Policy

Statutes of the State of Texas authorize DPFP to invest surplus funds in the manner provided by Government Code, Title 8, Subtitle A, Subchapter C, which provides for the investment of surplus assets in any investment that is deemed prudent by the Board. These statutes stipulate that the governing body of the Plans is responsible for the management and administration of the funds of the Plans and shall determine the procedure it finds most efficient and beneficial for the management of the funds of the Plans. The governing body may directly manage the investments of the Plans or may contract for professional investment management services. Investments are reported at fair value.

The investment policy of the Board does not restrict the types of investments authorized to be made on behalf of the Group Trust. The Governing Statute requires at least eight members of the Board to approve an investment in an alternative asset. The Board determined that alternative assets include all asset classes other than traditional assets. Traditional assets include publicly traded stocks, bonds and cash equivalents. The investment policy considers the current and expected financial condition of the Plans, the expected long-term capital market outlook and DPFP's risk tolerance. The following is the Board's adopted asset allocation contained in the Investment Policy Statement as of December 31, 2022. The actual asset allocation as of December 31, 2022 has variances to the long-term target allocation.

ASSET CLASS	TARGET ALLOCATION
Equity	**65%**
Global Equity	55%
Emerging Markets Equity	5%
Private Equity	5%
Safety Reserve and Fixed Income	**25%**
Cash	3%
Short-term Investment Grade Bonds	6%
Investment Grade Bonds	4%
High Yield Bonds	4%
Bank Loans	4%
Emerging Markets Debt	4%
Real Assets	**10%**
Private Real Estate	5%
Private Natural Resources	5%

The value and performance of DPFP's investments are subject to various risks, including, but not limited to, credit risk, interest rate risk, concentration of credit risk, custodial credit risk, and foreign currency risk, which are in turn affected by economic and market factors impacting certain industries, sectors or geographies. See Note 3 for disclosures related to these risks.

Investment Transactions

The accompanying Combining Statements of Changes in Fiduciary Net Position present the net appreciation (depreciation) in the fair value of investments, which consists of the realized gains and losses on securities sold and the changes in unrealized gains and losses on those investments still held in the portfolio at year end.

Purchases and sales of investments and forward foreign exchange contracts are recorded on the trade date. Unsettled investment trades as of fiscal year end are reported in the financial statements on the accrual basis of accounting. Realized gains or losses on forward foreign exchange contracts are recognized when the contract is settled.

Interest earned but not yet received and dividends declared but not yet received are recorded as accrued interest and dividends receivable, respectively. In addition, unsettled investment purchases and sales are accrued.

Valuation of Investments

The diversity of the investment types in which the Group Trust invests requires a wide range of techniques to determine fair value.

Short-term investments include money market funds and government bonds with a maturity of less than one year and are valued based on stated market rates.

Fixed income investments include government securities such as Treasury securities, bank loans, US corporate bonds, foreign securities such as dollar denominated and non-dollar denominated issues of non-US governments and private corporations, plus units of commingled fixed income funds of both US and foreign securities. Equity securities consist of individual shares of equity securities plus units of commingled stock funds of both US and foreign entities. The stated fair value of investments in publicly traded fixed income and equity securities is based on published market prices or quotations from major investment dealers as provided by JPMorgan, utilizing vendor supplied pricing. Vendor supplied pricing data for equity securities is based upon the daily closing price from the primary exchange of each security while vendor supplied pricing data for fixed income securities is based upon a combination of market maker quotes, recent trade activity, and observed cash flows. Securities traded on an international exchange are valued at the last reported sales price as of year-end at exchange rates as of year-end. The fair value of non-publicly traded commingled fixed income funds and commingled stock funds is based on their respective net asset value (NAV) as reported by the investment manager.

Real assets consist of privately held real estate, infrastructure, timberland, and farmland investments. Real estate is held in separate accounts, limited partnerships, joint ventures and as debt investments in the form of notes receivable. Infrastructure, timberland, and farmland are held in separate accounts, limited partnerships, and joint ventures. Real estate, timberland and farmland are generally subject to independent third-party appraisals performed in accordance with the Uniform Standards of Professional Appraisal Practice on a periodic basis, every three years at minimum, as well as annual financial statement audits. Infrastructure funds are valued based on audited NAV reported by the manager, which is based on internal manager valuation or independent appraisal at the discretion of the manager. Interests in joint ventures, limited partnerships and notes receivable are valued at the dollar value reported by the general partner or investment manager, as applicable. DPFP staff manages one real estate investment internally that is in the process of being closed out. This internally managed investment is valued at its net equity on a fair value basis. Externally managed partnerships, joint venture and separate accounts are valued at the NAV provided by the investment or fund manager, as applicable. The investment or fund manager on a continuous basis values the underlying investment holdings.

Private equity investments consist of various investment vehicles including limited partnerships and notes receivable. Private equity limited partnership investments and notes receivable are valued as reported by the investment manager. Private equity funds are valued using their respective NAV as reported by the fund's custodian, investment manager or independent valuations obtained by DPFP, as applicable.

DPFP has established a framework to consistently measure the fair value of the Plans' assets and liabilities in accordance with applicable accounting, legal, and regulatory guidance. This framework has been provided by establishing valuation policies and procedures that provide reasonable assurance that assets and liabilities are carried at fair value as described above and as further discussed in Note 4.

Foreign Currency Transactions

DPFP, through its investment managers, is party to certain financial arrangements, utilizing forward contracts, options and futures as a hedge against foreign currency fluctuations. Entering into these arrangements involves not only the risk of dealing with counterparties and their ability to meet the terms of the contracts, but also the risk associated with market fluctuations. Realized gains and losses on option and future arrangements are recorded as they are incurred. Realized gains and losses on forward contracts are recorded on the settlement date.

Gains and losses resulting from foreign exchange contracts (transactions denominated in a currency other than the Group Trust's functional currency - US dollar) are recorded based on changes in fair values and are included in investment income (loss) in the accompanying financial statements. Investment managers, on behalf of the Group Trust, structure foreign exchange contracts and enter into transactions to mitigate exposure to fluctuations in foreign exchange rates.

Investments and broker accounts denominated in foreign currencies outstanding on December 31, 2022 and 2021 were converted to the US dollar at the applicable foreign exchange rates quoted as of December 31, 2022 and 2021, respectively. The resulting foreign exchange gains and losses are included in net appreciation (depreciation) in fair value of investments in the accompanying financial statements.

3. Investments

The Board has contracted with investment managers to manage the investment portfolio of the Group Trust subject to the policies and guidelines established by the Board. The Board has a custody agreement with JPMorgan under which JPMorgan assumes responsibility for the safekeeping of certain investments, handling of transactions based on the instructions of investment managers and reporting investment transactions.

The fair value of investments on December 31, 2022 and 2021 is as follows (in thousands):

	2022	2021
Short-term investments		
Short-term investment funds	$ 14,891	$ 12,940
Fixed income securities		
US Treasury bonds	29,661	29,292
US government agencies	14,047	15,536
Corporate bonds	135,059	210,704
Commingled funds	137,665	156,680
Municipal bonds	4,932	7,886
Equity securities		
Domestic	329,167	382,306
Foreign	248,746	238,215
Commingled funds	249,083	347,803
Real assets		
Real estate	187,413	222,781
Infrastructure	53,707	67,952
Timberland	14,043	21,500
Farmland	92,759	97,221
Private equity	219,182	289,688
Forward currency contracts	(1)	-
Total	**$ 1,730,354**	**$ 2,100,504**

Custodial Credit Risk

Deposits

Custodial credit risk is the risk that, in the event of a bank failure, the System's deposits might not be recovered. DPFP does not have a formal deposit policy for custodial credit risk of its deposits.

The Federal Depository Insurance Corporation (FDIC) insures any deposits of an employee benefit plan in an insured depository institution on a "pass- through" basis, in the amount of up to $250,000 for the non-contingent interest of each plan participant at each financial institution. The pass-through insurance applies only to vested participants. DPFP believes the custodial credit risk for deposits, if any, is not material.

Investments

Portions of DPFP's investments are classified as security investments. A security is a transferable financial instrument that evidences ownership or creditorship. Investments in companies, partnerships and real estate are investments that are evidenced by contracts rather than securities.

Custodial credit risk is the risk that, in the event of the failure of an investment counterparty, the investor will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the investor, and are held by either the counterparty or the counterparty's trust department or agent, but not in the investor's name. DPFP mitigates this risk by having investments held at a custodian bank on behalf of DPFP. On December 31, 2022 and 2021, all investment securities held by the custodian were registered in the name of DPFP and were held by JPMorgan in the name of DPFP. DPFP does not have a formal policy for custodial credit risk of its investments; however, management believes that custodial credit risk exposure is mitigated by the financial strength of the financial institutions in which the securities are held.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributable to the magnitude of the Group Trust's investment in a single issue. DPFP did not have an investment policy specifically regarding concentration of credit risk in 2021; however, the Investment Policy Statement was amended in February 2022 to address concentration risk by adding a concentration limit of 5% of Public Equity or Public Fixed Income assets invested in a single issuer. Additionally, the target allocations of assets among various asset classes are determined by the Board with the objective of optimizing the investment return of the Group Trust within a framework of acceptable risk and diversification. For major asset classes, the Group Trust will further diversify the portfolio by employing multiple investment managers who provide guidance for implementing the strategies selected by the Board.

As of December 31, 2022 and 2021, the Group Trust did not have any single investment in an issuer which represented greater than 5% of the Plans' net position.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest rate risk is the greatest risk faced by an investor in the fixed income market. The price of a fixed income security typically moves in the opposite direction of the change in interest rates. The weighted average maturity of a fixed income security expresses investment time horizons (when the investment comes due and payable) in years, weighted to reflect the dollar size of individual investments within the investment type. DPFP does not have a formal investment policy that limits investment maturities as a means of managing its exposure to potential fair value losses arising from future changes in interest rates, but rather mandates such limits within investment management services contracts. Investment managers have full discretion in adopting investment strategies to address these risks.

The Group Trust invests in fixed income securities including, but not limited to, investments representing instruments with an obligated fixed rate of interest including public and private debentures, mortgage-backed securities, guaranteed investment contracts with maturities greater than one year, and options/futures. Purchases and sales, investment selection, and implementation of investment strategies are delegated to the discretion of the investment manager, subject to compliance with its management agreement and DPFP's investment policy.

On December 31, 2022, the Group Trust had the following fixed income securities and maturities (in thousands):

INVESTMENT TYPE	LESS THAN 1 YEAR	1 TO 5 YEARS	6 TO 10 YEARS	MORE THAN 10 YEARS	TOTAL
US Treasury bonds	$ 3,836	$ 17,966	$ 2,705	$ 5,154	$ 29,661
US Government agencies	-	1,025	647	12,375	14,047
Corporate bonds	5,631	74,817	26,154	28,457	135,059
Municipal bonds	705	1,403	469	2,355	4,932
Total	**$ 10,172**	**$ 95,211**	**$ 29,975**	**$ 48,341**	**$ 183,699**

On December 31, 2021, the Group Trust had the following fixed income securities and maturities (in thousands):

INVESTMENT TYPE	LESS THAN 1 YEAR	1 TO 5 YEARS	6 TO 10 YEARS	MORE THAN 10 YEARS	TOTAL
US Treasury bonds	$ 3,105	$ 22,082	$ 498	$ 3,607	$ 29,292
US Government agencies	-	392	1,769	13,375	15,536
Corporate bonds	6,664	102,971	46,330	54,739	210,704
Municipal bonds	-	3,706	-	4,180	7,886
Total	**$ 9,769**	**$ 129,151**	**$ 48,597**	**$ 75,901**	**$ 263,418**

Commingled fixed income funds do not have specified maturity dates and are therefore excluded from the above tables. The average duration for these funds ranges from .03 to 4.97 years.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The books and records of the Plans are maintained in US dollars. Foreign currencies and non-US dollar denominated investments are translated into US dollars at the bid prices of such currencies against US dollars at each balance sheet date. Realized and unrealized gains and losses on investments, which result from changes in foreign currency exchange rates, have been included in net appreciation (depreciation) in fair value of investments in the accompanying financial statements. Net realized foreign currency gains and losses resulting from changes in exchange rates include foreign currency gains and losses between trade date and settlement date of investment securities transactions, foreign currency transactions, and the difference between the amounts of interest and dividends recorded on the books of the Plans and the amount actually received. International and global managers have permission to use currency forward and futures contracts to hedge currency against the US dollar.

DPFP does not have an investment policy specific to foreign currency risk, however, to mitigate foreign currency risk, investment managers with international exposure are expected to maintain diversified portfolios by sector and by issuer.

The Group Trust's exposure to foreign currency risk in US dollars as of December 31, 2022, is as follows (in thousands):

CURRENCY	EQUITY	REAL ASSETS	TOTAL
Australian Dollar	$ 2,635	$ 145	$ 2,780
Brazilian Real	-	3,077	3,077
British Pound Sterling	28,063	-	28,063
Canadian Dollar	7,886	-	7,886
Danish Krone	10,500	-	10,500
Euro	82,785	-	82,785
Hong Kong Dollar	4,799	-	4,799
Japanese Yen	32,545	-	32,545
Norwegian Krone	1,125	-	1,125
Singaporean Dollar	2,275	-	2,275
South African Rand	-	14,226	14,226
South Korean Won	4,452	-	4,452
Swedish Krona	8,743	-	8,743
Swiss Franc	11,065	-	11,065
Total	**$ 196,873**	**$ 17,448**	**$ 214,321**

The Group Trust's exposure to foreign currency risk in US dollars as of December 31, 2021, is as follows (in thousands):

CURRENCY	EQUITY	REAL ASSETS	TOTAL
Australian Dollar	$ 2,853	$ 176	$ 3,029
Brazilian Real	-	2,855	2,855
British Pound Sterling	37,834	-	37,834
Canadian Dollar	7,616	-	7,616
Danish Krone	4,251	-	4,251
Euro	99,771	-	99,771
Hong Kong Dollar	3,269		3,269
Japanese Yen	44,888	-	44,888
Norwegian Krone	541	-	541
Singaporean Dollar	1,722	-	1,722
South African Rand	-	25,185	25,185
South Korean Won	7,585	-	7,585
Swedish Krona	12,035	-	12,035
Swiss Franc	15,850	-	15,850
Total	**$ 238,215**	**$ 28,216**	**$ 266,431**

In addition to the above exposures, certain fund-structure investments in the private equity, emerging markets debt, private debt and real assets asset classes with a total fair value of $416 million on December 31, 2022 and $487 million at December 31, 2021, have some level of investments in various countries with foreign currency risk at the fund level. The individual investments in these funds with such exposure are not included in the above table.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. DPFP was party to negotiated derivative contracts in the form of forward foreign exchange contracts as of December 31, 2022 as discussed below. DPFP does not have an investment policy specific to credit risk, however, to mitigate credit risk on the currency forward contracts, investment managers who manage such contracts maintain a diversified portfolio by counterparty.

The Group Trust's exposure to credit risk in fixed income securities as of December 31, 2022 and 2021 using the Standard & Poor's rating scale, at fair value, is as follows (in thousands):

DECEMBER 31, 2022

RATING	CORPORATE BONDS	MUNICIPAL BONDS	US GOVERNMENT SECURITIES	TOTAL
AAA	$ 15,900	$ 249	$ 945	$ 17,094
AA+	1,660	718	30,602	32,980
AA	964	212	144	1,320
AA-	2,102	1,120	-	3,222
A+	2,956	1,697	-	4,653
A	3,316	648	-	3,964
A-	8,731	142	-	8,873
BBB+	9,349	-	-	9,349
BBB	9,369	-	-	9,369
BBB-	10,515	-	-	10,515
BB+	5,266	-	-	5,266
BB	7,064	-	-	7,064
BB-	9,797	-	-	9,797
B+	11,349	-	-	11,349
B	7,327	-	-	7,327
B-	5,457	-	-	5,457
CCC+	6,095	-	-	6,095
CCC	1,293	-	-	1,293
CCC-	141	-	-	141
CC	168	-	-	168
C	105	-	-	105
D	20	-	-	20
NR[(2)]	16,115	146	12,017	28,278
Total	**$ 135,059**	**$ 4,932**	**$ 43,708**	**$ 183,699**

Total credit risk debt securities		$ 183,699
Commingled		137,665
Total		**$ 321,364**

DECEMBER 31, 2021

RATING	CORPORATE BONDS	MUNICIPAL BONDS	US GOVERNMENT SECURITIES	TOTAL
AAA	$ 31,394	$ -	$ 1,299	$ 32,693
AA+	2,540	556	32,120	35,216
AA	2,872	938	517	4,327
AA-	2,993	1,442	-	4,435
A+	5,973	1,779	-	7,752
A	7,055	1,769	-	8,824
A-	12,920	898	-	13,818
BBB+	18,398	-	-	18,398
BBB	19,847	-	-	19,847
BBB-	15,370	-	-	15,370
BB+	5,072	-	-	5,072
BB	7,861	-	-	7,861
BB-	10,794	-	-	10,794
B+	12,280	-	-	12,280
B	10,947	-	-	10,947
B-	12,118	-	-	12,118
CCC+	5,217	-	-	5,217
CCC	2,367	-	-	2,367
CCC-	630	-	-	630
CC	543	-	-	543
C	-	-	-	-
D	32	-	-	32
NR(2)	23,481	504	10,892	34,877
Total	**$ 210,704**	**$ 7,886**	**$ 44,828**	**$ 263,418**

Total credit risk debt securities		$ 263,418
Commingled		156,680
Total		**$ 420,098**

Forward Contracts

During fiscal years 2022 and 2021, certain investment managers, on behalf of the Group Trust, entered into forward foreign exchange contracts as permitted by guidelines established by the Board. A currency forward is a contractual agreement between two parties to pay or receive specific amounts of foreign currency at a future date in exchange for another currency at an agreed upon exchange rate. Forward commitments are not standardized and carry credit risk due to possible nonperformance by one of the counterparties. The maximum potential loss is the aggregate face value in US dollars at the time the contract was entered into. Forwards are usually traded over the counter. These transactions are initiated to hedge risks from exposure to foreign currency rate fluctuation and to facilitate trade settlement of foreign security transactions. Forwards carry market risk resulting from adverse fluctuations in foreign exchange rates. Recognition of realized gain or loss depends on whether the currency exchange rate has moved favorably or unfavorably to the contract holder upon termination of the contract. Prior to termination of the contract, the Group Trust records the unrealized currency translation gain or loss based on the applicable forward exchange rates. Forward currency contracts are considered derivative financial instruments and are reported at fair value.

The fair value and notional amounts of derivative instruments outstanding on December 31, 2022 and 2021, classified by type, and the changes in fair value of such derivative instruments for the year then ended are as follows (in thousands):

DECEMBER 31, 2022

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	$ (1)	$ (1)	$ 484

DECEMBER 31, 2021

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	$ 297	$ -	$ 42

4. Fair Value Measurement

GASB Statement No. 72 requires all investments to be categorized under a fair value hierarchy. Fair value of investments is determined based on both observable and unobservable inputs. Investments are categorized within the fair value hierarchy established by GASB and the levels within the hierarchy are as follows:

- Level 1 – quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date

- Level 2 – inputs (other than quoted prices included within Level 1) that are observable for an asset or liability, either directly or indirectly. These inputs can include quoted prices for similar assets or liabilities in active or inactive markets, or market-corroborated inputs

- Level 3 – significant unobservable inputs for an asset or liability

The remaining investments not categorized under the fair value hierarchy are shown at NAV. These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners' capital, to which a proportionate share of net assets is attributed. Investments at NAV are commonly calculated by subtracting the fair value of liabilities from the fair value of assets.

The following table presents a summary of the Group Trust's investments by type as of December 31, 2022, at fair value (in thousands):

	FAIR VALUE DECEMBER 31, 2022	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL 1)	SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)
Investments by Fair Value Level				
Short-term investment funds	$ 14,891	$ 14,891	$	$
Fixed income securities				
US Treasury bonds	29,661	-	29,661	-
US government agencies	14,047	-	14,047	-
Corporate bonds	135,059	-	135,059	-
Municipal bonds	4,932	-	4,932	-
Equity securities				
Domestic	329,167	329,167	-	-
Foreign	248,746	248,746	-	-
Real assets				
Real estate (1)	88,790	-	-	88,790
Timberland	-	-	-	-
Farmland	92,759	-	-	92,759
Private equity	7,500	-	-	7,500
Forward currency contracts	(1)	-	(1)	-
Total Investments by Fair Value Level	**$ 965,551**	**$ 592,804**	**$ 183,698**	**$ 189,049**

Investments Measured at NAV	
Equity - commingled funds	$ 249,083
Fixed income - commingled funds	137,665
Real assets (1)	166,373
Private equity	211,682
Total Investments Measured at NAV	**$ 764,803**

Total Investments Measured at Fair Value	**$ 1,730,354**

(1) Direct holdings of real estate at Level 3 include only the assets which are wholly owned and valued using significant unobservable inputs. Remaining real estate investments are valued at NAV.

The following table presents a summary of the Group Trust's investments by type as of December 31, 2021, at fair value (in thousands):

	FAIR VALUE DECEMBER 31, 2021	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL 1)	SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)
Investments by Fair Value Level				
Short-term investment funds	$ 12,940	$ 12,940	$ -	$ -
Fixed income securities				
US Treasury bonds	29,292	-	29,292	-
US government agencies	15,536	-	15,536	-
Corporate bonds	210,704	-	210,704	-
Municipal bonds	7,886	-	7,886	-
Equity securities				
Domestic	382,306	382,306	-	-
Foreign	238,215	238,215	-	-
Real assets				
Real estate (1)	128,627	-	-	128,627
Timberland	-	-	-	-
Farmland	97,221	-	-	97,221
Private equity	70,607	-	-	70,607
Forward currency contracts	-	-	-	-
Total Investments by Fair Value Level	**$ 1,193,334**	**$ 633,461**	**$ 263,418**	**$ 296,455**

Investments Measured at NAV	
Equity - commingled funds	$ 347,803
Fixed income - commingled funds	156,680
Real assets (1)	183,606
Private equity	219,081
Total Investments Measured at NAV	**$ 907,170**

Total Investments Measured at Fair Value	**$ 2,100,504**

(1) Direct holdings of real estate at Level 3 include only the assets which are wholly owned and valued using significant unobservable inputs. Remaining real estate investments are valued at NAV.

Short-term investments consist of highly liquid securities invested by third party investment managers and held directly by the Group Trust with the custodian.

Fixed income securities consist primarily of US treasury securities, US corporate securities, international debt securities and commingled funds. Fixed income securities classified in Level 2 of the fair value hierarchy are valued using matrix pricing. This method uses quoted prices for securities with the same maturities and ratings rather than a fixed price for a designated security. Many debt securities are traded on a dealer market and much less frequently, which is consistent with a Level 2 classification as these investments are valued using observable inputs. Forward currency contracts are classified as Level 2 as these securities are priced using the cost approach on a dealer market traded on lower frequencies.

Equity securities, which include both domestic and foreign securities, are classified as Level 1 as fair value is obtained using a quoted price from active markets. The security price is generated by market transactions involving identical or similar assets, which is the market approach to measuring fair value. Inputs are observable in exchange markets, dealer markets, and brokered markets for which prices are based on trades of identical securities.

Real assets classified as Level 3 are investments in which DPFP either owns 100 percent of the asset or for which the valuation is based on non-binding offers from potential buyers to purchase the investments. Real asset investments, which are wholly owned direct holdings, are valued at the income, cost, or market approach depending on the type of holding. All direct holdings are valued using unobservable inputs and are classified in Level 3 of the fair value hierarchy. Private equity investments classified as Level 3 are investments valued by an independent appraiser. Private equity and real assets valued at NAV are based on per share (or its equivalent) of DPFP's ownership interest in the partners' capital valued by the managers and based on third party appraisals, valuations and audited financials.

The following table presents a summary of the fair value and remaining unfunded commitments of the Group Trust's investments measured at NAV at December 31, 2022 (in thousands):

ASSET CATEGORY/CLASS	FAIR VALUE	UNFUNDED COMMITMENTS
Equity - commingled funds	$ 249,083	$ -
Fixed Income - commingled funds	137,665	514
Real assets	166,373	5,697
Private equity	211,682	485
Total	**$ 764,803**	**$ 6,696**

The following table presents a summary of the fair value and remaining unfunded commitments of the Group Trust's investments measured at NAV at December 31, 2021 (in thousands):

ASSET CATEGORY/CLASS	FAIR VALUE	UNFUNDED COMMITMENTS
Equity - commingled funds	$ 347,803	$ -
Fixed Income - commingled funds	156,680	514
Real assets	183,606	8,019
Private equity	219,081	485
Total	**$ 907,170**	**$ 9,018**

Investments measured at NAV include commingled funds, real assets and private equity.

Equity commingled funds are primarily invested in the equity securities of publicly traded companies designed to track the MSCI All Country World Investable Market Index and, to a lesser extent, a core strategy in emerging markets equity. Daily liquidity is available with 7-10 days of notice.

Fixed income commingled funds have redemption notice periods of 7-30 days and others are less liquid, with estimated redemption periods ranging from 5 to 10 years as assets within the funds are liquidated. Approximately half of the funds are invested in bank debt instruments of non-investment grade companies, while the other half is invested in debt instruments of emerging markets countries, denominated in both local currency and USD, as well as debt from corporate issues domiciled in emerging markets.

Real asset investments (including investment strategies in commercial real estate, infrastructure, timberland and farmland) are held in separate accounts, as a limited partner, or in a joint venture. These investments are illiquid and resold at varying rates, with distributions received over the life of the investments. They are typically not redeemed, nor do they have set redemption schedules.

Private equity holdings include fund-structure investments with general partners. By their nature, these investments are illiquid and typically not resold or redeemed. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over a period ranging from 5 to 15 years on average. These investments seek long-term capital appreciation in privately held companies. The current composition of the private equity portfolio has a significant concentration to the energy sector.

Upon initial investment with a general partner or in certain fund-structures, DPFP commits to a certain funding level for the duration of the contract. At will, the partners or fund managers may request that DPFP fund a portion of this amount. Such amounts remaining as of December 31, 2022 and 2021 for investments measured at NAV are disclosed above as unfunded commitments.

5. Net Pension Liability

The net pension liability is measured as the total pension liability, less the amount of the plan's fiduciary net position. The components of the net pension liability on December 31, 2022 and 2021 are as follows (in thousands):

Combined Pension Plan

	2022	2021
Total pension liability	$ 5,254,660	$ 5,163,732
Less: Plan fiduciary net position	(1,806,567)	(2,157,841)
Net pension liability	$ 3,448,093	$ 3,005,891

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2022 and 2021 is 34.4% and 41.8%, respectively.

Supplemental Plan

	2022	2021
Total pension liability	$ 43,067	$ 40,868
Less: Plan fiduciary net position	(16,641)	(18,661)
Net pension liability	$ 26,426	$ 22,207

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2022 and 2021 is 38.6% and 45.7%, respectively.

Actuarial Assumptions as of December 31, 2022

The total pension liability was determined by an actuarial valuation as of January 1, 2023, using the below significant assumptions, applied to all periods included in the measurement, except as noted below.

Investment rate of return	6.50% per annum, compounded annually, net of investment expenses. This rate is based on an average inflation rate of 2.50% and a real rate of return of 4.00%.
Discount rate	6.50%, used to measure the total pension liability
Administrative expenses	Explicit assumption of $7.0 million per year or 1% of Computation Pay, whichever is greater for the Combined Pension Plan and $55 thousand per year for the Supplemental Plan. Includes investment-related personnel costs.
Projected salary increases	Range of 6.25% to 7.25% based on the City's pay plan, along with analysis completed in conjunction with an Experience Study Report for the five-year period ended December 31, 2019 and the 2019 and 2023 Meet and Confer Agreements.
Payroll growth	2.50% per year, to match inflation assumption
Actuarial cost method	Entry age actuarial cost method (level percentage of payroll)
Post-retirement benefit increases	Ad hoc COLA after the Combined Plan is 70% funded after accounting for the impact of the COLA. 1.50% of original benefit, beginning October 1, 2073.
Actuarial Value of Assets	Combined Pension Plan – 5-year smoothed fair value, further adjusted, if necessary, to be within 20% of fair value; Supplemental Pension Plan – Market value of assets
Amortization methodology	Combined Pension Plan – As of January 1, 2020 the unfunded actuarial accrued liability is amortized on a closed, 25-year period. Beginning January 1, 2021, each year's gains and losses are amortized over a closed, 20-year period. Amortization is on a level-percentage-of-pay basis. Supplemental Pension Plan – The unfunded actuarial accrued liability as of January 1, 2020 is amortized on a closed 20-year period. Beginning January 1, 2021, each year's gains and losses are amortized over a closed, 10-year period. Amortization is on a level-percentage-of-pay basis.
Interest on DROP account	2.75% on active balances as of September 1, 2017, payable upon retirement, 0% on balances accrued after September 1, 2017.
Retirement age	Experience-based table of rates based on age, extending to age 65, with separate tables for police officers and firefighters
Pre-retirement mortality	Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males; projected generationally using Scale MP-2019.
Post-retirement mortality	Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, with a one-year setback for females; projected generationally using Scale MP-2019.
Disabled mortality	Pub-2010 Public Safety Disabled Retiree Amount-Weighted Mortality Table, with a four-year set forward for both males and females; projected generationally using Scale MP-2019.
DROP election	The DROP Utilization factor is 0% for new entrants.

Actuarial Assumptions as of December 31, 2021

The total pension liability was determined by an actuarial valuation as of January 1, 2022, using the below significant assumptions, applied to all periods included in the measurement, except as noted below.

Investment rate of return	6.50% per annum, compounded annually, net of investment expenses. This rate is based on an average inflation rate of 2.50% and a real rate of return of 4.00%. Fair value asset returns are expected to be -13.00% in 2022 and 6.50% annually thereafter.
Discount rate	6.50%, used to measure the total pension liability
Administrative expenses	Explicit assumption of $7.0 million per year or 1% of Computation Pay, whichever is greater for the Combined Pension Plan and $55 thousand per year for the Supplemental Plan or 1% of Computation Pay. Includes investment-related personnel costs.
Projected salary increases	Range of 2.5% to 3.25% based on the City's pay plan, along with analysis completed in conjunction with an Experience Study Report for the five-year period ended December 31, 2019 and the 2019 Meet and Confer Agreement.
Payroll growth	2.50% per year, to match inflation assumption
Actuarial cost method	Entry age normal cost method (level percent of pay)
Post-retirement benefit increases	Ad hoc COLA after the Combined Plan is 70% funded after accounting for the impact of the COLA. 1.50% of original benefit, beginning October 1, 2073.
Actuarial Value of Assets	Combined Pension Plan – 5-year smoothed fair value; Supplemental Pension Plan – Fair value of assets
Amortization methodology	Combined Pension Plan – As of January 1, 2020 the unfunded actuarial accrued liability is amortized on a closed, 25-year period. Beginning January 1, 2021, each year's gains and losses are amortized over a closed, 20-year period. Amortization is on a level-percentage-of-pay basis. Supplemental Pension Plan – The unfunded actuarial accrued liability as of January 1, 2020 is amortized on a closed 20-year period. Beginning January 1, 2021, each year's gains and losses are amortized over a closed 10-year period. Amortization is on a level-percentage-of-pay basis.
Interest on DROP account	2.75% on active balances as of September 1, 2017, payable upon retirement, 0% on balances accrued after September 1, 2017.
Retirement age	Experience-based table of rates based on age, extending to age 65, with separate tables for police officers and firefighters
Pre-retirement mortality	Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males; projected generationally using Scale MP-2019.
Post-retirement mortality	Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, with a one-year setback for females; projected generationally using Scale MP-2019.
Disabled mortality	Pub-2010 Public Safety Disabled Retiree Amount-Weighted Mortality Table, with a four-year set forward for both males and females; projected generationally using Scale MP-2019.
DROP election	The DROP Utilization factor is 0% for new entrants.

The long-term expected rate of return used by the external actuary to evaluate the assumed return on the Plans' investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The actuary's best estimates of arithmetic real rates of return for each major asset class included in the Plans' target asset allocation as of December 31, 2022 are summarized as shown below. The rates of return below are net of the inflation component of 2.5%.

ASSET CLASS	LONG-TERM EXPECTED REAL RATE OF RETURN	TARGET ASSET ALLOCATION
Global Equity	7.01%	55%
Emerging Markets Equity	8.71%	5%
Private Equity	9.96%	5%
Cash	0.71%	3%
Short-Term Investment Grade Bonds	0.96%	6%
Investment Grade Bonds	1.61%	4%
High Yield Bonds	3.71%	4%
Bank Loans	3.21%	4%
Emerging Markets Debt	3.71%	4%
Real Estate	3.61%	5%
Natural Resources	4.86%	5%

Discount rate

The discount rate used to measure the Combined Pension Plan Total Pension Liability (TPL) was 6.50%. The projection of cash flows used to determine the discount rate assumed City contributions will be made in accordance with the provisions of the Governing Statute, including statutory minimums through 2024 and 34.50% of Computation Pay thereafter. Members are expected to contribute 13.50% of Computation Pay. For cash flow purposes, projected payroll is based on 90% of the City's Hiring Plan payroll projections through 2037, increasing by 2.50% per year thereafter. This payroll projection is used for cash flow purposes only and does not impact the Total Pension Liability. The normal cost rate for future members is assumed to be 16.75% for all years. Based on these assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

The discount rate used to measure the Total Pension Liability for the Supplemental Plan was 6.50%. The projection of cash flows used to determine the discount rate assumed that City contributions will equal the employer's normal cost plus a twenty-year amortization payment on the January 1, 2020, unfunded actuarial accrued liability and ten-year amortization payments on each year's actuarial gain or loss beginning on January 1, 2021. Member contributions will equal 13.50% of Supplemental Computation Pay. Based on those assumptions, the Supplemental Plan's Fiduciary Net Position (FNP) was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

Sensitivity of the net pension liability to changes in the discount rate

The following tables present the Net Pension Liability, calculated using the current discount rate, as well as what the Net Pension Liability would be if it were calculated using a discount rate that is one percentage-point lower or one percentage-point higher than the current rate (in thousands).

DECEMBER 31, 2022

Combined Pension Plan	1% DECREASE (5.50%)	CURRENT DISCOUNT RATE (6.50%)	1% INCREASE (7.50%)
Net pension liability	$ 4,080,686	$ 3,448,093	$ 2,923,063
Supplemental Plan	**1% DECREASE (5.50%)**	**CURRENT DISCOUNT RATE (6.50%)**	**1% INCREASE (7.50%)**
Net pension liability	$ 30,677	$ 26,426	$ 22,819

DECEMBER 31, 2021

Combined Pension Plan	1% DECREASE (5.50%)	CURRENT DISCOUNT RATE (6.50%)	1% INCREASE (7.50%)
Net pension liability	$ 3,619,927	$ 3,005,891	$ 2,495,745
Supplemental Plan	**1% DECREASE (5.50%)**	**CURRENT DISCOUNT RATE (6.50%)**	**1% INCREASE (7.50%)**
Net pension liability	$ 26,116	$ 22,207	$ 18,881

6. Deferred Retirement Option Plan

Deferred Retirement Option Plan (DROP) interest for active DROP members was eliminated after September 1, 2017; only the balance as of September 1, 2017, is eligible for interest once active DROP members retire. Active DROP participation is limited to 10 years. Retirees are not allowed to defer payments into their DROP accounts. Retirees and other DROP account holders, excluding active DROP members, had their DROP balance converted to an annuity (stream of payments) on November 30, 2017. The term of the annuity was based on the DROP account holders expected lifetime at November 30, 2017. The annuity included interest on balances accrued prior to September 1, 2017 at a rate that is correlated to the United States Treasury Note or Bond rates based on the term of the annuity and rules adopted by the Board.

DROP account balances of a member that retires after November 30, 2017 are converted to an annuity (stream of payments) at the time the member retires. The annuity is based on the member's life expectancy and interest rates at the time of retirement. Interest on retiree DROP accounts is based on the length of the retiree's expected lifetime and will be based on U.S. Treasury Bond Rates and rules adopted by the Board. Interest is only payable on the September 1, 2017 account balance.

The following tables reflect the change in DROP balances and the change in the present value of DROP annuities and the number of participants and annuitants during the year ended December 31, 2022:

Combined Pension Plan

	DROP BALANCE (000'S)		DROP PARTICIPANTS
Balance on December 31, 2021	$ 113,911	Participants on December 31, 2021	276
Accumulations	11,794		
Balances Annuitized	(26,236)		
Other Distributions/Deductions	(61)		
Adjustments	(2,266)		
Balance on December 31, 2022	**$ 97,142**	**Participants on December 31, 2022**	**230**
	ANNUITY BALANCE (000'S)		ANNUITY PARTICIPANTS
Present Value of Annuities on December 31, 2021 [1]	$ 864,140	Annuitants on December 31, 2021	2,518
Present Value of Annuities on December 31, 2022 [1]	**$ 845,643**	**Annuitants on December 31, 2022**	**2,601**

Supplemental Plan

	DROP BALANCE (000'S)		DROP PARTICIPANTS
Balance on December 31, 2021	$ 131	Participants on December 31, 2021	2
Accumulations	1		
Balances Annuitized			
Other Distributions/Deductions			
Adjustments			
Balance on December 31, 2022	**$ 132**	**Participants on December 31, 2022**	**2**
	ANNUITY BALANCE (000'S)		ANNUITY PARTICIPANTS
Present Value of Annuities on December 31, 2021 [1]	$ 6,408	Annuitants on December 31, 2021	68
Present Value of Annuities on December 31, 2022 [1]	**$ 5,834**	**Annuitants on December 31, 2022**	**67**

[1] Includes annuities that may be paid out of the Excess Benefits and Trust.

7. Staff Retirement Plan

In November 2021 the Board passed a resolution authorizing the DPFP staff to participate in the Texas Municipal Retirement System (TMRS) beginning in January 2022. TMRS is a statewide public retirement plan created by the State of Texas and administered in accordance with Texas Government Code, Title 8, Subtitle G (TMRS Act) for the benefit of the employees of Texas participating cities. The TMRS plan is a cash-balance retirement plan. DPFP employees become a participant in the TMRS plan on their first day of service. Employees are required to contribute 7% of their total pay, not to exceed IRS Code limitations, and the system contributes an actuarially determined amount to equal a 2:1 match. During 2022 DPFP contributed approximately $251 thousand and participants contributed approximately $186 thousand to the TMRS plan. The TMRS plan is not a component of the accompanying financial statements.

DPFP offered its employees a money purchase plan (MPP) created in accordance with Internal Revenue Code Section 401. An employee of DPFP became a participant in the MPP on their first day of service. Participation ceased, except for purposes of receiving distributions in accordance with the terms of the MPP, on the day employment with DPFP was terminated. Employees were required to contribute 6.5% of their regular pay. Employees were allowed to make after-tax contributions, not to exceed IRS Code limitations. In accordance with the MPP, DPFP was obligated to contribute 12% of permanent employees' regular rate of pay and 8% of part-time and temporary employees' regular rate of pay each year. During 2021, DPFP contributed approximately $311 thousand and participants contributed approximately $168 thousand to the MPP. The MPP was administered by a third party, Voya Financial, Inc. (Voya), and the cost of administration was borne by the MPP participants. The MPP was held in trust by Voya and is not a component of the accompanying financial statements. The 401(a) defined contribution money purchase plan (MPP) was discontinued as of December 31, 2021.

8. Capital Assets

The DPFP office building and land are recorded at acquisition value. Purchased capital assets, which include building improvements and information technology hardware, are recorded at historical cost. Depreciation is charged over the estimated useful lives of the assets using a straight-line method. Depreciation expense of $241 thousand for both 2022 and 2021 is included in professional and administrative expenses in the accompanying financial statements for the years ended December 31, 2022 and 2021. All capital assets belong to DPFP. Maintenance and repairs are charged to expense as incurred.

Capitalization thresholds for all capital asset classes and useful lives for exhaustible assets are as follows (in thousands):

ASSET CLASS	CAPITALIZATION THRESHOLD	DEPRECIABLE LIFE
Building	$ 50	50 years
Building improvements	$ 50	15 years
Information Technology Hardware	$ 50	5 years

Capital asset balances and changes for the fiscal years ending December 31, 2022 and 2021 are as follows (in thousands):

ASSET CLASS	BALANCE DECEMBER 31, 2020	INCREASES	DECREASES	BALANCE DECEMBER 31, 2021	INCREASES	DECREASES	BALANCE DECEMBER 31, 2022
Land	$ 3,562	$ -	$ -	$ 3,562	$ -	$ -	$ 3,562
Building	8,352	-	190	8,162	-	190	7,972
Building improvements	122	-	36	86	-	36	50
IT Hardware	52	-	15	37	-	15	22
Total	**$ 12,088**	**$ -**	**$ 241**	**$ 11,847**	**$ -**	**$ 241**	**$ 11,606**

9. Commitments and Contingencies

Members

As described in Note 1, certain members of the Plans whose employment with the City is terminated prior to being eligible for pension benefits are entitled to refunds of their accumulated contributions, without interest, if they have less than five years of pension service. As of December 31, 2022 and 2021, aggregate contributions from active non-vested members for the Combined Pension Plan were $30.3 million for each year. The portion of these contributions that might be refunded to members who terminate prior to pension eligibility and request a refund has not been determined. Refunds due to terminated non-vested members in the amount of $2.1 million and $1.8 million for December 31, 2022 and 2021, respectively, were included in accounts payable and other accrued liabilities of the Combined Pension Plan. As of December 31, 2022, the aggregate contributions from active non-vested members of the Supplemental Plan were $62 thousand and $29 thousand for 2021. One member was eligible for a refund from the Supplemental Plan as of December 31, 2022 and 2021.

On December 31, 2022 the total accumulated DROP balance and the present value of the DROP annuities was $943.9 million for the Combined Plan and $6.0 million for the Supplemental Plan. At December 31, 2021 the total accumulated DROP balance and the present value of the DROP annuities was $978.5 million for the Combined Plan and $6.5 million for the Supplemental Plan.

Investments

The following table depicts the total commitments and unfunded commitments to various limited partnerships and investment advisors on December 31, 2022, by asset class (in thousands).

ASSET CLASS	TOTAL COMMITMENT	TOTAL UNFUNDED COMMITMENT
Real assets	$ 97,000	$ 5,697
Private equity	5,000	485
Fixed income - commingled funds	10,000	514
Total	$ 112,000	$ 6,696

Legal

In August 2021, The Dallas Police Retired Officers Association filed suit against DPFP and Nicholas Merrick in his capacity as Board Chairman in state district court in Dallas County alleging that changes to the provisions of the DPFP Plans relating to the benefit supplement and annual adjustment were violative of the Texas Constitution. In March 2022, the district court granted DPFP's motion for summary judgment. The plaintiff has appealed this judgment and the appeal is pending in the Fifth Court of Appeals. A judgment for the plaintiffs would have a material effect upon DPFP and its financial statement and condition. The ultimate outcome of this lawsuit cannot be determined at this time and, accordingly, no amounts related to these claims have been recorded in the accompanying financial statements as of December 31, 2022.

10. Risks and Uncertainties

The Group Trust invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. The effect of such risks on the Group Trust's investment portfolio is mitigated by the diversification of its holdings. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the value of investment securities may occur over the course of different economic and market cycles and that such change could be material to the financial statements.

The Plans' actuarial estimates disclosed in Note 5 are based on certain assumptions pertaining to investment rate of return, inflation rates, and participant demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is reasonably possible that changes in these estimates and assumptions in the near term could be material to the financial statements.

11. Leases

The System has adopted GASB Statement 87, Leases. The objective of this Statement is to better meet the information needs of the financial statement users by improving accounting and financial reporting for leases by governments. The Statement requires the recognition of certain lease assets and liabilities for leases that are currently classified as operating leases.

As of December 31, 2022 and 2021, the System did not have any material non-cancellable leases.

12. Subsequent Events

Legal

In November 2023, the Fifth Court of Appeals affirmed the decision of the district court in the suit filed by the Dallas Police Retired Officers Association related to the benefit supplement and annual adjustment. The plaintiff has filed a motion for a rehearing by the original panel as well as a request for a hearing en banc.

In April 2023, the System reached an agreement with a prior vendor and received a financial settlement.

Member Plan Changes

House Bill 4034, effective September 1, 2023, enhances certain line of duty disability and death benefits payable for the members' qualified survivors.

Management has evaluated subsequent events through February 1, 2024, which is the date that the financial statements were available for issuance and noted no subsequent events to be disclosed other than those which are disclosed in this Note or elsewhere in the Notes to Combining Financial Statements.

Required Supplementary Information

(Unaudited)

Schedule of Changes in the Net Pension Liability and Related Ratios

For Last Nine Fiscal Years (in Thousands)

COMBINED PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2022	2021	2020	2019
Total pension liability				
Service cost	$ 71,625	$ 69,963	$ 56,244	$ 49,155
Interest	329,455	326,951	324,046	318,703
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	(42,456)	(26,683)	70,548	16,723
Changes of assumptions	65,942	(4,238)	257,525	155,569
Benefit payments, including refunds of employee contributions	(333,638)	(324,633)	(317,951)	(309,860)
Net change in total pension liability	90,928	41,360	390,412	230,290
Total pension liability – beginning	5,163,732	5,122,372	4,731,960	4,501,670
Total pension liability - ending (a)	**$ 5,254,660**	**$ 5,163,732**	**$ 5,122,372**	**$ 4,731,960**
Plan fiduciary net position				
Employer contributions	$ 169,911	$ 165,541	$ 161,950	$ 155,721
Employee contributions	59,706	58,560	57,305	52,268
Net investment income (loss), net of expenses	(240,891)	321,064	(8,927)	124,260
Benefits payments	(333,638)	(324,633)	(317,951)	(309,861)
Interest expense	-	-	-	-
Administrative expenses	(6,362)	(6,391)	(6,534)	(6,445)
Net change in plan fiduciary net position	(351,274)	214,141	(114,157)	15,943
Plan fiduciary net position - beginning	2,157,841	1,943,700	2,057,857	2,041,914
Plan fiduciary net position - ending (b)	**$ 1,806,567**	**$ 2,157,841**	**$ 1,943,700**	**$ 2,057,857**
Net pension liability - ending (a) - (b)	$ 3,448,093	$ 3,005,891	$ 3,178,672	$ 2,674,103
Plan fiduciary net position as a percentage of total pension liability	34.4%	41.8%	38.0%	43.5%
Covered payroll	$ 462,820	$ 436,971	$ 427,441	$ 396,955
Net pension liability as a percentage of covered payroll	745.0%	687.9%	743.7%	673.7%

(Continued)

Schedule is intended to show information for 10 years. Additional years will be presented when they become available.

COMBINED PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 44,792	$ 148,552	$ 167,432	$ 125,441	$ 131,312
Interest	318,536	348,171	360,567	359,023	369,408
Changes of benefit terms	16,091	(1,167,597)	-	-	(329,794)
Differences between expected and actual experience	(46,555)	(134,665)	(77,463)	379,461	(4,453)
Changes of assumptions	(31,460)	(2,851,241)	(712,003)	908,988	-
Benefit payments, including refunds of employee contributions	(297,081)	(296,154)	(825,092)	(285,003)	(245,932)
Net change in total pension liability	4,323	(3,952,934)	(1,086,559)	1,487,910	(79,459)
Total pension liability - beginning	4,497,347	8,450,281	9,536,840	8,048,930	8,128,389
Total pension liability - ending (a)	**$ 4,501,670**	**$ 4,497,347**	**$ 8,450,281**	**$ 9,536,840**	**$ 8,048,930**
Plan fiduciary net position					
Employer contributions	$ 149,357	$ 126,318	$ 119,345	$ 114,886	$ 109,792
Employee contributions	49,332	32,977	25,518	25,676	29,333
Net investment income (loss), net of expenses	42,822	98,911	164,791	(235,207)	(138,893)
Benefits payments	(297,081)	(296,154)	(825,092)	(285,003)	(245,932)
Interest expense	-	(1,279)	(4,532)	(8,417)	(7,361)
Administrative expenses	(5,861)	(8,090)	(9,492)	(6,006)	(8,003)
Net change in plan fiduciary net position	(61,431)	(47,317)	(529,462)	(394,071)	(261,064)
Plan fiduciary net position - beginning	2,103,345	2,150,662	2,680,124	3,074,195	3,335,259
Plan fiduciary net position - ending (b)	**$ 2,041,914**	**$ 2,103,345**	**$ 2,150,662**	**$ 2,680,124**	**$ 3,074,195**
Net pension liability - ending (a) - (b)	$ 2,459,756	$ 2,394,002	$ 6,299,619	$ 6,856,716	$ 4,974,735
Plan fiduciary net position as a percentage of total pension liability	45.4%	46.8%	25.5%	28.1%	38.2%
Covered payroll	$ 363,117	$ 346,037	$ 357,414	$ 365,210	$ 383,006
Net pension liability as a percentage of covered payroll	677.4%	691.8%	1,762.6%	1,877.5%	1,298.9%

Schedule is intended to show information for 10 years. Additional years will be presented when they become available.

Required Supplementary Information

(Unaudited)

Schedule of Changes in the Net Pension Liability and Related Ratios

For Last Nine Fiscal Years (in Thousands)

SUPPLEMENTAL PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2022	2021	2020	2019
Total pension liability				
Service cost	$ 1,020	$ 394	$ 379	$ 212
Interest	2,630	2,373	2,438	2,223
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	501	3,371	47	3,007
Changes of assumptions	891	(4)	1,559	1,332
Benefit payments, including refunds of employee contributions	(2,843)	(2,750)	(2,778)	(2,766)
Net change in total pension liability	2,199	3,384	1,645	4,008
Total pension liability - beginning	40,868	37,484	35,839	31,831
Total pension liability - ending (a)	$ 43,067	$ 40,868	**$ 37,484**	**$ 35,839**
Plan fiduciary net position				
Employer contributions	$ 2,807	$ 2,099	$ 1,777	$ 1,530
Employee contributions	256	228	245	111
Net investment income (loss), net of expenses	(2,181)	2,765	(122)	169
Benefits payments	(2,843)	(2,750)	(2,778)	(2,766)
Interest expense	-	-	-	-
Administrative expenses	(59)	(55)	(55)	(55)
Net change in plan fiduciary net position	(2,020)	2,287	(933)	(1,011)
Plan fiduciary net position - beginning	18,661	16,374	17,307	18,318
Plan fiduciary net position - ending (b)	**$ 16,641**	**$ 18,661**	**$ 16,374**	**$ 17,307**
Net pension liability - ending (a) - (b)	$ 26,426	$ 22,207	$ 21,110	$ 18,532
Plan fiduciary net position as a percentage of total pension liability	38.6%	45.7%	43.7%	48.3%
Covered payroll	$ 1,800	$ 1,631	$ 627	$ 584
Net pension liability as a percentage of covered payroll	1,468.0%	1,361.3%	3,368.0%	3,172.8%

(Continued)

Schedule is intended to show information for 10 years. Additional years will be presented when they become available.

SUPPLEMENTAL PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 222	$ 111	$ 70	$ 36	$ 28
Interest	2,359	2,799	2,911	2,953	2,969
Changes of benefit terms	888	(5,305)	-	-	(526)
Differences between expected and actual experience	(2,628)	(1,435)	1,105	928	336
Changes of assumptions	28	(479)	(916)	(600)	-
Benefit payments, including refunds of employee contributions	(2,708)	(2,668)	(5,912)	(2,640)	(3,414)
Net change in total pension liability	(1,839)	(6,977)	(2,742)	677	(607)
Total pension liability - beginning	33,670	40,647	43,389	42,712	43,319
Total pension liability - ending (a)	**$ 31,831**	**$ 33,670**	**$ 40,647**	**$ 43,389**	**$ 42,712**

Plan fiduciary net position					
Employer contributions	$ 1,979	$ 2,077	$ 3,064	$ 2,443	$ 1,817
Employee contributions	74	66	35	43	49
Net investment income (loss), net of expenses	1,220	740	1,141	(1,689)	(517)
Benefits payments	(2,708)	(2,668)	(5,912)	(2,640)	(3,414)
Interest expense	-	(11)	(78)	(44)	(51)
Administrative expenses	(52)	(69)	(37)	(61)	(56)
Net change in plan fiduciary net position	513	135	(1,787)	(1,948)	(2,172)
Plan fiduciary net position - beginning	17,805	17,670	19,457	21,405	23,577
Plan fiduciary net position - ending (b)	**$ 18,318**	**$ 17,805**	**$ 17,670**	**$ 19,457**	**$ 21,405**

Net pension liability - ending (a) - (b)	$ 13,513	$ 15,865	$ 22,977	$ 23,932	$ 21,307
Plan fiduciary net position as a percentage of total pension liability	57.6%	52.9%	43.5%	44.8%	50.1%
Covered payroll	$ 622	$ 916	$ 525	$ 725	$ 557
Net pension liability as a percentage of covered payroll	2,173.8%	1,731.6%	4,376.2%	3,303.3%	3,827.3%

Schedule is intended to show information for 10 years. Additional years will be presented when they become available. See notes below related to this schedule.

Notes to Schedule:

Changes of benefit terms:

As of December 31, 2022 - None

As of December 31, 2021

HB 3375 amended section 6.14 of Article 6243a-1 replacing the word "participant" with "any person" allowing survivors and beneficiaries additional flexibility regarding their DROP accounts, specifically as it relates to hardship distributions.

As of December 31, 2020, 2019 and 2018 – None

As of December 31, 2017

HB 3158 was signed by the Governor on May 31, 2017, the significant benefit and contribution changes in the bill were effective September 1, 2017.

- Normal Retirement Age increased from either age 50 or 55 to age 58
- For members less than the age of 45 on September 1, 2017, hired prior to March 1, 2011, and less than 20 years of pension service the Early Retirement Age increased from age 45 to age 53
- Vesting for members hired after February 28, 2011 was reduced from ten years to five years of service
- Benefit multiplier for all future service for members hired prior to March 1, 2011 was lowered from 3.00% to 2.50%
- Benefit multiplier retroactively increased to 2.50% for members hired on or after March 1, 2011
- Benefit multipliers for 20 and Out benefit lowered
- Members hired after February 28, 2011 are eligible for an early retirement benefit after 20-years of service
- Maximum benefit reduced from 96% of Computation Pay to 90% of Computation Pay for members hired prior to March 1, 2011
- Average Computation Pay period changed from 36 months to 60 months for future service for members hired prior to March 1, 2011
- Annual Adjustment (COLA) discontinued for all members. The Board may choose to provide a COLA if the funded ratio on a fair value basis is at least 70% after the implementation of a COLA.
- The supplemental benefit is eliminated prospectively; only those for whom the supplement was already granted as of September 1, 2017 will maintain the supplement
- Active DROP participation is limited to 10 years
- DROP interest for active DROP members was eliminated after September 1, 2017; only the balance as of September 1, 2017 will be eligible for interest once active DROP members retire
- Retirees with DROP accounts as of September 1, 2017 will have their DROP account balances paid out over their expected lifetime based on their age as of September 1, 2017
- Future retirees with DROP accounts will have their DROP account balances paid out over their expected lifetime as of the date of the retirement
- Interest on retiree DROP accounts as of August 31, 2017 will be paid based on the length of the retiree's expected lifetime and will be based on U.S. Treasury rates which correlate to expected lifetime, as determined by the Board of Trustees
- Member contributions for both DROP and non-DROP members increased to 13.5% effective September 1, 2017
- The City's contribution rate will increase to 34.5% of Computation Pay. Between September 1, 2017 and December 31, 2024, the City's contribution will be the greater of (i) 34.5% and (ii) a biweekly contribution amount as stated in HB3158, plus $13 million per year.

As of December 31, 2016 and 2015 – None

As of December 31, 2014
The Board approved a plan amendment implementing changes to DROP interest rates on April 16, 2015. Such changes were reflected in the valuation of the net pension liability as of December 31, 2015 and 2014.

Changes of methods and assumptions:

The following assumption changes were adopted by the Board for use in the January 1, 2023 actuarial valuation. For further information regarding the changes to actuarial assumptions, refer to the January 1, 2023 Dallas Police and Fire Pension System actuarial valuation reports for the Combined Pension Plan and the Supplemental Plan.

As of December 31, 2022
- The salary scale assumption was updated based on the 2023 Meet and Confer agreement.
- The DROP Active retirement rates for participants in DROP for ten years was lowered from 100% to 75%.

As of December 31, 2021
- Administrative expense assumption was reduced to $7.0 million from $8.5 million or 1% of Computation Pay for the Combined Plan and to $55 thousand from $65 thousand for the Supplemental Plan for the year beginning January 1, 2022.
- The ad-hoc COLA assumption was lowered from 2.0% to 1.5%. Ongoing, the COLA assumption will remain at five percentage points less than the investment return assumption.
- The ad-hoc COLA assumption was updated to begin October 1, 2073. Last year, the COLA was assumed to begin October 1, 2069.

As of December 31, 2020
- The net investment return assumption was lowered from 7.00% to 6.50%.
- The ad-hoc COLA assumption was updated to begin October 1, 2069. Last year, the COLA was assumed to begin October 1, 2063.

As of December 31, 2019
The following assumption changes were adopted by the Board for use in the January 1, 2020 actuarial valuation. Some of the assumption changes were related to the actuarial experience study completed for the five-year period ending December 31, 2019.

- The net investment return assumption was lowered from 7.25% to 7.0%.
- The salary scale assumption was updated based on the 2019 Meet and Confer agreement, with a new ultimate rate of 2.50%.
- The payroll growth assumption was lowered from 2.75% to 2.50%.
- The mortality rates were updated to the Pub-2010 Public Safety Amount-weighted Mortality Tables, with varying adjustments by status and sex, projected generationally with Scale MP-2019.
- The withdrawal rates were updated and the ultimate 0% rate was moved up from 38 to 25 years of service.
- The DROP retirement rates were increased at most ages and the ultimate 100% retirement was updated from the earlier of 67 years or 8 years in DROP to the earlier of age 65 or 10 years in DROP.
- The non-DROP retirement rates were lowered at most ages and simplified from three sets to two sets of rates.
- The retirement assumption for inactive vested participants was updated to include an assumption that 75% of those who terminate with a vested benefit prior to age 40 will take a cash out at age 40.
- The DROP annuitization interest rate for account balances as of September 1, 2017 was lowered from 3.0% to 2.75%.
- The ad-hoc COLA assumption was updated to begin October 1, 2063. Last year, the COLA was assumed to begin October 1, 2050.
- The system's expectations for near-term market returns were lowered to -6.0% for 2020, +5.25% for 2021, +5.75% for 2022 and +6.25% for 2023. For valuation purposes, these return assumptions are used for determining the projected full-funding date and the projected COLA start date.

As of December 31, 2018

- The salary scale assumption was updated to reflect the 2016 Meet and Confer Agreement, as amended in 2018.
- The ad-hoc COLA assumption was updated to begin October 1, 2050 based on the updated projection of the unfunded actuarial accrued liability; last year, the COLA was assumed to begin October 1, 2053

As of December 31, 2017

The discount rate used to measure the total pension liability changed from a blended discount rate of 4.12% to the assumed rate of return of 7.25% for the Combined Pension Plan and from a blended discount rate of 7.10% to the assumed rate of return of 7.25% for the Supplemental Plan.

As a result of the passage of HB 3158 the following assumption were changed:

- The DROP utilization factor was changed from 100% to 0%
- Current DROP members with at least eight years in DROP as of January 1, 2017 are assumed to retire in 2018. Current DROP members with less than eight years in DROP as of January 1, 2017 are assumed to retire once they have been in the DROP for eight years
- Retirement rates were changed effective January 1,2018
- 100% retirement rate once the projected sum of age plus service equals 90
- New terminated vested members are assumed to retire at age 58
- DROP account balances annuitized as of September 1, 2017 are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest
- DROP payment period based on an 85%/15% male/female blend of the current healthy annuitant mortality tables
- COLA assumed to be a 2.00% COLA beginning October 1, 2053 and payable every October 1st thereafter
- The administrative expense assumption was changed from the greater of $10 million per year or 1% of Computation Pay to the greater of $8.5 million per year or 1% of Computation Pay for the Combined Plan and from $60 thousand to $65 thousand for the Supplemental Plan

As of December 31, 2016

- The blended discount rate used to measure the total pension liability changed from 3.95% to 4.12% for the Combined Pension Plan and from 7.19% to 7.10% for the Supplemental Plan.
- The remaining amortization period was adjusted from 40 years to 30 years for the Combined Pension Plan based on Section 802.101(a) of the Texas Government Code.

The salary scale was modified for valuation years 2017-2019 in accordance with the Meet and Confer Agreement. DROP interest is assumed to decline from 6.00% to 5.00% effective October 1, 2017, and to 0.00% effective October 1, 2018, per Section 6.14(c) of the plan document as amended and restated through April 16, 2015.

As of December 31, 2015

The blended discount rate used to measure the total pension liability changed from 4.94% to 3.95% for the Combined Pension Plan and from 7.13% to 7.19% for the Supplemental Plan.

As a result of the actuarial experience study completed for the five-year period ending December 31, 2014, the following changes in assumptions were adopted by the Board. For further information regarding the changes to actuarial assumptions, refer to the January 1, 2016 Dallas Police and Fire Pension System actuarial valuation reports for the Combined Pension Plan and the Supplemental Plan.

- Salary scales were updated with separate service-based salary assumptions for police officers and firefighters, lowering the range of increase to 3.00% to 5.20% from the previous assumed range of 4.00% to 9.64%.
- The payroll growth rate assumption was lowered from 4.00% to 2.75% to equal the assumed inflation rate.
- In the prior valuation, the investment return assumption was net of both investment and administrative expenses. In the December 31, 2015 valuation, an explicit assumption for administrative expenses was added to the normal cost. Assumptions of $10 million and $60 thousand per year were utilized for the Combined Pension Plan and Supplemental Plan, respectively.
- In the prior valuation for the Combined Pension Plan, an asset valuation method using a 10-year smoothing period was applied. In the December 31, 2015 valuation, the actuarial value of assets was reset to fair value as of the measurement date. A five-year smoothing period will be used in future periods.
- The remaining amortization period was adjusted from 30 years to 40 years for the Combined Pension Plan based on Section 802.101(a) of the Texas Government Code.
- Mortality tables were updated from the RP-2000 tables to the RP-2014 tables.
- Assumed rates of turnover were lowered for police officers and raised for firefighters to reflect recent experience.
- Retirement rates were lowered for both police officers and firefighters, with the separation of service-based assumptions implemented based on recent experience.
- Disability rates were lowered for both police officers and firefighters and service-based assumptions were eliminated based on the similarity of recent experience between the two services.
- The assumption of the portion of active employees who are married was lowered from 80% to 75% and the age of the youngest child was raised from 1 to 10.

As of December 31, 2014

The assumption for the future interest rates credited to DROP balances was changed from 8.5% to the following rates prescribed by the 2014 plan amendment:

- On October 1, 2014 – 8.0%;
- On October 1, 2015 – 7.0%;
- On October 1, 2016 – 6.0%; and
- On October 1, 2017 and thereafter – 5.0%

Schedule of Employer Contributions – Combined Pension Plan
(In Thousands)

MEASUREMENT YEAR ENDING DECEMBER 31,	ACTUARIALLY DETERMINED CONTRIBUTION	ACTUAL CONTRIBUTION	CONTRIBUTION DEFICIENCY (EXCESS)	COVERED PAYROLL	ACTUAL CONTRIBUTION AS A % OF COVERED PAYROLL
2022	$ 228,531	$ 169,911	$ 58,619	$ 436,971	38.9%
2021	221,286	165,541	55,744	427,441	38.7%
2020	185,429	161,950	23,479	396,955	40.8%
2019	152,084	155,721	(3,637)	363,117	42.9%
2018	157,100	149,357	7,743	346,037	43.2%
2017	168,865	126,318	42,547	357,414	35.3%
2016	261,859	119,345	142,514	365,210	32.7%

Schedule is intended to show information for 10 years. Additional years will be presented as they become available.

Prior to January 1, 2016, the actuarial determined contribution for the Combined Plan was not determined by the actuary.

The City's contribution rate for the Combined Pension Plan is set by State statutes. The difference between the actuarial determined contribution and the City contribution set by State statutes results in the contribution excess or deficiency.

Notes to Schedule:

The following methods and assumptions used to calculate the actuarial determined contribution:

As of December 31, 2022

Actuarial cost method	Entry age normal cost method
Amortization method	25-year level percent of payroll for UAL as of January 1, 2020, 20-year level percent of payroll for changes to the UAL thereafter, using 2.50% annual increases.
Remaining amortization period	68 years as of January 1, 2022
Asset valuation method	Fair value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the actuarial value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the fair value.
Investment rate of return	6.50% per annum, including inflation, net of pension plan investment expense
Inflation rate	2.50%
Projected salary increases	Inflation plus merit increases, varying by group and year
Retirement rates	Group-specific rates based on age

Mortality	Pre-retirement: Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males, projected generationally using Scale MP-2019 Post-retirement: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set back one year for females, projected generationally using Scale MP-2019 Disabled: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set forward four years for males and females, projected generationally using Scale MP-2019
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement.
DROP utilization	The DROP utilization factor is 0% for new entrants.

As of December 31, 2021

Actuarial cost method	Entry age normal cost method
Amortization method	25-year level percent of payroll for UAL as of January 1, 2020, 20-year level percent of payroll for changes to the UAL thereafter, using 2.50% annual increases.
Remaining amortization period	63 years as of January 1, 2021
Asset valuation method	Fair value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the actuarial value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the fair value.
Investment rate of return	6.50% per annum, including inflation, net of pension plan investment expense
Inflation rate	2.50%
Projected salary increases	Inflation plus merit increases, varying by group and year
Post-retirement benefit	COLA assumed to be 2.00% simple increases beginning October 1, 2073
Retirement rates	Group-specific rates based on age

Mortality	Pre-retirement: Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males, projected generationally using Scale MP-2019 Post-retirement: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set back one year for females, projected generationally using Scale MP-2019 Disabled: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set forward four years for males and females, projected generationally using Scale MP-2019
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement.
DROP utilization	The DROP utilization factor is 0% for new entrants.

As of December 31, 2020 that differed from above

Amortization method	25-year level percent of pay, using 2.50% annual increases. Beginning January 1, 2021, each year's gains and losses will be amortized over a closed 20-year period.
Remaining amortization period	55 years as of January 1, 2020
Investment rate of return	7.00% per annum, compounded annually, net of pension plan investment expense
Post-retirement benefit	COLA assumed to be a 2.00% COLA beginning October 1, 2063 and increases payable every October 1 thereafter

As of December 31, 2019 that differed from above

Amortization method	30-year level percent of pay, using 2.75% annual increases
Remaining amortization period	38 years as of January 1, 2019
Investment rate of return	7.25% per annum, compounded annually, net of all expense, including administrative expenses.
Inflation rate	2.75%
Projected salary increases	Inflation plus merit increases, varying by group and service
Post-retirement benefit	COLA assumed to be a 2.00% COLA beginning October 1, 2050 and increases payable every October 1 thereafter

Mortality	Pre-retirement: Sex-distinct RP-2014 Employee Mortality Table, set back two years for males, projected generationally using Scale MP-2015 Post-retirement: Sex-distinct RP-2014 Healthy Annuitant Mortality Table, set forward two years for females, projected generationally using Scale MP-2015 Disabled: Sex-distinct RP-2014 Disabled Retiree Mortality Table, set back three years for males and females, projected generationally using Scale MP-2015
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement.

As of December 31, 2018 that differed from above

Remaining amortization period	45 years as of January 1, 2018
Projected salary increases	Inflation plus merit increases, varying by group and service, ranging from 0.00% to 2.25%
Post-retirement benefit	COLA assumed to be a 2.00% COLA beginning October 1, 2053 and increases payable every October 1 thereafter
Interest on DROP accounts	Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest. Beginning January 1, 2018 DROP balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement.

As of December 31, 2017 that differed from above

Projected salary increases	Inflation plus merit increases, varying by group and service, ranging from 0.25% to 2.45%
Post-retirement benefit	COLA assumed to be a 2.00% COLA beginning October 1, 2049 and increases payable every October 1 thereafter
Interest on DROP accounts	6% per year until September 1, 2017. Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest.
DROP election	The DROP utilization factor is 0% for new entrants. Current DROP members with at least eight years in the DROP as of January 1, 2017 are assumed to retire in 2018. Current DROP members with less than eight years in DROP as of January 1, 2017 are assumed to retire once they have been in the DROP for eight years.

As of December 31, 2016 that differed from above

Post-retirement benefit increases	4.00% simple COLA, October 1st
DROP balance returns	At October 1, 2015 – 7.0% At October 1, 2016 – 6.0% At October 1, 2017 and thereafter – 5.0%
DROP election	Age 50 with 5 years of service. Any active member who satisfies these criteria and has not entered DROP are assumed never to join DROP. Active members who retire with a DROP account are assumed to receive the balance of their account over a 10-year time period.

Schedule of Employer Contributions – Supplemental Plan
(In Thousands)

MEASUREMENT YEAR ENDING DECEMBER 31,	ACTUARIALLY DETERMINED CONTRIBUTION	ACTUAL CONTRIBUTION	CONTRIBUTION DEFICIENCY	COVERED PAYROLL	ACTUAL CONTRIBUTION AS A % OF COVERED PAYROLL
2022	$ 2,807	$ 2,807	$ -	$ 1,631	172.1%
2021	2,099	2,099	-	627	334.8%
2020	1,777	1,777	-	584	304.3%
2019	1,881	1,530	351	622	246.2%
2018	2,274	1,979	295	916	216.0%
2017	2,087	2,077	10	525	395.6%
2016	3,063	3,063	-	725	422.9%
2015	2,443	2,443	-	557	438.8%
2014	1,817	1,817	-	521	348.5%

Schedule is intended to show information for 10 years. Additional years will be presented as they become available.

The City is required by ordinance to contribute amounts necessary to ensure the payment of benefits in the Supplemental Plan. The City's contributions shall be made in accordance with actuarial requirements established by the actuary and the Board. Actuarially determined contributions are calculated as of January 1 in the fiscal year in which the contribution is reported. The deficiency shown on the table is due to Supplemental Plan contributions paid directly to the Excess Benefit Plan in compliance with Internal Revenue Code Section 415.

Notes to Schedules:
The following methods and assumptions were used to calculate the actuarial determined contribution for the Supplemental Plan:

As of December 31, 2022

Actuarial cost method	Entry age normal cost method
Amortization method	20-year level percent of payroll for UAL as of January 1, 2020, 10-year level percent of payroll for changes to the UAL thereafter, using 2.50% annual increases.
Remaining amortization period	16 years as of January 1, 2022.
Asset valuation method	Fair value of assets
Investment rate of return	6.50% per annum, including inflation, net of all expense, including administrative expenses.
Inflation rate	2.50%
Projected salary increases	Inflation plus merit increases, varying by group and year
Retirement rates	Group-specific rates based on age

Mortality	Pre-retirement: Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males, projected generationally using Scale MP-2019 Post-retirement: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set back one year for females, projected generationally using Scale MP-2019 Disabled: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set forward four years for males and females, projected generationally using Scale MP-2019
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement.
DROP election	The DROP utilization factor is 0% for new entrants.

As of December 31, 2021

Actuarial cost method	Entry age normal cost method
Amortization method	20-year level percent of payroll for UAL as of January 1, 2020, 10-year level percent of payroll for changes to the UAL thereafter, using 2.50% annual increases.
Remaining amortization period	17 years as of January 1, 2021.
Asset valuation method	Fair value of assets
Investment rate of return	6.50% per annum, compounded annually, net of all expense, including administrative expenses.
Inflation rate	2.50%
Projected salary increases	Inflation plus merit increases, varying by group and year
Post-retirement benefit increases	COLA assumed to be a 1.5% COLA beginning October 1, 2073 and payable every October 1st thereafter
Retirement rates	Group-specific rates based on age
Mortality	Pre-retirement: Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males, projected generationally using Scale MP-2019 Post-retirement: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set back one year for females, projected generationally using Scale MP-2019 Disabled: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set forward four years for males and females, projected generationally using Scale MP-2019

Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement.
DROP election	The DROP utilization factor is 0% for new entrants.

As of December 31, 2020 that differed from above

Amortization method	20-year level percent of pay, using 2.50% annual increases. Beginning January 1, 2021 each year's gains and losses will be amortized over a closed 10-year period.
Remaining amortization period	20 years
Investment rate of return	7.00% per annum, compounded annually, net of all expense, including administrative expenses.
Projected salary increases	Inflation plus merit increases, varying by group and service
Post-retirement benefit increases	COLA assumed to be a 2.00% COLA beginning October 1, 2063 and payable every October 1st thereafter

As of December 31, 2019 that differed from above

Amortization method	10 years level percent of pay, using 2.75% annual increases
Remaining amortization period	10 years
Investment rate of return	7.25% per annum, compounded annually, net of all expense, including administrative expenses.
Inflation rate	2.75%
Post-retirement benefit increases	COLA assumed to be a 2.00% COLA beginning October 1, 2050 and payable every October 1st thereafter
Mortality	Pre-retirement: Sex-distinct RP-2014 Employee Mortality Table, set back two years for males, projected generationally using Scale MP-2015 Post-retirement: Sex-distinct RP-2014 Healthy Annuitant Mortality Table, set forward two years for females, projected generationally using Scale MP-2015 Disabled: Sex-distinct RP-2014 Disabled Retiree Mortality Table, set back three years for males and females, projected generationally using Scale MP-2015
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement.

As of December 31, 2018 that differed from above

Projected salary increases	Inflation plus merit increases, varying by group and service, ranging from 0.00% to 2.25%
Post-retirement benefit increases	COLA assumed to be a 2.00% COLA beginning October 1, 2053 and payable every October 1st thereafter
Interest on DROP accounts	Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest. Beginning January 1, 2018 DROP balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement.

As of December 31, 2017 that differed from the above

Projected salary increases	Inflation plus merit increases, varying by group and service, ranging from 0.25% to 2.45%
Post-retirement benefit increases	COLA assumed to be a 2.00% COLA beginning October 1, 2049 and payable every October 1 thereafter
Interest on DROP accounts	6% per year until September 1, 2017. Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest.

As of December 31, 2016 that differed from above

Post-retirement benefit increases	4.00% simple COLA, October 1st
DROP balance returns	October 1, 2015 – 7% October 1, 2016 – 6% October 1, 2017 and thereafter – 5%
DROP election	Age 50 with 5 years of service. Any active member who satisfy these criteria and have not entered DROP are assumed never to join DROP. Active members who retire with a DROP account are assumed to receive the balance of their account over a 10-year time period.

As of December 31, 2015 and 2014 that differed from above

Projected salary increases	Range of 4.00% - 9.64%
Mortality	RP-2000 Combined Healthy Mortality Table projected to 10 years beyond the valuation date using Scale AA for healthy retirees and active members.

Schedule of Investment Returns

FISCAL YEAR ENDED DECEMBER 31,	ANNUAL MONEY-WEIGHTED RATE OF RETURN, NET OF INVESTMENT EXPENSE
2022	(2.77%)
2021	5.52%
2020	1.48%
2019	11.51%
2018	(1.49%)
2017	5.07%
2016	3.09%
2015	(12.70%)
2014	3.98%

Notes to Schedule:

The annual money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense, and expresses investment performance adjusted for the changing amounts actually invested. Pension plan investment expense consists of manager fees. The return is calculated using a methodology which incorporates a one quarter lag for fair value adjustments on private equity, debt, and real assets investments.

Schedule is intended to show information for 10 years. Additional years will be presented as they become available.

Supplementary Information

Administrative, Investment, and Professional Services Expenses

Year Ended December 31, 2022

ADMINISTRATIVE EXPENSES		
Information technology	$	432,100
Education		27,919
Insurance		763,383
Personnel		3,362,004
Office equipment		102,137
Dues and subscriptions		183,472
Board meetings		3,112
Office supplies		19,162
Utilities		18,938
Postage		20,889
Printing		3,199
Elections		10,235
Facilities		654,119
Other		26,382
Total administrative expenses	**$**	**5,627,051**
INVESTMENT EXPENSES		
Investment management	$	5,836,259
Custodial		222,346
Investment level valuations and audits		379,417
Research		40,490
Consulting and reporting		343,542
Legal		1,011,804
Tail-end advisory		893,615
Tax		2,665
Other		(7,002)
Total investment expenses	**$**	**8,723,136**
PROFESSIONAL SERVICES EXPENSES		
Consulting	$	600
Actuarial		96,069
Auditing		107,650
Accounting		61,475
Medical review		7,290
Legal		358,635
Mortality records		5,039
Legislative		126,000
Communications		17,499
Other		13,422
Total professional services expenses	**$**	**793,679**

Notes to Schedule:
Supplementary information on investment expenses does not include investment management fees and performance fees embedded in the structure of private equity and other limited partnership investments. Rather, these fees are a component of the net appreciation (depreciation) in fair value of investments in the accompanying Statements of Changes in Fiduciary Net Position. In addition, management fees paid directly by DPFP are included net of rebates received. The members of the Board of Trustees serve without compensation; they are reimbursed for actual expenses incurred.

See accompanying independent auditor's report

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DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C2

Topic: **Report on Audit Committee**

Discussion: The Audit Committee met with representatives of BDO on February 8, 2024. The Committee Chair will comment on Committee observations and advice.

DISCUSSION SHEET

ITEM #C3

Topic: **Independent Actuarial Analysis and Recommendations and Section 2.025 Update**

Discussion: 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 presented the preliminary report based upon DPFP's January 1, 2022 actuarial valuation in November 2023. Cheiron's official report under Section 2.025 is based upon DPFP's January 1, 2023 actuarial valuation. Representatives of Cheiron will be present to discuss their analysis and recommendations based on the January 1, 2023 actuarial valuation. Jeff Williams of Segal Consulting, DPFP's actuary since 2016, will also be present to answer questions.

Dallas Police & Fire
Pension System

Classic Values, Innovative Advice

Independent Actuarial Analysis Recommendations

Preliminary Recommendations
Based on 2023 Actuarial Valuation

February 8, 2024

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

Agenda

Background

Primary Recommendations

- Adopt an Actuarially Determined Contribution
- Reduce Employee Contributions as Funded Status Improves
- Provide Some COLA Earlier

Questions

Appendix

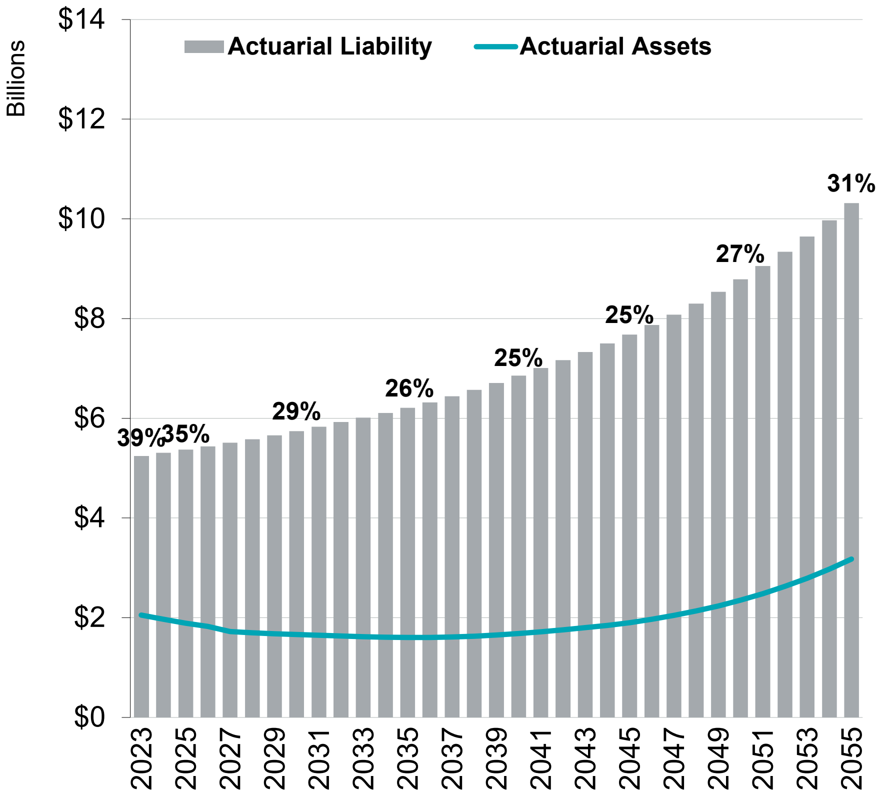
Independent Actuarial Analysis

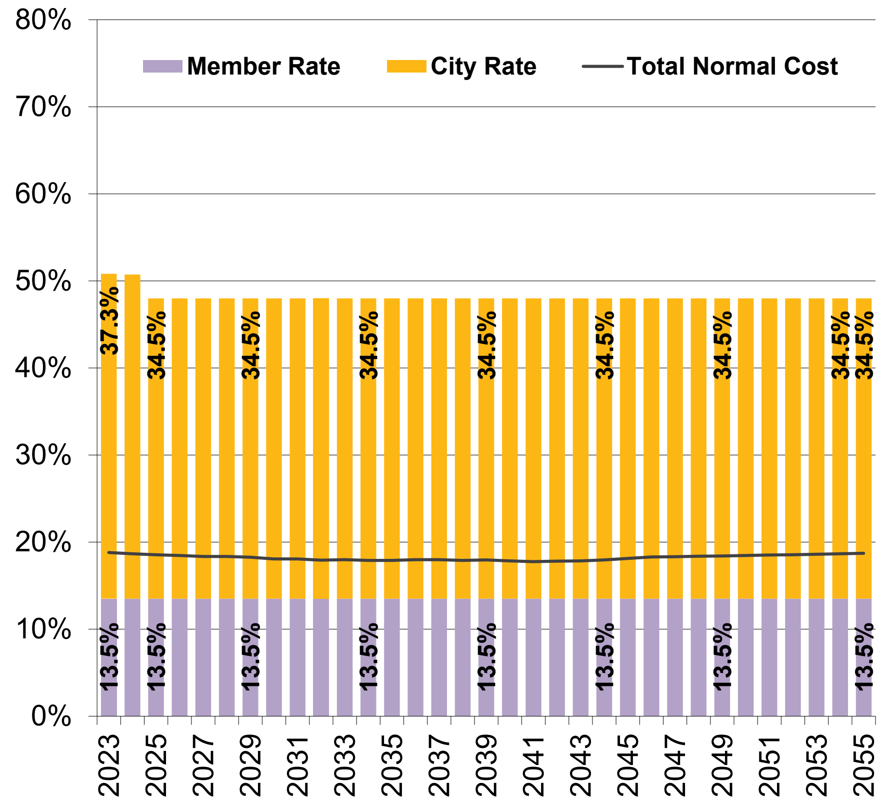
- Pension Review Board selected Cheiron as the Independent Actuary
- Analysis required
  - Does system meet funding guidelines of Chapter 802 of Texas Government Code?
    - Funding period achieved and maintained <= 30 years
  - Make recommendations regarding:
    - Changes to benefits
    - Changes 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

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
  - Presented to Board, City, and Pension Review Board
  - Refinement of Options
- ✓ Replicate 2023 Valuation Performed by Segal
- Preliminary Report and Presentation Based on 2023 Actuarial Valuation
  - Feedback from Board
  - Final refinements
- Final Report
  - Texas Pension Review Board
  - Dallas Police & Fire Pension System Board
  - City of Dallas

Baseline Projections – 2023 Valuation





Primary Recommendations

Adopt an Actuarially Determined Contribution

- Contribution amounts adjust to circumstances
- Always comply with funding guidelines
- Start contributions effective either 10/1/2024 or 1/1/2025 based on 1/1/2023 valuation

Reduce Employee Contribution Rate as Funding Improves

- Current rate is high compared to competitors and as proportion of benefit cost
- As funding improves, grade employee rate down to 50% of normal cost rate

Provide Some COLA Earlier Than Current Provisions Permit

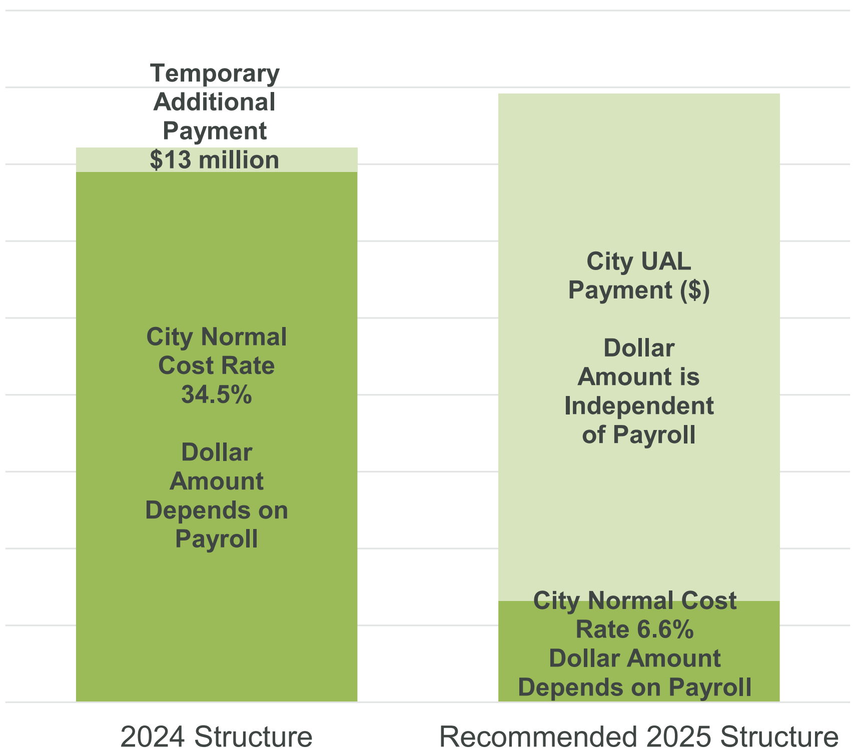
- Members are not covered by Social Security, so they have no inflation protection in retirement
- Lack of COLA is likely to create a recruitment and retention issue

Adopt an Actuarially Determined Contribution

Actuarially Determined Contribution (ADC)

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

City Contribution Structures



Timeline of Actuarially Determined Contribution

1/1/2023
Valuation Date

1/1/2024
2023 Valuation Complete
& ADC Known

10/1/2024 or 1/1/2025
City Begins Contributing ADC From
2023 Valuation

1/1/2024
Valuation Date

1/1/2025
2024 Valuation Complete
& ADC Known

10/1/2025 or 1/1/2026
City Begins Contributing ADC From
2024 Valuation

Key Amortization Principles Applied

Best Practice
- Transition to 20-year layered amortization

Budget Accommodations
- At beginning of amortization, payments step up to ultimate level over a short period to ease budget transition to higher contribution levels
- At end of period, amortization payments step down to ease budget transition to lower contribution levels

Layered Amortization
- Payments scheduled to increase no faster than expected inflation (except during step up or down)
- Gain layers amortized over period no shorter than remaining period on initial amortization

Meets Pension Review Board Funding Guidelines
- Fully amortized within 30 years

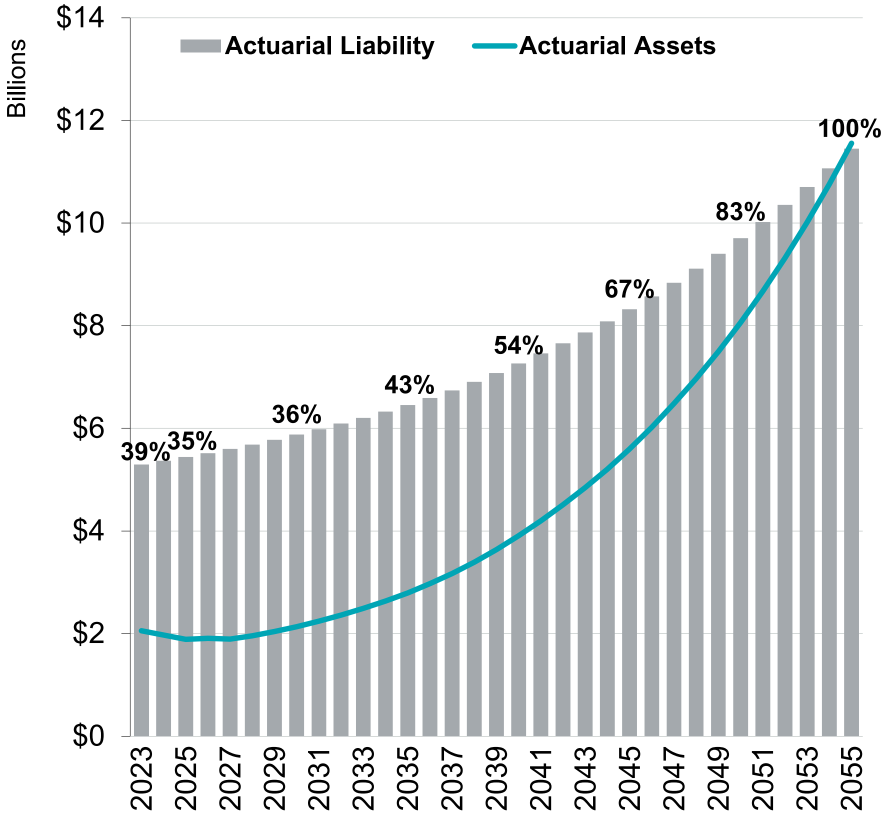
Modeled Amortization Options

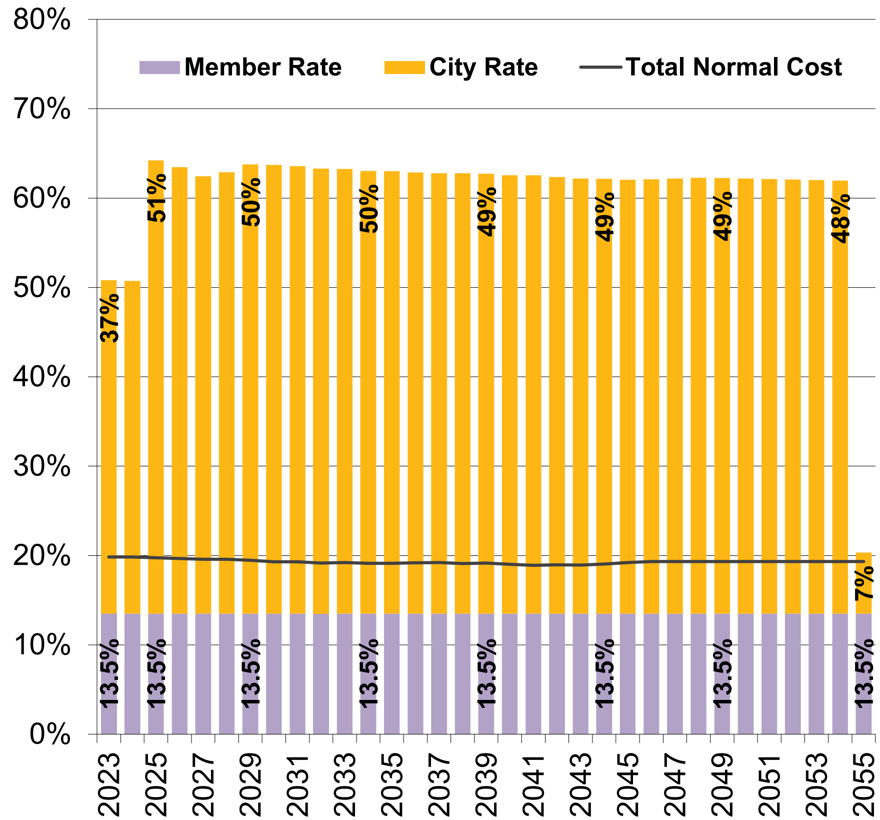
Most Preferred — All Are Reasonable — Least Preferred

Traditional	3-Year Step Up/Down	5-Year Step Up/Down	3-Year Step Up	5-Year Step Up

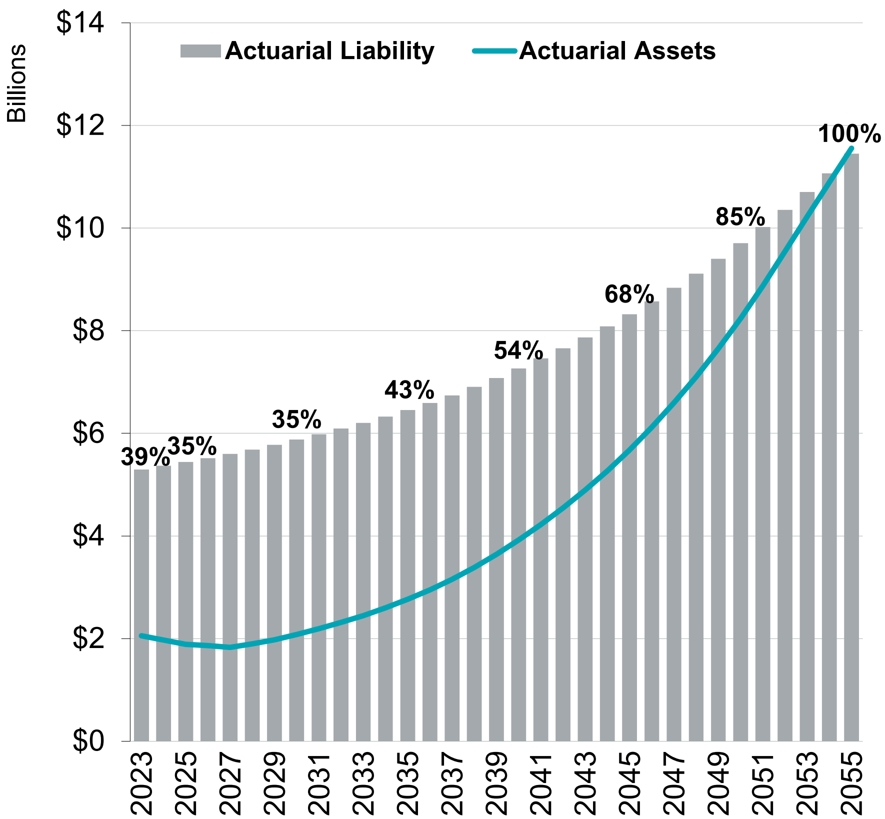
• Single initial 30-year amortization layer for entire UAL
  • 2.5% annual increase in payments
  • No step up or down in payments
	• 30-year base amortization layer approximating current contribution rate for 2024
	  • 2.5% annual increase in payments
	• 30-year amortization layer for remainder of UAL
	  • Payments step up over 3 years to full payment level
	  • 2.5% annual increase in payments once at full payment level
	  • Payments step down over 3 years at end of amortization
		• 30-year base amortization layer approximating current contribution rate for 2024
		  • 2.5% annual increase in payments
		• 30-year amortization layer for remainder of UAL
		  • Payments step up over 5 years to full payment level
		  • 2.5% annual increase in payments once at full payment level
		  • Payments step down over 5 years at end of amortization
			• 30-year base amortization layer approximating current contribution rate for 2024
			  • 2.5% annual increase in payments
			• 30-year amortization layer for remainder of UAL
			  • Payments step up over 3 years to full payment level
			  • 2.5% annual increase in payments once at full payment level
			  • No step down at end of amortization
				• 30-year base amortization layer approximating current contribution rate for 2024
				  • 2.5% annual increase in payments
				• 30-year amortization layer for remainder of UAL
				  • Payments step up over 5 years to full payment level
				  • 2.5% annual increase in payments once at full payment level
				  • No step down at end of amortization

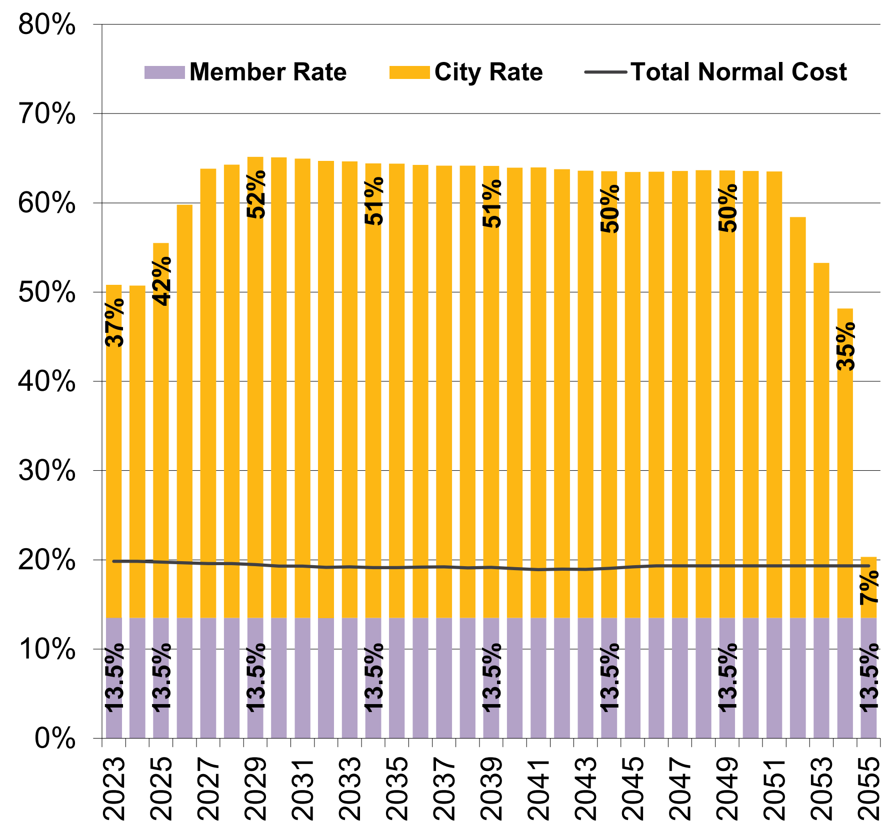
Option 1A – Traditional ADC



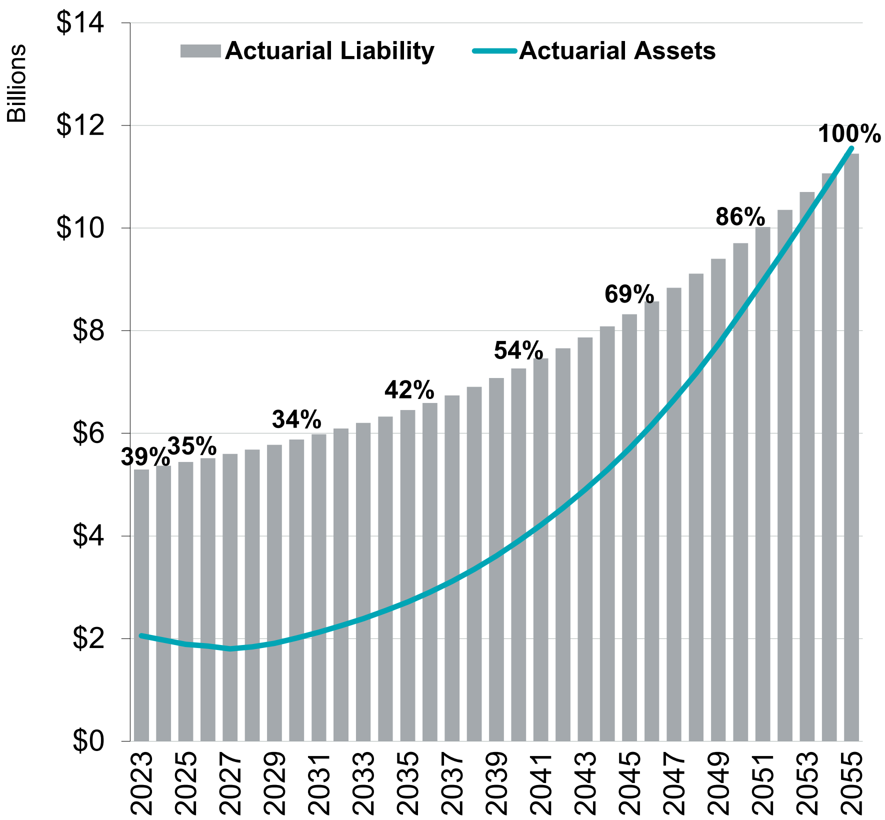


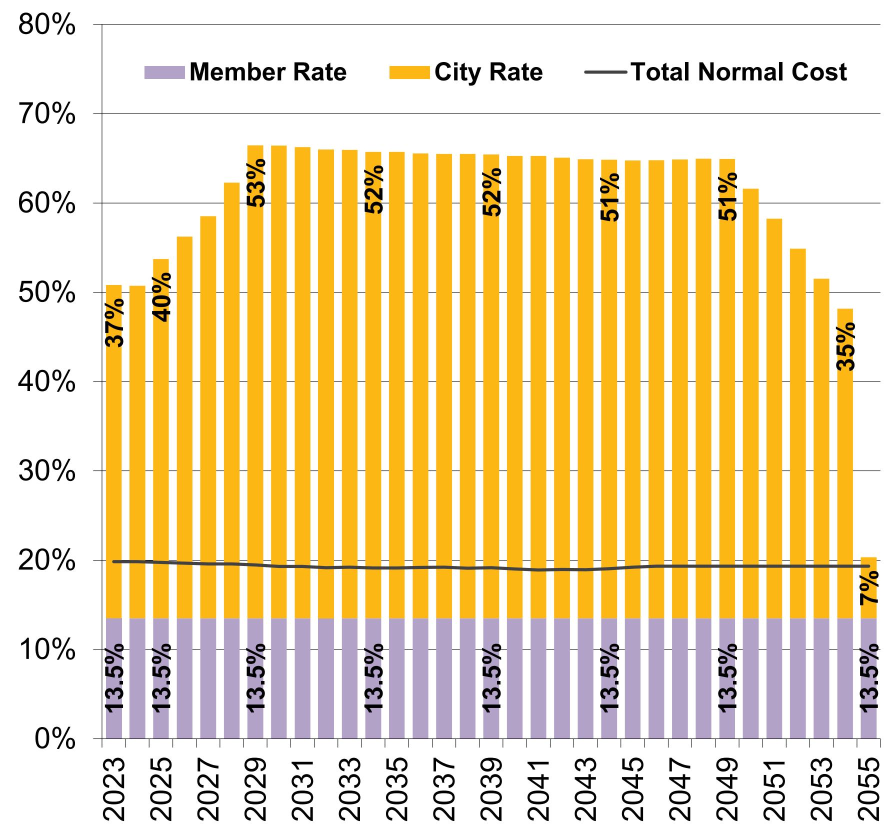
Option 1B – 3-Year Step Up/Step Down ADC



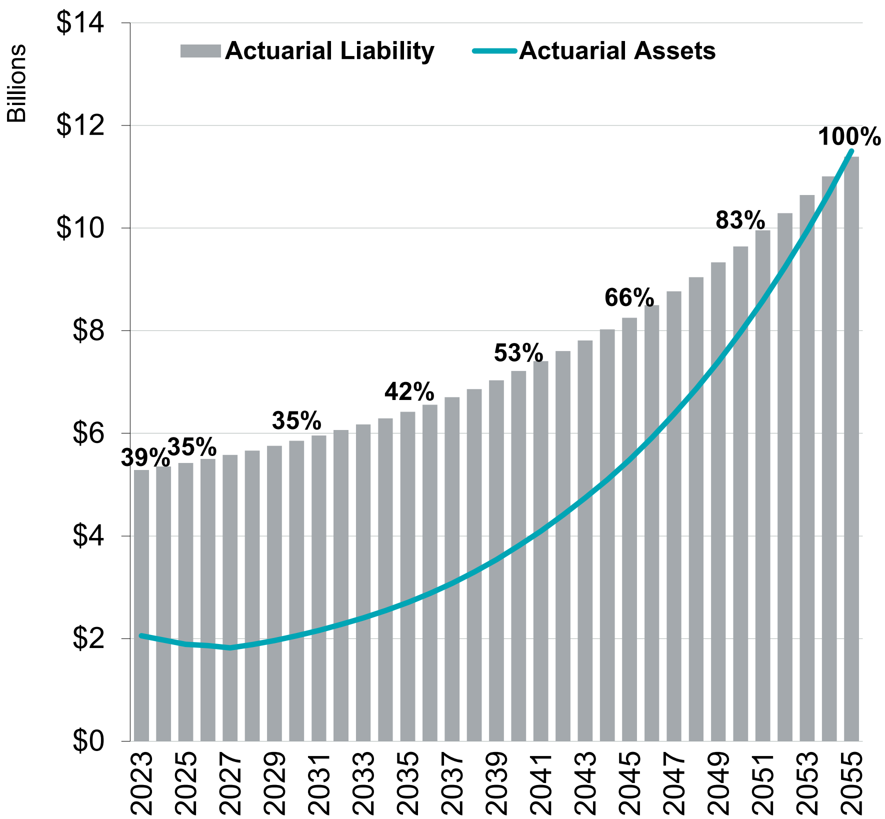


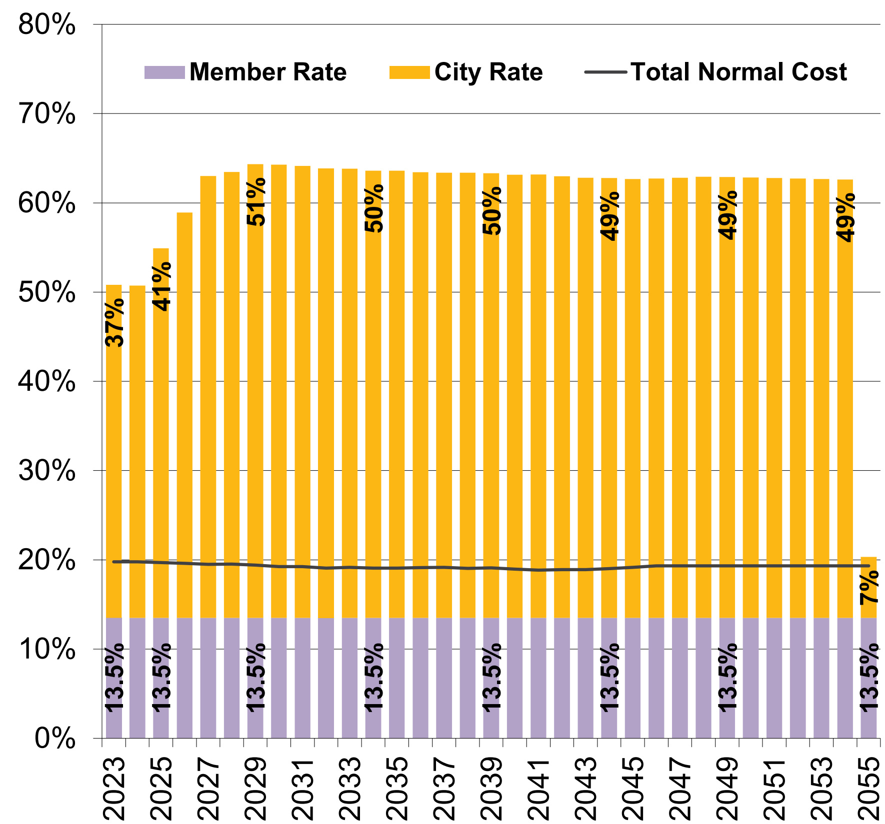
Option 1C – 5-Year Step Up / Step Down ADC



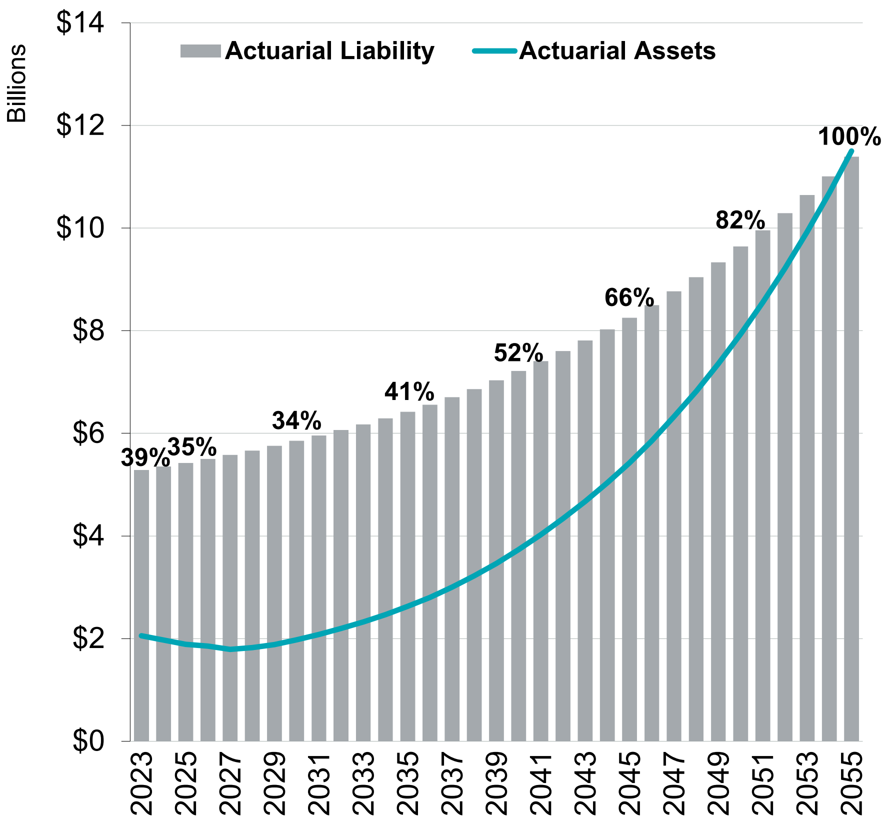


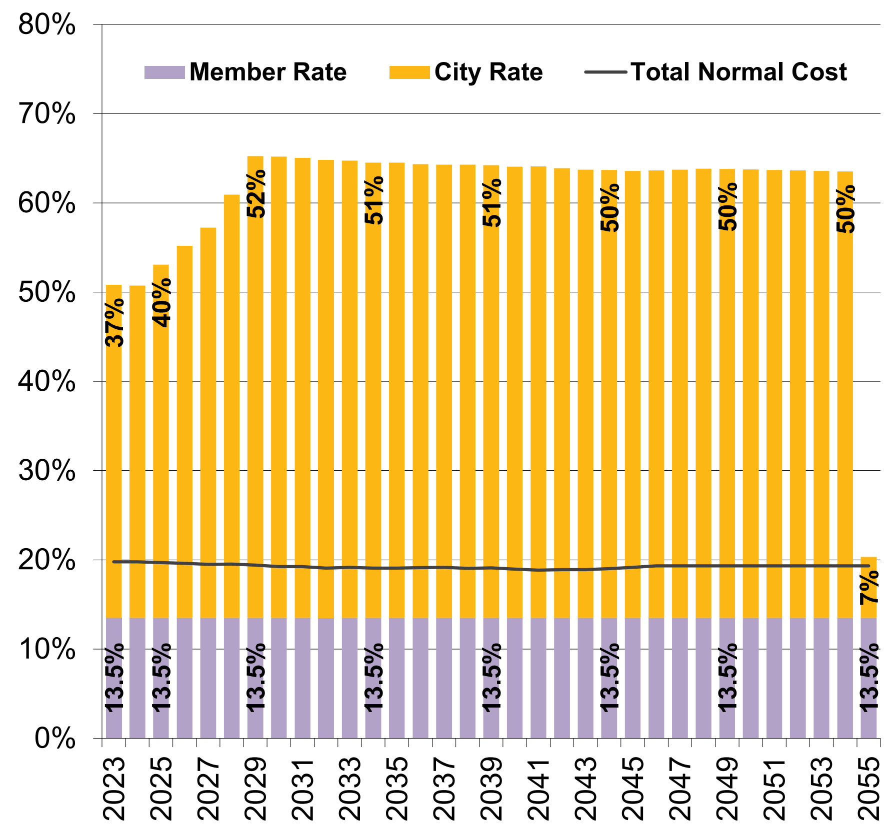
Option 1D – 3-Year Step Up ADC





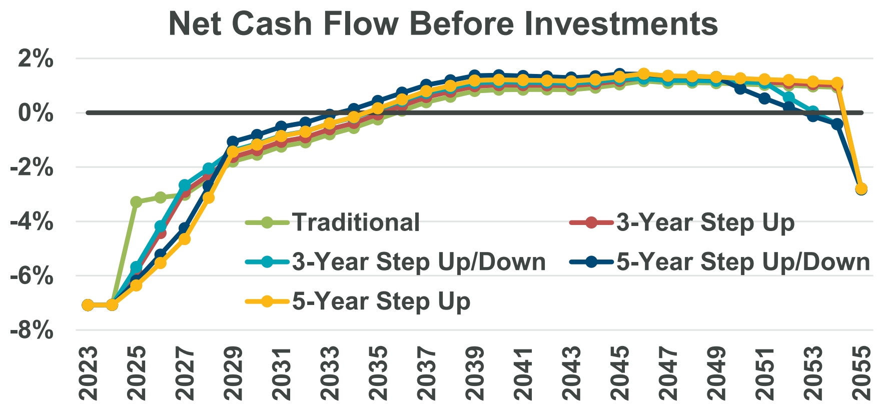
Option 1E – 5-Year Step Up ADC

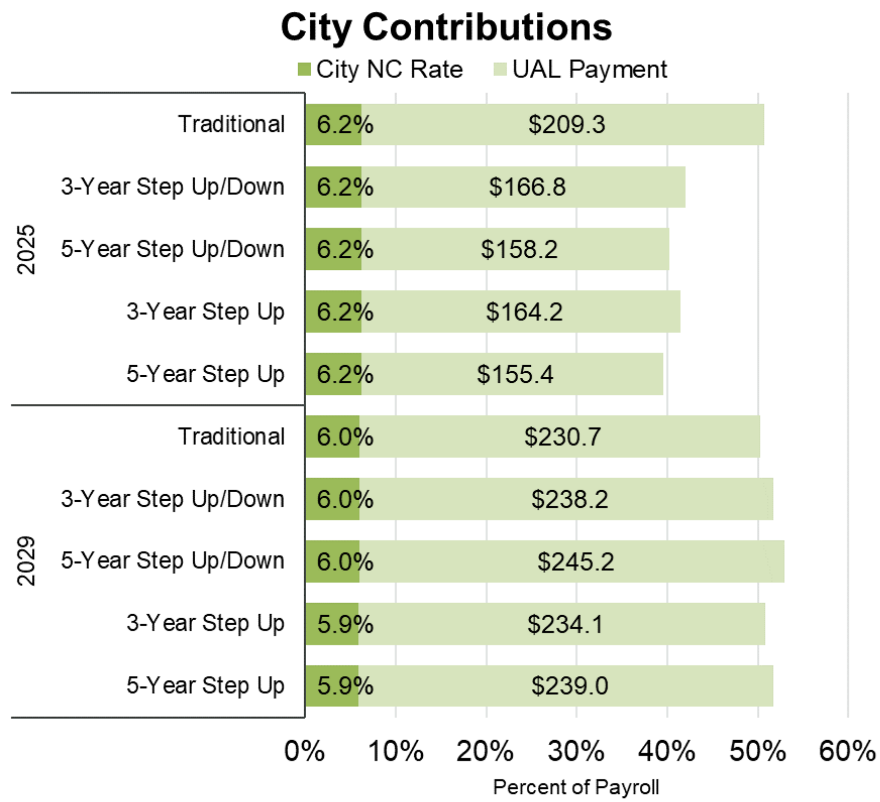




Comparison of ADC Options

ADC	Minimum Expected Funded Percentage	Year Reach 70% Funded
Traditional	34%	2047
3-Year Step Up/Down	32%	2046
5-Year Step Up/Down	32%	2046
3-Year Step Up	32%	2047
5-Year Step Up	32%	2047





Observations/Rationale for Recommendations

- All ADC options are reasonable:
  - Meet the PRB's funding guidelines
  - Adjust contributions as circumstances change so funding guidelines are always satisfied
  - Improve cash flow
  - Expect to achieve 70% funding in 2046 or 2047
  - Expect to achieve 100% funding by 1/1/2055
- Given the current funded status, we prefer higher contributions as soon as possible
  - Lump sum contributions would reduce future actuarially determined contributions
- To manage the change to a higher level of contributions, we prefer the step up / step down options
  - Step up provides time for the City's budget to adjust to higher contribution levels while automatically adjusting for experience during the step-up period
  - Step down provides some time to adjust City's budget to lower contribution levels
    - Most entities facing a significant drop in contribution levels have elected to step them down instead, often extending the amortization period to do so
    - Better to plan for the step down in advance


Reduce Employee Contribution Rate as Funding Improves
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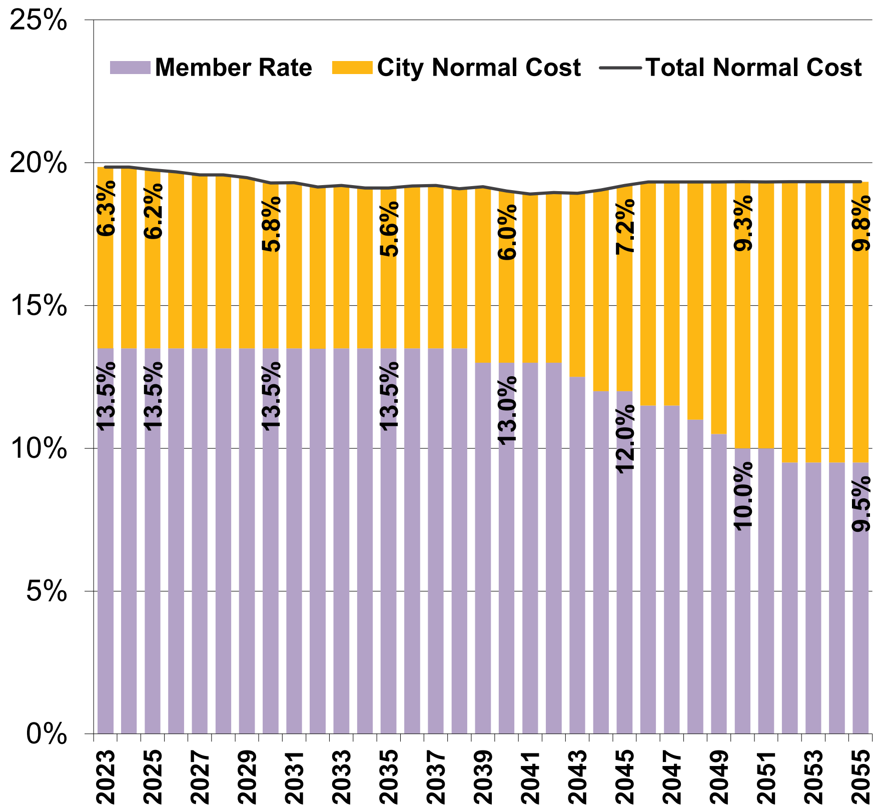
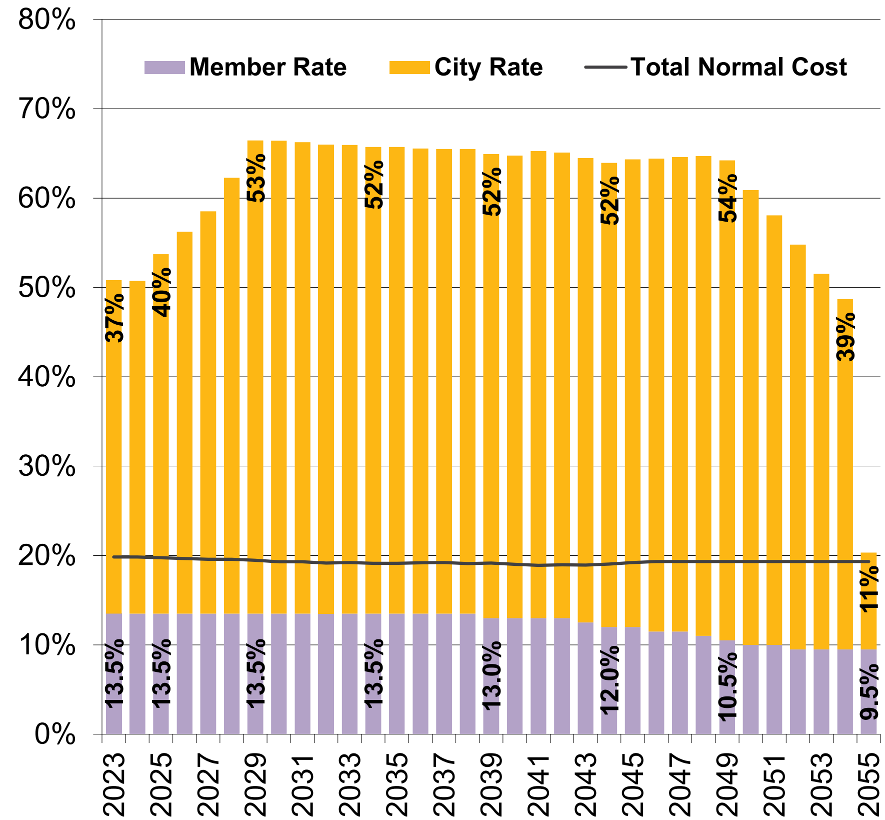
Scenario 2 – Adjustable Employee Contribution Rate

- 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%
  - 9.5% 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	<50%	50-59%	60-64%	65-69%	70-74%	75-79%	80-84%	85-89%	90%+
EE Rate Adjustment	4.0%	3.5%	3.0%	2.5%	2.0%	1.5%	1.0%	0.5%	0%

Scenario 2 – Adjustable EE Rate with 5-Yr Step Up/Dn ADC





CHEIRON Classic Values, Innovative Advice

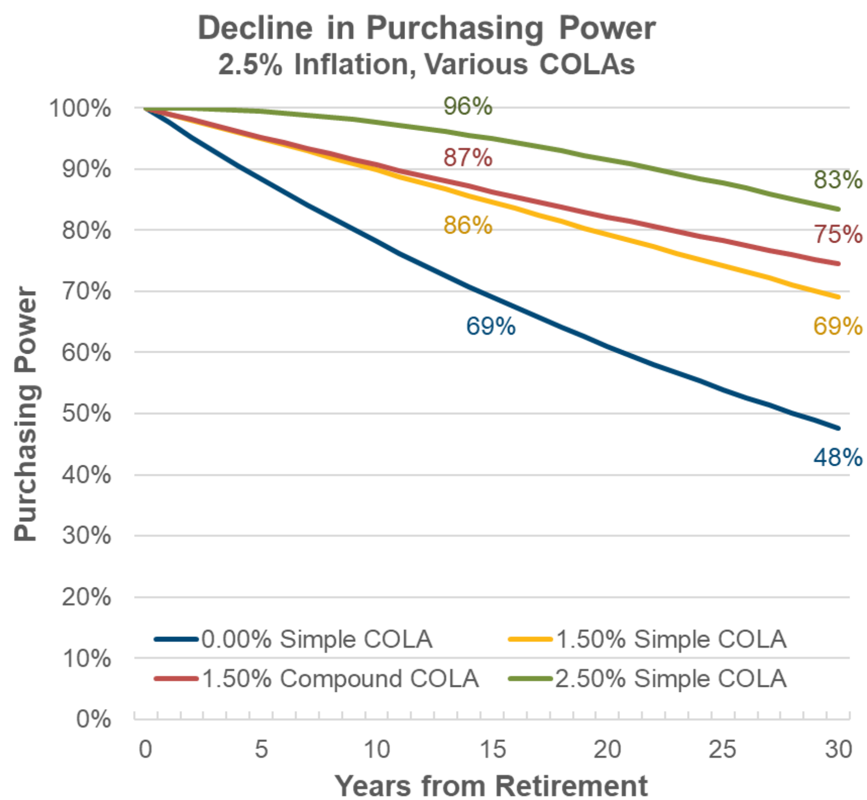
Provide Some COLA Earlier

COLA Background

- Prior to HB 3158
  - Automatic 4% Simple COLA if hired prior to 1/1/2007
  - Ad Hoc Simple COLA up to 4% if hired after 12/31/2006
- After HB 3158
  - Ad Hoc Simple COLA that depends on investment returns (not inflation)
    - 5-year average return minus 5%
    - Maximum of 4%
  - COLA can only be granted if funded percentage > 70%
    - 2023 valuation projects first COLA in 2073
    - With revised funding plan, first COLA expected to be paid about 2046

COLA Provides Purchasing Power Protection

- DPFP members are not covered by Social Security
  - Social Security benefits are fully indexed to inflation
- Over time, COLAs that don't keep up with inflation erode the retiree's purchasing power
- COLAs are expensive



Why Consider Improving the COLA Now?

- Arguments against improving COLAs
  - System is already poorly funded without improved COLAs
  - COLAs will require additional contributions to fully fund the System
  - Natural response is to exclude consideration of any COLA improvements until funding improves
- However, can Dallas maintain its Police and Fire workforce while offering no COLA for the next 20+ years?
  - No Social Security coverage to provide inflation protection in retirement
  - Remainder of Dallas' workforce receives annual COLAs up to 3.0% (5.0% if hired prior to 2017)
- If COLAs will be needed within the next 20 years
  - Costs should be included in the budget plan now
  - Ignoring or deferring these costs may lead to inadequate funding
  - Options outlined in the presentation provide a spectrum to illustrate the cost/benefit trade-offs, but are not exhaustive of all options available

COLA Design Choices

CPI vs. Investment Return Basis

- Retirees living expenses vary with CPI
- Resources to pay for COLA depend on investment returns

Simple vs. Compound

- Inflation compounds
- Compound COLAs are more expensive than simple COLAs
- Difference is minimal in years shortly after retirement but grows as retirees age
- Savings from simple COLAs come at the expense of the oldest retirees

Funded Status Requirement

- Automatically reduces or eliminates COLA when plan is not well funded
- Reduces plan costs when the plan most needs it
- May force retirees to go without any COLA for many years, resulting in a significant decline in purchasing power

Purchasing Power Protection

- Sets a floor (e.g., 70%) for each retiree's decline in purchasing power, providing compound COLAs equal to inflation once a retiree's benefit reaches the floor
- Purchasing power protection limits risk to retirees when COLA is:
  - Simple,
  - Based on investment return, or
  - Subject to funded status requirements

Expected and Maximum Amounts

- COLAs are usually designed to provide an expected amount with some level of variability
- To control costs, there is often a cap on the amount of any single COLA
- Some plans allow retirees to "bank" any excess amount to use in a future year if the CPI increase exceeds the maximum COLA

COLA Background

Dallas Police & Fire Pension System

- After HB 3158 (Effective 9/1/2017)
  - Ad Hoc
  - Simple COLA that depends on investment returns (not inflation)
    - 5-year average return minus 5%
    - Expected 1.5% COLA
      - 6.5% expected return – 5.0% = 1.5%
    - Maximum of 4%
  - Can only be granted if funded percentage > 70%
    - 2023 valuation projects first COLA in 2073
    - With revised funding plan, first COLA expected to be paid about 2046

Dallas Employees Retirement Fund

- Hired prior to January 1, 2017
  - Automatic
  - Simple COLA equal to CPI
  - Maximum = 5.0%
- Hired after December 31, 2016
  - Automatic
  - Simple COLA equal to CPI
  - Maximum = 3.0%

Modeled COLA Options

	Current	Dallas Employees Retirement Fund COLA	Immediate Partial COLA	Current + 70% PP	Current + 80% PP	Current Immediate + 80% PP	Compound Current Immediate + 80% PP
CPI vs. Investment	Investment	**CPI**	Investment	Investment / **CPI**	Investment / **CPI**	Investment / **CPI**	Investment / **CPI**
Simple vs. Compound	Simple	Simple	Simple	Simple / **Compound**	Simple / **Compound**	Simple / **Compound**	**Compound**
Funded Status	70%	**0%**	**0%**	70%	70%	**0%**	**0%**
Purchasing Power (PP) Protection	None	None	None	**70% of 2024 PP**	**80% of 2024 PP**	**80% of 2024 PP**	**80% of 2024 PP**
Expected Amount / Maximum	1.5% / 4.0%	**2.5% / 3.0%**	**1.5% times Funded %** / 4.0%	1.5% / 4.0%	1.5% / 4.0%	1.5% / 4.0%	1.5% / 4.0%

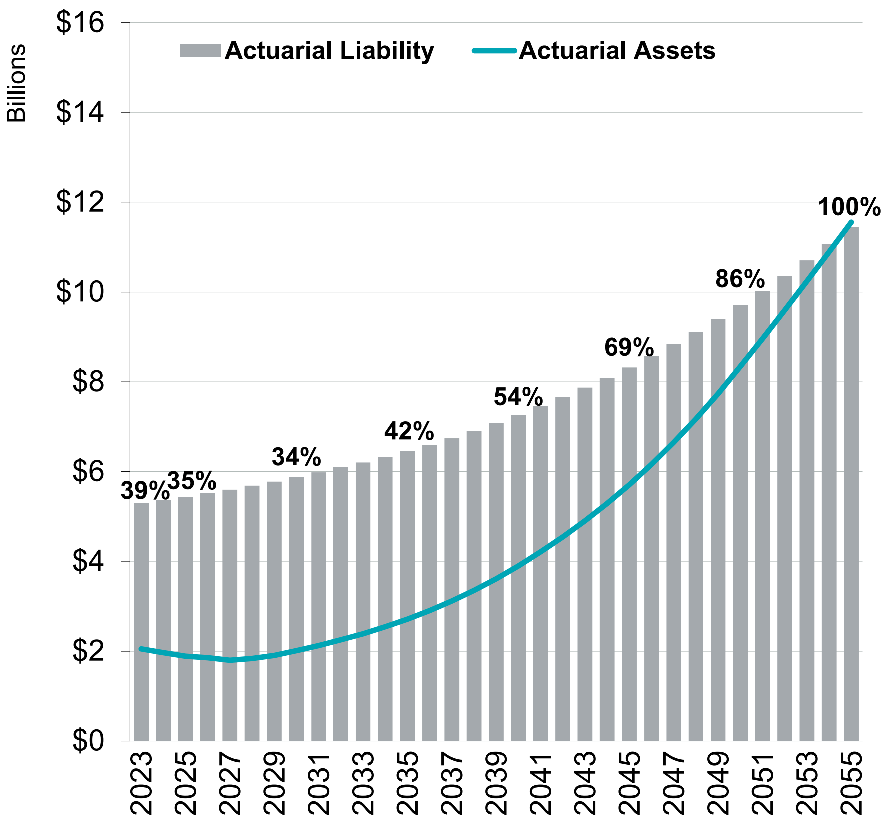
Option 3A - Current COLA – Purchasing Power Impact

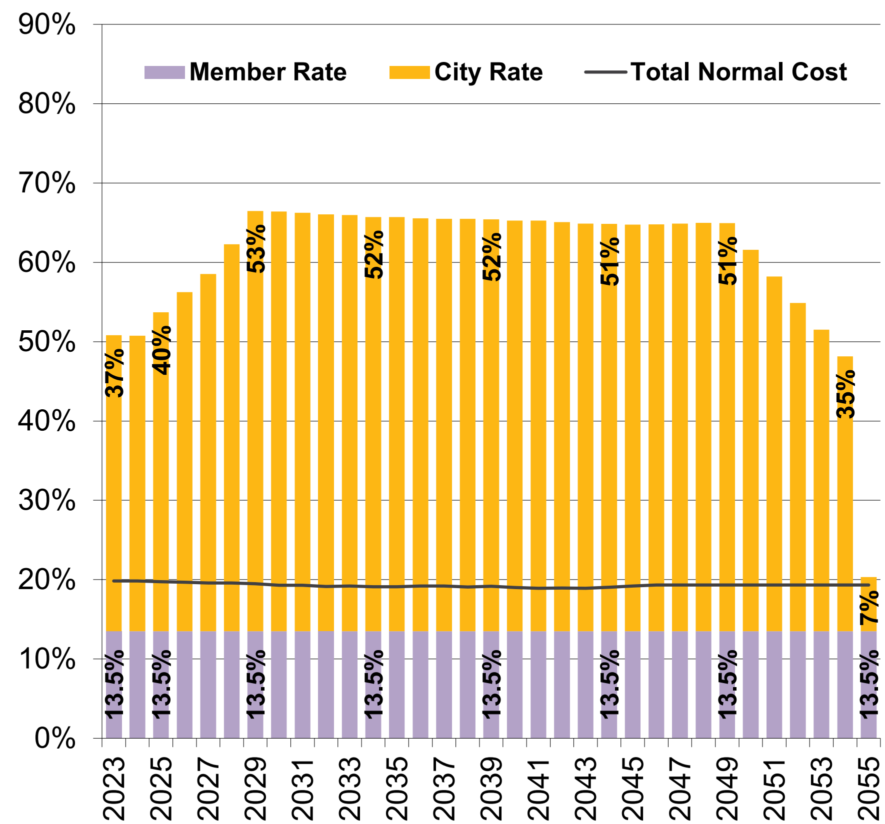
Purchasing Power

Retirement Year	2024	2029	2034	2039	2044	2049	2054
2023	100%	88%	78%	69%	63%	60%	56%
2022	96%	85%	75%	66%	60%	57%	54%
2021	88%	77%	68%	60%	55%	52%	49%
2020	83%	73%	65%	57%	52%	49%	47%
2019	82%	73%	64%	57%	52%	49%	46%
2018	81%	71%	63%	56%	51%	48%	45%
2017	79%	70%	61%	54%	49%	47%	44%
2016	76%	67%	60%	53%	48%	45%	43%
2015	78%	69%	61%	54%	49%	46%	43%
2010	86%	76%	67%	59%	54%	50%	47%
2005	93%	83%	73%	65%	58%	54%	50%
2000	94%	83%	73%	65%	58%	54%	
1995	92%	82%	72%	64%	57%		
1990	90%	79%	70%	62%			
1985	84%	75%	66%				
1980	70%	62%					

- Chart shows purchasing power in each year compared to purchasing power at time of retirement
- Future inflation = 2.5%
- Past COLAs
  - 4% simple through 2016
  - 0% 2017 - 2023
- Future COLAs
  - COLAs re-start once plan achieves 70% funding (~2046)
  - Expected COLA = 1.5% Simple

Option 3A – Current COLA
With 5-Year Step Up / Step Down ADC





Option 3B – Current Employees Retirement Fund COLA
Purchasing Power Impact

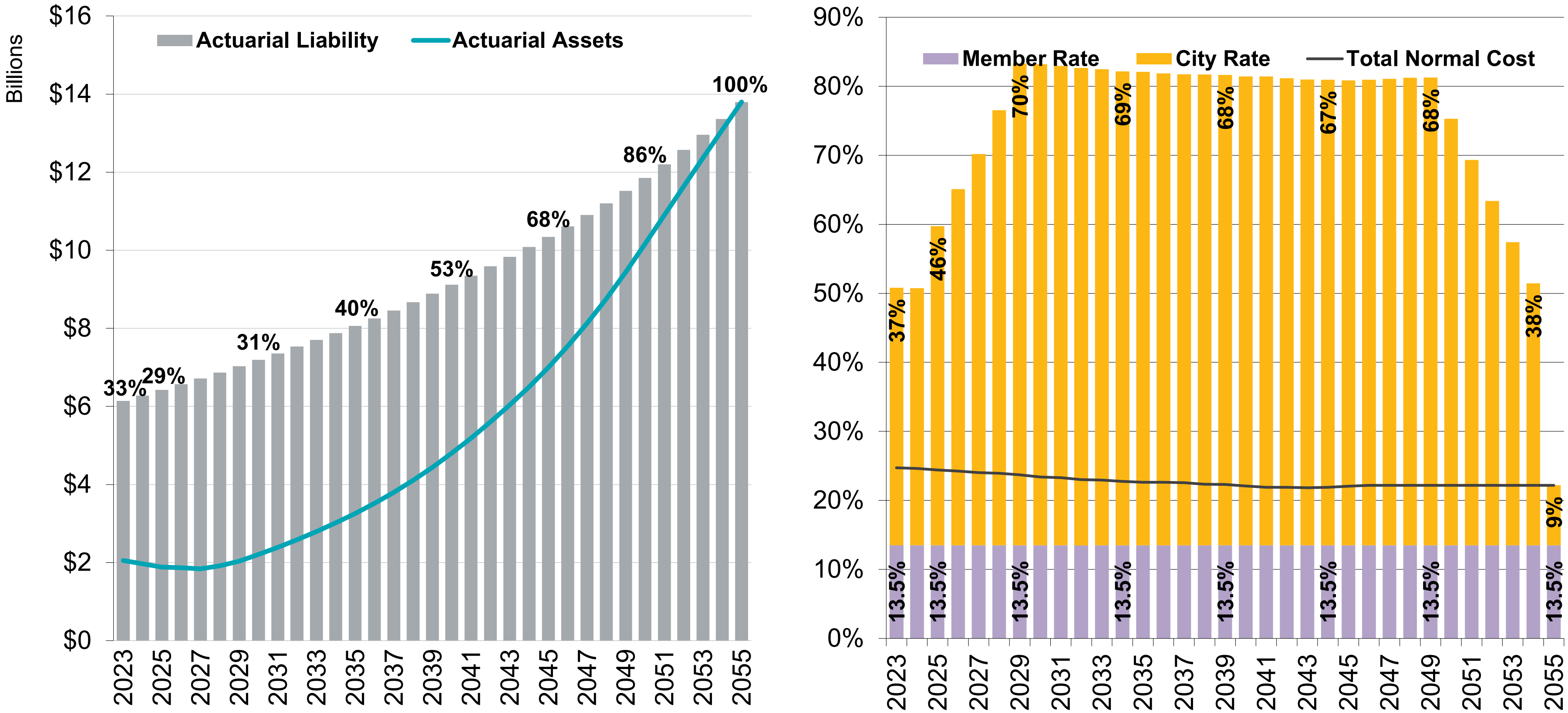
Purchasing Power

Retirement Year	2024	2029	2034	2039	2044	2049	2054
2023	100%	99%	98%	95%	92%	88%	83%
2022	96%	95%	93%	91%	88%	84%	80%
2021	88%	87%	86%	83%	80%	77%	73%
2020	83%	82%	81%	79%	76%	72%	69%
2019	82%	82%	80%	78%	75%	72%	69%
2018	81%	80%	79%	77%	74%	71%	67%
2017	79%	78%	77%	75%	72%	69%	66%
2016	76%	76%	74%	72%	70%	67%	64%
2015	78%	77%	75%	73%	70%	67%	64%
2010	86%	84%	81%	77%	74%	70%	66%
2005	93%	90%	86%	81%	77%	72%	68%
2000	94%	89%	85%	80%	75%	70%	
1995	92%	87%	82%	77%	72%		
1990	90%	84%	79%	73%			
1985	84%	79%	73%				
1980	70%	65%					

- ERF COLA is expected to better maintain retirees purchasing power
  - 2.5% assumed inflation
  - COLA equals CPI up to a maximum of 3.0% (Tier B)
- Retirees' purchasing power declines gradually due to simple COLA vs. compound inflation
- Implementing the ERF COLA for DPFP would increase costs significantly

Option 3B – Current Employees Retirement Fund COLA

With 5-Year Step Up / Step Down ADC



Option 3D – Current COLA with 70% 2024 PP Protection

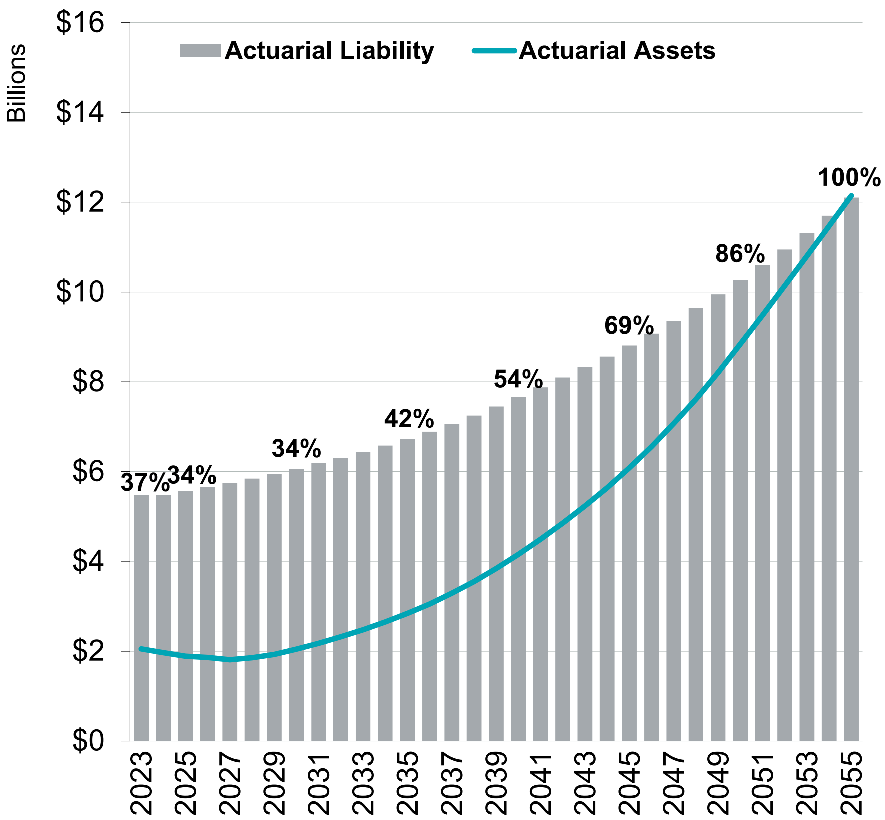
Purchasing Power Impact

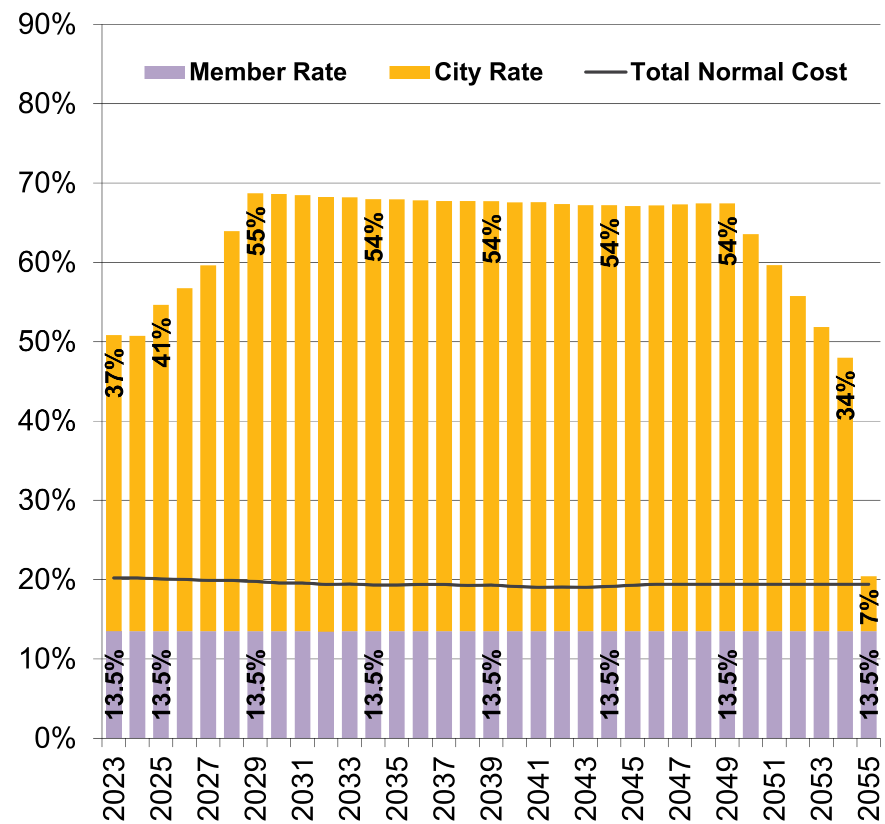
Purchasing Power

Retirement Year	2024	2029	2034	2039	2044	2049	2054
2023	100%	88%	78%	70%	70%	70%	70%
2022	96%	85%	75%	67%	67%	67%	67%
2021	88%	77%	68%	61%	61%	61%	61%
2020	83%	73%	65%	58%	58%	58%	58%
2019	82%	73%	64%	58%	58%	58%	58%
2018	81%	71%	63%	56%	56%	56%	56%
2017	79%	70%	61%	55%	55%	55%	55%
2016	76%	67%	60%	53%	53%	53%	53%
2015	78%	69%	61%	54%	54%	54%	54%
2010	86%	76%	67%	60%	60%	60%	60%
2005	93%	83%	73%	65%	65%	65%	65%
2000	94%	83%	73%	66%	66%	66%	
1995	92%	82%	72%	65%	65%		
1990	90%	79%	70%	63%			
1985	84%	75%	66%				
1980	70%	62%					

- Provides floor to protect retirees' purchasing power from declining too far
  - Floor = 70% of the 2024 purchasing power
  - Purchasing power gradually erodes with inflation until it reaches the floor (~15 years)
  - Thereafter, inflationary COLAs are provided to maintain the floor purchasing power level
- Using 2024 purchasing power as the benchmark
  - Limits costs
  - Does not protect all retiree cohorts at the same level

Option 3D – Current COLA with 70% 2024 PP Protection
With 5-Year Step Up / Step Down ADC





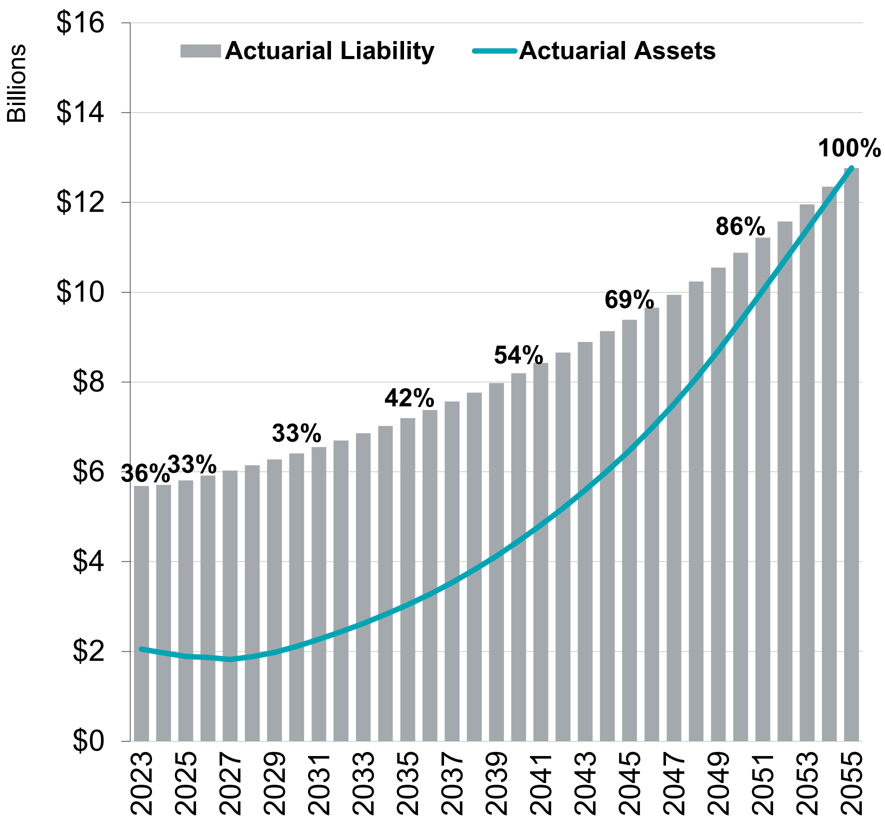
Option 3E – Current COLA with 80% 2024 PP Protection
Purchasing Power Impact

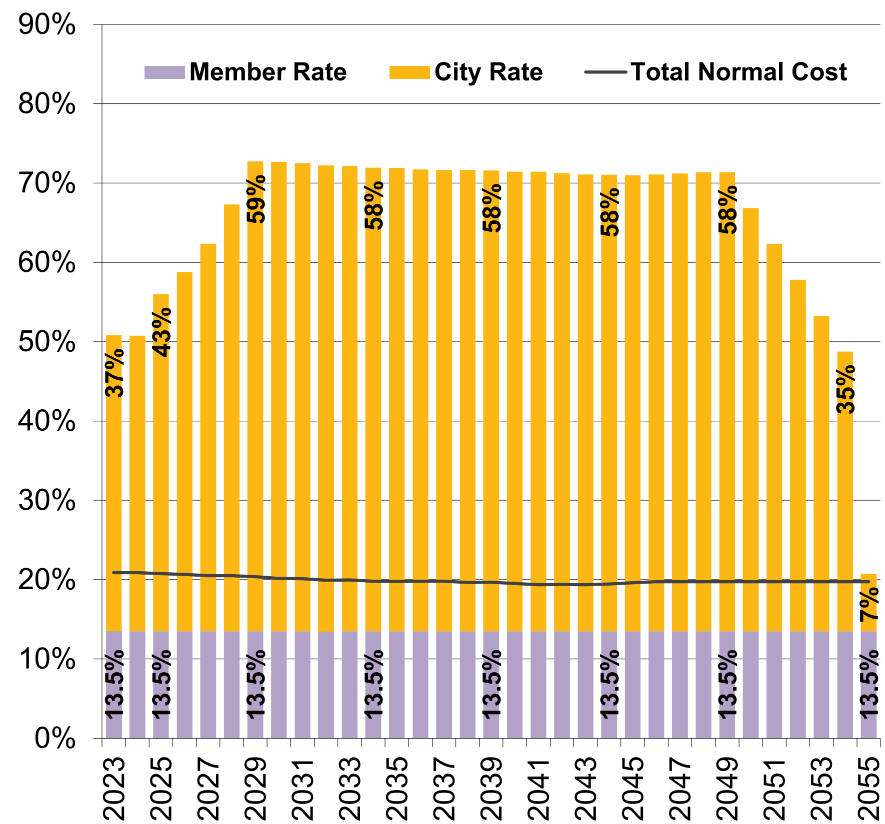
Purchasing Power

Retirement Year	2024	2029	2034	2039	2044	2049	2054
2023	100%	88%	80%	80%	80%	80%	80%
2022	96%	85%	77%	77%	77%	77%	77%
2021	88%	77%	70%	70%	70%	70%	70%
2020	83%	73%	66%	66%	66%	66%	66%
2019	82%	73%	66%	66%	66%	66%	66%
2018	81%	71%	64%	64%	64%	64%	64%
2017	79%	70%	63%	63%	63%	63%	63%
2016	76%	67%	61%	61%	61%	61%	61%
2015	78%	69%	62%	62%	62%	62%	62%
2010	86%	76%	69%	69%	69%	69%	69%
2005	93%	83%	75%	75%	75%	75%	75%
2000	94%	83%	75%	75%	75%	75%	
1995	92%	82%	74%	74%	74%		
1990	90%	79%	72%	72%			
1985	84%	75%	67%				
1980	70%	62%					

- Provides floor to protect retirees' purchasing power from declining too far
  - Floor = 80% of the 2024 purchasing power
  - Purchasing power gradually erodes with inflation until it reaches the floor (~10 years)
  - Thereafter, inflationary COLAs are provided to maintain the floor purchasing power level
- Using 2024 purchasing power as the benchmark
  - Limits costs
  - Does not protect all retiree cohorts at the same level

Option 3E – Current COLA with 80% 2024 PP Protection
With 5-Year Step Up / Step Down ADC



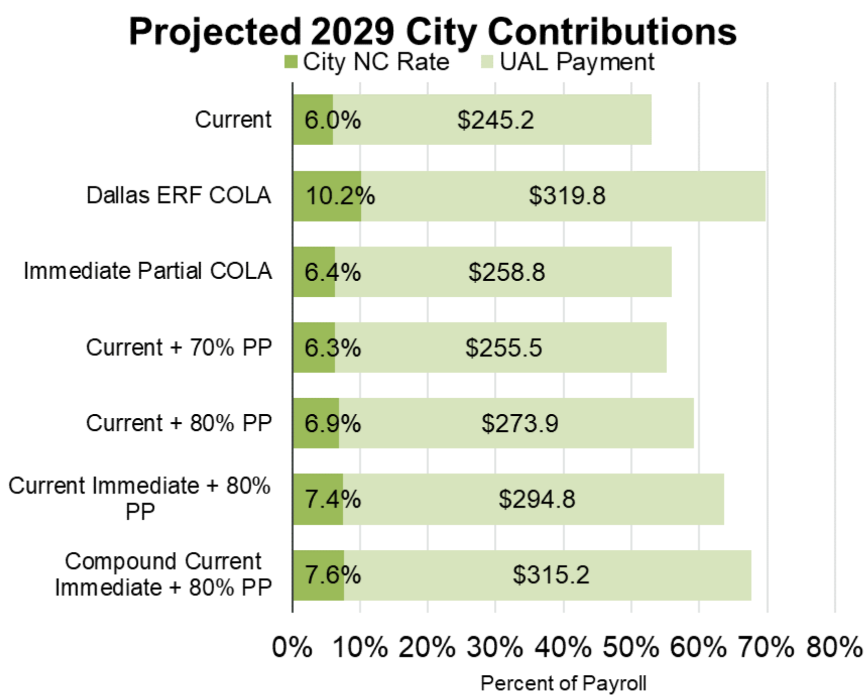


CHEIRON Classic Values, Innovative Advice

February 8, 2024

Summary of COLA Options

Estimated Cost Impact



Expected Purchasing Power Comparison 2023 Retirees

COLA Scenario	Purchasing Power 2024	2029	2034	2039	2044	2049	2054
Current	100%	88%	78%	69%	63%	60%	56%
Dallas ERF COLA	100%	99%	98%	95%	92%	88%	83%
Immediate Partial COLA	100%	89%	81%	74%	69%	64%	60%
Current + 70% PP	100%	88%	78%	70%	70%	70%	70%
Current + 80% PP	100%	88%	80%	80%	80%	80%	80%
Current Immediate + 80% PP	100%	95%	90%	85%	80%	80%	80%
Compound Current Immediate + 80% PP	100%	95%	91%	86%	82%	80%	80%

COLA Scenario	2023 UAL	2023 Funded %
Current	$ 3,244	38.8%
Dallas ERF COLA	$ 4,084	33.5%
Immediate Partial COLA	$ 3,403	37.6%
Current + 70% PP	$ 3,424	37.5%
Current + 80% PP	$ 3,632	36.1%
Current Immediate + 80% PP	$ 3,803	35.1%
Compound Current Immediate + 80% PP	$ 4,020	33.8%

Observations/Rationale for Recommendations

- COLAs are expensive
  - Often first item cut to save costs
- Can Dallas continue to maintain its Police and Fire workforce while offering no COLA for the next 20+ years?
  - Expect significant reduction in purchasing power for retirees
  - No Social Security coverage to provide inflation protection in retirement
  - Remainder of Dallas' workforce receives annual COLAs up to 3.0% (5.0% if hired prior to 2017)
- Rather than waiting and having new COLAs add to plan costs later, we recommend building the costs into the budget plan now
  - Determine COLA provisions needed for the Police and Fire workforce
  - Balance with additional contributions required to pay for COLA
  - Options outlined in presentation provide a spectrum to illustrate the cost/benefit trade-offs, but are not exhaustive of all options available

Primary Recommendations

Adopt an Actuarially Determined Contribution

- Contribution amounts adjust to circumstances
- Always comply with funding guidelines
- Start contributions effective either 10/1/2024 or 1/1/2025 based on 1/1/2023 valuation

Reduce Employee Contribution Rate as Funding Improves

- Current rate is high compared to competitors and as proportion of benefit cost
- As funding improves, grade employee rate down to 50% of normal cost rate

Provide Some COLA Earlier Than Current Provisions Permit

- Members are not covered by Social Security, so they have no inflation protection in retirement
- Lack of COLA is likely to create a recruitment and retention issue

Questions

Certification

The purpose of this presentation is to show 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 2023 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 2023 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, MAAAA, FCA
Consulting Actuary

Elizabeth Wiley, FSA, EA, MAAA, FCA
Consulting Actuary

Jake Libauskas, FSA, EA, MAAA, FCA
Consulting Actuary

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, 2023 actuarial valuation
- In addition, the following assumptions were used, unless otherwise noted:
  - Investment return for 2023 and thereafter: 6.5%
  - Payroll growth of 2.5% per year
- This analysis would be materially changed if the System receives an adverse result in pending litigation on annual benefit adjustments

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.

Appendix – 2023 Valuation Replication

Present Value of Benefits

	Segal	Cheiron	Percent Difference
Actives			
Hired Before 3/1/2011	$ 1,847	$ 1,854	0.4%
Hired On/After 3/1/2011	643	656	2.0%
Retirees & Beneficiaries	3,566	3,564	-0.1%
Inactive Members	31	31	0.0%
Total	$ 6,088	$ 6,105	0.3%
Actuarial Liability			
Actives			
Hired Before 3/1/2011	$ 1,454	$ 1,453	-0.1%
Hired On/After 3/1/2011	198	196	-1.0%
Retirees & Beneficiaries	3,566	3,564	-0.1%
Inactive Members	31	31	0.0%
Total	$ 5,249	$ 5,244	-0.1%

Amounts in Millions

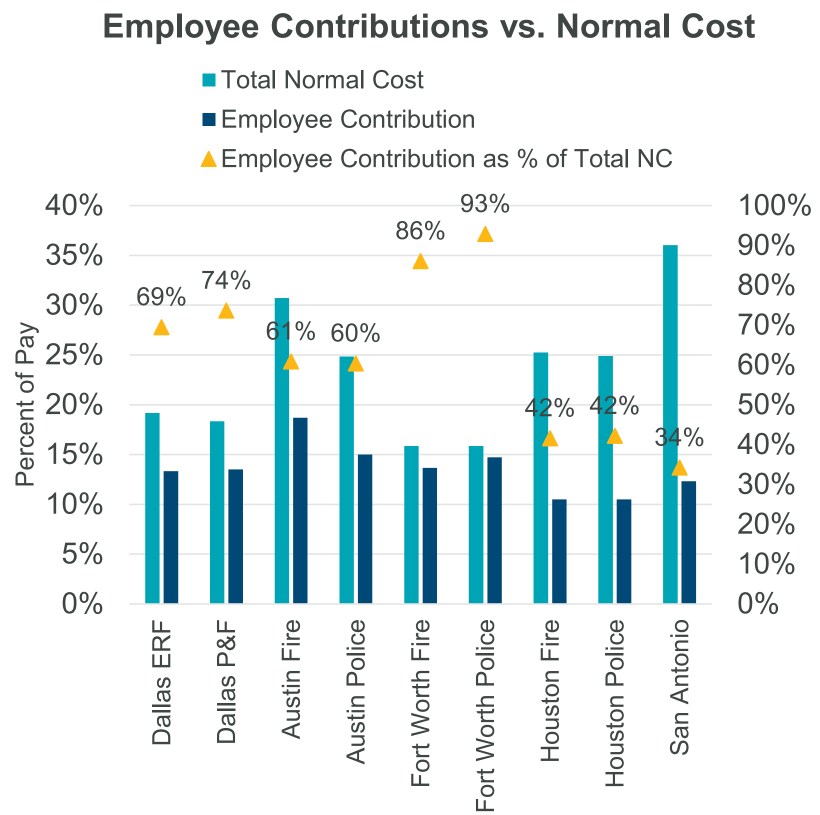
Normal Cost

	Segal	Cheiron	Percent Difference
Hired Before 3/1/2011	$ 49.7	$ 50.9	2.3%
Hired On/After 3/1/2011	33.9	33.2	-2.0%
Total Normal Cost	$ 83.7	$ 84.1	0.6%
Total Normal Cost with interest to reflect mid-year contribution timing	$ 86.3	$ 86.8	0.6%
Payroll	$ 462.8	$ 462.8	0.0%
Normal Cost Rate			
Hired Before 3/1/2011	19.7%	20.2%	0.5%
Hired On/After 3/1/2011	17.3%	16.9%	-0.4%
Total Normal Cost Rate	18.7%	18.8%	0.1%

Amounts in Millions

Appendix - Employee Contribution Rates (Most Recent Tiers)

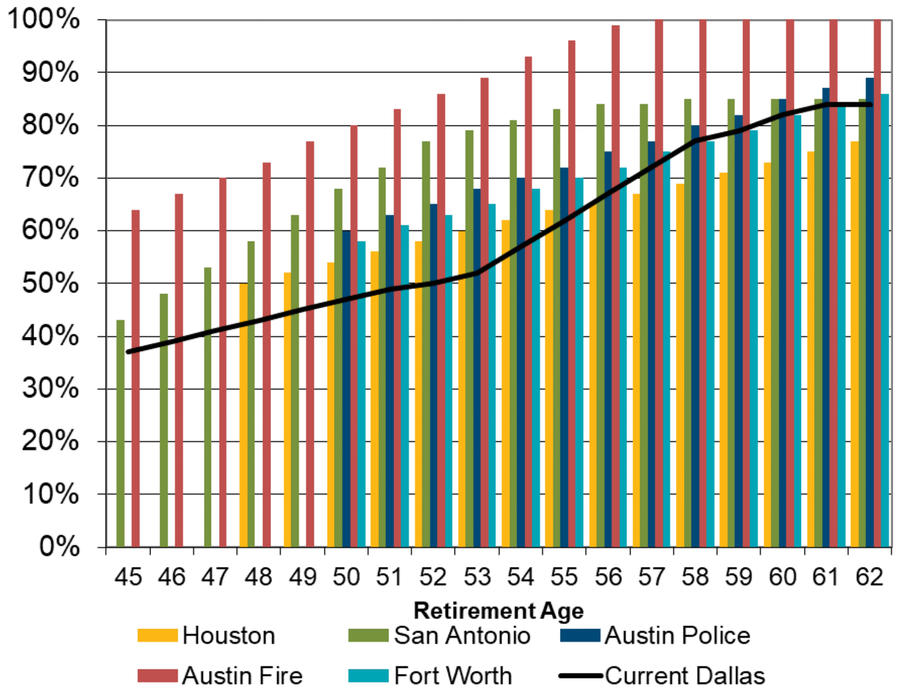
- Current DPFP employee contribution rate is over 70% of the total normal cost
  - Even higher percentage for new employees
  - Highest portion of normal cost in comparison group except for Fort Worth
  - Average of group is about 60%
    - Reflecting current temporary increases due to funded status 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



Fort Worth valuation doesn't report total normal cost for Police and Fire separate from general employees, but benefits are similar.

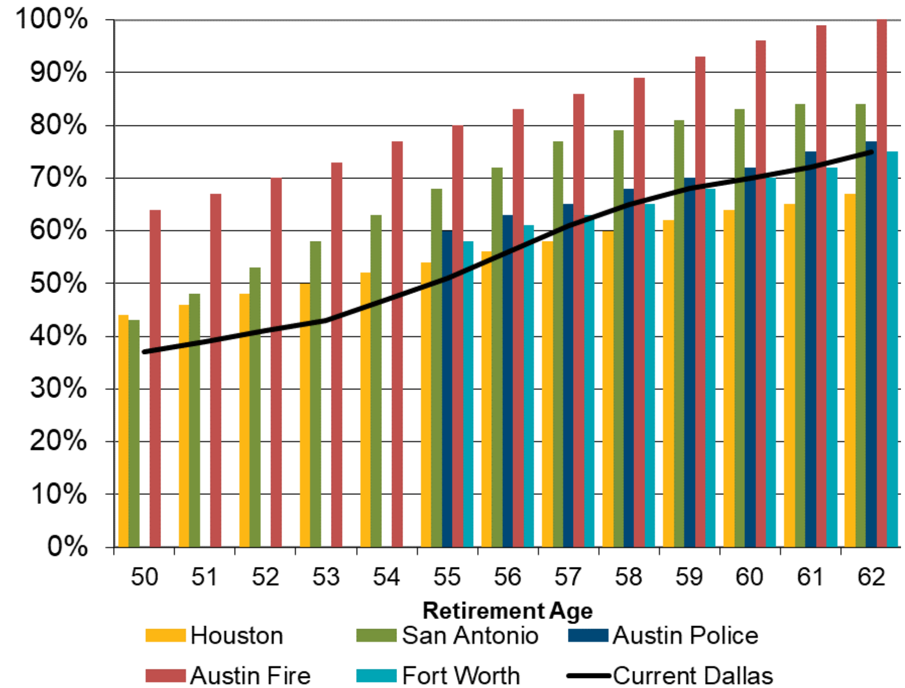
Appendix - Income Replacement Ratios* – Most Recent Safety Tiers

Hired at Age 25



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

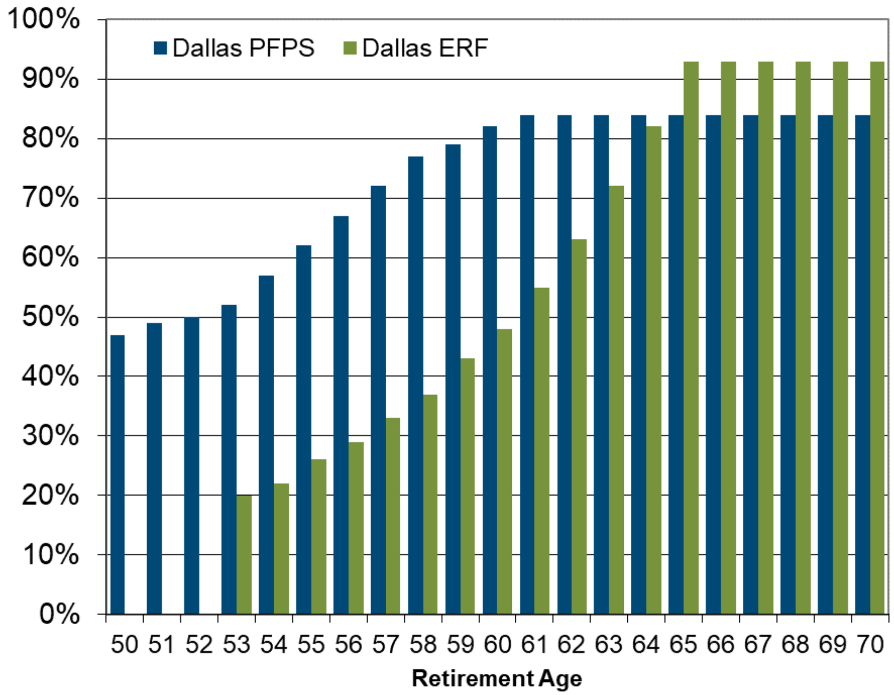
Hired at Age 30



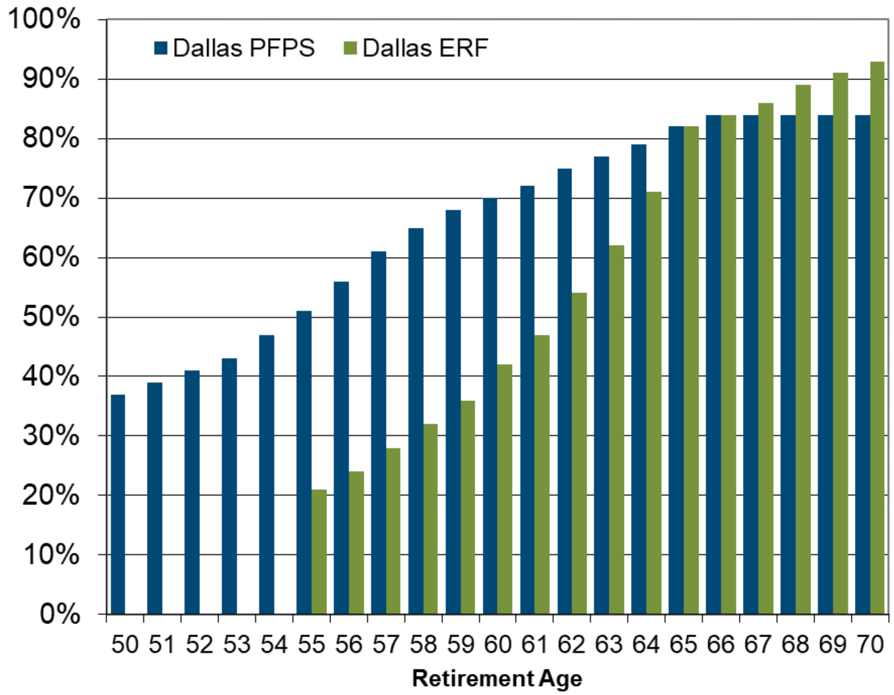
*Income replacement ratios are at retirement and do not reflect COLAs after retirement

Appendix - Income Replacement Ratios* – Dallas Newest Tiers

Hired at Age 25



Hired at Age 30



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

Appendix - Other System COLAs – Most Recent Tier

- Dallas Employees' Retirement Fund
  - Simple CPI up to 3.0%
- 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

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
  - Layer that steps into the full contribution over as short of a period as financially possible and steps 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
  - Transitions to 20-year layered amortization
- 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

Appendix

Additional COLA Options

Option 3C – Immediate Partial COLA
Purchasing Power Impact

Purchasing Power

Retirement Year	2024	2029	2034	2039	2044	2049	2054
2023	100%	89%	81%	74%	69%	64%	60%
2022	96%	85%	77%	71%	66%	61%	58%
2021	88%	78%	71%	65%	60%	56%	53%
2020	83%	73%	67%	61%	57%	53%	50%
2019	82%	73%	67%	61%	56%	53%	50%
2018	81%	72%	65%	60%	55%	52%	48%
2017	79%	70%	64%	58%	54%	50%	47%
2016	76%	68%	62%	57%	52%	49%	46%
2015	78%	69%	63%	57%	53%	49%	46%
2010	86%	76%	69%	63%	58%	53%	50%
2005	93%	83%	75%	68%	62%	57%	53%
2000	94%	83%	75%	68%	62%	57%	
1995	92%	82%	73%	66%	60%		
1990	90%	79%	71%	64%			
1985	84%	75%	67%				
1980	70%	62%					

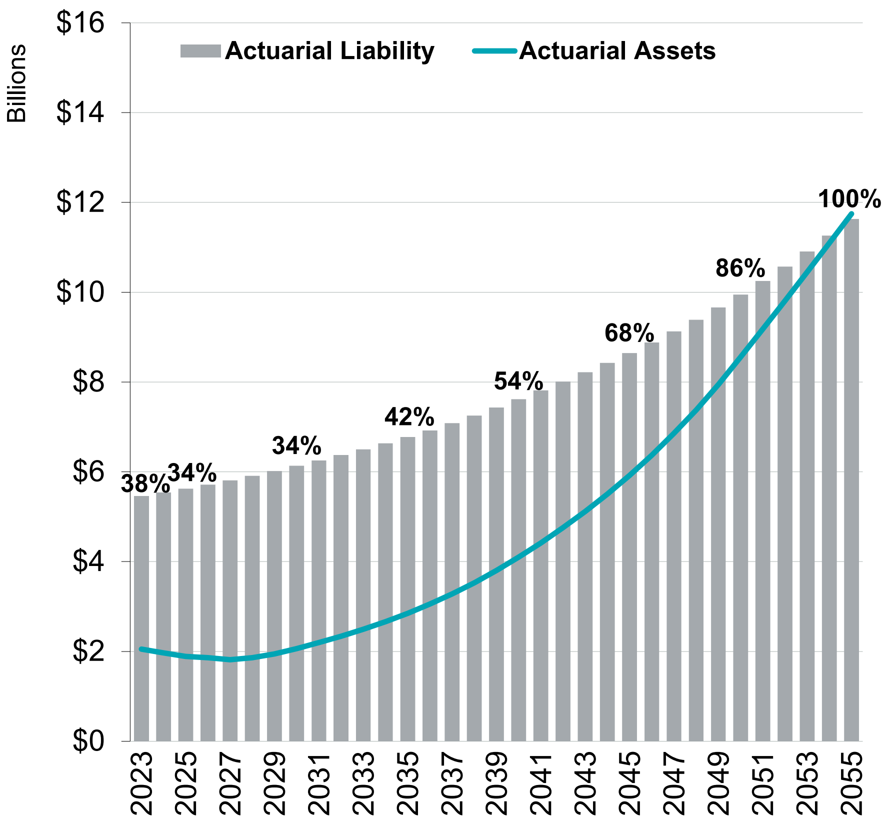
- Partial COLA provides some minor improvement in purchasing power over the next 20 years
- Partial COLA Formula =

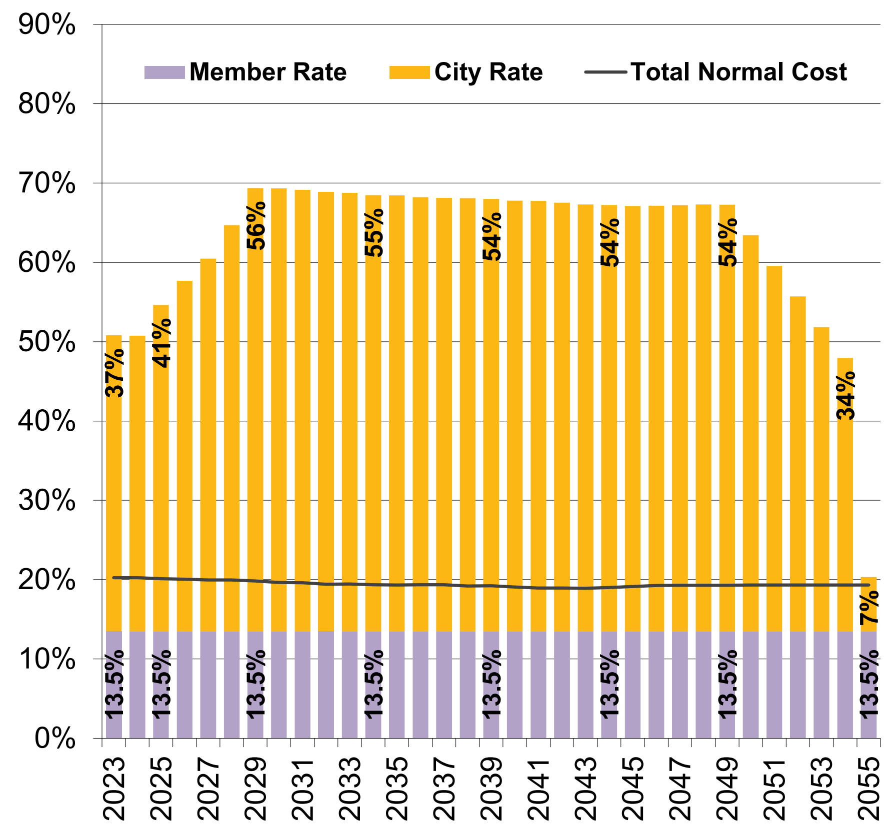
  (5-Year Ave Return – 5.0%) x Funded Percentage

  Maximum = 4.0%
- Expected COLA is still substantially lower than assumed inflation

Option 3C – Immediate Partial COLA

With 5-Year Step Up / Step Down ADC





CHEIRON Classic Values, Innovative Advice

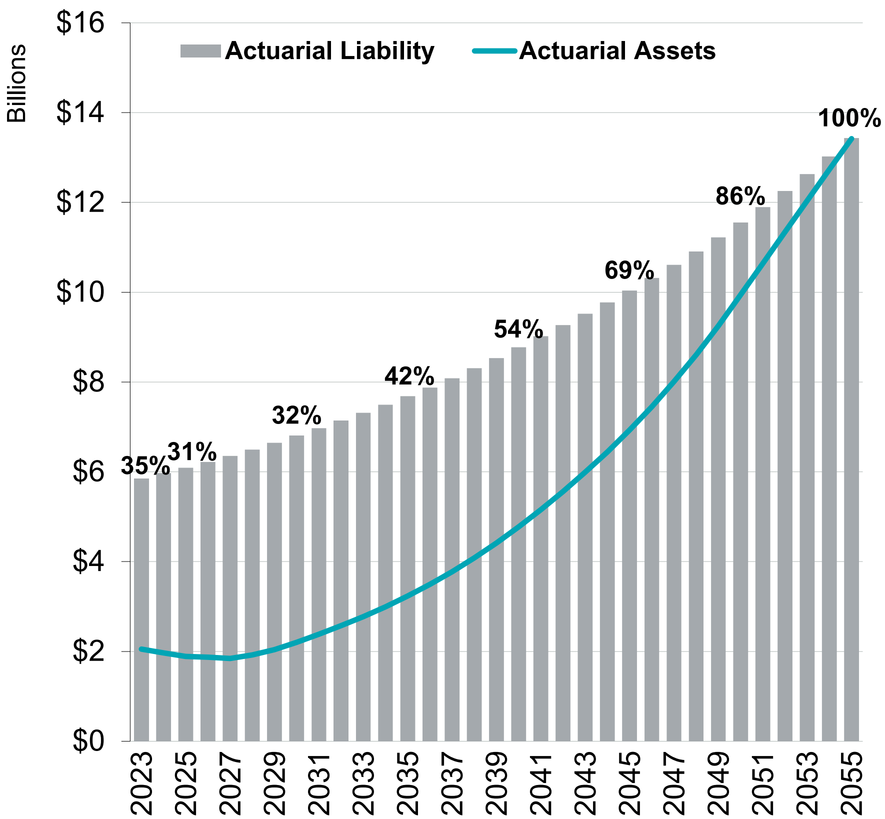
Option 3F – Current COLA, No Funded Status Restriction, and 80% 2024 PP Protection – Purchasing Power Impact

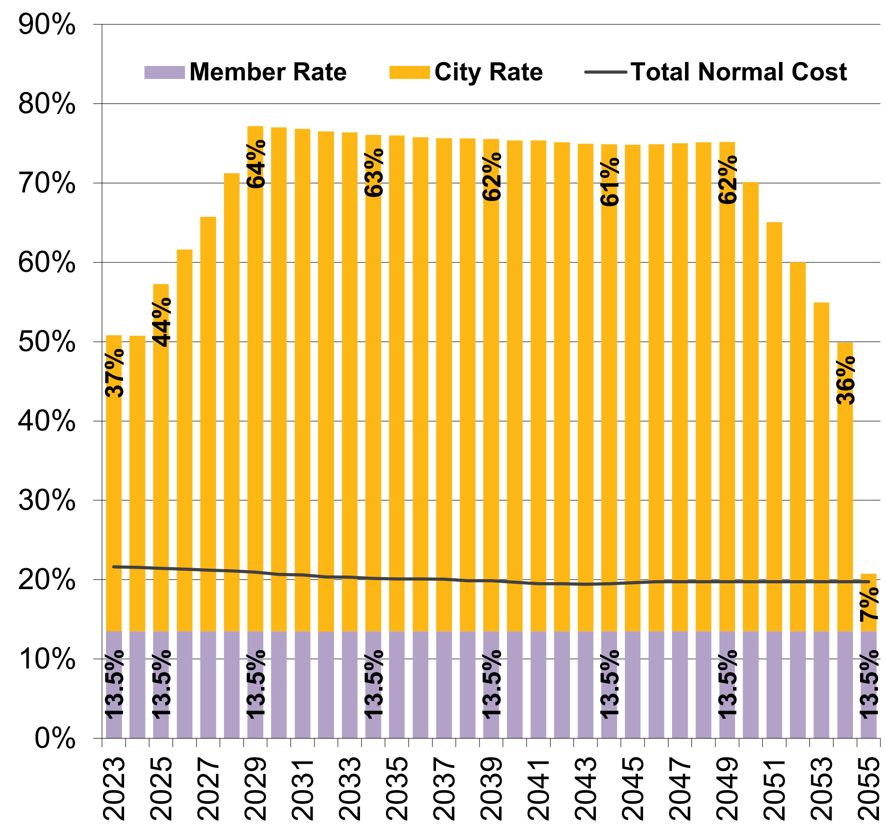
Purchasing Power

Retirement Year	2024	2029	2034	2039	2044	2049	2054
2023	100%	95%	90%	85%	80%	80%	80%
2022	96%	91%	86%	81%	77%	77%	77%
2021	88%	83%	79%	74%	70%	70%	70%
2020	83%	79%	74%	70%	66%	66%	66%
2019	82%	78%	74%	70%	66%	66%	66%
2018	81%	77%	72%	68%	64%	64%	64%
2017	79%	75%	71%	67%	63%	63%	63%
2016	76%	72%	69%	65%	61%	61%	61%
2015	78%	74%	69%	65%	62%	62%	62%
2010	86%	81%	75%	70%	69%	69%	69%
2005	93%	87%	81%	75%	75%	75%	75%
2000	94%	87%	80%	75%	75%	75%	
1995	92%	85%	78%	74%	74%		
1990	90%	82%	75%	72%			
1985	84%	77%	70%				
1980	70%	64%					

- Removing funded status restriction provides an expected 1.5% simple COLA immediately
- Investment return based COLA is combined with purchasing power floor to protect retirees from losing too much purchasing power
- Years until purchasing power floor
  - No immediate COLA = ~10 years
  - Immediate 1.5% simple COLA = ~20 years

Option 3F – Current COLA, No Funded Status Restriction, and 80% Purchasing Power Protection With 5-Year Step Up / Step Down ADC





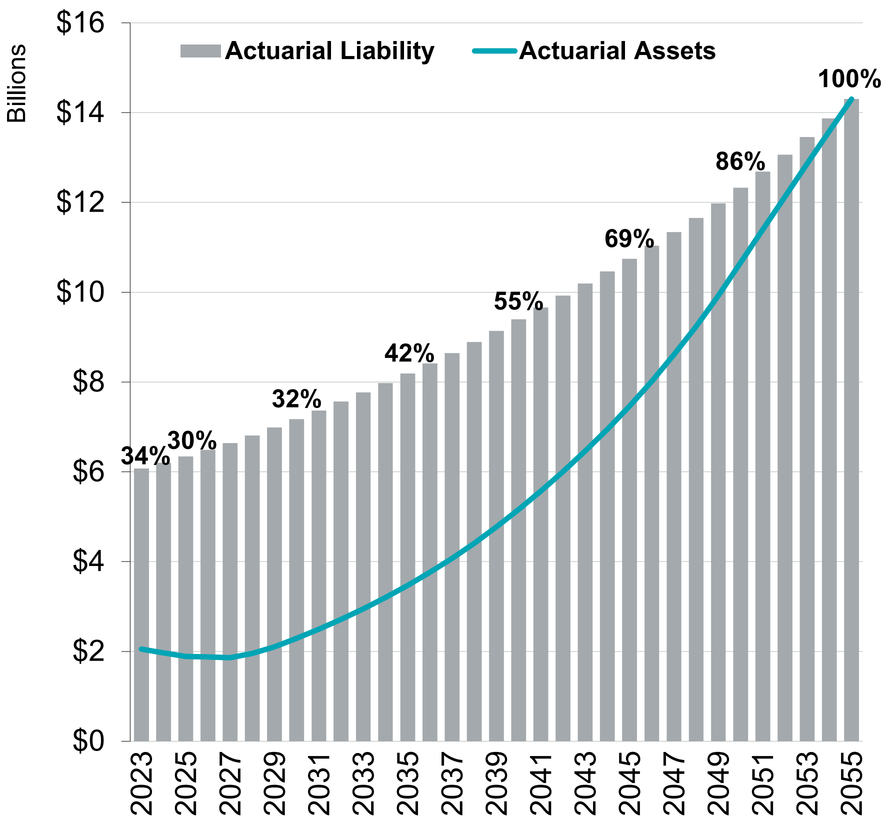
Option 3G – Compound Current COLA, No Funded Status Restriction, and 80% 2024 PP Protection – Purchasing Power Impact

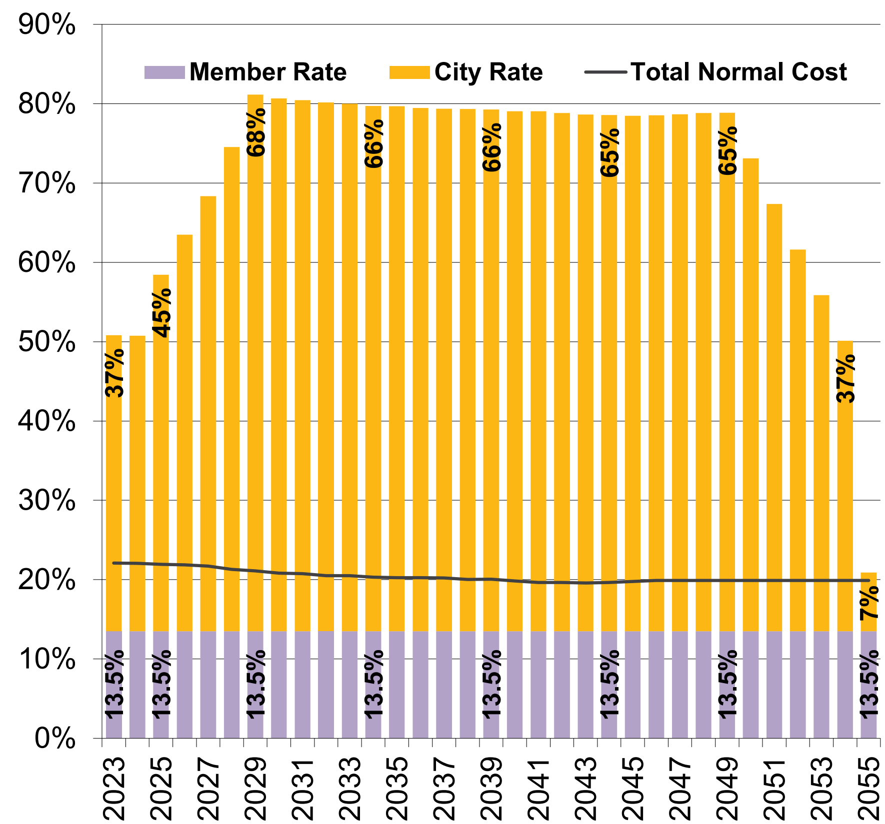
Purchasing Power

Retirement Year	2024	2029	2034	2039	2044	2049	2054
2023	100%	95%	91%	86%	82%	80%	80%
2022	96%	91%	87%	83%	79%	77%	77%
2021	88%	83%	79%	76%	72%	70%	70%
2020	83%	79%	75%	71%	68%	66%	66%
2019	82%	78%	75%	71%	68%	66%	66%
2018	81%	77%	73%	70%	66%	64%	64%
2017	79%	75%	71%	68%	65%	63%	63%
2016	76%	73%	69%	66%	63%	61%	61%
2015	78%	74%	70%	67%	64%	62%	62%
2010	86%	82%	78%	74%	71%	69%	69%
2005	93%	89%	85%	81%	77%	75%	75%
2000	94%	90%	85%	81%	77%	75%	
1995	92%	88%	84%	80%	76%		
1990	90%	85%	81%	77%			
1985	84%	80%	76%				
1980	70%	67%					

- Changes Option 3F COLA from simple to compound
- Years until purchasing power floor
  - No immediate COLA = ~10 years
  - Immediate 1.5% simple COLA = ~20 years
  - Immediate 1.5% compound COLA = ~25 years

Option 3G – Compound Current COLA, No Funded Status Restriction and 80% 2024 PP Protection With 5-Year Step Up / Step Down ADC





DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C4

Topic: **2022 Annual Comprehensive Financial Report**

Discussion: Staff will present the 2022 Annual Comprehensive Financial Report.

Staff Recommendation: **Authorize** the Executive Director to issue the 2022 Annual Comprehensive Financial Report and to forward the report to the Pension Review Board, the City of Dallas and to post it on the DPFP website.

2022

ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the years ending December 31, 2022 and 2021

An independently governed component unit of the City of Dallas, Texas

DALLAS POLICE & FIRE PENSION SYSTEM

4100 Harry Hines Blvd.
Ste.100 Dallas, Texas 75219
www.dpfp.org | 214.638.3863

PROTECTING THE FUTURE

SERVING THOSE WHO PROTECT THE DALLAS COMMUNITY

ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the fiscal years ended December 31, 2022 and 2021

Prepared through the combined efforts of the Dallas Police & Fire Pension System staff.

Kelly Gottschalk, Executive Director

An independently governed component unit of the City of Dallas, Texas

DALLAS POLICE & FIRE PENSION SYSTEM

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Contents

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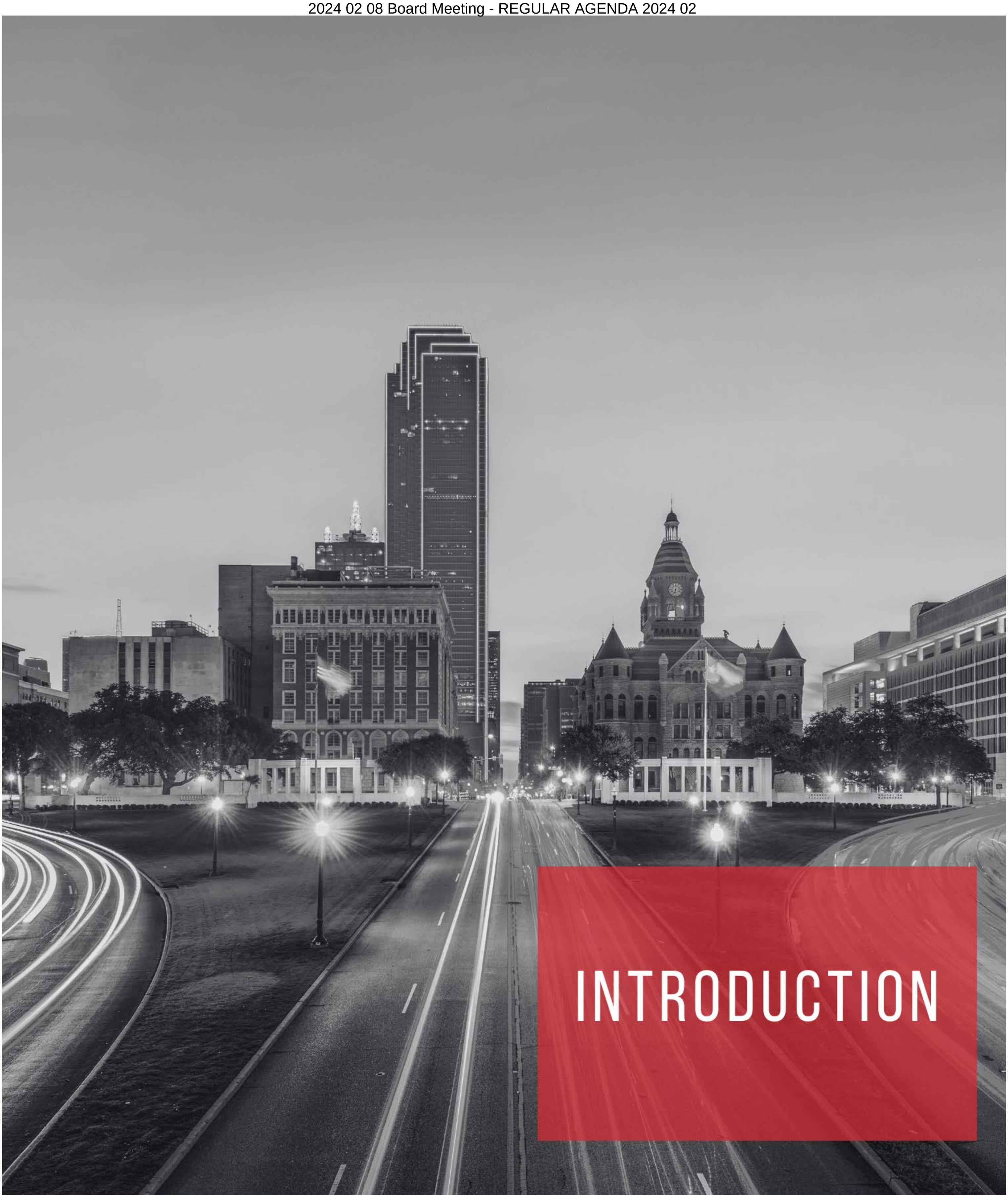


INTRODUCTION

Transmittal Letter


Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Dallas Police & Fire Pension System Texas

For its Annual Comprehensive Financial Report For the Fiscal Year Ended

December 31, 2021

Christopher P. Morrill

Executive Director/CEO

February 8, 2024

Board of Trustees
Dallas Police and Fire Pension System
4100 Harry Hines Blvd., Suite 100
Dallas, TX 75219

Dear Trustees and Members:

I am pleased to present the Annual Comprehensive Financial Report (ACFR) of the Dallas Police and Fire Pension System (DPFP), including the Combined Pension Plan and the Supplemental Police and Fire Pension Plan of the City of Dallas (Supplemental Plan), collectively referred to as the Plans, for the fiscal year ended December 31, 2022. Responsibility for both the accuracy of the data, and the completeness and fairness of presentation, rests with DPFP management.

Management is also responsible for establishing a system of internal controls to safeguard assets. The cost of a control should not exceed the benefits to be derived. The objective of the system of internal controls is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements. BDO USA, LLP (BDO) audited the accompanying basic financial statements and related disclosures. The financial statement audit provides reasonable assurance that DPFP's financial statements are presented in conformity with accounting principles generally accepted in the United States of America and are free from material misstatement.

The financial statements include a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement MD&A and should be read in conjunction with it. MD&A can be found immediately following the independent auditor's reports in the Financial section.

Profile of DPFP

DPFP is an independently governed component unit of the City of Dallas (City) and serves to provide retirement, death and disability benefits to police officers and firefighters employed by the City. DPFP is a single employer contributory defined benefit plan. The general terms "police officers" and "firefighters" also include fire and rescue operators, fire alarm operators, fire inspectors, apprentice police officers, and apprentice firefighters. A retirement plan for Dallas police officers and firefighters was first created in 1916 by City of Dallas ordinance. In 1933, the 43rd Legislature enacted 6243a, Vernon's Texas Civil Service Statutes, establishing DPFP. The Plan was restated and continued in 1989 by an Act of the 71st Legislature under Article 6243a-1. Article 6243a-1 was significantly amended by House Bill 3158 (HB 3158 or the bill) which was passed unanimously by the 85th Legislature and was signed into law by Governor Abbott on May 31, 2017. This plan is referred to as the Combined Pension Plan. On December 31, 2022, there were 10,626 members and beneficiaries in the Combined Pension Plan.

The Supplemental Plan was created by City ordinance in 1973. The intent of the Supplemental Plan is to provide additional retirement benefits to those members holding a rank higher than the highest corresponding civil service rank as provided in the Combined Pension Plan. On December 31, 2022, there were 204 members and beneficiaries in the Supplemental Plan.

The assets of the Combined Pension Plan and the Supplemental Plan are co-invested through a Group Master Trust. Administrative and professional expenses of DPFP are allocated to each plan on a pro-rata share based on the assets of each plan.

Major Initiatives and Significant Events

Changes to the investment program and efforts to liquidate private assets continued to be a major initiative in 2022. See additional discussion under Investment Program and Illiquid Real Estate and Private Asset Portfolio in this letter.

Continued focus on funding status, litigation management, Board member changes and policy reviews were areas that also required specific attention in 2022.

Additional information is included in MD&A and the notes to the financial statements in the Financial section, as well as the Investment and Actuarial section of this report.

Funding Status

The unfunded actuarial accrued liability of the Combined Pension Plan as of January 1, 2023 was $3.2 billion, an increase of approximately $155 million from the previous year. The January 1, 2023 funding ratio based on the actuarial value of assets for the Combined Pension Plan was 39.12%, a decrease from the prior year’s funded ratio of 41.06%. This decrease was primarily due to investment losses on an actuarial basis. The funding period increased from 68 years to 82 years. A decrease in the funded ratio is expected for many years even if all assumptions are met. As has been described in detail in the prior year Annual Comprehensive Financial Reports and the MD&A of this report, the Combined Pension Plan experienced a funding crisis beginning in 2015. At the lowest point, the Combined Plan was projected to be insolvent in seven years. HB 3158 created a path to 100% funding. The legislation increased contributions and lowered benefits for all active and retired members and their beneficiaries. The legislative changes reduced the unfunded liability by over $1 billion or 32%. As was known when the legislation was passed, the funding level of the Combined Plan will be fragile for many years.

An Experience Study was conducted by Segal (Actuary) for the five-year period ended December 31, 2019. Based on this study and the recommendations of Segal, the Board modified many of the economic and demographic assumptions used in preparing the January 1, 2020 and 2021 actuarial valuations. The Board also lowered the assumed rate of return for the January 1, 2021 actuarial report to 6.50% from 7.00%. In the short term, the estimated investment returns were lowered from prior ramp-up assumptions. The use of lower rates of return in the short-term reflects the time and challenge of transitioning legacy illiquid assets to the asset allocation policy.

The Board revised the Funding Policy for both Plans during 2020 to meet the requirements of the Texas Pension Review Board (PRB). Even though the Combined Plan contribution rates are set by State Statute, the PRB requires a closed amortization period of the unfunded liability. To meet this requirement, the amortization period in the Funding Policy was modified from a 30-year open period to a closed 25-year period in 2020. Beginning in 2021, future gains and losses are amortized over separate, closed 20-year periods. This change does not impact the contribution rates to the Combined Plan.

The 2017 legislation was based on payroll projections that were prepared by the City of Dallas. The projections, referred to as the Hiring Plan, had total Computation Pay at $372 million in 2017 increasing to $684 million in 2037, an average annual growth rate of 3.1%. Through 2024 there is a minimum floor on City contribution levels, therefore the risk of underachieving contribution revenue only relates to the employee contributions through 2024. Beginning in 2025, when the City is expected to contribute based solely on Computation Pay, differences between actual Computation Pay and the City's Hiring Plan could have a significant impact on the funding level of the Plan. The actuarial valuation is based on the City's Hiring Plan projections. The pensionable payroll increased in 2022 due to additional hiring and salary adjustments. The City's Computation Pay exceeded the Hiring Plan estimates in 2022.

Due to the low and declining funding level projections, the Board of Trustees is closely monitoring the City's Computation Pay and other critical assumptions. HB 3158 added a requirement that mandates the Board adopt changes if the Combined Plan does not meet the Texas Pension Review Board funding guidelines in 2024. Potential changes include increases in City contribution rates, increases in member contribution rates or benefit decreases. At this time the Board believes it is certain that additional changes will be required. The member contributions are approximately equal to the normal cost of their benefit; therefore, the most appropriate option is additional funding from the City. The Board also believes that it is prudent to explore options, including pension obligation bonds, for additional City funding as soon as possible and not wait until 2024.

The changes resulting from HB 3158 also apply to the Supplemental Plan. The January 1, 2023 actuarial funding ratio for the Supplemental Plan was 38.65% and the unfunded liability was $26.4 million. The amortization period for the Supplemental Plan was changed from a 10-year open period less payments to the Excess Benefits Plan and Trust to a 20-year closed period with the January 1, 2020 valuation. Beginning in 2021, future gains and losses are amortized over separate, closed 10-year periods. The closure of the amortization periods should accelerate progress towards 100% funding. The City's contribution to the Supplemental Plan is the Actuarially Determined Contribution plus payments to the Excess Benefits Plan and Trust related to the Supplemental Plan. The City's contribution to the Supplemental Plan increased by $859 thousand or 30.6% in 2022 due to the investment loss. The small size of the Supplemental Plan makes it more susceptible to fluctuations than a typical defined benefit plan.

Additional information on the funding status, actuarial assumptions, asset values and DROP withdrawals can be found in MD&A, notes to the combining financial statements, Required Supplementary Information, and the Actuarial and Investment sections.

2022 Financial Results

The Plans' net position decreased by $353 million in 2022 primarily the result of investment losses and benefit payments exceeding contributions. Total contributions increased by $6.3 million or 2.7% in 2022 when compared to 2021, but were more than offset by an increase in benefit payments of $7.9 million or 2.4%.

The money-weighted rate of return on investments during 2022 was -2.77% net of fees, compared to a rate of return of 5.5% for 2021. The rate of return is provided by Meketa Investment Group, DPFP's investment consultant for the year ended December 31, 2022. The rate of return calculations was prepared using methodology consistent with standard industry practice and cannot be recalculated from the information provided herein.

Additional information on financial results is provided in the MD&A, Financial and Investment sections. The Investment Consultant's Report in the Investment section provides additional economic information.

Investment Program

The investment program continued to see significant changes in 2022. DPFP made progress in reducing private asset exposure and increasing public markets exposure during the year. Due to the high current level of exposure to illiquid private assets, there is considerable variance between the current allocation and the new targets in several asset classes. Key challenges for the investment portfolio continued to be an overallocation to private assets and the high level of cash outflows required for benefit payments.

Over the course of the year, the size of the investment portfolio decreased by approximately $351 million to $1.8 billion in investment assets. The portfolio returned a time weighted return of -2.2%, net of fees in 2022. DPFP outperformed its benchmarks and peers given its underweight exposure to public equities and the overweight exposure to illiquid investments in real estate and legacy private equity.

The overweight to private assets is an ongoing challenge to achieving the assumed rate of return. It will take several years to reduce the private assets to the levels in the asset allocation and the return on the portfolio is expected to lag during the transition.

The Investment Advisory Committee (IAC) held meetings during 2022 to provide advice to the Board of Trustees to ensure DPFP investments are prudently managed and give advice regarding the search and selection process for investment managers.

Additional information regarding the investment program is included in MD&A and the notes to the financial statements in the Financial section, as well as the Investment section of this report.

Illiquid Real Estate and Private Asset Portfolio

DPFP made progress towards reducing the over allocation to private assets with the continued liquidation of these assets in 2022. Distributions from the private asset portfolio were $109 million in 2022, of which $106 million represented return of principal and gain. Capital calls during 2022 were only $2.4 million. On December 31, 2022, private asset investments still comprised approximately 32% of the portfolio.

Additional information regarding the investment program is included in MD&A and the notes to the financial statements in the Financial section, as well as the Investment section of this report.

Litigation

The challenges faced by DPFP involved extensive litigation matters related to plan amendments and other matters. In August 2021, The Dallas Police Retired Officers Association filed suit against DPFP alleging that changes to the provisions of the DPFP Plans relating to the benefit supplement and annual adjustment were violative of the Texas Constitution. In March 2022, the district court granted DPFP's motion for summary judgment. The plaintiff has appealed this judgment, and the appeal is pending in the Fifth Court of Appeals.

Additional litigation related matters are still pending in the courts.

Additional information on ongoing litigation is available in MD&A and Notes 9 and 12 of the financial statements in the Financial section of this report.

Awards and Acknowledgements

Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to DPFP for its Annual Comprehensive Financial Report for the fiscal year ended December 31, 2021. This was the eighth consecutive year that the government has achieved this prestigious award. To be awarded a Certificate of Achievement a government must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year.

Public Pension Standards Award for Administration

The Public Pension Coordinating Council (PPCC) gave the 2022 Public Pension Standards Award for Administration to DPFP in recognition of meeting professional standards for plan administration as set forth in the Public Pension Standards.

Acknowledgements

The compilation of this report reflects the combined effort of the staff under the leadership of the Board of Trustees. Specifically, I would like to acknowledge Brenda Barnes, Bill Scoggins, Larissa Branford, Milissa Romero, John Holt, Ryan Wagner, and Akshay Patel for their work on the ACFR and the annual financial audit. I would like to express my gratitude to the Trustees, staff, advisors and others who have worked so diligently to assure the successful operation of DPFP.

Risk of Insolvency

At the time the Legislature passed HB 3158 and continuing with the most recent actuarial valuation, the actuary reported that, even assuming all assumptions are met, the funding position of the Combined Plan would be at a very low level and fall for more than a decade before it begins to rise. If either 1) all plan assumptions are not met, such as not achieving the assumed rate of return or not meeting Computation Pay projected in the Hiring Plan or 2) assumption changes in the future are determined by the Board, with the advice of the actuary, to be needed resulting in higher liabilities or lower projected assets, the Plan will be at serious risk for insolvency. Due to the time it takes for members with lower benefits to replace members who have accrued benefits at the higher pre-HB 3158 levels, the 2023 valuation projects the funding level to decline to below 30% and that funding will not begin to increase for more than 20 years.

Respectfully submitted,

Kelly Gottschalk, Executive Director

Board of Trustees

Article 6243a-1 of the Texas Statutes governs the makeup and responsibilities of the Board. The Board is responsible for the administration of DPFP and investment of the assets of the Combined Pension Plan and Supplemental Police and Fire Pension Plan of the City of Dallas.

The Board consists of eleven Trustees who are selected as follows:

- Six Trustees appointed by the mayor of the City of Dallas, in consultation with the City Council;
- One current or former police officer Trustee, nominated and elected by active members;
- One current or former firefighter Trustee, nominated and elected by active members; and
- Three Trustees (who may not be active members or retirees) elected by the active members and retirees from a slate of nominees vetted by the Nominations Committee. The Nominations Committee consists of representatives from 11 named police and fire associations and the Executive Director of DPFP. The Executive Director serves as the chair of the committee and is a nonvoting member.

To be appointed or elected, a person must have demonstrated financial, accounting, business, investment, budgeting, real estate or actuarial expertise and may not be an elected official or current employee of the City of Dallas, with the exception of a current police officer or firefighter.

The Board serves without compensation and meets not less than once each month. Six Trustees of the Board constitute a quorum at any meeting. Six affirmative votes are required to pass a motion regardless of the number of Trustees in attendance at a meeting. Some actions, specifically identified in Article 6243a-1, require a vote of at least eight Trustees.

Board of Trustees

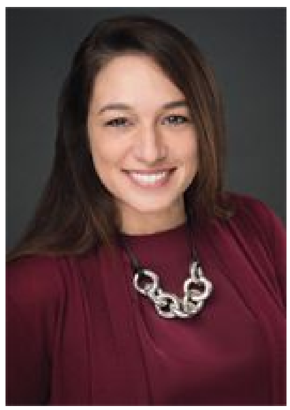
Nicholas A. Merrick
Chairman
Mayoral Appointee
Term Expired 8/2023 (1)

William F. Quinn
Vice Chairman
Mayoral Appointee
Term Expired 8/2023 (1)

Armando Garza
Deputy Vice Chairman
Fire Trustee
Term Expired 8/2023 (1)

Michael Brown
Mayoral Appointee
Term Expires 8/2025

Kenneth Haben
Police Trustee
Term Expired 8/2023 (1)



Tina Hernandez Patterson
Mayoral Appointee
Term Expires 12/2024 (1)

Steve Idoux
Mayoral Appointee
Term Expires 8/2024

Mark Malveaux
Mayoral Appointee
Term Expires 8/2024

Nancy Rocha
Non-member Trustee
Term Expires 8/2025

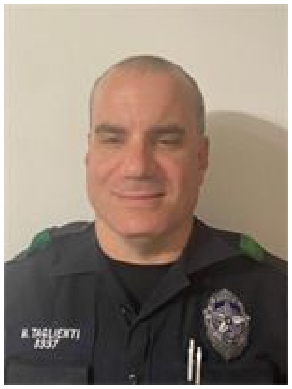
Anthony Scavuzzo
Non-member Trustee
Term Expires 8/2025

Marcus Smith
Non-member Trustee
Term Expires 8/2025

(1) See Trustee Updates on the following page.

Trustee Updates
September 2023

Matthew Shomer
Fire Trustee
Term Began 9/2023
Term Expires 8/2026



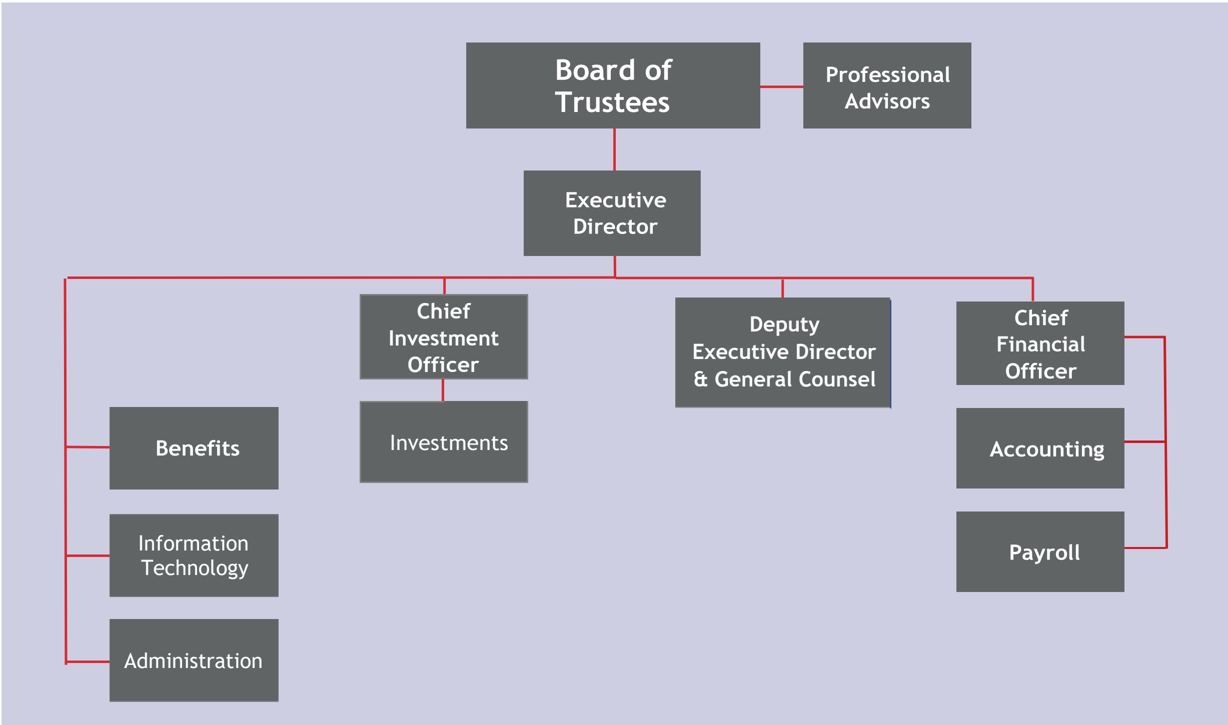
Michael Taglienti
Police Trustee
Term Began 9/2023
Term Expires 8/2026

Tom Tull
Mayoral Appointee
Term Began 9/2023
Term Expires 8/2026

The terms of Trustees Nicholas A. Merrick (Mayoral), William Quinn (Mayoral), Kenneth Haben (Police), and Armando Garza (Fire) expired on August 31, 2023. The Mayor of Dallas appointed Tom Tull to serve a three-year Trustee term upon the conclusion of William Quinn's term. A general election was held for the Police Officer and Firefighter Trustee positions in June 2023. Matthew Shomer was elected as the Firefighter Trustee and Michael Taglienti was elected as the Police Officer Trustee both to serve three-year terms. Nicholas A. Merrick continues to serve as a hold-over trustee pending trustee appointment by the Mayor of Dallas.

Additionally, at the November 2023 Board meeting, the Board elected Tina Hernandez Patterson as Vice Chairman, and Michael Taglienti as Deputy Vice Chairman.

Administrative Organization



Professional Advisors
as of December 31, 2022

Actuary
Segal Consulting

Auditor
BDO USA, LLP

Custodian Bank
JPMorgan Chase Bank, N.A.

Investment Accounting Firm
STP Investment Services, LLC

Investment Consultant
Meketa Investment Group

Investment Managers
(See page 89)

Legislative Consultants
HillCo Partners, LLC

Fiduciary Counsel
Jackson Walker, LLP

Executive Staff
as of December 31, 2022

Executive Director
Kelly Gottschalk

Deputy Executive Director & General Counsel
Joshua Mond

Chief Financial Officer
Brenda Barnes, CPA

Chief Investment Officer
Ryan Wagner

Note: A schedule of investment management fees is provided in the Investment section of this report on page 87.

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FINANCIAL INFORMATION

Independent Auditor's Reports

Tel: 214-969-7007
Fax: 214-953-0722
www.bdo.com

600 North Pearl, Suite 1700
Dallas, Texas 75201

To the Board of Trustees
Dallas Police and Fire Pension System
Dallas, TX

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the Dallas Police and Fire Pension System (DPFP), including the Combined Pension Plan and the Supplemental Police and Fire Pension Plan of the City of Dallas (Supplemental Plan), collectively referred to as the "Plans", for the fiscal years ended December 31, 2022 and 2021, and the related notes to the combining financial statements, which collectively comprise the DPFP's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements present fairly, in all material respects, the fiduciary net position of DPFP as of December 31, 2022 and 2021, and the changes in fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of DPFP and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibility of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the DPFP's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the DPFP's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the DPFP's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis (MD&A) and the required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the MD&A and required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the basic financial statements as a whole. The accompanying supplementary schedule of Administrative, Investment and Professional Services Expenses is presented for the purpose of additional analysis and is not a required part of the basic financial statements.

Such information is the responsibility of DPFP management and was derived from and related directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated February 1, 2024 on our consideration of DPFP's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of DPFP's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering DPFP's internal control over financial reporting and compliance.

BDO USA, P.C.

Dallas, Texas
February 1, 2024

Tel: 214-969-7007
Fax: 214-953-0722
www.bdo.com

600 North Pearl, Suite 1700
Dallas, Texas 75201

Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards*

To the Board of Trustees
Dallas Police and Fire Pension System
Dallas, TX

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Dallas Police and Fire Pension System (DPFP), including the Combined Pension Plan and the Supplemental Police and Fire Pension Plan of the City of Dallas (Supplemental Plan), collectively referred to as the "Plans", for the fiscal years ended December 31, 2022 and 2021, which comprise the combining statements of fiduciary net position, and the related combining statements of changes in fiduciary net position for the years then ended, and the related notes to the combining financial statements, and have issued our report thereon dated February 1, 2024.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered DPFP's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of DPFP's internal control. Accordingly, we do not express an opinion on the effectiveness of DPFP's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency or a combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of DPFP's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency or a combination of deficiencies in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit, we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Dallas Police and Fire Pension System's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, and contracts, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of DPFP's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering DPFP's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

BDO USA, P.C.

Dallas, Texas
February 1, 2024

Management's Discussion and Analysis

(Unaudited)

Overview

Management's Discussion and Analysis (MD&A) provides an overall review of the financial activities of the Dallas Police and Fire Pension System (DPFP), including the Combined Pension Plan and the Supplemental Police and Fire Pension Plan of the City of Dallas (Supplemental Plan), collectively referred to as the Plans, for the fiscal years ended December 31, 2022 and 2021. This discussion and analysis is intended to serve as an introduction to the financial statements, which reflect the Plans' resources available for payment of benefits and other related expenses. MD&A should be read in conjunction with the combining financial statements, notes to the combining financial statements, required supplementary information, and additional supplementary information provided in this report.

Financial Statements

The combining financial statements consist of the following:

Combining Statements of Fiduciary Net Position which reflect a snapshot of the Plans' financial position and reflect resources available for the payment of benefits and related expenses at year end. The resulting Net Position (Assets – Liabilities = Net Position) represents the value of the assets held in trust for pension benefits, net of liabilities owed as of the financial statement date.

Combining Statements of Changes in Fiduciary Net Position which reflect the results of all transactions that occurred during the fiscal year and present the additions to and deductions from the net position. Effectively, these statements present the changes in plan net position during the fiscal year (Additions – Deductions = Net Change in Net Position). If the change in net position increased, additions were more than deductions. If the change in net position decreased, additions were less than deductions.

Notes to Combining Financial Statements, which are an integral part of the combining financial statements, include additional information that may be needed to obtain an adequate understanding of the overall financial status of the Plans.

Required Supplementary Information (Unaudited) and additional Supplementary Information provide historical and additional information considered useful in obtaining an overall understanding of the financial positions and activities of the Plans.

Financial Highlights

The combining financial statements are presented solely on the accounts of the Plans. The accrual basis of accounting is utilized, whereby revenues are recognized when they are earned and collection is reasonably assured, and expenses are recognized when the related liability has been incurred. Investments are reported at fair value.

A summary of the Combining Statements of Fiduciary Net Position of the Plans is as follows (in thousands):

DECEMBER 31:	2022	2021	2020
Assets			
Investments, at fair value	$ 1,730,354	$ 2,100,504	$ 1,856,965
Receivables	11,951	9,964	19,233
Cash and cash equivalents	75,286	60,032	88,491
Prepaid expenses	403	411	545
Capital assets, net	11,606	11,847	12,088
Total assets	**1,829,600**	**2,182,758**	**1,977,322**
Liabilities			
Securities purchased	1,139	358	11,784
Accounts payable and accrued liabilities	5,253	5,899	5,463
Total liabilities	**6,392**	**6,257**	**17,247**
Net position restricted for pension benefits	**$ 1,823,208**	**$ 2,176,501**	**$ 1,960,075**

The assets of the Combined Pension Plan and the Supplemental Plan are co-invested through a Group Master Trust (Group Trust). The rate of return on Group Trust investments during 2022 was -2.77%, net of fees, compared to a rate of return of 5.52% for 2021 and 1.48% for 2020. Meketa Investment Group, Inc., DPFP's investment consultant at December 31, 2022, provides the rate of return for all years. The methodology used by the investment consultants to calculate the money-weighted rate of return incorporates a one-quarter lag on fair value adjustments for private equity, private debt, and real assets investments. This "lagged with cash flow adjustments" methodology is consistent with standard industry practice and allows for timely reporting to the Board of Trustees (Board). Gains and losses on lagged investments, which occur in the fourth quarter of any year, are recognized in the following year's rate of return.

The Plans' net position decreased by $353 million in 2022 due to investment losses and benefit payments exceeding contribution payments, which were slightly offset by increased cash and receivables.

The Plans' net position increased by $216 million in 2021 due primarily to investment gains, which were partially offset by benefits payments exceeding contribution payments.

Changes in receivables are primarily a result of the timing of settlement of pending investment trades, as well as the timing of the last payroll of the year for the City of Dallas as such timing impacts the collection of benefit contributions.

The cash balance increased in 2022 as cash distributions from investments were received at the end of the year.

A summary of the Combining Statements of Changes in Fiduciary Net Position of the Plans is as follows (in thousands):

YEARS ENDED DECEMBER 31:	2022	2021	2020
Additions			
Contributions			
City	$ 172,719	$ 167,640	$ 163,727
Members	59,962	58,788	57,551
Total contributions	**232,681**	**226,428**	**221,278**
Net income(loss) from investing activities	(245,390)	323,489	(9,432)
Net income from securities lending activities	-	-	35
Other income	2,318	338	347
Total additions	**(10,391)**	**550,255**	**212,228**
Deductions			
Benefits paid to members	332,031	324,098	318,452
Refunds to members	4,450	3,285	2,276
Professional and administrative expenses	6,421	6,446	6,590
Total deductions	**342,902**	**333,829**	**327,318**
Net increase (decrease) in net position	(353,293)	216,426	(115,090)
Net position restricted for pension benefits			
Beginning of period	**2,176,501**	**1,960,075**	**2,075,165**
End of period	**$ 1,823,208**	**$ 2,176,501**	**$ 1,960,075**

The 2022 Contribution rates for both members and the City were statutorily defined. Contributions for all active members (including members in DROP) were 13.5% of Computation Pay. Computation Pay is defined as base pay, education incentive pay and longevity pay. City contributions for the Combined Pension Plan were 34.5% of Computation Pay, plus a floor amount to meet the minimum required contribution, plus an additional amount of $13 million in 2022. The floor was greater than the 34.5% of Computation Pay for all pay periods in 2022 and most pay periods in 2021. See Note 1 for additional information on City contribution rates.

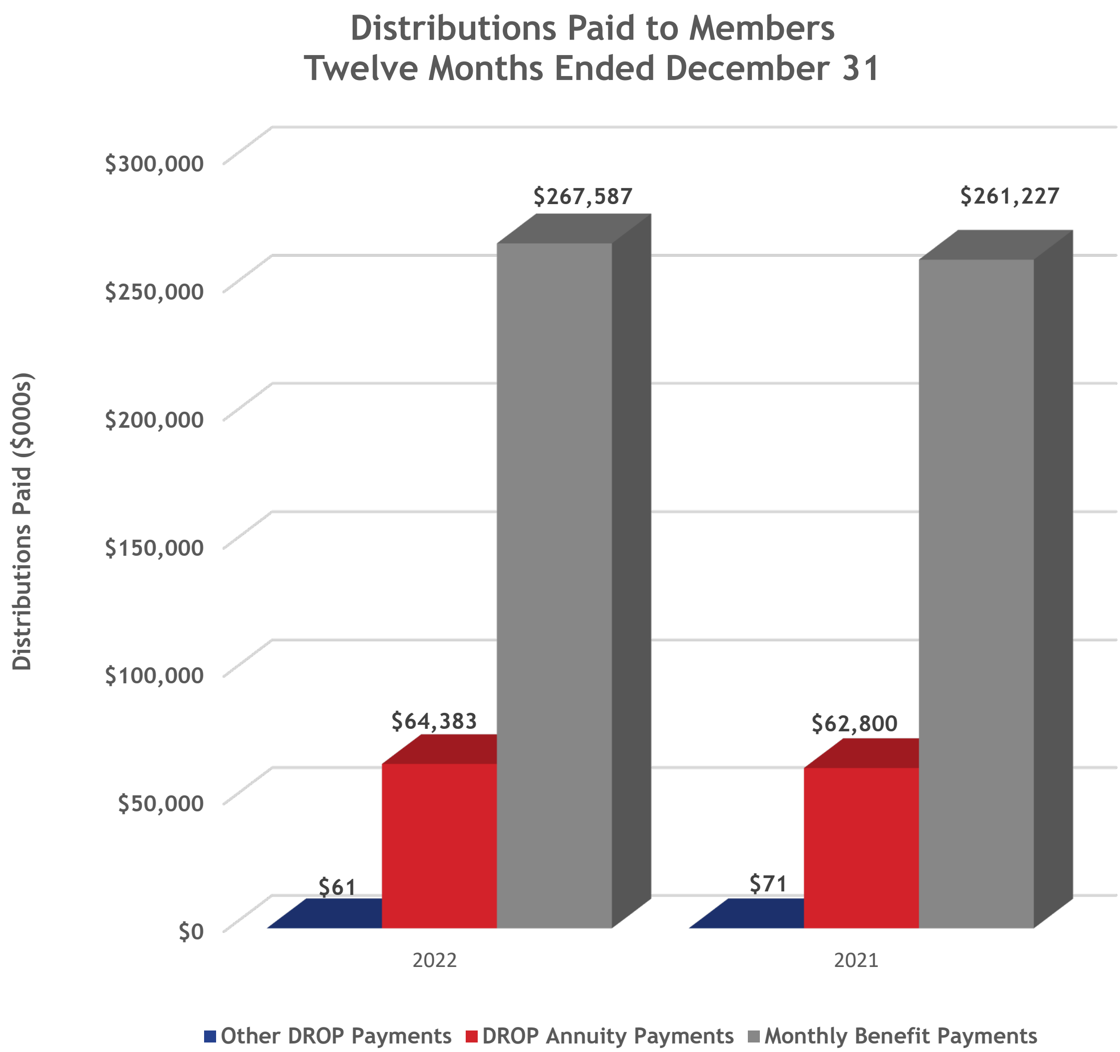
City contributions to the Plans increased by $5.1 million or 3.0% in 2022 due to an increase in the bi-weekly floor amount. Member contributions of $60.0 million exceeded 2021 contributions by $1.2 million because of increased salaries.

City Contributions to the Combined Pension Plan increased $4.4 million or 2.6% in 2022 due to the scheduled increase in the bi-weekly floor amount.

The City is required by ordinance to contribute amounts necessary to ensure the payment of benefits in the Supplemental Plan. The City's contributions shall be made in accordance with actuarial requirements established by the actuary and the board. City contributions to the Supplemental Plan in 2022 increased by $708 thousand over 2021 contributions and City contributions to the Supplemental Plan in 2021 increased by $321 thousand over 2020 contributions.

Net investment income/(loss) is presented net of investment expenses and is comprised of interest, dividend income, gains/(losses) from the sale of investments and net unrealized appreciation(depreciation) in the fair value of investments. Net investment loss for 2022 was driven by both public market changes and by changes in the fair value of private equity assets, while the net investment income during 2021 was driven by changes in the fair value of private equity assets.

Distributions to members consist of monthly payments of retirement, disability, and survivor benefits, as well as monthly DROP annuity payments and other DROP payments made in accordance with Section 6.14 of Article 6243a-1 of the Texas Statutes. The chart on the next page compares the components of distributions paid to members for the years ended December 31, 2022 and 2021.



Total benefits paid in 2022 increased $7.9 million or 2.4% over 2021. Monthly benefit payments increased $6.4 million or 2.4% due to an additional 75 retirees and beneficiaries receiving monthly benefits in 2022. Distributions from DROP balances in 2022 totaled $64.4 million, paid as DROP annuity payments, up $1.6 million from 2021. See Note 6 for additional information on DROP.

Refund expense increased $1.2 million in 2022 and increased $1.0 million in 2021.

The cost of administering the benefit plans, including administrative costs and professional fees, decreased approximately $25 thousand in 2022. Decreased non-investment legal expenses, down $131 thousand, were offset by increases in risk insurance, up $158 thousand. The cost of administering the benefit plans, including administrative costs and professional fees, decreased approximately $144 thousand in 2021. Increased legal expenses, up $195 thousand, were offset by decreases in salaries and benefits, down $343 thousand.

A pro rata share of the total expenses of the Plans is allocated to the Combined Pension Plan and the Supplemental Plan according to the ratio of Combined Pension Plan and Supplemental Plan investment assets to the total investment assets of the Group Trust. Any expenses specific to either the Combined Pension Plan or the Supplemental Plan are charged directly as a reduction of such plan's net position.

Funding Overview

DPFP's actuarial firm, Segal Consulting (Segal), conducts the annual actuarial valuations to determine if the assets and contributions are sufficient to provide the prescribed benefits (funding positions) of the Plans.

The January 1, 2023 actuarial valuation reported a funded ratio of 39.1%, based on the actuarial value of assets, an unfunded actuarial accrued liability of $3.2 billion and an expected fully funded date of 2105 for the Combined Pension Plan compared to a funded ratio of 41.1%, based on the actuarial value of assets, an unfunded actuarial accrued liability of $3.0 billion and an expected fully funded date of 2090 for the Combined Pension as reported in the January 1, 2022 actuarial valuation. These projections may vary on an annual basis due to actual experience and demographics, which may vary from the current actuarial assumptions. Beginning in 2025, once the City is contributing based solely on Computation Pay with no floor as discussed below, differences between actual payroll and the City's current projections may have a significant impact on the projected funding period.

The Actuarially Determined Contribution (ADC) is equal to the City normal cost payment and a payment on the unfunded actuarial accrued liability. As of January 1, 2023, for the Combined Plan, the total ADC was $314 million or 67.9% of Computation Pay. The total ADC as of January 1, 2022 was $288 million or 65.8% of Computation Pay. The funding policy used to calculate the ADC is based on a closed 25-year amortization of the UAL as of January 1, 2020 and a closed, 20-year amortization of any changes in the UAL thereafter. The ADC rate compares to the City's actual contribution rate of 34.5% of Computation Pay, which is subject to a minimum floor for the next two years, plus the member contribution of 13.5%, plus an additional $13 million per year from the City until December 31, 2024.

The January 1, 2023 actuarial valuation for the Supplemental Plan reports a funded ratio of 38.7% and an unfunded actuarial accrued liability of $26.4 million compared to a funded ratio of 45.7% and an unfunded actuarial accrued liability of $22.2 million as reported in the January 1, 2022 actuarial valuation. These projections may vary on an annual basis due to actual experience and demographics, which may vary from the current actuarial assumptions. The City's contributions for the Supplemental Plan are based on the ADC as determined by the actuary.

The Board's funding policy for the Supplemental Plan was changed in 2020 from an open 10-year amortization period to a closed 20-year period. Beginning in 2021, future gains or losses each year will be amortized over separate, closed 10-year periods.

Governmental Accounting Standards Board Statement No. 67, *Financial Reporting for Pension Plans –An Amendment of GASB Statement No. 25*, (GASB No. 67) requires disclosure of the Net Pension Liability (NPL). The GASB No. 67 valuation is prepared by Segal and is a calculation for accounting purposes as opposed to the actuarial valuation, which is completed to determine the funding adequacy of the Plans. The NPL is the difference between the Total Pension Liability (TPL) and the fair value of assets. GASB No. 67 requires the determination of the TPL using the individual entry age method, level percent of pay actuarial cost method, and a discount rate. The GASB No. 67 for December 31, 2022 reports a NPL of $3.4 billion, which is an increase of $442 million from the NPL reported at December 31, 2021 for the Combined Pension Plan. The Fiduciary Net Position as a Percentage of Total Pension Liabilities (FNP) is 34.4% at December 31, 2022 compared to 41.8% at December 31, 2021 for the Combined Pension Plan. The Supplemental Plan had a NPL of $26.4 million and $22.2 million at December 31, 2022 and 2021, respectively. The Supplemental Plan had a FNP of 38.7% and 45.7% at December 31, 2022 and 2021, respectively.

Information about whether the Plans' net positions are increasing or decreasing over time relative to the TPL is provided in the accompanying Schedule of Changes in the Net Pension Liability and Related Ratios.

Contacting DPFP's Financial Management

This financial report is designed to provide members and other users with a general overview of DPFP's finances and present the Plans' accountability for the funding received. If you have questions about this report, you may contact the Executive Director of the Dallas Police and Fire Pension System at 4100 Harry Hines Boulevard, Suite 100, Dallas, Texas 75219, by phone at 214-638-3863, or by email at info@dpfp.org.

Combining Statements of Fiduciary Net Position

	2022			2021		
DECEMBER 31,	COMBINED PENSION PLAN	SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	TOTAL	COMBINED PENSION PLAN	SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	TOTAL
Assets						
Investments, at fair value						
Short-term investments	$ 14,754,633	$ 136,207	$ 14,890,840	$ 12,828,848	$ 111,127	$ 12,939,975
Fixed income securities	318,424,211	2,939,523	321,363,734	416,490,402	3,607,764	420,098,166
Equity securities	819,431,503	7,564,557	826,996,060	960,008,108	8,315,876	968,323,984
Real assets	344,739,510	3,182,452	347,921,962	405,937,634	3,516,353	409,453,987
Private equity	217,177,506	2,004,867	219,182,373	287,199,831	2,487,810	289,687,641
Forward currency contracts	(961)	(9)	(970)	(46)	-	(46)
Total investments	1,714,526,402	15,827,597	1,730,353,999	2,082,464,777	18,038,930	2,100,503,707
Receivables						
City	5,140,928	-	5,140,928	4,558,571	-	4,558,571
Members	1,811,630	7,708	1,819,338	1,606,902	6,488	1,613,390
Interest and dividends	3,753,553	34,651	3,788,204	3,415,034	29,582	3,444,616
Investment sales proceeds	1,141,865	10,541	1,152,406	221,356	1,917	223,273
Other receivables	49,431	456	49,887	123,544	1,070	124,614
Total receivables	11,897,407	53,356	11,950,763	9,925,407	39,057	9,964,464
Cash and cash equivalents	74,596,937	688,639	75,285,576	59,516,881	515,553	60,032,434
Prepaid expenses	399,478	3,688	403,166	407,763	3,532	411,295
Capital assets, net	11,499,772	106,160	11,605,932	11,745,139	101,740	11,846,879
Total assets	**1,812,919,996**	**16,679,440**	**1,829,599,436**	**2,164,059,967**	**18,698,812**	**2,182,758,779**
Liabilities						
Other Payables						
Securities purchased	1,128,527	10,418	1,138,945	355,189	3,077	358,266
Accounts payable and other accrued liabilities	5,224,128	28,620	5,252,748	5,864,348	35,024	5,899,372
Total liabilities	**6,352,655**	**39,038**	**6,391,693**	**6,219,537**	**38,101**	**6,257,638**
Net position restricted for pension benefits	**$ 1,806,567,341**	**$ 16,640,402**	**$ 1,823,207,743**	**$ 2,157,840,430**	**$ 18,660,711**	**$ 2,176,501,141**

See accompanying notes to combining financial statements.

Combining Statements of Changes in Fiduciary Net Position

YEARS ENDED DECEMBER 31,	2022 COMBINED PENSION PLAN	2022 SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	2022 TOTAL	2021 COMBINED PENSION PLAN	2021 SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	2021 TOTAL
Additions (Reductions)						
Contributions						
City	$ 169,911,420	$ 2,806,863	$ 172,718,283	$ 165,541,265	$ 2,098,588	$ 167,639,853
Members	59,706,574	255,703	59,962,277	58,559,980	227,893	58,787,873
Total contributions	229,617,994	3,062,566	232,680,560	224,101,245	2,326,481	226,427,726
Investment income (loss)						
Net appreciation (depreciation) in fair value of investments	(255,777,638)	(2,318,539)	(258,096,177)	303,367,916	2,611,699	305,979,615
Interest and dividends	21,233,270	196,014	21,429,284	28,422,669	246,206	28,668,875
Total gross investment income	(234,544,368)	(2,122,525)	(236,666,893)	331,790,585	2,857,905	334,648,490
Less: Investment expense	(8,643,345)	(79,791)	(8,723,136)	(11,063,408)	(95,835)	(11,159,243)
Net investment income (loss)	(243,187,713)	(2,202,316)	(245,390,029)	320,727,177	2,762,070	323,489,247
Other income	2,296,327	21,198	2,317,525	335,712	2,908	338,620
Total additions	**(11,273,392)**	**881,448**	**(10,391,944)**	**545,164,134**	**5,091,459**	**550,255,593**
Deductions						
Benefits paid to members	329,187,721	2,843,026	332,030,747	321,348,320	2,749,573	324,097,893
Refunds to members	4,449,977	-	4,449,977	3,285,148	-	3,285,148
Professional and administrative expenses	6,361,999	58,731	6,420,730	6,390,829	55,359	6,446,188
Total deductions	**339,999,697**	**2,901,757**	**342,901,454**	**331,024,297**	**2,804,932**	**333,829,229**
Net increase/(decrease) in fiduciary net position	(351,273,089)	(2,020,309)	(353,293,398)	214,139,837	2,286,527	216,426,364
Net position restricted for pension benefits						
Beginning of period	2,157,840,430	18,660,711	2,176,501,141	1,943,700,593	16,374,184	1,960,074,777
End of period	$ 1,806,567,341	$ 16,640,402	$ 1,823,207,743	$ 2,157,840,430	$ 18,660,711	$ 2,176,501,141

See accompanying notes to combining financial statements.

Notes to Combining Financial Statements

1. Organization

General

The Dallas Police and Fire Pension System (DPFP) is an independently governed component unit of the City of Dallas (City, or Employer) and serves as a single-employer pension and retirement fund for police officers and firefighters employed by the City. The general terms “police officers” and “firefighters” also include fire and rescue operators, fire alarm operators, fire inspectors, apprentice police officers, and apprentice firefighters. DPFP is comprised of a single defined benefit pension plan (Combined Pension Plan) designed to provide retirement, death, and disability benefits for police officers and firefighters (collectively, members). DPFP was originally established under former Article 6243a of the Revised Civil Statutes of Texas and, since 1989, derives its authority to continue in operation under the provisions of Article 6243a-1 of the Revised Civil Statutes of Texas (the Governing Statute). All active police officers and firefighters employed by the City are required to participate in the Combined Pension Plan.

The Supplemental Police and Fire Pension Plan of the City of Dallas (Supplemental Plan) was created in 1973 to supplement DPFP’s Plan B Defined Benefit Pension Plan (Plan B). Former Plan B members are now denominated as Group B members of the Combined Pension Plan. The intent of the Supplemental Plan is to provide additional retirement benefits to those members of the Supplemental Plan holding a rank higher than the highest corresponding civil service rank as provided in the Combined Pension Plan. Members receive a supplemental pension based upon the difference between compensation for the civil service position held before entrance into the Supplemental Plan and compensation while in the Supplemental Plan. The Supplemental Plan was established and derives its authority from a City ordinance.

The Combined Pension Plan and Supplemental Plan are collectively referred to as the Plans.

As of December 31, 2022 and 2021, the Combined Pension Plan’s membership consisted of:

	2022	2021
Retirees and beneficiaries	5,142	5,071
Beneficiaries, DROP Only	147	125
Non-active vested members not yet receiving benefits	252	233
Non-active non-vested members not yet refunded	474	462
Total non-active members	**6,015**	**5,891**
Vested active members	3,732	3,661
Non-vested active members	1,353	1,427
Total active members	**5,085**	**5,088**

As of December 31, 2022 and 2021, the Supplemental Plan's membership consisted of:

	2022	2021
Retirees and beneficiaries	151	147
Non-active vested members not yet receiving benefits	1	1
Non-active non-vested members not yet refunded	-	1
Total non-active members	**152**	**149**
Vested active members	51	49
Non-vested active members	1	1
Total active members	**52**	**50**

No changes to benefit, contribution or administration plan provisions were made to the Combined Pension Plan or the Supplemental Plan in 2022.

The benefit, contribution and administration plan provisions discussed below are as of December 31, 2022 and 2021.

Benefits

Members hired by the City before March 1, 1973 are Group A members of the Combined Pension Plan. Members hired on or after March 1, 1973 are Group B members of the Combined Pension Plan.

Group A members of the Combined Pension Plan have elected to receive one of two benefit structures as of December 31, 2022:

- Members with 20 years or more of pension service are entitled to monthly pension benefits beginning at age 50 equal to 50% of base pay, defined as the maximum monthly civil service pay established by the City for a police officer or firefighter at the time of retirement, plus 50% of the longevity pay the member was receiving either at the time he or she left active service with the City or the effective date the member joined the Deferred Retirement Option Plan (DROP). Benefit payments are adjusted annually according to changes in active service base pay, if any. Additionally, a member is eligible to receive 50% of the difference between any annualized City service incentive pay granted to the member less annual longevity pay.

- Members with 20 years or more of pension service are entitled to monthly pension benefits beginning at age 55 equal to 3% of their base pay, computed as noted in the prior paragraph, for each year of pension service with a maximum of 32 years. In addition, a member receives 50% of the longevity pay and 1/24th of any City service incentive pay the member was receiving either at the time he or she left active service with the City or the effective date the member joined DROP. Pension benefit payments are eligible for an ad hoc cost of living increase as approved by the Board, if certain funding requirements are met. It is not anticipated that the funding requirements necessary to grant an ad hoc cost of living increase will be met for several decades.

Group B members of the Combined Pension Plan receive one of two benefit structures as of December 31, 2022:

- Members who began membership before March 1, 2011 with 5 or more years of pension service are entitled to monthly pension benefits beginning at age 50 equal to 3% of the member's average base pay plus education and longevity pay (Computation Pay) determined over the highest 36 consecutive months of Computation Pay, multiplied by the number of years of pension service prior to September 1, 2017. The monthly pension benefit for service earned after September 1, 2017 is based on the highest 60 consecutive months of Computation Pay multiplied by a 2.5% multiplier at age 58. The multiplier is reduced to between 2.0% and 2.4% for retirement prior to age 58. The member cannot accrue a monthly pension benefit that exceeds 90% of the member's average Computation Pay. Certain members may receive a 2.5% multiplier for pension service after September 1, 2017 prior to age 58 if the combination of their pre and post September 1, 2017 pension service calculations using the 2.5% multiplier for post September 1, 2017 meets or exceeds the 90% maximum benefit. Certain members who meet the service prerequisite or were 45 prior to September 1, 2017 may elect to take early retirement with reduced benefits starting at age 45, or earlier if the member has 20 years of pension service.

- Members who began membership after February 28, 2011 are entitled to monthly pension benefits after accruing 5 years of pension service and the attainment of age 58. Pension benefits are equal to the member's average Computation Pay determined over the highest 60 consecutive months of Computation Pay, multiplied by 2.5% for the number of years of pension service. The member cannot accrue a monthly pension benefit that exceeds 90% of the member's average Computation Pay. Members who have 20 years of service may elect to take early retirement. Vested members may take a reduced benefit starting at age 53.

- A Group B member who has accrued 20 or more years of pension service and who has been on active service at any time on or after January 1, 1999 may take a pension benefit regardless of age except that the percent multiplier would be based on the member's age at the time of applying for the pension, or earlier if the member has 20 years of pension service.

- Group B benefits for all members are eligible for an ad hoc cost of living increase as approved by the Board if certain funding requirements are met. It is not anticipated that the funding requirements necessary to grant an ad hoc cost of living increase will be met for several decades.

Additional provisions under the Combined Pension Plan as of December 31, 2022 are as follows:

- Prior to September 1, 2017 members with over 20 years of pension service, upon attaining age 55, received a monthly supplement equal to the greater of $75 or 3% of their total monthly benefits (excluding the benefit supplement amount). After September 1, 2017, no additional members will receive the monthly supplement and no increases will be made to the amount of the supplement received by those members receiving the supplement prior to September 1, 2017.

- Service-connected disability benefits are available for members in active service who began service prior to March 1, 2011 and have not entered DROP who become disabled during the performance of their duties from the first day of employment. Members receiving service-connected disability benefits are given credit for the greater of actual pension service or 20 years of pension service. A benefit of 3% times the average of the highest 36 consecutive months of Computation Pay times the number of years of pension service prior to September 1, 2017, plus a multiplier, based on their age at the time the disability is granted, for pension service after September 1, 2017, times the average of the highest 60 consecutive months of Computation Pay times the number of years of pension service. If needed, additional service time necessary to reach 20 years of service credit will be included with pension service after September 1, 2017. Members who began membership after February 28, 2011 and have not entered DROP are entitled to a disability benefit based on the average of the highest 60 consecutive months of Computation Pay times a 2.5% multiplier regardless of their age. If a member has more than 20 years of service and was hired prior to March 1, 2011, the benefit is calculated in the same manner as their service retirement pension. If the member has fewer than 36 or 60 months of service, based on hire date, the benefit is based on the average Computation Pay during their entire pension service. All service-connected disability benefits are subject to a minimum benefit of $2,200 per month.

- Members who began membership before March 1, 2011, who are determined to be eligible for a non-service connected disability benefit are entitled to a benefit of 3% times the average of the highest 36 consecutive months of Computation Pay times the number of years of pension service prior to September 1, 2017, plus a multiplier based on their age at the time the disability is granted for pension service after September 1, 2017 times the average of the highest 60 consecutive months of Computation Pay. Total service is rounded to the nearest whole year.

- Members who began membership after February 28, 2011, are entitled to a disability benefit based on the average of the highest 60 consecutive months of Computation Pay, times a 2.5% multiplier regardless of their age. All non-service-connected disability benefits are subject to a minimum benefit of $110 for every year of pension service. The minimum benefit cannot exceed $2,200 per month. If the member has fewer than 36 or 60 months of service, based on hire date, the benefit is based on the average Computation Pay during their entire pension service.

- Members who are eligible to retire are eligible to enter the DROP program, which is an optional method of accruing monthly pension benefits prior to leaving active service. Members who are receiving disability benefits are not eligible to enter the DROP program. The amount of an active member's DROP balance is based on the accumulation of the member's monthly benefit each month while in active DROP, and interest accrued prior to September 1, 2017. DROP balances of retired members and other DROP account holders, excluding active member DROP account holders, were converted to annuities (a stream of payments) on November 30, 2017. DROP balances of active members are annuitized upon retirement. The life expectancy of a DROP account holder at the time of annuitization determines the term of the annuity. Interest is included in the annuity calculation for balances accrued prior to September 1, 2017. The interest rate is based on the provisions of HB 3158 and rules adopted by the Board. See Note 6 for information about the changes in the DROP program resulting from the passage of HB 3158. See below, under Contributions, for discussion of required DROP contributions. The total DROP account balance and the present values of the annuitized balances for the Combined Pension Plan was $943.9 million and $978.49 million at December 31, 2022 and 2021, respectively. The total DROP balances include amounts that may be paid out of the Excess Benefit Plan and Trust.

- A minimum benefit is paid to vested retired members of $2,200 per month subject to any restrictions contained in the Combined Pension Plan. The minimum benefit is prorated for members who retire with less than 20 years of service credit and equals $1,200 monthly for a qualified surviving spouse if there are no qualified surviving children receiving benefits. The minimum benefit is $1,100 monthly for qualified surviving children combined and qualified surviving spouses if qualified surviving children are receiving or had received benefits.

Additional provisions under the Supplemental Plan as of December 31, 2022 are as follows:

- The Supplemental Plan's benefits are designed to supplement Group B benefits for those members holding a rank higher than the highest civil service rank because their Combined Pension Plan benefits are capped by the Combined Pension Plan's definition of considered compensation. Accordingly, when Group B benefits are amended, the Supplemental Plan's benefit calculation is also affected. The basis for a member's benefits is the difference between the monthly rate of pay a member is due as the base pay for the rank the member currently holds and the monthly rate of pay the member is due for the highest civil service rank (and pay step) the member held as a result of competitive examinations. The service time used to determine the member's Group B benefit is used to determine the member's benefit under the Supplemental Plan so that the same length of time is used for both plans. Average Computation Pay is calculated for each plan separately and combined to determine the benefit. Application for benefits under the provisions of the Combined Pension Plan is deemed to be an application for benefits under the Supplemental Plan and no additional application need be filed.

- Members of the Supplemental Plan who enter the DROP program in the Combined Pension Plan also enter the DROP program in the Supplemental Plan. The total DROP account balance and the present value of the annuitized balances related to the Supplemental Plan was $6.0 million and $6.5 million on December 31, 2022 and 2021, respectively. The total DROP balances include amounts that may be paid out of the Excess Benefit Plan and Trust.

Death benefits are available to a surviving spouse, dependent children, disabled children, or dependent parents in the event of the death of a member either after disability or service retirement, prior to leaving active service or retirement eligible deferred vested members.

Contributions

Employee contribution rates did not change in 2022. The employee contribution rate is 13.5% of Computation Pay for all active members.

City contribution rates did not change in 2022. The City contributes the greater of (i) 34.5% of Computation Pay and (ii) a bi-weekly minimum (floor) amount defined in the bill, plus $13 million annually until 2024. The floor amounts were $6.043 and $5.882 million, respectively, for 2022 and 2021. After 2024, the floor amount and the additional $13 million annual amount are eliminated.

During 2024 an independent actuary selected by the Texas State Pension Review Board (PRB) must perform an analysis that includes the independent actuary's 1) conclusion regarding whether the pension system meets State Pension Review Board funding guidelines and 2) recommendations regarding changes to benefits or to member or city contribution rates. The Board must adopt a plan that complies with the funding and amortization period requirements under Subchapter C, Section 802 of the Texas Government Code.

The City is required by ordinance to contribute amounts necessary to ensure the payment of benefits in the Supplemental Plan. The City's contributions shall be made in accordance with actuarial requirements established by the actuary and the board. Member contributions in the Supplemental Plan follow the same rules as the Combined Pension Plan on Computation Pay over the compensation of the highest civil service rank held as a result of competitive examinations.

City contributions can be changed by section 2.025 of Article 6243a-1, by the legislature, by a majority vote of the voters of the city or in accordance with a written agreement entered into between the city and the pension system, where at least eight trustees have approved the agreement, provided that the change does not increase the period required to amortize the unfunded accrued liability of the Combined Pension Plan. Decreases in employee contributions require the approval of the legislature. Increases in employee contributions require the approval of at least a two-thirds vote of all trustees of the Board.

The Supplemental Plan's plan document can be amended only by the City Council in accordance with City ordinance. The benefit and contribution provisions of the Supplemental Plan follow those of the Combined Pension Plan.

Members of Group B are immediately vested in their member contributions. If a member's employment is terminated and the member is not vested, or the member elects not to receive present or future pension benefits, the member's contributions are refunded, without interest, upon written application. If application for a refund is not made within three years of normal retirement age, the member forfeits the right to a refund of his or her contribution; however, a procedure exists whereby the member's right to the contributions can be reinstated and refunded by the Board after the three-year period.

Administration

Collectively, the Combined Pension Plan Board of Trustees and the Supplemental Plan Board of Trustees are referred to as the Board. The Board is responsible for the general administration of DPFP and has the full power to invest the Plans' assets.

The Plans are administered by an eleven-member Board consisting of six Trustees appointed by the mayor of the City of Dallas, in consultation with the City Council; one current or former police officer, nominated and elected by active members; one current or former firefighter, nominated and elected by active members; and three non-member Trustees (who may not be active members or retirees) elected by the active members and retirees from a slate of nominees vetted and nominated by the Nominations Committee. The Nominations Committee consists of representatives from 11 named police and fire associations and the Executive Director of DPFP. The Executive Director is a nonvoting member of the committee.

To serve as a Trustee, a person must have demonstrated financial, accounting, business, investment, budgeting, real estate or actuarial expertise and may not be an elected official or current employee of the City of Dallas, with the exception of a current police officer or firefighter.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements are presented in accordance with accounting principles generally accepted in the United States (GAAP). In doing so, DPFP adheres to guidelines established by the Governmental Accounting Standards Board (GASB). The accompanying financial statements include solely the accounts of the Plans on a combined basis, which include all programs, activities and functions relating to the accumulation and investment of the net position and related income necessary to provide the service, disability and death benefits required under the terms of the governing statutes and amendments thereto.

Basis of Accounting

The accrual basis of accounting is used for the Plans. Revenues are recognized in the period in which they are earned, and collection is reasonably assured. Expenses are recognized when the liability is incurred. Member and employer contributions are recognized in the period in which the contributions are due. Accrued income, when deemed uncollectible, is charged to operations.

Contributions for the final biweekly payroll of the year for the years ended December 31, 2022 and 2021 were not received by DPFP until after year end and accordingly, uncollected contributions are recorded as receivables in the accompanying financial statements. Benefits, lump sum payments, and refunds are recognized when due and payable. Dividend income is recorded on the ex-dividend date. Other income consists primarily of rental income, which is recognized on a straight-line basis over the lease term. Realized gains and losses on sales of securities are recognized on the trade date. The cost of investments sold is determined using the average cost method.

Reporting Entity

DPFP is an independently governed component unit of the City and the basic financial statements and required supplementary information of the Plans are therefore included in the City's Annual Comprehensive Financial Report.

Administrative Costs

All costs of administering the Plans are paid from the Plans' assets pursuant to an annual fiscal budget approved by the Board.

Federal Income Tax

Favorable determinations that the Plans are qualified and exempt from Federal income taxes were received on October 20, 2014. The Board believes that the Plans are designed to meet and operate in material compliance with the applicable requirements of the Internal Revenue Code.

Use of Estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the actuarial information included in the notes to the financial statements as of the benefit information date, the reported amounts of income and expenses during the reporting period, and when applicable, disclosures of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Cash and Cash Equivalents

DPFP considers only demand deposits as cash. Cash equivalent securities, which are composed of all highly liquid investments with a maturity of three months or less when purchased, are considered to be cash equivalents. Highly liquid securities invested by third party investment managers as part of a short-term investment fund are not considered cash equivalents and are classified as short-term investments.

Plan Interest in the Group Master Trust

Effective January 1, 2006, the Board elected to establish a Group Master Trust (Group Trust) in order to unitize the investments of the Combined Pension Plan and the Supplemental Plan. JPMorgan Chase Bank, N.A. (JPMorgan) served as custodian of the Group Trust for the years ended December 31, 2022 and 2021. The fair value of the Combined Pension Plan's interest and the Supplemental Plan's interest in the Group Trust is based on the unitized interest that each plan has in the Group Trust. The Combined Pension Plan's interest in the Group Trust's investments was approximately 99.1% on December 31, 2022 and 2021, while the remaining interest belongs to the Supplemental Plan. The allocation of investment income and expenses between the Combined Pension Plan and the Supplemental Plan is based on percentage interest in the Group Trust. Shared professional and administrative expenses are allocated to each plan directly in proportion to each plan's ownership interest. Benefits and contributions are attributed directly to the plan that such receipts and disbursements relate to and are not subject to a pro-rated allocation.

Investments

Investment Policy

Statutes of the State of Texas authorize DPFP to invest surplus funds in the manner provided by Government Code, Title 8, Subtitle A, Subchapter C, which provides for the investment of surplus assets in any investment that is deemed prudent by the Board. These statutes stipulate that the governing body of the Plans is responsible for the management and administration of the funds of the Plans and shall determine the procedure it finds most efficient and beneficial for the management of the funds of the Plans. The governing body may directly manage the investments of the Plans or may contract for professional investment management services. Investments are reported at fair value.

The investment policy of the Board does not restrict the types of investments authorized to be made on behalf of the Group Trust. The Governing Statute requires at least eight members of the Board to approve an investment in an alternative asset. The Board determined that alternative assets include all asset classes other than traditional assets. Traditional assets include publicly traded stocks, bonds and cash equivalents. The investment policy considers the current and expected financial condition of the Plans, the expected long-term capital market outlook and DPFP's risk tolerance. The following is the Board's adopted asset allocation contained in the Investment Policy Statement as of December 31, 2022. The actual asset allocation as of December 31, 2022 has variances to the long-term target allocation.

ASSET CLASS	TARGET ALLOCATION
Equity	**65%**
Global Equity	55%
Emerging Markets Equity	5%
Private Equity	5%
Safety Reserve and Fixed Income	**25%**
Cash	3%
Short-term Investment Grade Bonds	6%
Investment Grade Bonds	4%
High Yield Bonds	4%
Bank Loans	4%
Emerging Markets Debt	4%
Real Assets	**10%**
Private Real Estate	5%
Private Natural Resources	5%

The value and performance of DPFP's investments are subject to various risks, including, but not limited to, credit risk, interest rate risk, concentration of credit risk, custodial credit risk, and foreign currency risk, which are in turn affected by economic and market factors impacting certain industries, sectors or geographies. See Note 3 for disclosures related to these risks.

Investment Transactions

The accompanying Combining Statements of Changes in Fiduciary Net Position present the net appreciation (depreciation) in the fair value of investments, which consists of the realized gains and losses on securities sold and the changes in unrealized gains and losses on those investments still held in the portfolio at year end.

Purchases and sales of investments and forward foreign exchange contracts are recorded on the trade date. Unsettled investment trades as of fiscal year end are reported in the financial statements on the accrual basis of accounting. Realized gains or losses on forward foreign exchange contracts are recognized when the contract is settled.

Interest earned but not yet received and dividends declared but not yet received are recorded as accrued interest and dividends receivable, respectively. In addition, unsettled investment purchases and sales are accrued.

Valuation of Investments

The diversity of the investment types in which the Group Trust invests requires a wide range of techniques to determine fair value.

Short-term investments include money market funds and government bonds with a maturity of less than one year and are valued based on stated market rates.

Fixed income investments include government securities such as Treasury securities, bank loans, US corporate bonds, foreign securities such as dollar denominated and non-dollar denominated issues of non-US governments and private corporations, plus units of commingled fixed income funds of both US and foreign securities. Equity securities consist of individual shares of equity securities plus units of commingled stock funds of both US and foreign entities. The stated fair value of investments in publicly traded fixed income and equity securities is based on published market prices or quotations from major investment dealers as provided by JPMorgan, utilizing vendor supplied pricing. Vendor supplied pricing data for equity securities is based upon the daily closing price from the primary exchange of each security while vendor supplied pricing data for fixed income securities is based upon a combination of market maker quotes, recent trade activity, and observed cash flows. Securities traded on an international exchange are valued at the last reported sales price as of year-end at exchange rates as of year-end. The fair value of non-publicly traded commingled fixed income funds and commingled stock funds is based on their respective net asset value (NAV) as reported by the investment manager.

Real assets consist of privately held real estate, infrastructure, timberland, and farmland investments. Real estate is held in separate accounts, limited partnerships, joint ventures and as debt investments in the form of notes receivable. Infrastructure, timberland, and farmland are held in separate accounts, limited partnerships, and joint ventures. Real estate, timberland and farmland are generally subject to independent third-party appraisals performed in accordance with the Uniform Standards of Professional Appraisal Practice on a periodic basis, every three years at minimum, as well as annual financial statement audits. Infrastructure funds are valued based on audited NAV reported by the manager, which is based on internal manager valuation or independent appraisal at the discretion of the manager. Interests in joint ventures, limited partnerships and notes receivable are valued at the dollar value reported by the general partner or investment manager, as applicable. DPFP staff manages one real estate investment internally that is in the process of being closed out. This internally managed investment is valued at its net equity on a fair value basis. Externally managed partnerships, joint venture and separate accounts are valued at the NAV provided by the investment or fund manager, as applicable. The investment or fund manager on a continuous basis values the underlying investment holdings.

Private equity investments consist of various investment vehicles including limited partnerships and notes receivable. Private equity limited partnership investments and notes receivable are valued as reported by the investment manager. Private equity funds are valued using their respective NAV as reported by the fund's custodian, investment manager or independent valuations obtained by DPFP, as applicable.

DPFP has established a framework to consistently measure the fair value of the Plans' assets and liabilities in accordance with applicable accounting, legal, and regulatory guidance. This framework has been provided by establishing valuation policies and procedures that provide reasonable assurance that assets and liabilities are carried at fair value as described above and as further discussed in Note 4.

Foreign Currency Transactions

DPFP, through its investment managers, is party to certain financial arrangements, utilizing forward contracts, options and futures as a hedge against foreign currency fluctuations. Entering into these arrangements involves not only the risk of dealing with counterparties and their ability to meet the terms of the contracts, but also the risk associated with market fluctuations. Realized gains and losses on option and future arrangements are recorded as they are incurred. Realized gains and losses on forward contracts are recorded on the settlement date.

Gains and losses resulting from foreign exchange contracts (transactions denominated in a currency other than the Group Trust's functional currency - US dollar) are recorded based on changes in fair values and are included in investment income (loss) in the accompanying financial statements. Investment managers, on behalf of the Group Trust, structure foreign exchange contracts and enter into transactions to mitigate exposure to fluctuations in foreign exchange rates.

Investments and broker accounts denominated in foreign currencies outstanding on December 31, 2022 and 2021 were converted to the US dollar at the applicable foreign exchange rates quoted as of December 31, 2022 and 2021, respectively. The resulting foreign exchange gains and losses are included in net appreciation (depreciation) in fair value of investments in the accompanying financial statements.

3. Investments

The Board has contracted with investment managers to manage the investment portfolio of the Group Trust subject to the policies and guidelines established by the Board. The Board has a custody agreement with JPMorgan under which JPMorgan assumes responsibility for the safekeeping of certain investments, handling of transactions based on the instructions of investment managers and reporting investment transactions.

The fair value of investments on December 31, 2022 and 2021 is as follows (in thousands):

	2022	2021
Short-term investments		
Short-term investment funds	$ 14,891	$ 12,940
Fixed income securities		
US Treasury bonds	29,661	29,292
US government agencies	14,047	15,536
Corporate bonds	135,059	210,704
Commingled funds	137,665	156,680
Municipal bonds	4,932	7,886
Equity securities		
Domestic	329,167	382,306
Foreign	248,746	238,215
Commingled funds	249,083	347,803
Real assets		
Real estate	187,413	222,781
Infrastructure	53,707	67,952
Timberland	14,043	21,500
Farmland	92,759	97,221
Private equity	219,182	289,688
Forward currency contracts	(1)	-
Total	**$ 1,730,354**	**$ 2,100,504**

Custodial Credit Risk

Deposits

Custodial credit risk is the risk that, in the event of a bank failure, the System's deposits might not be recovered. DPFP does not have a formal deposit policy for custodial credit risk of its deposits.

The Federal Depository Insurance Corporation (FDIC) insures any deposits of an employee benefit plan in an insured depository institution on a "pass- through" basis, in the amount of up to $250,000 for the non-contingent interest of each plan participant at each financial institution. The pass-through insurance applies only to vested participants. DPFP believes the custodial credit risk for deposits, if any, is not material.

Investments

Portions of DPFP's investments are classified as security investments. A security is a transferable financial instrument that evidences ownership or creditorship. Investments in companies, partnerships and real estate are investments that are evidenced by contracts rather than securities.

Custodial credit risk is the risk that, in the event of the failure of an investment counterparty, the investor will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the investor, and are held by either the counterparty or the counterparty's trust department or agent, but not in the investor's name. DPFP mitigates this risk by having investments held at a custodian bank on behalf of DPFP. On December 31, 2022 and 2021, all investment securities held by the custodian were registered in the name of DPFP and were held by JPMorgan in the name of DPFP. DPFP does not have a formal policy for custodial credit risk of its investments; however, management believes that custodial credit risk exposure is mitigated by the financial strength of the financial institutions in which the securities are held.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributable to the magnitude of the Group Trust's investment in a single issue. DPFP did not have an investment policy specifically regarding concentration of credit risk in 2021; however, the Investment Policy Statement was amended in February 2022 to address concentration risk by adding a concentration limit of 5% of Public Equity or Public Fixed Income assets invested in a single issuer. Additionally, the target allocations of assets among various asset classes are determined by the Board with the objective of optimizing the investment return of the Group Trust within a framework of acceptable risk and diversification. For major asset classes, the Group Trust will further diversify the portfolio by employing multiple investment managers who provide guidance for implementing the strategies selected by the Board.

As of December 31, 2022 and 2021, the Group Trust did not have any single investment in an issuer which represented greater than 5% of the Plans' net position.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest rate risk is the greatest risk faced by an investor in the fixed income market. The price of a fixed income security typically moves in the opposite direction of the change in interest rates. The weighted average maturity of a fixed income security expresses investment time horizons (when the investment comes due and payable) in years, weighted to reflect the dollar size of individual investments within the investment type. DPFP does not have a formal investment policy that limits investment maturities as a means of managing its exposure to potential fair value losses arising from future changes in interest rates, but rather mandates such limits within investment management services contracts. Investment managers have full discretion in adopting investment strategies to address these risks.

The Group Trust invests in fixed income securities including, but not limited to, investments representing instruments with an obligated fixed rate of interest including public and private debentures, mortgage-backed securities, guaranteed investment contracts with maturities greater than one year, and options/futures. Purchases and sales, investment selection, and implementation of investment strategies are delegated to the discretion of the investment manager, subject to compliance with its management agreement and DPFP's investment policy.

On December 31, 2022, the Group Trust had the following fixed income securities and maturities (in thousands):

INVESTMENT TYPE	LESS THAN 1 YEAR	1 TO 5 YEARS	6 TO 10 YEARS	MORE THAN 10 YEARS	TOTAL
US Treasury bonds	$ 3,836	$ 17,966	$ 2,705	$ 5,154	$ 29,661
US Government agencies	-	1,025	647	12,375	14,047
Corporate bonds	5,631	74,817	26,154	28,457	135,059
Municipal bonds	705	1,403	469	2,355	4,932
Total	**$ 10,172**	**$ 95,211**	**$ 29,975**	**$ 48,341**	**$ 183,699**

On December 31, 2021, the Group Trust had the following fixed income securities and maturities (in thousands):

INVESTMENT TYPE	LESS THAN 1 YEAR	1 TO 5 YEARS	6 TO 10 YEARS	MORE THAN 10 YEARS	TOTAL
US Treasury bonds	$ 3,105	$ 22,082	$ 498	$ 3,607	$ 29,292
US Government agencies	-	392	1,769	13,375	15,536
Corporate bonds	6,664	102,971	46,330	54,739	210,704
Municipal bonds	-	3,706	-	4,180	7,886
Total	**$ 9,769**	**$ 129,151**	**$ 48,597**	**$ 75,901**	**$ 263,418**

Commingled fixed income funds do not have specified maturity dates and are therefore excluded from the above tables. The average duration for these funds ranges from .03 to 4.97 years.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The books and records of the Plans are maintained in US dollars. Foreign currencies and non-US dollar denominated investments are translated into US dollars at the bid prices of such currencies against US dollars at each balance sheet date. Realized and unrealized gains and losses on investments, which result from changes in foreign currency exchange rates, have been included in net appreciation (depreciation) in fair value of investments in the accompanying financial statements. Net realized foreign currency gains and losses resulting from changes in exchange rates include foreign currency gains and losses between trade date and settlement date of investment securities transactions, foreign currency transactions, and the difference between the amounts of interest and dividends recorded on the books of the Plans and the amount actually received. International and global managers have permission to use currency forward and futures contracts to hedge currency against the US dollar.

DPFP does not have an investment policy specific to foreign currency risk, however, to mitigate foreign currency risk, investment managers with international exposure are expected to maintain diversified portfolios by sector and by issuer.

The Group Trust's exposure to foreign currency risk in US dollars as of December 31, 2022, is as follows (in thousands):

CURRENCY	EQUITY	REAL ASSETS	TOTAL
Australian Dollar	$ 2,635	$ 145	$ 2,780
Brazilian Real	-	3,077	3,077
British Pound Sterling	28,063	-	28,063
Canadian Dollar	7,886	-	7,886
Danish Krone	10,500	-	10,500
Euro	82,785	-	82,785
Hong Kong Dollar	4,799	-	4,799
Japanese Yen	32,545	-	32,545
Norwegian Krone	1,125	-	1,125
Singaporean Dollar	2,275	-	2,275
South African Rand	-	14,226	14,226
South Korean Won	4,452	-	4,452
Swedish Krona	8,743	-	8,743
Swiss Franc	11,065	-	11,065
Total	**$ 196,873**	**$ 17,448**	**$ 214,321**

The Group Trust's exposure to foreign currency risk in US dollars as of December 31, 2021, is as follows (in thousands):

CURRENCY	EQUITY	REAL ASSETS	TOTAL
Australian Dollar	$ 2,853	$ 176	$ 3,029
Brazilian Real	-	2,855	2,855
British Pound Sterling	37,834	-	37,834
Canadian Dollar	7,616	-	7,616
Danish Krone	4,251	-	4,251
Euro	99,771	-	99,771
Hong Kong Dollar	3,269		3,269
Japanese Yen	44,888	-	44,888
Norwegian Krone	541	-	541
Singaporean Dollar	1,722	-	1,722
South African Rand	-	25,185	25,185
South Korean Won	7,585	-	7,585
Swedish Krona	12,035	-	12,035
Swiss Franc	15,850	-	15,850
Total	**$ 238,215**	**$ 28,216**	**$ 266,431**

In addition to the above exposures, certain fund-structure investments in the private equity, emerging markets debt, private debt and real assets asset classes with a total fair value of $416 million on December 31, 2022 and $487 million at December 31, 2021, have some level of investments in various countries with foreign currency risk at the fund level. The individual investments in these funds with such exposure are not included in the above table.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. DPFP was party to negotiated derivative contracts in the form of forward foreign exchange contracts as of December 31, 2022 as discussed below. DPFP does not have an investment policy specific to credit risk, however, to mitigate credit risk on the currency forward contracts, investment managers who manage such contracts maintain a diversified portfolio by counterparty.

The Group Trust's exposure to credit risk in fixed income securities as of December 31, 2022 and 2021 using the Standard & Poor's rating scale, at fair value, is as follows (in thousands):

DECEMBER 31, 2022

RATING	CORPORATE BONDS	MUNICIPAL BONDS	US GOVERNMENT SECURITIES	TOTAL
AAA	$ 15,900	$ 249	$ 945	$ 17,094
AA+	1,660	718	30,602	32,980
AA	964	212	144	1,320
AA-	2,102	1,120	-	3,222
A+	2,956	1,697	-	4,653
A	3,316	648	-	3,964
A-	8,731	142	-	8,873
BBB+	9,349	-	-	9,349
BBB	9,369	-	-	9,369
BBB-	10,515	-	-	10,515
BB+	5,266	-	-	5,266
BB	7,064	-	-	7,064
BB-	9,797	-	-	9,797
B+	11,349	-	-	11,349
B	7,327	-	-	7,327
B-	5,457	-	-	5,457
CCC+	6,095	-	-	6,095
CCC	1,293	-	-	1,293
CCC-	141	-	-	141
CC	168	-	-	168
C	105	-	-	105
D	20	-	-	20
NR(2)	16,115	146	12,017	28,278
Total	**$ 135,059**	**$ 4,932**	**$ 43,708**	**$ 183,699**

Total credit risk debt securities		$ 183,699
Commingled		137,665
Total		**$ 321,364**

DECEMBER 31, 2021

RATING	CORPORATE BONDS	MUNICIPAL BONDS	US GOVERNMENT SECURITIES	TOTAL
AAA	$ 31,394	$ -	$ 1,299	$ 32,693
AA+	2,540	556	32,120	35,216
AA	2,872	938	517	4,327
AA-	2,993	1,442	-	4,435
A+	5,973	1,779	-	7,752
A	7,055	1,769	-	8,824
A-	12,920	898	-	13,818
BBB+	18,398	-	-	18,398
BBB	19,847	-	-	19,847
BBB-	15,370	-	-	15,370
BB+	5,072	-	-	5,072
BB	7,861	-	-	7,861
BB-	10,794	-	-	10,794
B+	12,280	-	-	12,280
B	10,947	-	-	10,947
B-	12,118	-	-	12,118
CCC+	5,217	-	-	5,217
CCC	2,367	-	-	2,367
CCC-	630	-	-	630
CC	543	-	-	543
C	-	-	-	-
D	32	-	-	32
NR[2]	23,481	504	10,892	34,877
Total	**$ 210,704**	**$ 7,886**	**$ 44,828**	**$ 263,418**

Total credit risk debt securities		$ 263,418
Commingled		156,680
Total		**$ 420,098**

Forward Contracts

During fiscal years 2022 and 2021, certain investment managers, on behalf of the Group Trust, entered into forward foreign exchange contracts as permitted by guidelines established by the Board. A currency forward is a contractual agreement between two parties to pay or receive specific amounts of foreign currency at a future date in exchange for another currency at an agreed upon exchange rate. Forward commitments are not standardized and carry credit risk due to possible nonperformance by one of the counterparties. The maximum potential loss is the aggregate face value in US dollars at the time the contract was entered into. Forwards are usually traded over the counter. These transactions are initiated to hedge risks from exposure to foreign currency rate fluctuation and to facilitate trade settlement of foreign security transactions. Forwards carry market risk resulting from adverse fluctuations in foreign exchange rates. Recognition of realized gain or loss depends on whether the currency exchange rate has moved favorably or unfavorably to the contract holder upon termination of the contract. Prior to termination of the contract, the Group Trust records the unrealized currency translation gain or loss based on the applicable forward exchange rates. Forward currency contracts are considered derivative financial instruments and are reported at fair value.

The fair value and notional amounts of derivative instruments outstanding on December 31, 2022 and 2021, classified by type, and the changes in fair value of such derivative instruments for the year then ended are as follows (in thousands):

DECEMBER 31, 2022

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	$ (1)	$ (1)	$ 484

DECEMBER 31, 2021

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	$ 297	$ -	$ 42

4. Fair Value Measurement

GASB Statement No. 72 requires all investments to be categorized under a fair value hierarchy. Fair value of investments is determined based on both observable and unobservable inputs. Investments are categorized within the fair value hierarchy established by GASB and the levels within the hierarchy are as follows:

- Level 1 – quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date

- Level 2 – inputs (other than quoted prices included within Level 1) that are observable for an asset or liability, either directly or indirectly. These inputs can include quoted prices for similar assets or liabilities in active or inactive markets, or market-corroborated inputs

- Level 3 – significant unobservable inputs for an asset or liability

The remaining investments not categorized under the fair value hierarchy are shown at NAV. These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners' capital, to which a proportionate share of net assets is attributed. Investments at NAV are commonly calculated by subtracting the fair value of liabilities from the fair value of assets.

The following table presents a summary of the Group Trust's investments by type as of December 31, 2022, at fair value (in thousands):

	FAIR VALUE DECEMBER 31, 2022	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL 1)	SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)
Investments by Fair Value Level				
Short-term investment funds	$ 14,891	$ 14,891	$ -	$ -
Fixed income securities				
US Treasury bonds	29,661	-	29,661	-
US government agencies	14,047	-	14,047	-
Corporate bonds	135,059	-	135,059	-
Municipal bonds	4,932	-	4,932	-
Equity securities				
Domestic	329,167	329,167	-	-
Foreign	248,746	248,746	-	-
Real assets				
Real estate (1)	88,790	-	-	88,790
Timberland	-	-	-	-
Farmland	92,759	-	-	92,759
Private equity	7,500	-	-	7,500
Forward currency contracts	(1)	-	(1)	-
Total Investments by Fair Value Level	**$ 965,551**	**$ 592,804**	**$ 183,698**	**$ 189,049**

Investments Measured at NAV	
Equity - commingled funds	$ 249,083
Fixed income - commingled funds	137,665
Real assets (1)	166,373
Private equity	211,682
Total Investments Measured at NAV	**$ 764,803**

Total Investments Measured at Fair Value	**$ 1,730,354**

(1) Direct holdings of real estate at Level 3 include only the assets which are wholly owned and valued using significant unobservable inputs. Remaining real estate investments are valued at NAV.

The following table presents a summary of the Group Trust's investments by type as of December 31, 2021, at fair value (in thousands):

	FAIR VALUE DECEMBER 31, 2021	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL 1)	SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)
Investments by Fair Value Level				
Short-term investment funds	$ 12,940	$ 12,940	$ -	$ -
Fixed income securities				
US Treasury bonds	29,292	-	29,292	-
US government agencies	15,536	-	15,536	-
Corporate bonds	210,704	-	210,704	-
Municipal bonds	7,886	-	7,886	-
Equity securities				
Domestic	382,306	382,306	-	-
Foreign	238,215	238,215	-	-
Real assets				
Real estate (1)	128,627	-	-	128,627
Timberland	-	-	-	-
Farmland	97,221	-	-	97,221
Private equity	70,607	-	-	70,607
Forward currency contracts	-	-	-	-
Total Investments by Fair Value Level	**$ 1,193,334**	**$ 633,461**	**$ 263,418**	**$ 296,455**

Investments Measured at NAV	
Equity - commingled funds	$ 347,803
Fixed income - commingled funds	156,680
Real assets (1)	183,606
Private equity	219,081
Total Investments Measured at NAV	**$ 907,170**

Total Investments Measured at Fair Value	**$ 2,100,504**

(1) Direct holdings of real estate at Level 3 include only the assets which are wholly owned and valued using significant unobservable inputs. Remaining real estate investments are valued at NAV.

Short-term investments consist of highly liquid securities invested by third party investment managers and held directly by the Group Trust with the custodian.

Fixed income securities consist primarily of US treasury securities, US corporate securities, international debt securities and commingled funds. Fixed income securities classified in Level 2 of the fair value hierarchy are valued using matrix pricing. This method uses quoted prices for securities with the same maturities and ratings rather than a fixed price for a designated security. Many debt securities are traded on a dealer market and much less frequently, which is consistent with a Level 2 classification as these investments are valued using observable inputs. Forward currency contracts are classified as Level 2 as these securities are priced using the cost approach on a dealer market traded on lower frequencies.

Equity securities, which include both domestic and foreign securities, are classified as Level 1 as fair value is obtained using a quoted price from active markets. The security price is generated by market transactions involving identical or similar assets, which is the market approach to measuring fair value. Inputs are observable in exchange markets, dealer markets, and brokered markets for which prices are based on trades of identical securities.

Real assets classified as Level 3 are investments in which DPFP either owns 100 percent of the asset or for which the valuation is based on non-binding offers from potential buyers to purchase the investments. Real asset investments, which are wholly owned direct holdings, are valued at the income, cost, or market approach depending on the type of holding. All direct holdings are valued using unobservable inputs and are classified in Level 3 of the fair value hierarchy. Private equity investments classified as Level 3 are investments valued by an independent appraiser. Private equity and real assets valued at NAV are based on per share (or its equivalent) of DPFP's ownership interest in the partners' capital valued by the managers and based on third party appraisals, valuations and audited financials.

The following table presents a summary of the fair value and remaining unfunded commitments of the Group Trust's investments measured at NAV at December 31, 2022 (in thousands):

ASSET CATEGORY/CLASS	FAIR VALUE	UNFUNDED COMMITMENTS
Equity - commingled funds	$ 249,083	$ -
Fixed Income - commingled funds	137,665	514
Real assets	166,373	5,697
Private equity	211,682	485
Total	**$ 764,803**	**$ 6,696**

The following table presents a summary of the fair value and remaining unfunded commitments of the Group Trust's investments measured at NAV at December 31, 2021 (in thousands):

ASSET CATEGORY/CLASS	FAIR VALUE	UNFUNDED COMMITMENTS
Equity - commingled funds	$ 347,803	$ -
Fixed Income - commingled funds	156,680	514
Real assets	183,606	8,019
Private equity	219,081	485
Total	**$ 907,170**	**$ 9,018**

Investments measured at NAV include commingled funds, real assets and private equity.

Equity commingled funds are primarily invested in the equity securities of publicly traded companies designed to track the MSCI All Country World Investable Market Index and, to a lesser extent, a core strategy in emerging markets equity. Daily liquidity is available with 7-10 days of notice.

Fixed income commingled funds have redemption notice periods of 7-30 days and others are less liquid, with estimated redemption periods ranging from 5 to 10 years as assets within the funds are liquidated. Approximately half of the funds are invested in bank debt instruments of non-investment grade companies, while the other half is invested in debt instruments of emerging markets countries, denominated in both local currency and USD, as well as debt from corporate issues domiciled in emerging markets.

Real asset investments (including investment strategies in commercial real estate, infrastructure, timberland and farmland) are held in separate accounts, as a limited partner, or in a joint venture. These investments are illiquid and resold at varying rates, with distributions received over the life of the investments. They are typically not redeemed, nor do they have set redemption schedules.

Private equity holdings include fund-structure investments with general partners. By their nature, these investments are illiquid and typically not resold or redeemed. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over a period ranging from 5 to 15 years on average. These investments seek long-term capital appreciation in privately held companies. The current composition of the private equity portfolio has a significant concentration to the energy sector.

Upon initial investment with a general partner or in certain fund-structures, DPFP commits to a certain funding level for the duration of the contract. At will, the partners or fund managers may request that DPFP fund a portion of this amount. Such amounts remaining as of December 31, 2022 and 2021 for investments measured at NAV are disclosed above as unfunded commitments.

5. Net Pension Liability

The net pension liability is measured as the total pension liability, less the amount of the plan's fiduciary net position. The components of the net pension liability on December 31, 2022 and 2021 are as follows (in thousands):

Combined Pension Plan

	2022	2021
Total pension liability	$ 5,254,660	$ 5,163,732
Less: Plan fiduciary net position	(1,806,567)	(2,157,841)
Net pension liability	$ 3,448,093	$ 3,005,891

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2022 and 2021 is 34.4% and 41.8%, respectively.

Supplemental Plan

	2022	2021
Total pension liability	$ 43,067	$ 40,868
Less: Plan fiduciary net position	(16,641)	(18,661)
Net pension liability	$ 26,426	$ 22,207

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2022 and 2021 is 38.6% and 45.7%, respectively.

Actuarial Assumptions as of December 31, 2022

The total pension liability was determined by an actuarial valuation as of January 1, 2023, using the below significant assumptions, applied to all periods included in the measurement, except as noted below.

Investment rate of return	6.50% per annum, compounded annually, net of investment expenses. This rate is based on an average inflation rate of 2.50% and a real rate of return of 4.00%.
Discount rate	6.50%, used to measure the total pension liability
Administrative expenses	Explicit assumption of $7.0 million per year or 1% of Computation Pay, whichever is greater for the Combined Pension Plan and $55 thousand per year for the Supplemental Plan. Includes investment-related personnel costs.
Projected salary increases	Range of 6.25% to 7.25% based on the City's pay plan, along with analysis completed in conjunction with an Experience Study Report for the five-year period ended December 31, 2019 and the 2019 and 2023 Meet and Confer Agreements.
Payroll growth	2.50% per year, to match inflation assumption
Actuarial cost method	Entry age actuarial cost method (level percentage of payroll)
Post-retirement benefit increases	Ad hoc COLA after the Combined Plan is 70% funded after accounting for the impact of the COLA. 1.50% of original benefit, beginning October 1, 2073.
Actuarial Value of Assets	Combined Pension Plan – 5-year smoothed fair value, further adjusted, if necessary, to be within 20% of fair value; Supplemental Pension Plan – Market value of assets
Amortization methodology	Combined Pension Plan – As of January 1, 2020 the unfunded actuarial accrued liability is amortized on a closed, 25-year period. Beginning January 1, 2021, each year's gains and losses are amortized over a closed, 20-year period. Amortization is on a level-percentage-of-pay basis. Supplemental Pension Plan – The unfunded actuarial accrued liability as of January 1, 2020 is amortized on a closed 20-year period. Beginning January 1, 2021, each year's gains and losses are amortized over a closed, 10-year period. Amortization is on a level-percentage-of-pay basis.
Interest on DROP account	2.75% on active balances as of September 1, 2017, payable upon retirement, 0% on balances accrued after September 1, 2017.
Retirement age	Experience-based table of rates based on age, extending to age 65, with separate tables for police officers and firefighters
Pre-retirement mortality	Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males; projected generationally using Scale MP-2019.
Post-retirement mortality	Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, with a one-year setback for females; projected generationally using Scale MP-2019.
Disabled mortality	Pub-2010 Public Safety Disabled Retiree Amount-Weighted Mortality Table, with a four-year set forward for both males and females; projected generationally using Scale MP-2019.
DROP election	The DROP Utilization factor is 0% for new entrants.

Actuarial Assumptions as of December 31, 2021

The total pension liability was determined by an actuarial valuation as of January 1, 2022, using the below significant assumptions, applied to all periods included in the measurement, except as noted below.

Investment rate of return	6.50% per annum, compounded annually, net of investment expenses. This rate is based on an average inflation rate of 2.50% and a real rate of return of 4.00%. Fair value asset returns are expected to be -13.00% in 2022 and 6.50% annually thereafter.
Discount rate	6.50%, used to measure the total pension liability
Administrative expenses	Explicit assumption of $7.0 million per year or 1% of Computation Pay, whichever is greater for the Combined Pension Plan and $55 thousand per year for the Supplemental Plan or 1% of Computation Pay. Includes investment-related personnel costs.
Projected salary increases	Range of 2.5% to 3.25% based on the City's pay plan, along with analysis completed in conjunction with an Experience Study Report for the five-year period ended December 31, 2019 and the 2019 Meet and Confer Agreement.
Payroll growth	2.50% per year, to match inflation assumption
Actuarial cost method	Entry age normal cost method (level percent of pay)
Post-retirement benefit increases	Ad hoc COLA after the Combined Plan is 70% funded after accounting for the impact of the COLA. 1.50% of original benefit, beginning October 1, 2073.
Actuarial Value of Assets	Combined Pension Plan – 5-year smoothed fair value; Supplemental Pension Plan – Fair value of assets
Amortization methodology	Combined Pension Plan – As of January 1, 2020 the unfunded actuarial accrued liability is amortized on a closed, 25-year period. Beginning January 1, 2021, each year's gains and losses are amortized over a closed, 20-year period. Amortization is on a level-percentage-of-pay basis. Supplemental Pension Plan – The unfunded actuarial accrued liability as of January 1, 2020 is amortized on a closed 20-year period. Beginning January 1, 2021, each year's gains and losses are amortized over a closed 10-year period. Amortization is on a level-percentage-of-pay basis.
Interest on DROP account	2.75% on active balances as of September 1, 2017, payable upon retirement, 0% on balances accrued after September 1, 2017.
Retirement age	Experience-based table of rates based on age, extending to age 65, with separate tables for police officers and firefighters
Pre-retirement mortality	Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males; projected generationally using Scale MP-2019.
Post-retirement mortality	Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, with a one-year setback for females; projected generationally using Scale MP-2019.
Disabled mortality	Pub-2010 Public Safety Disabled Retiree Amount-Weighted Mortality Table, with a four-year set forward for both males and females; projected generationally using Scale MP-2019.
DROP election	The DROP Utilization factor is 0% for new entrants.

The long-term expected rate of return used by the external actuary to evaluate the assumed return on the Plans' investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The actuary's best estimates of arithmetic real rates of return for each major asset class included in the Plans' target asset allocation as of December 31, 2022 are summarized as shown below. The rates of return below are net of the inflation component of 2.5%.

ASSET CLASS	LONG-TERM EXPECTED REAL RATE OF RETURN	TARGET ASSET ALLOCATION
Global Equity	7.01%	55%
Emerging Markets Equity	8.71%	5%
Private Equity	9.96%	5%
Cash	0.71%	3%
Short-Term Investment Grade Bonds	0.96%	6%
Investment Grade Bonds	1.61%	4%
High Yield Bonds	3.71%	4%
Bank Loans	3.21%	4%
Emerging Markets Debt	3.71%	4%
Real Estate	3.61%	5%
Natural Resources	4.86%	5%

Discount rate

The discount rate used to measure the Combined Pension Plan Total Pension Liability (TPL) was 6.50%. The projection of cash flows used to determine the discount rate assumed City contributions will be made in accordance with the provisions of the Governing Statute, including statutory minimums through 2024 and 34.50% of Computation Pay thereafter. Members are expected to contribute 13.50% of Computation Pay. For cash flow purposes, projected payroll is based on 90% of the City's Hiring Plan payroll projections through 2037, increasing by 2.50% per year thereafter. This payroll projection is used for cash flow purposes only and does not impact the Total Pension Liability. The normal cost rate for future members is assumed to be 16.75% for all years. Based on these assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

The discount rate used to measure the Total Pension Liability for the Supplemental Plan was 6.50%. The projection of cash flows used to determine the discount rate assumed that City contributions will equal the employer's normal cost plus a twenty-year amortization payment on the January 1, 2020, unfunded actuarial accrued liability and ten-year amortization payments on each year's actuarial gain or loss beginning on January 1, 2021. Member contributions will equal 13.50% of Supplemental Computation Pay. Based on those assumptions, the Supplemental Plan's Fiduciary Net Position (FNP) was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

Sensitivity of the net pension liability to changes in the discount rate

The following tables present the Net Pension Liability, calculated using the current discount rate, as well as what the Net Pension Liability would be if it were calculated using a discount rate that is one percentage-point lower or one percentage-point higher than the current rate (in thousands).

DECEMBER 31, 2022

Combined Pension Plan	1% DECREASE (5.50%)	CURRENT DISCOUNT RATE (6.50%)	1% INCREASE (7.50%)
Net pension liability	$ 4,080,686	$ 3,448,093	$ 2,923,063
Supplemental Plan	**1% DECREASE (5.50%)**	**CURRENT DISCOUNT RATE (6.50%)**	**1% INCREASE (7.50%)**
Net pension liability	$ 30,677	$ 26,426	$ 22,819

DECEMBER 31, 2021

Combined Pension Plan	1% DECREASE (5.50%)	CURRENT DISCOUNT RATE (6.50%)	1% INCREASE (7.50%)
Net pension liability	$ 3,619,927	$ 3,005,891	$ 2,495,745
Supplemental Plan	**1% DECREASE (5.50%)**	**CURRENT DISCOUNT RATE (6.50%)**	**1% INCREASE (7.50%)**
Net pension liability	$ 26,116	$ 22,207	$ 18,881

6. Deferred Retirement Option Plan

Deferred Retirement Option Plan (DROP) interest for active DROP members was eliminated after September 1, 2017; only the balance as of September 1, 2017, is eligible for interest once active DROP members retire. Active DROP participation is limited to 10 years. Retirees are not allowed to defer payments into their DROP accounts. Retirees and other DROP account holders, excluding active DROP members, had their DROP balance converted to an annuity (stream of payments) on November 30, 2017. The term of the annuity was based on the DROP account holders expected lifetime at November 30, 2017. The annuity included interest on balances accrued prior to September 1, 2017 at a rate that is correlated to the United States Treasury Note or Bond rates based on the term of the annuity and rules adopted by the Board.

DROP account balances of a member that retires after November 30, 2017 are converted to an annuity (stream of payments) at the time the member retires. The annuity is based on the member’s life expectancy and interest rates at the time of retirement. Interest on retiree DROP accounts is based on the length of the retiree’s expected lifetime and will be based on U.S. Treasury Bond Rates and rules adopted by the Board. Interest is only payable on the September 1, 2017 account balance.

The following tables reflect the change in DROP balances and the change in the present value of DROP annuities and the number of participants and annuitants during the year ended December 31, 2022:

Combined Pension Plan

	DROP BALANCE (000'S)		DROP PARTICIPANTS
Balance on December 31, 2021	$ 113,911	Participants on December 31, 2021	276
Accumulations	11,794		
Balances Annuitized	(26,236)		
Other Distributions/Deductions	(61)		
Adjustments	(2,266)		
Balance on December 31, 2022	**$ 97,142**	**Participants on December 31, 2022**	**230**
	ANNUITY BALANCE (000'S)		ANNUITY PARTICIPANTS
Present Value of Annuities on December 31, 2021 [1]	$ 864,140	Annuitants on December 31, 2021	2,518
Present Value of Annuities on December 31, 2022 [1]	**$ 845,643**	**Annuitants on December 31, 2022**	**2,601**

Supplemental Plan

	DROP BALANCE (000'S)		DROP PARTICIPANTS
Balance on December 31, 2021	$ 131	Participants on December 31, 2021	2
Accumulations	1		
Balances Annuitized			
Other Distributions/Deductions			
Adjustments			
Balance on December 31, 2022	**$ 132**	**Participants on December 31, 2022**	**2**
	ANNUITY BALANCE (000'S)		ANNUITY PARTICIPANTS
Present Value of Annuities on December 31, 2021 [1]	$ 6,408	Annuitants on December 31, 2021	68
Present Value of Annuities on December 31, 2022 [1]	**$ 5,834**	**Annuitants on December 31, 2022**	**67**

[1] Includes annuities that may be paid out of the Excess Benefits and Trust.

7. Staff Retirement Plan

In November 2021 the Board passed a resolution authorizing the DPFP staff to participate in the Texas Municipal Retirement System (TMRS) beginning in January 2022. TMRS is a statewide public retirement plan created by the State of Texas and administered in accordance with Texas Government Code, Title 8, Subtitle G (TMRS Act) for the benefit of the employees of Texas participating cities. The TMRS plan is a cash-balance retirement plan. DPFP employees become a participant in the TMRS plan on their first day of service. Employees are required to contribute 7% of their total pay, not to exceed IRS Code limitations, and the system contributes an actuarially determined amount to equal a 2:1 match. During 2022 DPFP contributed approximately $251 thousand and participants contributed approximately $186 thousand to the TMRS plan. The TMRS plan is not a component of the accompanying financial statements.

DPFP offered its employees a money purchase plan (MPP) created in accordance with Internal Revenue Code Section 401. An employee of DPFP became a participant in the MPP on their first day of service. Participation ceased, except for purposes of receiving distributions in accordance with the terms of the MPP, on the day employment with DPFP was terminated. Employees were required to contribute 6.5% of their regular pay. Employees were allowed to make after-tax contributions, not to exceed IRS Code limitations. In accordance with the MPP, DPFP was obligated to contribute 12% of permanent employees' regular rate of pay and 8% of part-time and temporary employees' regular rate of pay each year. During 2021, DPFP contributed approximately $311 thousand and participants contributed approximately $168 thousand to the MPP. The MPP was administered by a third party, Voya Financial, Inc. (Voya), and the cost of administration was borne by the MPP participants. The MPP was held in trust by Voya and is not a component of the accompanying financial statements. The 401(a) defined contribution money purchase plan (MPP) was discontinued as of December 31, 2021.

8. Capital Assets

The DPFP office building and land are recorded at acquisition value. Purchased capital assets, which include building improvements and information technology hardware, are recorded at historical cost. Depreciation is charged over the estimated useful lives of the assets using a straight-line method. Depreciation expense of $241 thousand for both 2022 and 2021 is included in professional and administrative expenses in the accompanying financial statements for the years ended December 31, 2022 and 2021. All capital assets belong to DPFP. Maintenance and repairs are charged to expense as incurred.

Capitalization thresholds for all capital asset classes and useful lives for exhaustible assets are as follows (in thousands):

ASSET CLASS	CAPITALIZATION THRESHOLD	DEPRECIABLE LIFE
Building	$ 50	50 years
Building improvements	$ 50	15 years
Information Technology Hardware	$ 50	5 years

Capital asset balances and changes for the fiscal years ending December 31, 2022 and 2021 are as follows (in thousands):

ASSET CLASS	BALANCE DECEMBER 31, 2020	INCREASES	DECREASES	BALANCE DECEMBER 31, 2021	INCREASES	DECREASES	BALANCE DECEMBER 31, 2022
Land	$ 3,562	$ -	$ -	$ 3,562	$ -	$ -	$ 3,562
Building	8,352	-	190	8,162	-	190	7,972
Building improvements	122	-	36	86	-	36	50
IT Hardware	52	-	15	37	-	15	22
Total	**$ 12,088**	**$ -**	**$ 241**	**$ 11,847**	**$ -**	**$ 241**	**$ 11,606**

9. Commitments and Contingencies

Members

As described in Note 1, certain members of the Plans whose employment with the City is terminated prior to being eligible for pension benefits are entitled to refunds of their accumulated contributions, without interest, if they have less than five years of pension service. As of December 31, 2022 and 2021, aggregate contributions from active non-vested members for the Combined Pension Plan were $30.3 million for each year. The portion of these contributions that might be refunded to members who terminate prior to pension eligibility and request a refund has not been determined. Refunds due to terminated non-vested members in the amount of $2.1 million and $1.8 million for December 31, 2022 and 2021, respectively, were included in accounts payable and other accrued liabilities of the Combined Pension Plan. As of December 31, 2022, the aggregate contributions from active non-vested members of the Supplemental Plan were $62 thousand and $29 thousand for 2021. One member was eligible for a refund from the Supplemental Plan as of December 31, 2022 and 2021.

On December 31, 2022 the total accumulated DROP balance and the present value of the DROP annuities was $943.9 million for the Combined Plan and $6.0 million for the Supplemental Plan. At December 31, 2021 the total accumulated DROP balance and the present value of the DROP annuities was $978.5 million for the Combined Plan and $6.5 million for the Supplemental Plan.

Investments

The following table depicts the total commitments and unfunded commitments to various limited partnerships and investment advisors on December 31, 2022, by asset class (in thousands).

ASSET CLASS	TOTAL COMMITMENT	TOTAL UNFUNDED COMMITMENT
Real assets	$ 97,000	$ 5,697
Private equity	5,000	485
Fixed income – commingled funds	10,000	514
Total	$ 112,000	$ 6,696

Legal

In August 2021, The Dallas Police Retired Officers Association filed suit against DPFP and Nicholas Merrick in his capacity as Board Chairman in state district court in Dallas County alleging that changes to the provisions of the DPFP Plans relating to the benefit supplement and annual adjustment were violative of the Texas Constitution. In March 2022, the district court granted DPFP’s motion for summary judgment. The plaintiff has appealed this judgment and the appeal is pending in the Fifth Court of Appeals. A judgment for the plaintiffs would have a material effect upon DPFP and its financial statement and condition. The ultimate outcome of this lawsuit cannot be determined at this time and, accordingly, no amounts related to these claims have been recorded in the accompanying financial statements as of December 31, 2022.

10. Risks and Uncertainties

The Group Trust invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. The effect of such risks on the Group Trust's investment portfolio is mitigated by the diversification of its holdings. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the value of investment securities may occur over the course of different economic and market cycles and that such change could be material to the financial statements.

The Plans' actuarial estimates disclosed in Note 5 are based on certain assumptions pertaining to investment rate of return, inflation rates, and participant demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is reasonably possible that changes in these estimates and assumptions in the near term could be material to the financial statements.

11. Leases

The System has adopted GASB Statement 87, Leases. The objective of this Statement is to better meet the information needs of the financial statement users by improving accounting and financial reporting for leases by governments. The Statement requires the recognition of certain lease assets and liabilities for leases that are currently classified as operating leases.

As of December 31, 2022 and 2021, the System did not have any material non-cancellable leases.

12. Subsequent Events

Legal

In November 2023, the Fifth Court of Appeals affirmed the decision of the district court in the suit filed by the Dallas Police Retired Officers Association related to the benefit supplement and annual adjustment. The plaintiff has filed a motion for a rehearing by the original panel as well as a request for a hearing en banc.

In April 2023, the System reached an agreement with a prior vendor and received a financial settlement.

Member Plan Changes

House Bill 4034, effective September 1, 2023, enhances certain line of duty disability and death benefits payable for the members' qualified survivors.

Management has evaluated subsequent events through February 1, 2024, which is the date that the financial statements were available for issuance and noted no subsequent events to be disclosed other than those which are disclosed in this Note or elsewhere in the Notes to Combining Financial Statements.

Required Supplementary Information

(Unaudited)

Schedule of Changes in the Net Pension Liability and Related Ratios

For Last Nine Fiscal Years (in Thousands)

COMBINED PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2022	2021	2020	2019
Total pension liability				
Service cost	$ 71,625	$ 69,963	$ 56,244	$ 49,155
Interest	329,455	326,951	324,046	318,703
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	(42,456)	(26,683)	70,548	16,723
Changes of assumptions	65,942	(4,238)	257,525	155,569
Benefit payments, including refunds of employee contributions	(333,638)	(324,633)	(317,951)	(309,860)
Net change in total pension liability	90,928	41,360	390,412	230,290
Total pension liability – beginning	5,163,732	5,122,372	4,731,960	4,501,670
Total pension liability - ending (a)	**$ 5,254,660**	**$ 5,163,732**	**$ 5,122,372**	**$ 4,731,960**
Plan fiduciary net position				
Employer contributions	$ 169,911	$ 165,541	$ 161,950	$ 155,721
Employee contributions	59,706	58,560	57,305	52,268
Net investment income (loss), net of expenses	(240,891)	321,064	(8,927)	124,260
Benefits payments	(333,638)	(324,633)	(317,951)	(309,861)
Interest expense	-	-	-	-
Administrative expenses	(6,362)	(6,391)	(6,534)	(6,445)
Net change in plan fiduciary net position	(351,274)	214,141	(114,157)	15,943
Plan fiduciary net position - beginning	2,157,841	1,943,700	2,057,857	2,041,914
Plan fiduciary net position - ending (b)	**$ 1,806,567**	**$ 2,157,841**	**$ 1,943,700**	**$ 2,057,857**
Net pension liability - ending (a) - (b)	$ 3,448,093	$ 3,005,891	$ 3,178,672	$ 2,674,103
Plan fiduciary net position as a percentage of total pension liability	34.4%	41.8%	38.0%	43.5%
Covered payroll	$ 462,820	$ 436,971	$ 427,441	$ 396,955
Net pension liability as a percentage of covered payroll	745.0%	687.9%	743.7%	673.7%

(Continued)

Schedule is intended to show information for 10 years. Additional years will be presented when they become available.

COMBINED PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 44,792	$ 148,552	$ 167,432	$ 125,441	$ 131,312
Interest	318,536	348,171	360,567	359,023	369,408
Changes of benefit terms	16,091	(1,167,597)	-	-	(329,794)
Differences between expected and actual experience	(46,555)	(134,665)	(77,463)	379,461	(4,453)
Changes of assumptions	(31,460)	(2,851,241)	(712,003)	908,988	-
Benefit payments, including refunds of employee contributions	(297,081)	(296,154)	(825,092)	(285,003)	(245,932)
Net change in total pension liability	4,323	(3,952,934)	(1,086,559)	1,487,910	(79,459)
Total pension liability - beginning	4,497,347	8,450,281	9,536,840	8,048,930	8,128,389
Total pension liability - ending (a)	**$ 4,501,670**	**$ 4,497,347**	**$ 8,450,281**	**$ 9,536,840**	**$ 8,048,930**
Plan fiduciary net position					
Employer contributions	$ 149,357	$ 126,318	$ 119,345	$ 114,886	$ 109,792
Employee contributions	49,332	32,977	25,518	25,676	29,333
Net investment income (loss), net of expenses	42,822	98,911	164,791	(235,207)	(138,893)
Benefits payments	(297,081)	(296,154)	(825,092)	(285,003)	(245,932)
Interest expense	-	(1,279)	(4,532)	(8,417)	(7,361)
Administrative expenses	(5,861)	(8,090)	(9,492)	(6,006)	(8,003)
Net change in plan fiduciary net position	(61,431)	(47,317)	(529,462)	(394,071)	(261,064)
Plan fiduciary net position - beginning	2,103,345	2,150,662	2,680,124	3,074,195	3,335,259
Plan fiduciary net position - ending (b)	**$ 2,041,914**	**$ 2,103,345**	**$ 2,150,662**	**$ 2,680,124**	**$ 3,074,195**
Net pension liability - ending (a) - (b)	$ 2,459,756	$ 2,394,002	$ 6,299,619	$ 6,856,716	$ 4,974,735
Plan fiduciary net position as a percentage of total pension liability	45.4%	46.8%	25.5%	28.1%	38.2%
Covered payroll	$ 363,117	$ 346,037	$ 357,414	$ 365,210	$ 383,006
Net pension liability as a percentage of covered payroll	677.4%	691.8%	1,762.6%	1,877.5%	1,298.9%

Schedule is intended to show information for 10 years. Additional years will be presented when they become available.

Required Supplementary Information

(Unaudited)

Schedule of Changes in the Net Pension Liability and Related Ratios

For Last Nine Fiscal Years (in Thousands)

SUPPLEMENTAL PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2022	2021	2020	2019
Total pension liability				
Service cost	$ 1,020	$ 394	$ 379	$ 212
Interest	2,630	2,373	2,438	2,223
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	501	3,371	47	3,007
Changes of assumptions	891	(4)	1,559	1,332
Benefit payments, including refunds of employee contributions	(2,843)	(2,750)	(2,778)	(2,766)
Net change in total pension liability	2,199	3,384	1,645	4,008
Total pension liability - beginning	40,868	37,484	35,839	31,831
Total pension liability - ending (a)	$ 43,067	$ 40,868	**$ 37,484**	**$ 35,839**
Plan fiduciary net position				
Employer contributions	$ 2,807	$ 2,099	$ 1,777	$ 1,530
Employee contributions	256	228	245	111
Net investment income (loss), net of expenses	(2,181)	2,765	(122)	169
Benefits payments	(2,843)	(2,750)	(2,778)	(2,766)
Interest expense	-	-	-	-
Administrative expenses	(59)	(55)	(55)	(55)
Net change in plan fiduciary net position	(2,020)	2,287	(933)	(1,011)
Plan fiduciary net position - beginning	18,661	16,374	17,307	18,318
Plan fiduciary net position - ending (b)	**$ 16,641**	**$ 18,661**	**$ 16,374**	**$ 17,307**
Net pension liability - ending (a) - (b)	$ 26,426	$ 22,207	$ 21,110	$ 18,532
Plan fiduciary net position as a percentage of total pension liability	38.6%	45.7%	43.7%	48.3%
Covered payroll	$ 1,800	$ 1,631	$ 627	$ 584
Net pension liability as a percentage of covered payroll	1,468.0%	1,361.3%	3,368.0%	3,172.8%

(Continued)

Schedule is intended to show information for 10 years. Additional years will be presented when they become available.

SUPPLEMENTAL PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2018	2017	2016	2015	2014
Total pension liability					
Service cost	$ 222	$ 111	$ 70	$ 36	$ 28
Interest	2,359	2,799	2,911	2,953	2,969
Changes of benefit terms	888	(5,305)	-	-	(526)
Differences between expected and actual experience	(2,628)	(1,435)	1,105	928	336
Changes of assumptions	28	(479)	(916)	(600)	-
Benefit payments, including refunds of employee contributions	(2,708)	(2,668)	(5,912)	(2,640)	(3,414)
Net change in total pension liability	(1,839)	(6,977)	(2,742)	677	(607)
Total pension liability - beginning	33,670	40,647	43,389	42,712	43,319
Total pension liability - ending (a)	**$ 31,831**	**$ 33,670**	**$ 40,647**	**$ 43,389**	**$ 42,712**
Plan fiduciary net position					
Employer contributions	$ 1,979	$ 2,077	$ 3,064	$ 2,443	$ 1,817
Employee contributions	74	66	35	43	49
Net investment income (loss), net of expenses	1,220	740	1,141	(1,689)	(517)
Benefits payments	(2,708)	(2,668)	(5,912)	(2,640)	(3,414)
Interest expense	-	(11)	(78)	(44)	(51)
Administrative expenses	(52)	(69)	(37)	(61)	(56)
Net change in plan fiduciary net position	513	135	(1,787)	(1,948)	(2,172)
Plan fiduciary net position - beginning	17,805	17,670	19,457	21,405	23,577
Plan fiduciary net position - ending (b)	**$ 18,318**	**$ 17,805**	**$ 17,670**	**$ 19,457**	**$ 21,405**
Net pension liability - ending (a) - (b)	$ 13,513	$ 15,865	$ 22,977	$ 23,932	$ 21,307
Plan fiduciary net position as a percentage of total pension liability	57.6%	52.9%	43.5%	44.8%	50.1%
Covered payroll	$ 622	$ 916	$ 525	$ 725	$ 557
Net pension liability as a percentage of covered payroll	2,173.8%	1,731.6%	4,376.2%	3,303.3%	3,827.3%

Schedule is intended to show information for 10 years. Additional years will be presented when they become available. See notes below related to this schedule.

Notes to Schedule:

<u>Changes of benefit terms:</u>

As of December 31, 2022 - None

As of December 31, 2021

HB 3375 amended section 6.14 of Article 6243a-1 replacing the word “participant” with “any person” allowing survivors and beneficiaries additional flexibility regarding their DROP accounts, specifically as it relates to hardship distributions.

As of December 31, 2020, 2019 and 2018 – None

As of December 31, 2017

HB 3158 was signed by the Governor on May 31, 2017, the significant benefit and contribution changes in the bill were effective September 1, 2017.

- Normal Retirement Age increased from either age 50 or 55 to age 58
- For members less than the age of 45 on September 1, 2017, hired prior to March 1, 2011, and less than 20 years of pension service the Early Retirement Age increased from age 45 to age 53
- Vesting for members hired after February 28, 2011 was reduced from ten years to five years of service
- Benefit multiplier for all future service for members hired prior to March 1, 2011 was lowered from 3.00% to 2.50%
- Benefit multiplier retroactively increased to 2.50% for members hired on or after March 1, 2011
- Benefit multipliers for 20 and Out benefit lowered
- Members hired after February 28, 2011 are eligible for an early retirement benefit after 20-years of service
- Maximum benefit reduced from 96% of Computation Pay to 90% of Computation Pay for members hired prior to March 1, 2011
- Average Computation Pay period changed from 36 months to 60 months for future service for members hired prior to March 1, 2011
- Annual Adjustment (COLA) discontinued for all members. The Board may choose to provide a COLA if the funded ratio on a fair value basis is at least 70% after the implementation of a COLA.
- The supplemental benefit is eliminated prospectively; only those for whom the supplement was already granted as of September 1, 2017 will maintain the supplement
- Active DROP participation is limited to 10 years
- DROP interest for active DROP members was eliminated after September 1, 2017; only the balance as of September 1, 2017 will be eligible for interest once active DROP members retire
- Retirees with DROP accounts as of September 1, 2017 will have their DROP account balances paid out over their expected lifetime based on their age as of September 1, 2017
- Future retirees with DROP accounts will have their DROP account balances paid out over their expected lifetime as of the date of the retirement
- Interest on retiree DROP accounts as of August 31, 2017 will be paid based on the length of the retiree’s expected lifetime and will be based on U.S. Treasury rates which correlate to expected lifetime, as determined by the Board of Trustees
- Member contributions for both DROP and non-DROP members increased to 13.5% effective September 1, 2017
- The City’s contribution rate will increase to 34.5% of Computation Pay. Between September 1, 2017 and December 31, 2024, the City’s contribution will be the greater of (i) 34.5% and (ii) a biweekly contribution amount as stated in HB3158, plus $13 million per year.

As of December 31, 2016 and 2015 – None

As of December 31, 2014
The Board approved a plan amendment implementing changes to DROP interest rates on April 16, 2015. Such changes were reflected in the valuation of the net pension liability as of December 31, 2015 and 2014.

Changes of methods and assumptions:

The following assumption changes were adopted by the Board for use in the January 1, 2023 actuarial valuation. For further information regarding the changes to actuarial assumptions, refer to the January 1, 2023 Dallas Police and Fire Pension System actuarial valuation reports for the Combined Pension Plan and the Supplemental Plan.

As of December 31, 2022
- The salary scale assumption was updated based on the 2023 Meet and Confer agreement.
- The DROP Active retirement rates for participants in DROP for ten years was lowered from 100% to 75%.

As of December 31, 2021
- Administrative expense assumption was reduced to $7.0 million from $8.5 million or 1% of Computation Pay for the Combined Plan and to $55 thousand from $65 thousand for the Supplemental Plan for the year beginning January 1, 2022.
- The ad-hoc COLA assumption was lowered from 2.0% to 1.5%. Ongoing, the COLA assumption will remain at five percentage points less than the investment return assumption.
- The ad-hoc COLA assumption was updated to begin October 1, 2073. Last year, the COLA was assumed to begin October 1, 2069.

As of December 31, 2020
- The net investment return assumption was lowered from 7.00% to 6.50%.
- The ad-hoc COLA assumption was updated to begin October 1, 2069. Last year, the COLA was assumed to begin October 1, 2063.

As of December 31, 2019
The following assumption changes were adopted by the Board for use in the January 1, 2020 actuarial valuation. Some of the assumption changes were related to the actuarial experience study completed for the five-year period ending December 31, 2019.

- The net investment return assumption was lowered from 7.25% to 7.0%.
- The salary scale assumption was updated based on the 2019 Meet and Confer agreement, with a new ultimate rate of 2.50%.
- The payroll growth assumption was lowered from 2.75% to 2.50%.
- The mortality rates were updated to the Pub-2010 Public Safety Amount-weighted Mortality Tables, with varying adjustments by status and sex, projected generationally with Scale MP-2019.
- The withdrawal rates were updated and the ultimate 0% rate was moved up from 38 to 25 years of service.
- The DROP retirement rates were increased at most ages and the ultimate 100% retirement was updated from the earlier of 67 years or 8 years in DROP to the earlier of age 65 or 10 years in DROP.
- The non-DROP retirement rates were lowered at most ages and simplified from three sets to two sets of rates.
- The retirement assumption for inactive vested participants was updated to include an assumption that 75% of those who terminate with a vested benefit prior to age 40 will take a cash out at age 40.
- The DROP annuitization interest rate for account balances as of September 1, 2017 was lowered from 3.0% to 2.75%.
- The ad-hoc COLA assumption was updated to begin October 1, 2063. Last year, the COLA was assumed to begin October 1, 2050.
- The system's expectations for near-term market returns were lowered to -6.0% for 2020, +5.25% for 2021, +5.75% for 2022 and +6.25% for 2023. For valuation purposes, these return assumptions are used for determining the projected full-funding date and the projected COLA start date.

As of December 31, 2018

- The salary scale assumption was updated to reflect the 2016 Meet and Confer Agreement, as amended in 2018.
- The ad-hoc COLA assumption was updated to begin October 1, 2050 based on the updated projection of the unfunded actuarial accrued liability; last year, the COLA was assumed to begin October 1, 2053

As of December 31, 2017

The discount rate used to measure the total pension liability changed from a blended discount rate of 4.12% to the assumed rate of return of 7.25% for the Combined Pension Plan and from a blended discount rate of 7.10% to the assumed rate of return of 7.25% for the Supplemental Plan.

As a result of the passage of HB 3158 the following assumption were changed:

- The DROP utilization factor was changed from 100% to 0%
- Current DROP members with at least eight years in DROP as of January 1, 2017 are assumed to retire in 2018. Current DROP members with less than eight years in DROP as of January 1, 2017 are assumed to retire once they have been in the DROP for eight years
- Retirement rates were changed effective January 1,2018
- 100% retirement rate once the projected sum of age plus service equals 90
- New terminated vested members are assumed to retire at age 58
- DROP account balances annuitized as of September 1, 2017 are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest
- DROP payment period based on an 85%/15% male/female blend of the current healthy annuitant mortality tables
- COLA assumed to be a 2.00% COLA beginning October 1, 2053 and payable every October 1st thereafter
- The administrative expense assumption was changed from the greater of $10 million per year or 1% of Computation Pay to the greater of $8.5 million per year or 1% of Computation Pay for the Combined Plan and from $60 thousand to $65 thousand for the Supplemental Plan

As of December 31, 2016

- The blended discount rate used to measure the total pension liability changed from 3.95% to 4.12% for the Combined Pension Plan and from 7.19% to 7.10% for the Supplemental Plan.
- The remaining amortization period was adjusted from 40 years to 30 years for the Combined Pension Plan based on Section 802.101(a) of the Texas Government Code.

The salary scale was modified for valuation years 2017-2019 in accordance with the Meet and Confer Agreement. DROP interest is assumed to decline from 6.00% to 5.00% effective October 1, 2017, and to 0.00% effective October 1, 2018, per Section 6.14(c) of the plan document as amended and restated through April 16, 2015.

As of December 31, 2015

The blended discount rate used to measure the total pension liability changed from 4.94% to 3.95% for the Combined Pension Plan and from 7.13% to 7.19% for the Supplemental Plan.

As a result of the actuarial experience study completed for the five-year period ending December 31, 2014, the following changes in assumptions were adopted by the Board. For further information regarding the changes to actuarial assumptions, refer to the January 1, 2016 Dallas Police and Fire Pension System actuarial valuation reports for the Combined Pension Plan and the Supplemental Plan.

- Salary scales were updated with separate service-based salary assumptions for police officers and firefighters, lowering the range of increase to 3.00% to 5.20% from the previous assumed range of 4.00% to 9.64%.
- The payroll growth rate assumption was lowered from 4.00% to 2.75% to equal the assumed inflation rate.
- In the prior valuation, the investment return assumption was net of both investment and administrative expenses. In the December 31, 2015 valuation, an explicit assumption for administrative expenses was added to the normal cost. Assumptions of $10 million and $60 thousand per year were utilized for the Combined Pension Plan and Supplemental Plan, respectively.
- In the prior valuation for the Combined Pension Plan, an asset valuation method using a 10-year smoothing period was applied. In the December 31, 2015 valuation, the actuarial value of assets was reset to fair value as of the measurement date. A five-year smoothing period will be used in future periods.
- The remaining amortization period was adjusted from 30 years to 40 years for the Combined Pension Plan based on Section 802.101(a) of the Texas Government Code.
- Mortality tables were updated from the RP-2000 tables to the RP-2014 tables.
- Assumed rates of turnover were lowered for police officers and raised for firefighters to reflect recent experience.
- Retirement rates were lowered for both police officers and firefighters, with the separation of service-based assumptions implemented based on recent experience.
- Disability rates were lowered for both police officers and firefighters and service-based assumptions were eliminated based on the similarity of recent experience between the two services.
- The assumption of the portion of active employees who are married was lowered from 80% to 75% and the age of the youngest child was raised from 1 to 10.

As of December 31, 2014

The assumption for the future interest rates credited to DROP balances was changed from 8.5% to the following rates prescribed by the 2014 plan amendment:

- On October 1, 2014 – 8.0%;
- On October 1, 2015 – 7.0%;
- On October 1, 2016 – 6.0%; and
- On October 1, 2017 and thereafter – 5.0%

Schedule of Employer Contributions – Combined Pension Plan
(In Thousands)

MEASUREMENT YEAR ENDING DECEMBER 31,	ACTUARIALLY DETERMINED CONTRIBUTION	ACTUAL CONTRIBUTION	CONTRIBUTION DEFICIENCY (EXCESS)	COVERED PAYROLL	ACTUAL CONTRIBUTION AS A % OF COVERED PAYROLL
2022	$ 228,531	$ 169,911	$ 58,619	$ 436,971	38.9%
2021	221,286	165,541	55,744	427,441	38.7%
2020	185,429	161,950	23,479	396,955	40.8%
2019	152,084	155,721	(3,637)	363,117	42.9%
2018	157,100	149,357	7,743	346,037	43.2%
2017	168,865	126,318	42,547	357,414	35.3%
2016	261,859	119,345	142,514	365,210	32.7%

Schedule is intended to show information for 10 years. Additional years will be presented as they become available.

Prior to January 1, 2016, the actuarial determined contribution for the Combined Plan was not determined by the actuary.

The City's contribution rate for the Combined Pension Plan is set by State statutes. The difference between the actuarial determined contribution and the City contribution set by State statutes results in the contribution excess or deficiency.

Notes to Schedule:

The following methods and assumptions used to calculate the actuarial determined contribution:

As of December 31, 2022

Actuarial cost method	Entry age normal cost method
Amortization method	25-year level percent of payroll for UAL as of January 1, 2020, 20-year level percent of payroll for changes to the UAL thereafter, using 2.50% annual increases.
Remaining amortization period	68 years as of January 1, 2022
Asset valuation method	Fair value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the actuarial value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the fair value.
Investment rate of return	6.50% per annum, including inflation, net of pension plan investment expense
Inflation rate	2.50%
Projected salary increases	Inflation plus merit increases, varying by group and year
Retirement rates	Group-specific rates based on age

Mortality	Pre-retirement: Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males, projected generationally using Scale MP-2019 Post-retirement: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set back one year for females, projected generationally using Scale MP-2019 Disabled: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set forward four years for males and females, projected generationally using Scale MP-2019
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement.
DROP utilization	The DROP utilization factor is 0% for new entrants.

As of December 31, 2021

Actuarial cost method	Entry age normal cost method
Amortization method	25-year level percent of payroll for UAL as of January 1, 2020, 20-year level percent of payroll for changes to the UAL thereafter, using 2.50% annual increases.
Remaining amortization period	63 years as of January 1, 2021
Asset valuation method	Fair value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the actuarial value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the fair value.
Investment rate of return	6.50% per annum, including inflation, net of pension plan investment expense
Inflation rate	2.50%
Projected salary increases	Inflation plus merit increases, varying by group and year
Post-retirement benefit	COLA assumed to be 2.00% simple increases beginning October 1, 2073
Retirement rates	Group-specific rates based on age
Mortality	Pre-retirement: Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males, projected generationally using Scale MP-2019

Post-retirement:	Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set back one year for females, projected generationally using Scale MP-2019
Disabled:	Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set forward four years for males and females, projected generationally using Scale MP-2019
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement.
DROP utilization	The DROP utilization factor is 0% for new entrants.

As of December 31, 2020 that differed from above

Amortization method	25-year level percent of pay, using 2.50% annual increases. Beginning January 1, 2021, each year's gains and losses will be amortized over a closed 20-year period.
Remaining amortization period	55 years as of January 1, 2020
Investment rate of return	7.00% per annum, compounded annually, net of pension plan investment expense
Post-retirement benefit	COLA assumed to be a 2.00% COLA beginning October 1, 2063 and increases payable every October 1 thereafter

As of December 31, 2019 that differed from above

Amortization method	30-year level percent of pay, using 2.75% annual increases
Remaining amortization period	38 years as of January 1, 2019
Investment rate of return	7.25% per annum, compounded annually, net of all expense, including administrative expenses.
Inflation rate	2.75%
Projected salary increases	Inflation plus merit increases, varying by group and service
Post-retirement benefit	COLA assumed to be a 2.00% COLA beginning October 1, 2050 and increases payable every October 1 thereafter
Mortality	Pre-retirement: Sex-distinct RP-2014 Employee Mortality Table, set back two years for males, projected generationally using Scale MP-2015
	Post-retirement: Sex-distinct RP-2014 Healthy Annuitant Mortality Table, set forward two years for females, projected generationally using Scale MP-2015
	Disabled: Sex-distinct RP-2014 Disabled Retiree Mortality Table, set back three years for males and females, projected generationally using Scale MP- 2015
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement.

As of December 31, 2018 that differed from above

Remaining amortization period	45 years as of January 1, 2018
Projected salary increases	Inflation plus merit increases, varying by group and service, ranging from 0.00% to 2.25%
Post-retirement benefit	COLA assumed to be a 2.00% COLA beginning October 1, 2053 and increases payable every October 1 thereafter
Interest on DROP accounts	Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest. Beginning January 1, 2018 DROP balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement.

As of December 31, 2017 that differed from above

Projected salary increases	Inflation plus merit increases, varying by group and service, ranging from 0.25% to 2.45%
Post-retirement benefit	COLA assumed to be a 2.00% COLA beginning October 1, 2049 and increases payable every October 1 thereafter
Interest on DROP accounts	6% per year until September 1, 2017. Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest.
DROP election	The DROP utilization factor is 0% for new entrants. Current DROP members with at least eight years in the DROP as of January 1, 2017 are assumed to retire in 2018. Current DROP members with less than eight years in DROP as of January 1, 2017 are assumed to retire once they have been in the DROP for eight years.

As of December 31, 2016 that differed from above

Post-retirement benefit increases	4.00% simple COLA, October 1st
DROP balance returns	At October 1, 2015 – 7.0% At October 1, 2016 – 6.0% At October 1, 2017 and thereafter – 5.0%
DROP election	Age 50 with 5 years of service. Any active member who satisfies these criteria and has not entered DROP are assumed never to join DROP. Active members who retire with a DROP account are assumed to receive the balance of their account over a 10-year time period.

Schedule of Employer Contributions – Supplemental Plan
(In Thousands)

MEASUREMENT YEAR ENDING DECEMBER 31,	ACTUARIALLY DETERMINED CONTRIBUTION	ACTUAL CONTRIBUTION	CONTRIBUTION DEFICIENCY	COVERED PAYROLL	ACTUAL CONTRIBUTION AS A % OF COVERED PAYROLL
2022	$ 2,807	$ 2,807	$ -	$ 1,631	172.1%
2021	2,099	2,099	-	627	334.8%
2020	1,777	1,777	-	584	304.3%
2019	1,881	1,530	351	622	246.2%
2018	2,274	1,979	295	916	216.0%
2017	2,087	2,077	10	525	395.6%
2016	3,063	3,063	-	725	422.9%
2015	2,443	2,443	-	557	438.8%
2014	1,817	1,817	-	521	348.5%

Schedule is intended to show information for 10 years. Additional years will be presented as they become available.

The City is required by ordinance to contribute amounts necessary to ensure the payment of benefits in the Supplemental Plan. The City's contributions shall be made in accordance with actuarial requirements established by the actuary and the Board. Actuarially determined contributions are calculated as of January 1 in the fiscal year in which the contribution is reported. The deficiency shown on the table is due to Supplemental Plan contributions paid directly to the Excess Benefit Plan in compliance with Internal Revenue Code Section 415.

Notes to Schedules:
The following methods and assumptions were used to calculate the actuarial determined contribution for the Supplemental Plan:

As of December 31, 2022

Actuarial cost method	Entry age normal cost method
Amortization method	20-year level percent of payroll for UAL as of January 1, 2020, 10-year level percent of payroll for changes to the UAL thereafter, using 2.50% annual increases.
Remaining amortization period	16 years as of January 1, 2022.
Asset valuation method	Fair value of assets
Investment rate of return	6.50% per annum, including inflation, net of all expense, including administrative expenses.
Inflation rate	2.50%
Projected salary increases	Inflation plus merit increases, varying by group and year
Retirement rates	Group-specific rates based on age

Mortality	Pre-retirement: Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males, projected generationally using Scale MP-2019 Post-retirement: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set back one year for females, projected generationally using Scale MP-2019 Disabled: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set forward four years for males and females, projected generationally using Scale MP-2019
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement.
DROP election	The DROP utilization factor is 0% for new entrants.

As of December 31, 2021

Actuarial cost method	Entry age normal cost method
Amortization method	20-year level percent of payroll for UAL as of January 1, 2020, 10-year level percent of payroll for changes to the UAL thereafter, using 2.50% annual increases.
Remaining amortization period	17 years as of January 1, 2021.
Asset valuation method	Fair value of assets
Investment rate of return	6.50% per annum, compounded annually, net of all expense, including administrative expenses.
Inflation rate	2.50%
Projected salary increases	Inflation plus merit increases, varying by group and year
Post-retirement benefit increases	COLA assumed to be a 1.5% COLA beginning October 1, 2073 and payable every October 1st thereafter
Retirement rates	Group-specific rates based on age
Mortality	Pre-retirement: Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males, projected generationally using Scale MP-2019 Post-retirement: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set back one year for females, projected generationally using Scale MP-2019 Disabled: Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set forward four years for males and females, projected generationally using Scale MP-2019

Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement.
DROP election	The DROP utilization factor is 0% for new entrants.

As of December 31, 2020 that differed from above

Amortization method	20-year level percent of pay, using 2.50% annual increases. Beginning January 1, 2021 each year's gains and losses will be amortized over a closed 10-year period.
Remaining amortization period	20 years
Investment rate of return	7.00% per annum, compounded annually, net of all expense, including administrative expenses.
Projected salary increases	Inflation plus merit increases, varying by group and service
Post-retirement benefit increases	COLA assumed to be a 2.00% COLA beginning October 1, 2063 and payable every October 1st thereafter

As of December 31, 2019 that differed from above

Amortization method	10 years level percent of pay, using 2.75% annual increases
Remaining amortization period	10 years
Investment rate of return	7.25% per annum, compounded annually, net of all expense, including administrative expenses.
Inflation rate	2.75%
Post-retirement benefit increases	COLA assumed to be a 2.00% COLA beginning October 1, 2050 and payable every October 1st thereafter
Mortality	Pre-retirement: Sex-distinct RP-2014 Employee Mortality Table, set back two years for males, projected generationally using Scale MP-2015 Post-retirement: Sex-distinct RP-2014 Healthy Annuitant Mortality Table, set forward two years for females, projected generationally using Scale MP-2015 Disabled: Sex-distinct RP-2014 Disabled Retiree Mortality Table, set back three years for males and females, projected generationally using Scale MP-2015
Interest on DROP accounts	Beginning January 1, 2018, DROP balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement.

As of December 31, 2018 that differed from above

Projected salary increases	Inflation plus merit increases, varying by group and service, ranging from 0.00% to 2.25%
Post-retirement benefit increases	COLA assumed to be a 2.00% COLA beginning October 1, 2053 and payable every October 1st thereafter
Interest on DROP accounts	Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest. Beginning January 1, 2018 DROP balances as of September 1, 2017 for active members are assumed to earn 3.00% interest upon retirement.

As of December 31, 2017 that differed from the above

Projected salary increases	Inflation plus merit increases, varying by group and service, ranging from 0.25% to 2.45%
Post-retirement benefit increases	COLA assumed to be a 2.00% COLA beginning October 1, 2049 and payable every October 1 thereafter
Interest on DROP accounts	6% per year until September 1, 2017. Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest.

As of December 31, 2016 that differed from above

Post-retirement benefit increases	4.00% simple COLA, October 1st
DROP balance returns	October 1, 2015 – 7% October 1, 2016 – 6% October 1, 2017 and thereafter – 5%
DROP election	Age 50 with 5 years of service. Any active member who satisfy these criteria and have not entered DROP are assumed never to join DROP. Active members who retire with a DROP account are assumed to receive the balance of their account over a 10-year time period.

As of December 31, 2015 and 2014 that differed from above

Projected salary increases	Range of 4.00% - 9.64%
Mortality	RP-2000 Combined Healthy Mortality Table projected to 10 years beyond the valuation date using Scale AA for healthy retirees and active members.

Schedule of Investment Returns

FISCAL YEAR ENDED DECEMBER 31,	ANNUAL MONEY-WEIGHTED RATE OF RETURN, NET OF INVESTMENT EXPENSE
2022	(2.77%)
2021	5.52%
2020	1.48%
2019	11.51%
2018	(1.49%)
2017	5.07%
2016	3.09%
2015	(12.70%)
2014	3.98%

Notes to Schedule:

The annual money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense, and expresses investment performance adjusted for the changing amounts actually invested. Pension plan investment expense consists of manager fees. The return is calculated using a methodology which incorporates a one quarter lag for fair value adjustments on private equity, debt, and real assets investments.

Schedule is intended to show information for 10 years. Additional years will be presented as they become available.

Supplementary Information

Administrative, Investment, and Professional Services Expenses

Year Ended December 31, 2022

ADMINISTRATIVE EXPENSES		
Information technology	$	432,100
Education		27,919
Insurance		763,383
Personnel		3,362,004
Office equipment		102,137
Dues and subscriptions		183,472
Board meetings		3,112
Office supplies		19,162
Utilities		18,938
Postage		20,889
Printing		3,199
Elections		10,235
Facilities		654,119
Other		26,382
Total administrative expenses	**$**	**5,627,051**
INVESTMENT EXPENSES		
Investment management	$	5,836,259
Custodial		222,346
Investment level valuations and audits		379,417
Research		40,490
Consulting and reporting		343,542
Legal		1,011,804
Tail-end advisory		893,615
Tax		2,665
Other		(7,002)
Total investment expenses	**$**	**8,723,136**
PROFESSIONAL SERVICES EXPENSES		
Consulting	$	600
Actuarial		96,069
Auditing		107,650
Accounting		61,475
Medical review		7,290
Legal		358,635
Mortality records		5,039
Legislative		126,000
Communications		17,499
Other		13,422
Total professional services expenses	**$**	**793,679**

Notes to Schedule:
Supplementary information on investment expenses does not include investment management fees and performance fees embedded in the structure of private equity and other limited partnership investments. Rather, these fees are a component of the net appreciation (depreciation) in fair value of investments in the accompanying Statements of Changes in Fiduciary Net Position. In addition, management fees paid directly by DPFP are included net of rebates received. The members of the Board of Trustees serve without compensation; they are reimbursed for actual expenses incurred.

See accompanying independent auditor's report

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INVESTMENT INFORMATION

Investment Consultant's Report

MEKETA
INVESTMENT GROUP

5796 Armada Drive
Suite 110
Carlsbad, CA 92008

760.795.3450
Meketa.com

MEMORANDUM

TO: Board of Trustees, Dallas Police & Fire Pension System
FROM: Leo Festino, Aaron Lally, Colin Kowalski, Meketa Investment Group
DATE: July 12, 2023
RE: Investment Consultant's Statement for Annual Comprehensive Financial Report

This letter reviews the global capital markets in 2022 and the investment performance of the Dallas Police and Fire Pension System ("DPFP") for the year ending December 31, 2022.

Investment decisions were made during the calendar year with the following investment objectives in mind (as stated in DPFP's Investment Policy Statement):

- Maintain a diversified asset allocation that seeks to maximize the investment return while accepting prudent exposure to key investment risks.
- Outperform the Policy Benchmark over rolling five-year periods.
- Control and monitor the costs of administering and managing the investments.

During a tough year for traditional assets, DPFP produced a negative return in the calendar year of -2.2% falling short of its actuarial return but outperforming its policy benchmark.

DPFP's rates of return are represented using a net-of–fees time-weighted rate of return methodology based upon monthly market values and cash flows. Consistent with industry best practices, DPFP's private market valuations are included on a one-quarter lag, cash flow adjusted basis, to account for the typical 60-90 day delayed reporting cycle for most private market investments. Data was provided by J.P. Morgan, DPFP's custodian, and investment manager valuation statements.

Meketa Investment Group, DPFP's general investment consultant, works with the Board of Trustees, the Investment Advisory Committee and Investment Staff, to assist with performance evaluation, asset allocation, manager selection, governance, and other industry best practices.

Calendar Year 2022 Year in Review

When 2022 started, investors were riding the wave of strong returns over the last couple years and expectations were for inflation to be transitory, growth to fall slightly, and the Federal Reserve to raise interest rates to just 1% by year-end. This clearly did not play out in 2022 as inflation remained well above expectations and the Federal Reserve, and other central banks, raised interest rates at a pace we have not witnessed in a long time.

As the first calendar quarter of 2022 ended, market volatility increased, driven by unrelenting inflation, expectations for policy to tighten much faster than previously expected, and Russia's invasion of Ukraine as well as its potential financial consequences for the global economy. The Federal Reserve started its rate increases with 50 basis point hikes in March.

In the second calendar quarter, the Federal Reserve policy makers increased rates by a surprising 75 basis points at the June 2022 meeting. Shortly following this meeting, CPI was released showing that prices had increased to a multi-decade high of 9.1%, again above expectations. This surprised markets and put into question the idea that inflation was peaking, as well as accelerated investor expectations for the pace of the Fed tightening policy. Concerns of a looming recession increased.

The third quarter started off with strong performance across global markets, especially in the US. Investors' optimism at the time was driven by a decline in inflation measures, as the CPI ticked down from 9.1% to 8.5% and came in below expectations. However, Federal Reserve messaging about policy going forward, combined with outsized interest rate hikes due to the slow rate of decline in inflation and a strong labor market resulted in significant equity market declines in both August and September 2022.

The last calendar quarter of 2022 started very strong for developed market equities, on returned signs that inflation may be peaking, monetary policy tightening may relatedly slow, and hopes for a soft-landing of major economies. However, as the quarter progressed, results were mixed by month and region as the world received mixed signals on inflation.

Over the full year, US stocks outperformed emerging markets but underperformed developed markets outside the US. The Russell 3000 returned -19.2% for the year, compared to the MSCI EAFE at -14.5%, and a decline of -20.1% for the MSCI Emerging Markets index. Within fixed income, the inflation adjustment helped TIPS' full year relative results as the Bloomberg TIPS index decreased -11.8% over the full year, while the Bloomberg Aggregate index declined by -13.0%. Inflation, as measured by CPI, declined to 6.5% by the end of the year. Inflation in the Eurozone ended the year at 9.2%, down from a peak of 10.6%. Similarly, inflation in the UK ended the year at 9.2%, down from a peak of 9.6%.

DPFP's 2022 Performance and Investment Activity

DPFP ended 2022 with nearly $1.8 billion in investment assets. Public global equity which accounted for 41% of the portfolio had a steeply negative year, returning -18.0% in 2022 but outperforming the MSCI ACWI IMI Index (-18.4%). However, DPFP outperformed its benchmarks and peers in part due to strong performance within Private Equity where Huff Energy experienced a significant write up in valuation during the year. Underweight exposure to public equities and overweight exposure to Real Estate were also additive.

	Calendar Year 2022 Return (%)
DPFP (net of fees)	-2.2%
Policy Index	-12.3%
Peer Median Return[1]	-12.3%
60% Stock/40% Bond mix[2]	-17.4%

***Returns are time-weighted, net of fees. DPFP's private market valuations are included on a one-quarter lag, cash flow adjusted basis, to account for the typical 60-90 day delayed reporting cycle for most private market investments.*

[1] *InvestorForce Public DB $1-$5 billion Net Performance universe.*

[2] *60% MSCI ACWI IMI Net/40% Barclays Global Aggregate Index.*

DPFP's longer-term returns (3-year, 5-year, and 10-year) trailed its policy benchmark and actuarial target. Poor manager selection within real estate and private equity and an over-allocation in these asset classes (paired with an under-allocation to public equities) have been the biggest drivers of longer-term underperformance.

2023 Capital Markets through 6/30/2023

The first half of 2023 was very favorable to public market investments as inflation steadily decreased. The US Equity market (S&P 500 Index) is up 16.9% year-to-date through 6/30/2023. The international equity market (MSCI EAFE index) is up 11.7% year-to-date through 6/30/2023. Investment grade bonds (Barclays Aggregate Index) is up 2.1% year-to-date as inflation has subsided.

Meketa, Staff and the Board of Trustees continue to diligently monitor the macro environment and its impact on the Fund.

Leandro Festino, CFA, CAIA Managing Principal	Aaron Lally, CFA, CAIA Managing Principal	Colin Kowalski Investment Analyst

Investment Information

Investment Activities and Initiatives

Over the course of the year, the size of the investment portfolio decreased by approximately $351 million to $1.81 billion in investment assets through a combination of negative investment returns and net benefit outflows.

Given the market downturn in 2022, staff notified the Board at the March 2022 meeting of the intention to draw on the Safety Reserve (Cash and Short-Term Core Bonds) to fund net benefit outflows. By utilizing the Safety Reserve to fund benefit outflows, DPFP had the flexibility to either hold back private market proceeds within the Safety Reserve or redeploy those proceeds into Public Market assets classes. Over the course of 2022, $109 million in private market proceeds were received with ~$40 million of those proceeds being re-invested into the Public Equity portfolio. By holding back the remaining ~$69 million of proceeds within cash, the period of which future net benefit outflows could be funded from the Safety Reserve was extended from September 2023 to July 2024. Key challenges for the investment portfolio continued to be an overallocation to private assets and the high level of cash outflows required for benefit payments.

The Investment Advisory Committee (IAC), which is comprised of DPFP Board of Trustees members and a majority of outside investment professionals, meets quarterly and provides advice to the Board of Trustees to ensure DPFP investments are prudently managed and advises regarding the search and selection process for investment managers. Four new members were added to the IAC in 2022 and two new outside members were added in early 2023.

New manager searches in the public asset portfolio included searches and Request for Proposals (RFP’s) for International Small Cap Equity and Emerging Markets Debt managers. Global Alpha was selected as the new International Small Cap manager in January 2022 and funded in May 2022. MetLife was selected as the new Emerging Market Debt manager in July 2022, replacing the incumbent manager Ashmore. The new mandate was funded in October 2022.

The private asset portfolio, which includes Private Equity, Private Debt, Natural Resources, Infrastructure and Real Estate, was valued at $572 million or 31.6% of the portfolio at year-end. Staff continued to work with managers to sell assets in an orderly fashion and reduce the over-allocation. Distributions from the private asset portfolio totaled $109 million in 2022, with capital calls totaling only $2.4 million.

DPFP has not made a new private asset investment since 2016, as the focus has been on right-sizing the over allocation to the space. As DPFP continued to see a reduction in the private asset portfolio towards the 15% long-term target, staff began discussions with the Board and IAC regarding the processes, resources and planning which needed to in place prior to making new private asset investments. DPFP initiated an investment consultant search in early 2023 as the relationship with Meketa was at the 5-year mark and there was a need to add some form of private market consulting services. RFP’s were issued to nine firms in February 2023. In July 2023, the Board approved retaining Meketa as the general investment consultant and engaging Albourne as the private markets consultant.

Performance Reporting and Results

Performance Reporting Methodology

The rate of return calculation is prepared by the investment consultant as of December 31, 2022, using a time-weighted rate of return. The methodology used to calculate the rate of return is a "lagged with cash flow adjustments" methodology, which incorporates a one quarter lag on the market values of Private Equity, Private Debt, Infrastructure, Real Estate, Timberland, and Farmland investments (collectively, Private Investments). The lagged methodology was recommended by DPFP's investment consultant, is consistent with standard industry practice, and allows for timelier reporting to the Board. Though the investment return information provided in the Investment section is based on the "lagged with cash flow adjustments" methodology, all the net asset value and allocation information is based on the final audited December 31, 2022 values (unlagged) which are reported in the Financial section.

Investment Performance

DPFP's investment performance is reported to the Board, on a quarterly basis, by the investment consultant. The overall investment performance is measured against the median return of public defined benefit plans included in the InvestorForce universe by comparison to the InvestorForce Public DB Net Median Index. DPFP's overall performance is also compared to the Policy Benchmark. The Policy Benchmark is calculated as the weighted return based on the asset class target allocations and their corresponding benchmarks. Each asset class and investment manager are measured against the return of an appropriate benchmark, as represented by a specific index return. All returns disclosed in the Investment section are calculated net of all fees paid to investment managers. The below table includes the 1, 3, 5 and 10-year returns by asset category and class as measured against the representative benchmarks (dollars in thousands).

	NET ASSET VALUE	% OF PORTFOLIO	2022 RETURN	3 YRS	5 YRS	10 YRS
Total Investment Assets	$ 1,807,824	100.0%	(2.2%)	1.5%	2.8%	2.0%
Policy Benchmark [1]			(12.3%)	2.8%	3.5%	6.7%
InvestorForce DB Median			(12.0%)	4.3%	4.9%	6.8%
EQUITY	1,059,962	58.5%	(3.2%)	1.8%	4.6%	4.6%
MSCI ACWI IMI Net			(18.4%)	3.9%	5.0%	7.9%
Global Equity	**757,368**	**41.9%**	**(18.0%)**	**4.4%**	**6.0%**	**8.9%**
MSCI ACWI IMI Net			(18.4%)	3.9%	5.0%	7.9%
Northern Trust ACWI Index IMI	165,671	9.2%	(17.9%)	-	-	-
MSCI ACWI IMI Net			*(18.4%)*	*3.9%*	*5.0%*	*7.9%*
Boston Partners	125,589	6.9%	(2.7%)	8.3%	5.8%	--
MSCI World Net			*(18.1%)*	*4.9%*	*6.1%*	*8.9%*
Manulife	122,539	6.8%	(14.4%)	4.1%	5.9%	-
Invesco Global Equity	117,909	6.5%	(31.2%)	0.4%	3.3%	8.2%
Walter Scott	125,509	6.9%	(19.8%)	4.3%	8.0%	9.3%
MSCI ACWI Net			*(18.4%)*	*4.0%*	*5.2%*	*8.0%*
Eastern Shore US Small Cap	48,267	2.7%	(26.7%)	-	-	-
Russell 2000			*(20.4%)*	*3.1%*	*4.1%*	*9.0%*
Global Alpha International Small Cap	51,873		-	-	-	-
MSCI EAFE Small Cap			*(21.4%)*	*(0.9%)*	*0.0%*	*6.2%*
Emerging Markets Equity	**83,411**	**4.6%**	**(14.0%)**	**(1.4%)**	**0.3%**	**-**
MSCI Emerging Markets IMI Net			**(19.8%)**	**(1.8%)**	**(1.1%)**	**1.6%**
RBC	83,411	4.6%	(14.0%)	(1.4%)	0.3%	-
MSCI Emerging Markets IMI Net			*(19.8%)*	*(1.8%)*	*(1.1%)*	*1.6%*
Private Equity	**219,182**	**12.1%**	**114.8%**	**0.2%**	**4.3%**	**(2.3)**
Russell 3000 (1 Qtr Lag)			**(17.6%)**	**9.8%**	**11.8%**	**15.3%**

	NET ASSET VALUE	% OF PORTFOLIO	2022 RETURN	3 YRS	5 YRS	10 YRS
FIXED INCOME	399,931	22.1%	(8.4%)	(1.1%)	0.5%	1.8%
BBgBarc Multiverse TR			(16.0%)	(4.4%)	(1.6%)	(0.3%)
Cash	**74,006**	**4.1%**	**1.5%**	**0.8%**	**1.3%**	**-**
91 Day T-Bills			**1.5%**	**0.6%**	**1.2%**	**0.7%**
Short Term Investment Grade Bonds	**54,145**	**3.0%**	**(3.5%)**	**0.2%**	**1.3%**	**-**
BBgBarc US Aggregate 1-3 Yr			**(3.7%)**	**(0.4%)**	**0.9%**	**0.9%**
IR&M	54,145	3.0%	(3.5%)	0.2%	1.3%	-
BBgBarc US Aggregate 1-3 Yr			*(3.7%)*	*(0.4%)*	*0.9%*	*0.9%*
Investment Grade Bonds	**66,069**	**3.7%**	**(13.4%)**	**(2.3%)**	**-**	**-**
BBgBarc US Aggregate			**(13.0%)**	**(2.7%)**	**-**	**1.1%**
Longfellow Investment Management	66,069	3.7%	(13.4%)	-	-	-
BBgBarc US Aggregate			*(13.0%)*	*(2.7%)*	*-*	*1.1%*
Bank Loans	**71,517**	**4.0%**	**(0.5%)**	**3.1%**	**3.4%**	**-**
Credit Suisse Leveraged Loan			**(1.1%)**	**2.3%**	**3.2%**	**-**
Pacific Asset Management	71,517	4.0%	(0.5%)	2.4%	3.3%	-
Credit Suisse Leveraged Loan			*(1.1%)*	*2.3%*	*3.2%*	*-*
High Yield Bonds	**68,046**	**3.8%**	**(12.2%)**	**(0.5%)**	**0.7%**	**3.0%**
BBgBarc US Corporate High Yield			**(11.2%)**	**-**	**2.3%**	**4.0%**
Loomis Sayles US High Yield	68,046	3.8%	(12.2%)	-	-	-
BBgBarc US Corporate High Yield 2% Capped			*(11.2%)*	*-*	*2.3%*	*4.0%*
Emerging Markets Debt	**61,335**	**3.4%**	**(22.8%)**	**(10.8%)**	**(5.8%)**	**(2.0%)**
50% JPM EMBI/50% JPM GBI-EM			**(14.8%)**	**(5.7%)**	**(1.9%)**	**(0.3%)**
Metlife Emerging Markets Debt Blend	61,335	3.4%	-	-	-	-
35% JPM EMBI/35% JPM CEMBI/30% JPM GBI EM			*-*	*-*	*-*	*-*
Private Debt	**4,814**	**0.3%**	**(0.3%)**	**23.7%**	**16.7%**	**-**
BBgBarc Global High Yield + 2%			**(9.4%)**	**2.1%**	**4.4%**	**6.1%**
REAL ASSETS	347,931	19.2%	7.4%	3.8%	2.7%	-
50% NCREIF Property/50% Farmland Total Return (1Qtr Lag)			13.1%	8.2%	7.5%	9.5%
Real Estate	**187,422**	**10.4%**	11.6%	2.8%	3.3%	(2.1%)
NCRIEF Property (1Qtr Lag)			16.1%	9.9%	8.6%	9.5%
Natural Resources	**106,802**	**5.9%**	(2.2%)	1.3%	0.5%	2.5%
NCRIEF Farmland Total Return Index (1Qtr Lag)			10.2%	6.5%	6.3%	9.5%
Infrastructure	**53,707**	**3.0%**	12.5%	13.1%	5.0%	8.1%
S&P Global Infrastructure Index			(0.2%)	1.7%	3.9%	6.5%

(1) The Policy Benchmark is calculated as the weighted return based on the asset class target allocations and their corresponding benchmarks. The Policy Benchmark is updated for changes in the asset allocation targets as they are updated.

Overview and Goals

The general investment goals of DPFP are broad in nature in order to encompass the purpose of DPFP and its investments. By achieving allocation and performance objectives consistently, the long-term investment goals of DPFP are expected to be achieved. The goals, objectives and constraints as outlined in the Investment Policy Statement (IPS) are as follows:

Goals

- Earn a long-term, net of fees, investment return that, together with contributions, will be sufficient to meet current and future obligations of the plan when due.
- To earn a long-term, net of fees, investment return greater than the actuarial return assumption.

Objectives

- Maintain a diversified asset allocation that seeks to maximize the investment return while accepting prudent exposure to key investment risks.
- Outperform the Policy Benchmark over rolling five-year periods.
- Control and monitor the costs of administering and managing the investments.

Constraints

- DPFP will be managed on a going-concern basis. The assets of the Fund will be invested with a long-term time horizon, while being cognizant of the weak actuarial funded ratio and ongoing liquidity needs.
- The Board intends to maintain sufficient liquidity in either cash equivalents or short-term investment grade bonds to meet 18 months of anticipated benefit payments and expenses (net of contributions).
- DPFP is a tax-exempt entity. Therefore, investments and strategies will be evaluated on a basis that is generally indifferent to tax status.

DPFP's portfolio strategy is implemented primarily through the use of external investment managers. Each investment manager operates under a set of guidelines specific to the strategic role its portfolio is intended to fulfill in the overall investment portfolio. As part of the due diligence process for any new manager, DPFP negotiates fees with these external managers to the lowest reasonable cost to administer the investments without sacrificing quality of service.

DPFP's investment staff serve as the primary liaisons between the Board, Investment Advisory Committee, investment consultant, investment managers, and custodian bank. The investment staff's responsibilities include, but are not limited to, managing assets within the scope of DPFP's policies, implementing Board actions regarding asset allocation and investment managers, portfolio rebalancing, monitoring investment activities and performance, managing liquidity, performing investment manager due diligence, and coordinating manager searches and selection processes.

Investment Policy

The IPS is designed to guide investment of the assets of DPFP and sets forth an appropriate set of goals and objectives for DPFP. It defines guidelines to assist fiduciaries and staff in the management of the investments of DPFP.

The IPS outlines the asset allocation, details due diligence and investment review procedures, and clearly defines the roles of the Board, IAC, consultants and DPFP staff in the investment decision making process.

Updates to the IPS were approved by the Board on two occasions in 2022. Notable changes to the IPS approved in 2022 incorporated the following, among others:

- Remove the maximum limit of seven Investment Advisory Committee ("IAC") members.
- Add a 5% asset class concentration limit to any single issuer in both the Public Equity and Public Fixed Income portfolios. Each asset class will be treated separately for the purposes of the 5% limit.
- Remove the maximum number of current Board members that could serve on the IAC, but retain the requirement of more outside investment professionals than Board members attend to constitute an official meeting of the IAC.
- Change to the Private Equity benchmark from the Cambridge Associates U.S. All Private Equity Index (one quarter lag) to the Russell 3000 + 2% (one quarter lag).

Thus far in 2023, the IPS has been updated with changes to the fiduciary standards required on commingled funds, to reflect rebalancing considerations on the Safety Reserve, and to ensure the inclusion of diverse managers on public active manager searches.

To review the IPS in full, visit DPFP's website at www.dpfp.org.

Asset Allocation

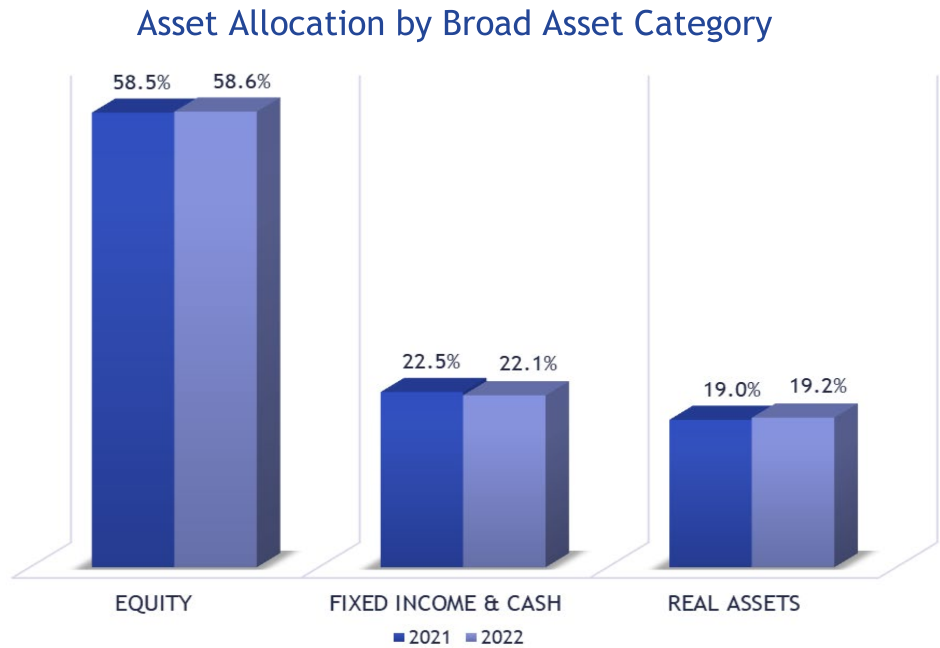
The updated asset allocation includes three broad asset categories: Equity, Fixed Income and Real Assets. The broad asset categories are further categorized into 13 separate asset classes. Variances to long-term allocation targets may be quite large but are expected to gradually diminish over time. Rebalancing ranges have been established to accommodate current variances to target and will be tightened over time as appropriate. The asset allocation as of December 31, 2022, is as follows:

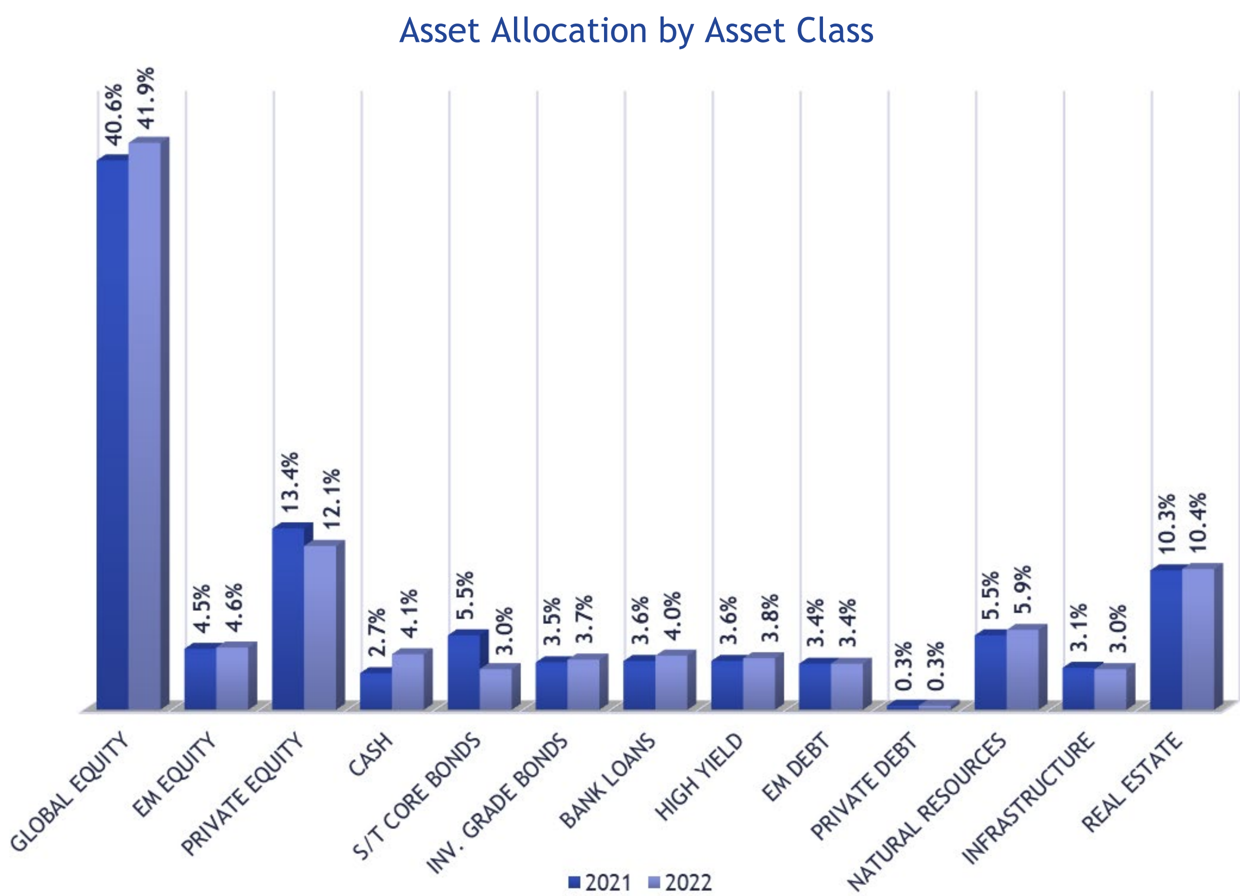
ASSET CATEGORY/CLASS	CURRENT ALLOCATION*	TARGET ALLOCATION
Equity	58.6%	65%
Global Equity	41.9%	55%
Emerging Markets Equity	4.6%	5%
Private Equity	12.1%	5%
Fixed Income	22.1%	25%
Cash	4.1%	3%
Short-Term Investment Grade Bonds	3.0%	6%
Investment Grade Bonds	3.7%	4%
Bank Loans	4.0%	4%
High Yield Bonds	3.8%	4%
Emerging Markets Debt	3.4%	4%
Private Debt	0.3%	0%
Real Assets	19.2%	10%
Real Estate	10.4%	5%
Natural Resources	5.9%	5%
Infrastructure	3.0%	0%

**Numbers may not total to 100% due to rounding.*

The Global Equity asset class was brought closer to target in 2022 as proceeds from private asset distributions were reallocated. All the private markets asset classes (Private Equity, Private Debt, Real Estate, Natural Resources and Infrastructure) ended the year above their respective target allocations.

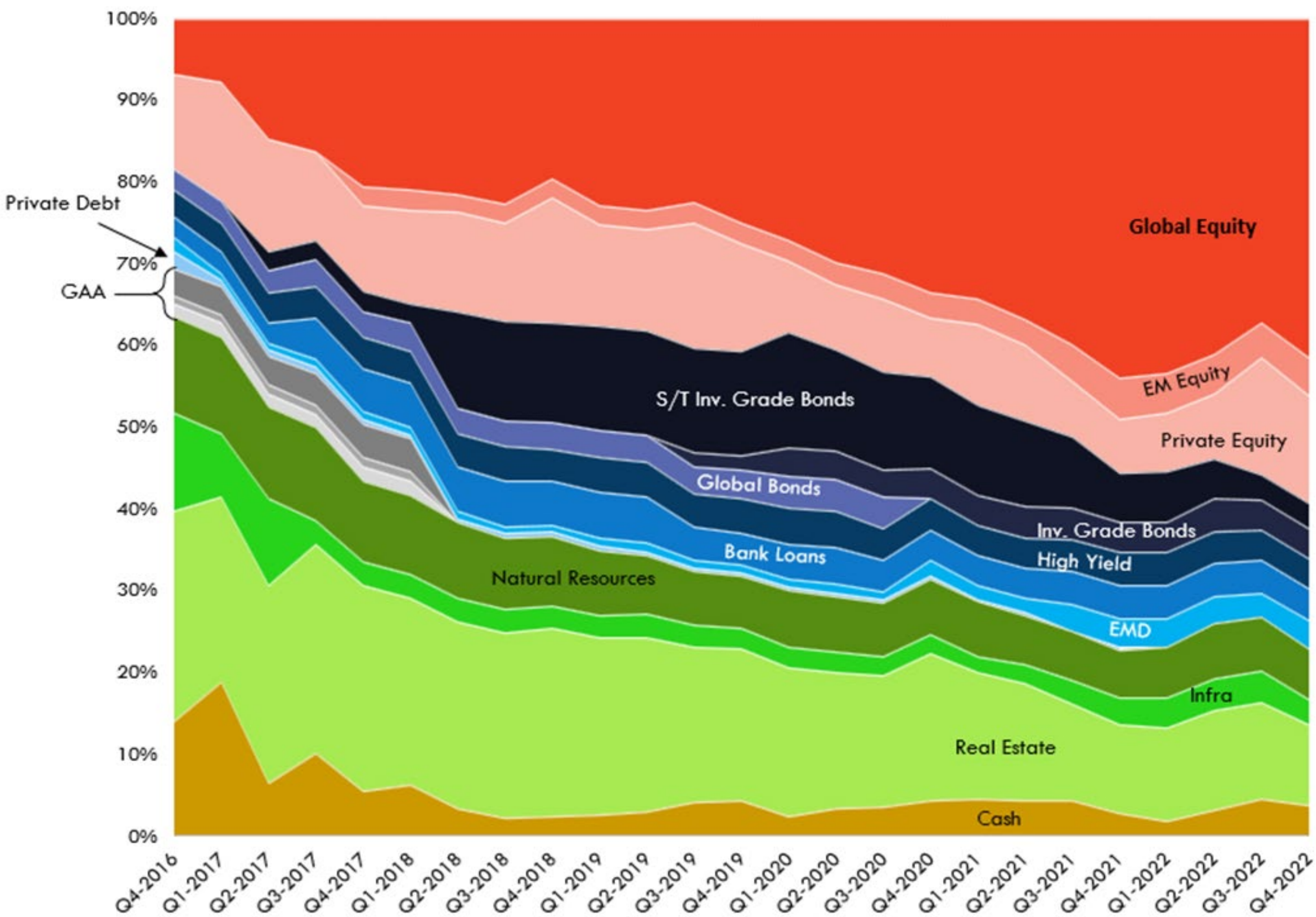
The following graphs reflect the portfolio allocation as of December 31, 2021 and 2022 by broad asset category and asset class.





Over the past several years, DPFP has been focused on transitioning private assets proceeds into a greater allocation to public markets. The below graph reflects the asset allocation changes over the past six years, on a quarterly basis.

Asset Allocation Evolution



Investment Management Fees and Brokerage Commissions

Investment management fees included in the Administrative, Investment and Professional Services Expenses supplementary schedule in the Financial section of this report represent only those fees paid directly by DPFP. In addition to the fees paid directly, DPFP incurs investment management fees which are charged by general partners or investment managers at the fund level. Fees charged at the fund level are typically seen in public equity and fixed income commingled funds or private equity, private debt, and infrastructure funds. DPFP considers any incentive, performance or disposition fees paid directly to the investment manager a management fee and therefore is included in the below table. The below table presents all fees paid in 2022, net of any rebates or discounts received (dollars in thousands).

ASSET CLASS	MANAGEMENT FEES PAID FROM THE GROUP TRUST	MANAGEMENT FEES PAID AT FUND LEVEL	TOTAL INVESTMENT MANAGEMENT FEES	2022 AVERAGE MARKET VALUE	TOTAL MANAGEMENT FEES PAID AS A % OF AVERAGE MARKET VALUE
Equity	$ 3,241	$ 2,150	$ 5,391	$ 1,007,542	0.54%
Fixed Income & Cash	504	725	1,229	420,554	0.29%
Real Assets	2,091	1,005	3,096	382,576	0.81%
TOTAL	**$ 5,836**	**$ 3,880**	**$ 9,716**	**$ 1,810,672**	**0.54%**

In 2019, the Texas Legislature passed Senate Bill 322 which modified Section 802.109 of the Texas Government Code to require a listing, by asset class, of all direct and indirect commissions and fees paid by the retirement system during the system's previous fiscal year for the sale, purchase, or management of system assets. DPFP has included all management fees as outlined above. Brokerage Fees and Commissions include brokerage commissions for public debt and equity securities that are held directly by DPFP through our custody bank and all third-party brokerage commissions paid on wholly-owned private assets. Carried Interest includes any preferred return paid to an investment manager, which is typical in private equity structures. While DPFP is reporting $1.29M of Carried Interest paid in Private Equity during 2022, DPFP has disputed with the General Partner that this carried interest was properly calculated and hopes to resolve the issue in the coming months. Other Investment Expenses includes consultant, custodian, legal, valuation, and other expenses that are paid directly by DPFP and related to the operation and management of the investment portfolio. For the purposes of the SB 322 schedule, these investment expenses are not allocated to specific asset classes and are considered DPFP Plan Level expenses (dollars in thousands).

ASSET CLASS	INVESTMENT MANAGEMENT FEES	BROKERAGE FEES OR COMMISSIONS	CARRIED INTEREST	OTHER INVESTMENT EXPENSES	TOTAL OF ALL FEES AND EXPENSES
Equity	$ 5,341	$ 380	$ -	$ -	$ 5,721
Fixed Income	1,229	-	-	-	1,229
Real Assets	3,096	322	-	-	3,418
Alternatives (Private Equity)	50	-	1,294	-	1,344
DPFP Plan Level	-	-	-	2,887	2,887
TOTAL	**$ 9,716**	**$ 702**	**$ 1,294**	**$ 2,887**	**$ 14,599**

Below is a breakdown of DPFP Plan Level investment expenses by category:

OTHER INVESTMENT EXPENSES (000's)	
Custodial	$ 222
Investment Level Valuation & Audit	379
Research	40
Consulting and Reporting	344
Legal	1,012
Tail-end Advisory	894
Tax	3
Other	(7)
TOTAL	**$ 2,887**

During 2022, DPFP incurred approximately $380 thousand in brokerage fees and commissions paid through managers to trade a total of approximately 13 million shares. This represents an average cost of $0.028 per share traded.

BROKERAGE FIRM	NUMBER OF SHARES TRADED (000'S)	TOTAL FEES AND COMMISSIONS (000's)	FEES AND COMMISSIONS PER SHARE
J.P. Morgan Securities Inc., NY	2,228	44	0.020
J.P. Morgan Securities Ltd.	500	24	0.048
Sanford C Bernstein Ltd	370	23	0.062
Credit Suisse Securities (USA) LLC	193	14	0.075
Merrill Lynch International	185	14	0.077
Citigroup Global Markets Ltd.	524	14	0.026
Goldman Sachs	363	11	0.030
Goldman Sachs International	411	10	0.024
Jefferies International	317	8	0.026
Morgan Stanley	338	8	0.024
All other firms	7,949	210	0.026
TOTAL	**13,378**	**$ 380**	**$ 0.028**

Largest Public Equity and Fixed Income Holdings

The below tables contain the ten largest public equity and fixed income securities owned as of December 31, 2022. A full list of securities owned is available upon written request.

PUBLIC EQUITY ISSUER	MARKET VALUE (000's)	% OF PUBLIC EQUITY
Alphabet	$ 24,461	2.81%
Microsoft Corp	18,794	2.16%
LVMH Moet Hennessy Louis Vuitton	11,702	1.35%
Johnson & Johnson	10,259	1.18%
Apple Inc	9,667	1.11%
Taiwan Semiconductor Manufacturing	9,502	1.09%
Novo Nordisk	8,396	0.97%
Keyence	7,622	0.88%
Cisco Systems Inc	7,472	0.86%
Airbus	7,087	0.82%

PUBLIC FIXED INCOME ISSUER	Maturity	Interest Rate	Market Value (000's)
UNITED STATES OF AMERICA NOTES FIXED 0.25%	06/30/2025	0.25%	$ 3,330
UNITED STATES OF AMERICA NOTES FIXED 3.5%	09/15/2025	3.50%	3,216
UNITED STATES OF AMERICA NOTES FIXED 1.375%	12/31/2028	1.38%	3,083
UNITED STATES OF AMERICA NOTES FIXED 1.5%	01/31/2027	1.50%	2,627
UNITED STATES OF AMERICA NOTES FIXED 2%	11/15/2041	2.00%	2,502
UNITED STATES OF AMERICA NOTES FIXED 2.5%	04/30/2024	2.50%	2,413
UNITED STATES OF AMERICA NOTES FIXED 1.25%	05/15/2050	1.25%	2,187
UNITED STATES OF AMERICA NOTES FIXED 1.375%	06/30/2023	1.38%	1,898
PETROLEOS MEXICANOS	03/31/2023	0.13%	1,449
UNITED STATES OF AMERICA NOTES FIXED 0.125%	11/15/2031	1.38%	1,414

Investment Managers

Assets under management during 2022

AEW Capital Management
Alvarez & Marsal
Aristotle Pacific Capital
Ashmore Investment Management Limited
Boston Partners Global Investors
BTG Pactual Asset Management
Clarion Partners
Eastern Shore Capital Management
Global Alpha Capital Management
Highland Capital Management
Hudson Clean Energy Partners
Income Research and Management
Industry Ventures
Invesco, Ltd.
JPMorgan Asset Management
L&B Realty Advisors
Longfellow Investment Management Company
Lone Star Investment Advisors
Loomis, Sayles & Company
Manulife Asset Management
MetLife Investment Management
Northern Trust
RBC Global Asset Management
Riverstone Credit Partners
The Rohatyn Group
Walter Scott & Partners Limited
W.R. Huff Asset Management

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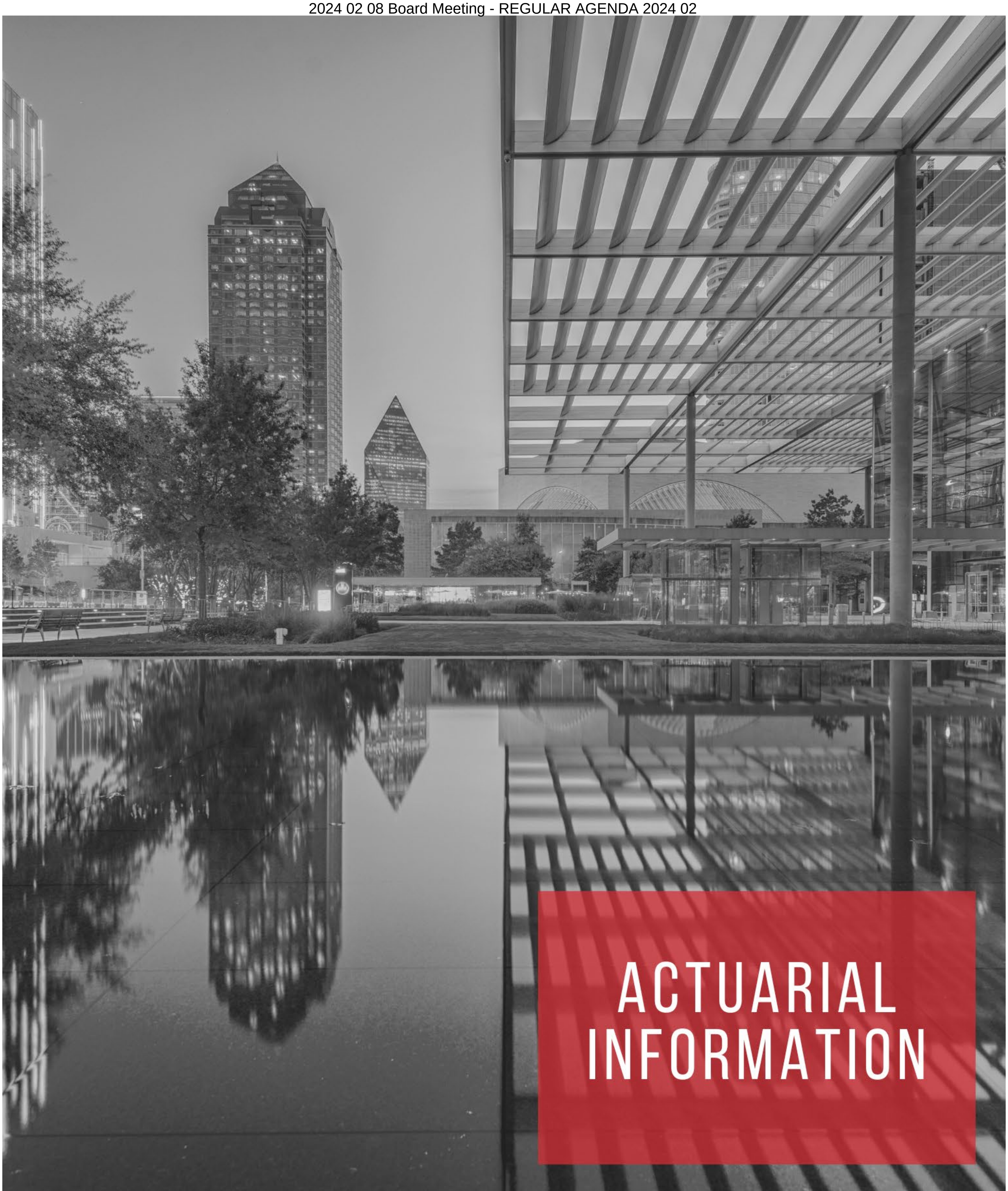

ACTUARIAL INFORMATION

Actuary's Report

Segal

2727 Paces Ferry Roade SE Building
One, Suite 1400 Atlanta, GA 30339-
4053 T 678.306.3100
www.segalco.com

January 11, 2024

Board of Trustees
Dallas Police & Fire Pension System
4100 Harry Hines Blvd., Suite 100
Dallas, TX 75219

Re: Actuarial Valuations as of January 1, 2023

Dear Board Members:

At the request of the Dallas Police and Fire Pension System (DPFP), Segal has completed January 1, 2023 actuarial valuations for the Combined Pension Plan and the Supplemental Plan (the Plans). This letter certifies that the information contained in this report is accurate and fairly presents the actuarial position of the Plans as of the valuation date.

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the results presented also comply with the requirements of Texas state law and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board (GASB). The undersigned is an independent actuary and consultant. Mr. Williams is a Fellow of the Conference of Consulting Actuaries, Associate of the Society of Actuaries, Enrolled Actuary, and Member of the American Academy of Actuaries, and is experienced in performing valuations for large public retirement systems. He meets the Qualification Standards of the American Academy of Actuaries to render this opinion.

ACTUARIAL VALUATION

The primary purposes of the valuation reports are to determine the adequacy of the current employer contribution rates, to describe the current financial condition of the Plans, and to analyze changes in the Plans' financial condition. In addition, this report provides information required in connection with Governmental Accounting Standards Board Statement No. 67 (GASB 67) and provides various summaries of the data. Valuations are prepared annually as of January 1 of each year, the first day of DPFP's plan year.

FINANCING OBJECTIVES

The City of Dallas ("City") and member contribution rates for the Combined Pension Plan, along with the member contribution rates for the Supplemental Plan, are established by State statute.

Combined Pension Plan

In order to determine the adequacy of the Combined Pension Plan's contribution rates, they are compared to an actuarially determined contribution intended to be sufficient to pay the normal cost (the current year's cost) and to amortize the UAL as a level percentage of payroll over a set period. In accordance with July 2020 amendments to the funding policy adopted by the System's Board, the UAL amortization period was changed to a closed, 25-year amortization as of January 1, 2020. Effective January 1, 2021, future gains or losses each year are amortized over separate, closed, 20-year periods. The effective amortization period as of January 1, 2023 is 22 years. For these calculations, payroll is assumed to increase 2.50% per year. For actuarial valuation purposes, Combined Plan assets are valued at actuarial value. Under the actuarial asset method, the assets used to determine employer contribution rates take into account market value by recognizing the differences between the actual and expected return on market value over a five-year period.

The Board monitors the margin or deficit between the actuarially determined recommended contribution and the statutory contribution rates. Under the System's funding policy, if the City's actual contributions are at least 2% below the actuarially determined contribution for two consecutive years, with a two-thirds vote of the Board, the Trustees will recommend an increase in the City's contribution rates. The City's contributions fell short of the actuarially determined contribution for the plan year ended December 31, 2022, by $58.6M or 25.7% of the actuarially determined contribution. The System and the actuary will monitor the contributions on the shorter amortization basis going forward.

Supplemental Plan

The City's contribution for the Supplemental Plan is determined with the actuarial valuation each year and is the sum of the normal cost and an amortization of the unfunded actuarial accrued liability (UAL). In accordance with June 2020 amendments to the funding policy adopted by the System's Board, the UAL amortization period was changed to a closed, 20-year amortization as of January 1, 2020. Effective January 1, 2021, future gains or losses each year are amortized over separate, closed, 10-year periods. The effective amortization period as of January 1, 2023 is 14 years. Amortization is on a level percentage of pay basis, with payroll assumed to increase 2.50% per year.

PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES

Combined Pension Plan

As of January 1, 2023, the City's actuarially determined contribution for the Combined Pension Plan is a dollar amount equivalent to 54.36% of computation pay. The City's contribution rate is 34.50% of computation pay, but not less than the bi-weekly contribution amounts stated in HB3158, plus $13 million annually, through December 31, 2024. Beginning January 1, 2025, City contributions will be 34.50% of computation pay. Based on Dallas's hiring plan projections, these contribution rates are expected to achieve full funding of the System by January 1, 2105, if actuarial assumptions are met in the aggregate. This full-funding date, which is effectively an 82-year amortization of the UAL, is later than was expected last year. The delay is primarily due to investment losses in 2022 and larger than expected salary increases as a result of the 2023 Meet and Confer Agreement. The changes implemented under HB3158, which became effective September 1, 2017, significantly improved projected plan funding over the long-term. Prior to these changes, the System had a projected insolvency. The Texas Pension Review Board is aware of the System's status and progress.

The funded ratio is equal to the ratio of the actuarial value of assets to the actuarial accrued liability. The Combined Pension Plan's funded ratio on an actuarial value basis decreased from 41.06% to 39.12% between January 1, 2022 and January 1, 2023. This decrease was primarily due to investment losses on an actuarial value basis. The UAL increased from $3.04 billion to $3.20 billion on an actuarial basis.

Supplemental Plan

The Supplemental Plan funded ratio decreased from 45.66% to 38.65% between January 1, 2022 and January 1, 2023. This decrease is primarily due to investment losses. The supplemental nature of this plan makes it more susceptible to fluctuations than a typical defined benefit plan. Also, Supplemental Plan assets are valued at market value, and investment gains and losses are recognized immediately. Although the funded ratio currently is low, City contributions to this Plan are calculated in such a way as to ensure that benefits will be funded. Further, as discussed previously, the funding policy was changed from an open, 10-year amortization of the UAL to a closed, 20-year amortization with the January 1, 2020 valuation. Effective January 1, 2021, future gains or losses each year are amortized over separate, closed, 10-year periods. The closure of the amortization periods should accelerate progress towards 100% funding.

ASSUMPTIONS AND METHODS

Actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by DPFP's actuary. The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in assumptions can materially change the liabilities, actuarially determined contribution rates, and funding periods.

All actuarial assumptions and methods are described under Section 4 of our actuarial valuation reports, and a summary is included in this Actuarial Information section as well. The assumptions and methods used for funding purposes conform to the Actuarial Standards of Practice, and we believe them to be internally consistent and reasonable. The majority of the assumptions used in the January 1, 2023 actuarial valuation were adopted by the Board following a five-year experience review for the period ended December 31, 2019.

An additional change was made to the net investment return rate in 2021. In the 2023 valuation, the salary scale assumption was updated based on the 2023 Meet and Confer Agreement, and the assumed retirement rate for DROP actives was lowered from 100% to 75% after ten years in DROP.

We believe the actuarial assumptions and methods are internally consistent and are reasonable, based upon past experience and future expectations of the Plans. However, it should be noted that the retirement assumptions were set based on the plan changes effective September 1, 2017, and there have not been enough retirements subsequent to the plan changes becoming effective to evaluate the appropriateness of those rates.

Since the population of the Supplemental Plan is a subset of the Combined Pension Plan, and is too small to be independently credible, the valuation for the Supplemental Plan uses most of the same assumptions as the Combined Pension Plan. The explicit administrative expense assumption is set independently. Also, the Supplemental Plan uses market value for funding, with no smoothing of gains and losses.

BENEFIT PROVISIONS

There were no changes to the plan provisions in the last year. The current provisions are outlined in the Financial Information section of this Annual Comprehensive Financial Report (ACFR).

DATA

Member data for retired, active and inactive participants was supplied as of December 31, 2022 by the staff of DPFP. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. The staff also supplied asset and financial information as of December 31, 2022.

ANNUAL COMPREHENSIVE FINANCIAL REPORT SCHEDULES

Segal prepared the supporting schedules in this Actuarial Information section of the annual financial report, including:

- Historical Nominal Rates of Return
- Reconciliation of Unfunded Actuarial Accrued Liability
- Solvency Test
- Active Member Valuation Data
- Retirees and Beneficiaries Added to and Removed from Rolls
- Funding Progress

In addition, we prepared the following schedules in the Financial Information Section:

- Schedule of Changes in the Net Pension Liability
- Sensitivity of the Net Pension Liability to Changes in Discount Rate
- Schedule of Actuarially Determined Contributions

We would like to thank the Board, the Executive Director, and DPFP's staff for their assistance and input necessary to complete the actuarial valuations.

Respectfully submitted,

Segal

Jeffrey S. Williams, FCA, ASA, MAAA, EA
Vice President and Consulting Actuary

Actuarial Information

Introduction

DPFP's Combined Pension Plan and Supplemental Plan are single-employer defined benefit plans. The Plans provide retirement, death and disability benefits. The Combined Pension Plan requires an annual actuarial valuation to determine the adequacy of the current contribution rate of the City, to describe the current financial condition of DPFP, and to analyze changes in DPFP's financial condition. The Supplemental Plan requires an annual actuarial valuation to determine the amount of the City's annual contribution as required by City ordinance.

Funding

Defined benefit plans represent a commitment to pay specific benefits to employees and their survivors. Refer to Note 1 in the Financial Section for a description of benefits. The benefit to employees and their survivors is usually much more than the combined contributions of the employee and the employer. Determining adequate funding requires making a variety of assumptions to assure full payments can be made from the plan.

There are a number of actuarial assumptions necessary in order to estimate the amount of funding required to provide future benefits. Once the assumptions have been determined, the actuary must select a cost method to determine the amount of funding required in order for the committed benefits to be provided.

Based on assumption changes and asset returns, the Combined Pension Plan's funded ratio declined from 41.1% as of January 1, 2022 to 39.1% as of January 1, 2023. Additionally, the Combined Pension Plan is projected to become fully funded by 2105 as of the January 1, 2023 valuation, an extension over the January 1, 2022 fully funded expectation of 2090. The Plan funding is based on statutorily defined rates. The Board adopted a new funding policy in December 2019 and amended the policy in July 2020. In the Board's amended policy, the amortization period was changed from 30 years to a closed 25-year period for the January 1, 2020 valuation. Beginning January 1, 2021, future gains or losses each year are amortized over separate, 20-year periods. Amortization remains on a level percentage of pay basis.

The funding policy for the Supplemental Plan was changed from an open 10-year amortization of the UAL to a closed, 20-year amortization with the January 1, 2020 valuation. Beginning January 1, 2021, future gains or losses each year will be amortized over separate, closed, 10-year periods. Amortization will remain on a level percentage of pay basis. The funding policy is based on the assumption that the annual actuarially determined contribution is received from the City each year.

Cost Method

Using an actuarial cost method requires estimating the ultimate cost of the plan. The ultimate cost of the plan includes all specific benefits that are committed to be paid, plus all administrative expenses, less any investment earnings realized over the life of the plan. As the exact ultimate cost of the plan cannot be determined until the last retired member of a plan dies, it must be actuarially estimated by forecasting the plan's expenses and investment return.

Assumptions must be made for all the years the plan is in existence, including the number of active members and beneficiaries who will retire, terminate service, or become disabled, the duration of retirement and disability payments, mortality rates, salary increases, DROP participation, inflation, and long-term rate of return on investments. Administrative expenses must also be estimated.

Actuary's Report

The actuarial information that follows was determined using specific actuarial methods which have been described in general above. Such methods were applied to census data related to active members, retirees, and beneficiaries of DPFP as of January 1, 2023. Content throughout the Actuarial section has been obtained from reports provided by DPFP's external actuaries for the periods noted. The Actuary's Report at page 91 is a summary from Segal regarding the January 1, 2023 valuations.

Actuarial Assumptions and Methods

The following assumptions were changed for the January 1, 2023 valuation:

- The assumed retirement rate for DROP actives was lowered from 100% to 75% after ten years in DROP.
- The salary scale assumption was updated based on the 2023 Meet and Confer agreement.

The following assumptions were changed for the January 1, 2022 valuation:

- Administrative expense assumption was lowered to $7 million from $8.5 million.
- The ad-hoc COLA assumption was lowered from 2.0% to 1.5%. Ongoing, the COLA assumption will remain at five percentage points less than the investment return assumption.
- The ad-hoc COLA assumption was updated to begin October 1, 2073.

The following assumptions were changed for the January 1, 2021 valuation:

- The net investment return assumption was lowered from 7.0% to 6.50%.
- The ad-hoc COLA assumption was updated to begin October 1, 2069.

In conjunction with the January 1, 2020 actuarial valuations, a comprehensive experience study was performed by Segal, reviewing all assumptions incorporated in the actuarial valuations and covering the five-year period ended December 31, 2019. Adjustments to the demographic and economic assumptions were made in the January 1, 2020 valuation based on the results of the experience study.

The following assumptions were changed for the January 1, 2020 valuation:

- The net investment return assumption was lowered from 7.25% to 7.0%.
- The salary scale assumption was updated based on the 2019 Meet and Confer agreement, with a new ultimate rate of 2.5%.
- The payroll growth assumption was lowered from 2.75% to 2.50%.
- The mortality rates were updated to the Pub-2010 Public Safety Amount-weighted Mortality Tables, with varying adjustments by status and sex, projected generationally with Scale MP-2019.
- The withdrawal rates were updated and the ultimate 0% rate was moved up from 38 to 25 years of service.
- The DROP retirement rates were increased at most ages and the ultimate 100% retirement was updated from the earlier of 67 years or 8 years in DROP to the earlier of age 65 or 10 years in DROP.
- The non-DROP retirement rates were lowered at most ages and simplified from three sets to two sets of rates.
- The retirement assumption for inactive vested participants was updated to include an assumption that 75% of those who terminate with a vested benefit prior to age 40 will take a cash out at age 40.
- The DROP annuitization interest rate for account balances as of September 1, 2017 was lowered from 3.0% to 2.75%.
- The ad-hoc COLA assumption was updated to begin October 1, 2063. Last year, the COLA was assumed to begin October 1, 2050.
- The system's expectations for near-term market returns were lowered to -6.00% for 2020, +5.25% for 2021, +5.75% for 2022 and +6.25% for 2023. For valuation purposes, these return assumptions are used for determining the projected full-funding date and the projected COLA start date.

The following assumptions were changed for the January 1, 2019 valuation:

- The salary scale assumption was updated to reflect the 2016 Meet and Confer Agreement, as amended in 2018.
- The ad-hoc COLA assumption was updated to begin October 1, 2050 based on the updated projection of the unfunded actuarial accrued liability; the COLA was assumed to begin October 1, 2053 in the January 1, 2018 valuation.

The Combined Pension Plan's contribution rate is set by State statute. See the Required Supplementary Information in the Financial Section for a ten-year schedule of actuarial determined contribution and actual contributions. As of September 6, 2017 the contribution rate for all employees is 13.5%. As of September 6, 2017 the City contribution rate is 34.5% of Computation Pay, with certain minimum floor amounts as specified in the Bill through 2024, plus $13 million per year through 2024. There is no direct policy to fund the unfunded liability in a certain number of years. The PRB requires that municipal plans develop a Funding Soundness Restoration Plan if their effective amortization period exceeds 40 years for three consecutive annual valuations. The PRB was involved with the plan changes throughout the legislative process and DPFP will continue to provide annual reporting to the PRB as required. In accordance with HB 3158, in 2024, an actuarial analysis shall be conducted with an independent actuary making recommendations to the Board for changes to bring the Combined Pension Plan in line with funding guidelines set by the PRB, if needed. The Board shall adopt changes based on the actuary's recommendations to meet the funding amortization period required by the Texas Government Code. The PRB shall review the changes and submit a report to the Texas legislature regarding such review. The changes adopted by the Board will remain in effect until either amended by the Board or a law is enacted by the Texas legislature which preempts the changes.

The January 1, 2023 valuation projects the full funding of the plan at 82 years.

The actual expense for the employer's financial disclosure purposes is determined in accordance with GASB No. 68, *Accounting and Financial Reporting for Pensions – An Amendment of GASB No. 27*.

Member contributions for the Supplemental Plan are established by State statute. Per City ordinance, the City makes a contribution each year sufficient to pay for the annual normal cost of the Supplemental Plan, plus enough to amortize the unfunded actuarial accrued liability of the Supplemental Plan at January 1, 2021 over a closed 20 years. Beginning in January 1, 2021, future gains and losses each year will be amortized over separate, closed 10 year periods.

A summary of the actuarial assumptions and methods used in the January 1, 2023 actuarial valuation follows.

Investment Rate of Return: 6.50% per annum, compounded annually, net of investment expenses. This rate reflects an underlying inflation rate of 2.50% and a real rate of return of 4.00%. Market rate of return was -11.46% in 2022.

Discount Rate: 6.50% is the rate used to discount the liabilities.

Administrative Expenses: An explicit assumption of annual administrative expenses, including investment-related personnel costs has been added to the normal cost in the amount of the greater of $7.0 million per year or 1% of Computation Pay for the Combined Pension Plan and $55 thousand per year for the Supplemental Plan.

Interest on DROP Accounts: DROP balances for active participants are assumed to earn 2.75% upon retirement. Balances accrued after September 1, 2017 do not earn interest.

Salary Scale: Range of 2.5% to 3.25% based on the City's pay plan, along with analysis completed in conjunction with an Experience Study report for the five-year period ended December 31, 2019 and the 2019 and 2023 Meet and Confer Agreement.

In years 2023 and thereafter:

	OFFICERS	CORPORALS, DRIVERS, & SENIOR OFFICERS	SERGEANTS, LIEUTENANTS, CAPTAINS, MAJORS, DEPUTY CHIEFS, ASSISTANT CHIEFS & CHIEFS
Year	RATE (%)		
2023	7.25%	6.75%	6.25%
2024 and thereafter	3.00%	3.00%	2.50%

Payroll Growth Rate: Total payroll is assumed to increase 2.50% per year, which is consistent with the assumed inflation rate.

Retirements-DROP active members: The percentage of the population assumed to retire at various ages in 2023 is as follows:

AGE	ANNUAL RATE OF RETIREMENT	
	Police	Fire
Under 50	1.00%	0.75%
50	10.00%	0.75%
51	15.00%	0.75%
52 - 53	15.00%	10.00%
54	25.00%	10.00%
55 - 57	25.00%	15.00%
58 - 62	30.00%	40.00%
63	40.00%	50.00%
64	50.00%	50.00%
65 and over	100.00%	100.00%

Note: 75% retirement rate after ten years in DROP.

Retirements-Non-DROP active members: The percentage of non-DROP members assumed to retire at various ages is as follows:

	MEMBERS HIRED PRIOR TO MARCH 1, 2011 WITH AT LEAST 20 YEARS OF SERVICE AS OF SEPTEMBER 1, 2017	MEMBERS HIRED PRIOR TO MARCH 1, 2011 WITH LESS THAN 20 YEARS OF SERVICE AS OF SEPTEMBER 1, 2017 & MEMBERS HIRED ON OR AFTER MARCH 1, 2011
Age	Annual Rate of Retirement	
Under 50	1.00%	1.00%
50 - 51	8.00%	2.00%
52	10.00%	2.00%
53	15.00%	2.00%
54	20.00%	2.00%
55	35.00%	2.00%
56 – 57	40.00%	2.00%
58 – 60	75.00%	25.00%
61	75.00%	50.00%
62	100.00%	100.00%

Note: 100% retirement rate once benefit multiplier hits 90% maximum.

Mortality Rates: The tables used for mortality assumptions are as follows:

Healthy Pre-retirement – Pub-2010 Public Safety Employee Amount-Weighted Mortality Table, set forward five years for males

Healthy annuitants and dependent spouses - Pub-2010 Public Safety Retiree Amount-Weighted Mortality Table, set back one year for females

Healthy contingent beneficiaries - Pub-2010 Public Safety Contingent Survivor Amount-Weighted Mortality Table, set back one year for females

Disabled annuitants – Pub-2010 Public Safety Disabled Retiree Amount-Weighted Mortality Table, set forward four years for males and females

All tables are projected generationally using Scale MP-2019.

Turnover: The assumed annual rates of turnover (withdrawal) differ by employee group, with higher rates assumed for police officers than for firefighters. Rates for each group are based on service and reflect recent experience as follows. Rates cut off at normal retirement age.

YEARS OF SERVICE	TURNOVER	
	Police	Fire
<1	20.00%	10.00%
1	5.50%	5.50%
2	5.50%	5.50%
3	5.50%	5.50%
4	5.50%	5.50%
5	5.50%	5.50%
6	3.50%	5.50%
7	3.50%	1.00%
8	3.50%	1.00%
9	3.50%	1.00%
10	3.50%	1.00%
11 - 14	2.00%	1.00%
15 - 24	1.00%	1.00%
25 and over	0.00%	0.00%

Disability Rates: The percentage of members assumed to leave active service due to disability at various ages is as follows. Rates cut off at normal retirement age.100% of disabilities are assumed to be service-related.

AGE	DISABILITY RATE
20	0.010%
25	0.015%
30	0.020%
35	0.025%
40	0.030%
45	0.035%
50	0.040%

DROP Utilization: The DROP utilization factor is 0% for new entrants.

Family Composition: 75% of active members are assumed to be married, with the male assumed to be three years older than the female. The age of the youngest child is assumed to be 10 years.

Survivor Benefit Election: All married members are assumed to receive the non-reduced Joint and Survivor annuity form of payment. Non-married participants are assumed to have no beneficiaries and receive a Life Only annuity.

Assumed Post-Retirement Cost of Living: As a result of HB 3158, the Board may grant an ad hoc cost of living adjustment not to exceed 4.0% of the original benefit if, after granting a cost of living adjustment, the funded ratio on a market value of assets basis is no less than 70%. Such ad hoc adjustment is subject to limitation based on the trailing five years of investment returns at the time the 70% ratio is met. The adjustment is assumed to be 1.50% beginning October 1, 2073 and payable every October 1st thereafter.

Actuarial Cost Method: The method used to determine the cost of future service (normal cost) and the actuarial accrued liability (AAL) is the Entry Age Actuarial Cost Method. Under this method, the present value of future normal cost is determined for all active members, which is the contribution required to provide all the projected pension benefits assuming this contribution is payable over a period ending on the date of retirement (separation from active service) and expressed as a level percentage of the present value of future compensation for all active members. The AAL is determined as the excess of the total present value of all pension benefits over the total present value of future normal costs. The unfunded actuarial accrued liability as of the valuation date is determined as the excess of the AAL over the assets of the Plans.

The normal cost and AAL are derived by making certain assumptions as to the rates of interest, mortality, and turnover, among others, which are assumed to reflect experience for many years into the future. Since actual experience will differ from the assumptions, the costs determined must be regarded as estimates of the true costs of the plans. The effects of any actuarial gains or losses are immediately reflected in the unfunded actuarial accrued liability and the normal cost.

Amortization Method: The effective amortization period is developed using a level percent of pay, with pay assumed to increase at the payroll growth rate. The Combined Pension Plan amortizes the unfunded liability at January 1, 2020 over a closed 25-year period. Beginning in January 1, 2021, future gains and losses each year are amortized over separate, closed, 20 year periods. The Supplemental Pension Plan amortizes the unfunded liability at January 1, 2020 over a closed 20-year period. Beginning January 1, 2021, future gains or losses each year will be amortized over separate, closed 10-year periods.

Asset Valuation Method: Actuarial valuation methods include "smoothing" investment returns over a period of time to provide a more stable actuarial rate of return and more predictable pension costs. The actuarial value of assets was reset to market value as of December 31, 2015. Future gains and losses are recognized over a five-year smoothing period, further adjusted, if necessary, to be within 20% of market value.

The Supplemental Plan actuarial value of assets is equal to the market value of assets.

Long-term Rate of Return on Plan Assets: The long-term rate of return on plan assets used to value the liabilities of the Plans is 6.50%. This assumption was last changed as of January 1, 2021 to better anticipate future expectations and the assumed inflation rate. Based on the asset allocation policy, expectations of future real rates of return and the expected investment expenses, a long-term rate of return of 6.50% is considered reasonable.

A summary of historical nominal rates of return is as follows:

YEAR ENDED DECEMBER 31,	ACTUARIAL VALUE INVESTMENT RETURN	MARKET VALUE INVESTMENT RETURN
2008	(6.14%)	(24.80%)
2009	12.29%	13.78%
2010	2.69%	10.72%
2011	0.43%	(1.78%)
2012	14.79%*	9.92%
2013	4.52%	7.70%
2014	(1.98%)	(5.35%)
2015	(24.03%)*	(8.47%)
2016	7.16%	6.82%
2017	6.63%	4.74%
2018	5.48%	2.09%
2019	5.05%	6.25%
2020	3.46%	(0.45%)
2021	4.68%	16.99%
2022	2.22%	(11.46%)
5-year average return	4.19%	2.37%
10-year average return	(2.24%)	1.29%
15-year average return	0.50%	0.92%

Note: Each annual yield is weighted by the average asset value for that year.

** Includes effects of change in asset valuation method. As of December 31, 2012, the smoothing method was extended from 5 to 10 years. As of December 31, 2015, the actuarial value of assets was reset to market value and the smoothing method was altered from 10 to 5 years.*

Analysis of Financial Experience

An analysis of financial experience is a gain/loss analysis of changes in the actuarial accrued liability or unfunded actuarial accrued liability that considers variances between actual experience and assumed experience for different types of risk. Such analysis is as follows (in thousands):

COMBINED PENSION PLAN	
Unfunded actuarial accrued liability as of January 1, 2022	$ 3,040,804
Normal cost at beginning of year	81,440
Total contributions	(229,618)
Total interest	195,562
Expected unfunded actuarial accrued liability as of January 1, 2022 **(a)**	3,088,188
Changes due to:	
Net experience loss	43,116
Plan provisions	-
Assumptions	64,323
Total changes **(b)**	107,439
Unfunded actuarial accrued liability at year end **(a+b)**	3,195,627
Actuarial accrued liability at beginning of year	5,158,782
Net (gain)/loss as a percentage of actuarial accrued liability at beginning of year	0.8%

SUPPLEMENTAL PLAN	
Unfunded actuarial accrued liability as of January 1, 2022	$ 22,207
Normal cost at beginning of year	844
Total contributions	(2,720)
Total interest	1,322
Expected unfunded actuarial accrued liability as of January 1, 2022 **(a)**	21,653
Changes due to:	
Net experience loss	3,883
Plan provisions	-
Assumptions	873
Total changes **(b)**	4,756
Unfunded actuarial accrued liability at year end **(a+b)**	26,409
Actuarial accrued liability at beginning of year	40,868
Net (gain)/loss as a percentage of actuarial accrued liability at beginning of year	9.5%

Refer to the Financial Section and the Actuarial Section for additional information on Plan changes and changes in actuarial methods and assumptions.

Short-Term Solvency Test

A short-term solvency test is one means of checking a plan's progress under its funding program. In a short-term solvency test, the plan's valuation assets are compared with: 1) active member contributions on deposit; 2) the liabilities for future benefits to present retired lives; and 3) the liabilities for service already rendered by active members. In a plan that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will typically be fully covered by present assets. In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of present assets. Liability 3 being fully funded is very rare. As a result of the decline in the actuarial value of assets as of January 1, 2016, the liabilities for future benefits to present retired lives is no longer fully covered by present assets. Solvency test results for the Plans for the last 10 years are as follows (dollars in thousands):

Combined Pension Plan

	AGGREGATE ACCRUED LIABILITIES FOR							
	(1	(2)	(3)					
Jan. 1 Valuation Date	Active Member Contribution	Retirees, Beneficiaries, and Vested Termination	Active Members (Employer Financed Portion)	Total Actuarial Accrued Liability	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)*
2014	$ 281,440	$ 2,810,346	$ 2,037,410	$ 5,129,196	$ 3,877,321	100.0%	100.0%	38.6%
2015	286,637	3,282,406	2,223,173	5,792,216	3,695,274	100.0%	100.0%	5.7%
2016	290,395	3,385,527	2,271,252	5,947,174	2,680,124	100.0%	70.6%	0.0%
2017	284,871	2,734,837	1,347,472	4,367,180	2,157,800	100.0%	69.2%	0.0%
2018	280,965	3,018,210	1,206,262	4,505,437	2,151,039	100.0%	62.6%	0.0%
2019	292,370	3,129,484	1,072,969	4,494,823	2,161,900	100.0%	60.4%	0.0%
2020	317,954	3,301,584	1,104,434	4,723,972	2,160,126	100.0%	56.4%	0.0%
2021	352,376	3,528,182	1,235,408	5,115,966	2,127,834	100.0%	50.9%	0.0%
2022	382,199	3,579,251	1,197,332	5,158,782	2,117,978	100.0%	48.8%	0.0%
2023	410,982	3,595,364	1,242,669	5,249,015	2,053,388	100.0%	46.1%	0.0%

** The portion of accrued liabilities for active members (employer financed portion) is calculated as follows: [Actuarial value of assets-(1) - (2)]/(3).*

Short-Term Solvency Test (continued)

Supplemental Plan

	AGGREGATE ACCRUED LIABILITIES FOR							
	(1)	(2)	(3)					
Jan. 1 Valuation Date	Active Member Contributions	Retirees, Beneficiaries, and Vested Termination	Active Members (Employer Financed Portion)	Total Actuarial Accrued Liability	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)*
2014	$ 122	$ 33,660	$ 4,995	$ 38,777	$ 24,037	100.0%	71.0%	0.0%
2015	134	35,739	6,038	41,911	21,439	100.0%	59.6%	0.0%
2016	150	34,968	7,362	42,480	19,457	100.0%	55.2%	0.0%
2017	106	30,161	3,117	33,384	17,664	100.0%	58.2%	0.0%
2018	170	30,680	3,700	34,550	17,805	100.0%	57.5%	0.0%
2019	202	28,757	2,866	31,825	18,318	100.0%	63.3%	0.0%
2020	203	32,120	3,507	35,830	17,307	100.0%	53.5%	0.0%
2021	399	32,901	4,181	37,481	16,374	100.0%	48.7%	0.0%
2022	505	32,495	7,868	40,868	18,661	100.0%	5539%	0.0%
2023	708	32,392	9,950	43,050	16,640	100.0%	49.3%	0.0%

** The portion of accrued liabilities for active members (employer financed portion) is calculated as follows: [Actuarial value of assets-(1) - (2)]/(3).*

Active Member Valuation Data

Combined Pension Plan (Dollars in Thousands)

JAN. 1 VALUATION DATE	ACTIVE MEMBERS	ANNUAL COVERED PAYROLL	ANNUAL AVERAGE PAY	% CHANGE IN ANNUAL AVERAGE PAY
2014	5,397	$ 377,943	$ 70	4.7%
2015	5,487	383,006	70	(0.3%)
2016	5,415	365,210	67	(3.4%)
2017	5,104	357,414	70	3.8%
2018	4,952	346,037	70	(0.2%)
2019	5,012	363,117	72	3.8%
2020	5,121	396,955	78	7.0%
2021	5,106	427,441	84	8.0%
2022	5,088	436,971	86	2.6%
2023	5,085	462,820	91	6.0%

Supplemental Plan (Dollars in Thousands)

JAN. 1 VALUATION DATE	ACTIVE MEMBERS	ANNUAL COVERED PAYROLL	ANNUAL AVERAGE PAY	% CHANGE IN ANNUAL AVERAGE PAY
2014	38	$ 521	$ 14	19.0%
2015	39	557	14	4.0%
2016	45	725	16	12.8%
2017	47	525	11	(30.6%)
2018	44	961	22	95.5%
2019	39	659	17	(22.6%)
2020	41	599	15	(13.5%)
2021	45	643	14	(2.2%)
2022	50	1,695	34	137.4%
2023	52	1,913	37	8.5%

Refer to the Financial Section and the Actuarial Section for additional information on Plan changes and changes in actuarial methods and assumptions.

Retirees and Beneficiaries Added to and Removed from Rolls

Consolidated Plans* (Dollars in Thousands)

	ADDED TO PAYROLL		REMOVED FROM PAYROLL		TOTAL			
Jan. 1 Valuation Date	Number	Annual Benefits	Number	Annual Benefits	Number**	Annual Benefits	Average Annual Benefits	% Change in Average Annual Benefits
2014	183	$ 14,188	76	$ 3,499	3,890	$ 169,144	$ 43	6.7%
2015	248	14,491	69	2,850	4,069	180,785	44	6.9%
2016	243	11,242	130	4,475	4,182	199,419	48	7.3%
2017	360	19,869	127	4,257	4,415	219,691	50	4.4%
2018	443	24,229	152	6,314	4,706	238,014	51	1.6%
2019	268	14,251	125	5,058	4,849	247,848	51	1.1%
2020	238	12,205	131	5,128	4,956	255,251	52	0.8%
2021	191	9,695	144	5,880	5,003	258,942	52	0.5%
2022	249	13,384	181	7,809	5,071	264,792	52	0.9%
2023	242	12,983	171	7,618	5,142	270,022	53	0.6%

** Due to confidentiality issues arising from the small number of members in the Supplemental Plan, data from the Combined Pension Plan and Supplemental Plan is presented on a consolidated basis.*

*** Excludes beneficiaries who are annuity account holders but do not receive a monthly benefit.*

Funding Progress

Combined Pension Plan (Dollars in Thousands)

JAN. 1 VALUATION DATE	ACTUARIAL VALUE OF ASSETS (AVA)	ACTUARIAL ACCRUED LIABILITY (AAL)	AVA AS A PERCENTAGE OF AAL	UNFUNDED AAL (UAAL)	ANNUAL COVERED PAYROLL	UAAL AS A PERCENTAGE OF ANNUAL COVERED PAYROLL	FUNDING PERIOD (YEARS)
2014	$ 3,877,321	$ 5,129,196	75.6%	$ 1,251,875	$ 377,943	331%	26
2015	3,695,274	5,792,216	63.8%	2,096,942	383,006	548%	Infinite
2016	2,680,124	5,947,174	45.1%	3,267,050	365,210	895%	Infinite
2017	2,157,800	4,367,180	49.4%	2,209,381	357,414	618%	44
2018	2,151,039	4,505,437	47.7%	2,354,398	346,037	680%	45
2019	2,161,900	4,494,823	48.1%	2,332,923	363,117	642%	38
2020	2,160,126	4,723,972	45.7%	2,563,846	396,955	646%	55
2021	2,127,834	5,115,966	41.6%	2,988,132	427,441	699%	63
2022	2,117,978	5,158,782	41.1%	3,040,804	436,971	696%	68
2023	2,053,388	5,249,015	39.1%	3,195,627	462,820	690%	82

Supplemental Plan (Dollars in Thousands)

JAN. 1 VALUATION DATE	ACTUARIAL VALUE OF ASSETS (AVA)	ACTUARIAL ACCRUED LIABILITY (AAL)	AVA AS A PERCENTAGE OF AAL	UNFUNDED AAL (UAAL)	ANNUAL COVERED PAYROLL	UAAL AS A PERCENTAGE OF ANNUAL COVERED PAYROLL
2014	$ 24,037	$ 38,777	62.0%	$ 14,740	$ 521	2,829%
2015	21,439	41,910	51.2%	20,471	557	3,675%
2016	19,457	42,480	45.8%	23,023	725	3,178%
2017	17,664	33,384	52.9%	15,720	525	2,994%
2018	17,805	34,550	51.5%	16,745	961	1,743%
2019	18,318	31,825	57.6%	13,507	659	2,050%
2020	17,307	35,830	48.3%	18,523	599	3,091%
2021	16,374	37,481	43.7%	21,107	643	3,283%
2022	18,661	40,868	45.7%	22,207	1,695	1,310%
2023	16,640	43,050	38.7%	26,409	1,913	1,381%

Refer to the Financial Section and the Actuarial Section for additional information on Plan changes and changes in actuarial methods and assumptions.

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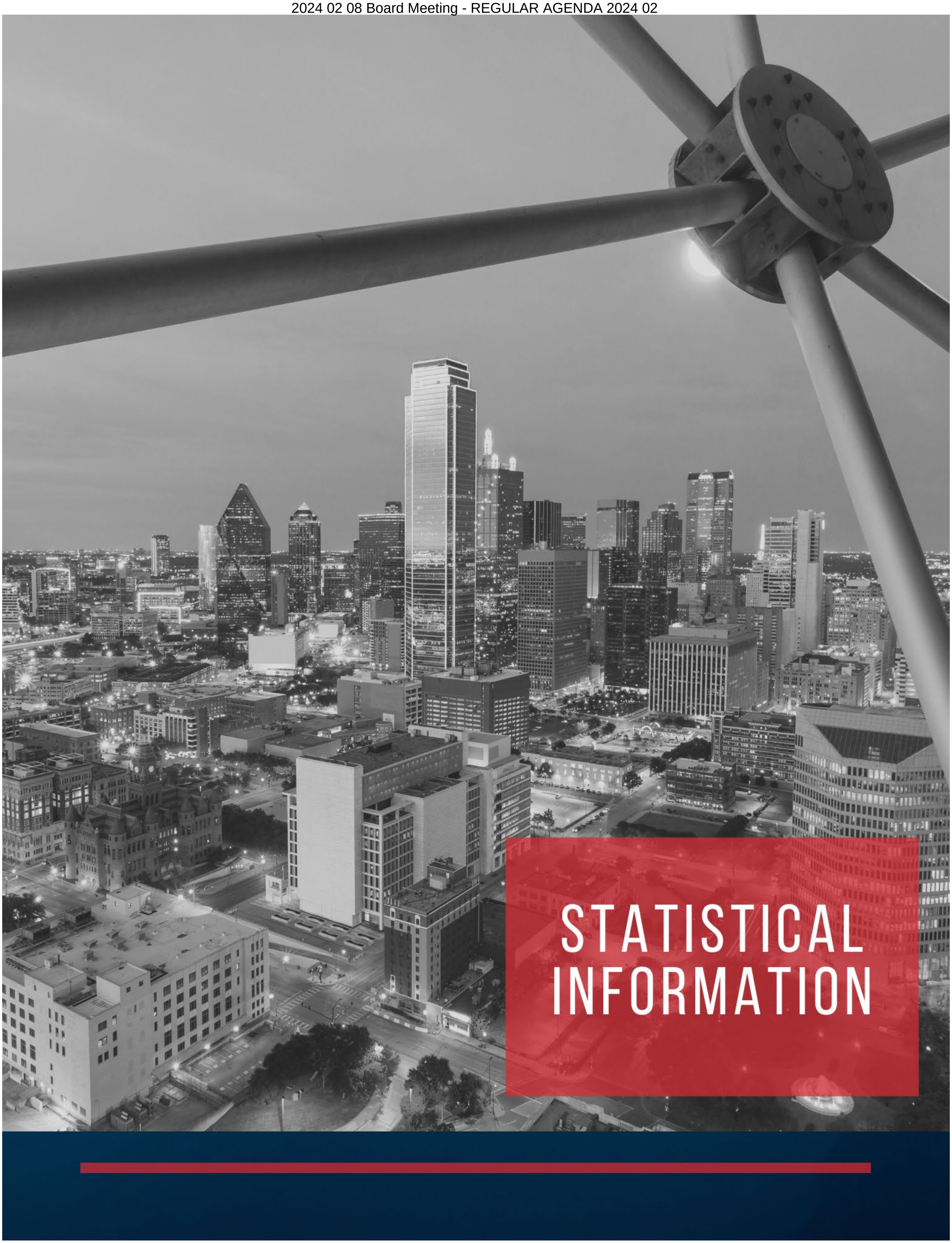


STATISTICAL INFORMATION

Statistical Information

Introduction

The Statistical section provides additional historical perspective, context, and detail to assist the reader in using the information in the financial statements, notes to the financial statements, and required supplementary information to understand and assess the economic condition of DPFP. The schedules within the Statistical section reflect financial trends and operating information. All information was derived from the audited annual financial statements, actuarial valuation reports, and/or DPFP's pension administration database. Refer to Note 1 in the Financial Section for additional information about the benefits.

Financial Trends

Financial trend information is intended to assist users in understanding and assessing the changes in the financial position of DPFP over time.

The Changes in Fiduciary Net Position schedule presents member and employer contributions and the net investment income/loss and administrative expenses to arrive at the net increase/decrease to changes in plan net assets for the 10 years ending December 31, 2022.

The Distributions by Type schedules present the amount of monthly benefit payments and DROP distributions by type for the 10 years ending December 31, 2022.

The DROP Growth schedule presents the changes in interest rate credited to DROP balances, the amounts deferred into and interest credited to DROP balances, DROP withdrawals, the DROP balances annuitized in accordance with HB 3158 and the change in DROP balances year over year. In addition, the annual annuity payments as well as the present value of the annuity balances are presented.

Operating Information

Operating information is intended to provide contextual information about the operations and resources of DPFP to assist readers in understanding and assessing the economic condition of DPFP.

The schedule of Benefit Recipients by Type presents, for given benefit ranges, the total number of benefit recipients by retirement type as of December 31, 2022.

The schedule of Yearly Retirements by Service Years presents, in five-year increments of credited service, the average monthly benefit, the average final average salary, and the number of retirements for the 10 years ending December 31, 2022.

The Benefits Payable schedules present the number of retired members and beneficiaries by status type, as well as the total annual benefits paid and average annual benefit by status type as of December 31, 2022.

The Value of Assets vs. Funded Ratio schedules present the actuarial and market values of assets and the related funded ratios for the 10 years ending December 31, 2022.

The Membership Count schedules reflect the number of members by status type for the 10 years ending December 31, 2022.

The DROP Participation schedule reflects a roll forward of the number of DROP participants and DROP balance and present value of the annuity balance for the 10 years ending December 31, 2022.

Throughout this Statistical section, certain schedules include a combination of data for both the Combined Pension Plan and the Supplemental Plan, jointly referred to as the Consolidated Plans. The combination of the two plans for certain data is necessary due to the small number of Supplemental Plan members and the need to maintain confidentiality of members' personal data.

Changes in Fiduciary Net Position

Combined Pension Plan (In Millions)

YEARS ENDED DECEMBER 31,	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Additions (Reductions)										
Contributions										
City	$ 169.9	$ 165.5	$ 162.0	$ 155.7	$ 149.4	$ 126.3	$ 119.4	$ 114.9	$ 109.8	$ 106.1
Members	59.7	58.6	57.3	52.3	49.3	33.0	25.5	25.7	29.3	26.2
Total contributions	229.6	224.1	219.3	208.0	198.7	159.3	144.9	140.6	139.1	132.3
Investment income (loss)										
Net appreciation (depreciation) in fair value of investments	(255.7)	303.4	(30.4)	94.2	5.5	74.8	121.5	(298.8)	(222.1)	93.5
Interest and dividends	21.2	28.4	29.6	37.7	44.7	30.9	54.4	72.9	93.8	85.9
Total gross investment income (loss)	(234.5)	331.8	(0.8)	131.9	50.2	105.7	175.9	(225.9)	(128.3)	179.4
Less: Investment expense	(8.6)	(11.1)	(8.4)	(8.1)	(8.0)	(9.0)	(11.7)	(10.0)	(11.2)	(10.0)
Net investment income (loss)	(243.1)	320.7	(9.2)	123.8	42.2	96.7	164.2	(235.9)	(139.5)	169.4
Securities lending income	-	-	1.0	0.8	0.3	0.2	0.7	0.7	0.8	1.1
Securities lending expense	-	-	(1.0)	(0.7)	(0.2)	(0.1)	(0.3)	(0.2)	(0.2)	(0.3)
Net securities lending income	-	-	-	0.1	0.1	0.1	0.4	0.5	0.6	0.8
Other income	2.3	0.3	0.3	0.3	0.5	2.1	0.2	0.1	-	-
Total additions (reductions)	**(11.2)**	**545.1**	**210.4**	**332.2**	**241.5**	**258.2**	**309.7**	**(94.7)**	**0.2**	**302.5**
Deductions										
Benefits paid to members	329.2	321.3	315.7	307.2	294.4	292.6	821.7	283.2	244.2	218.0
Refunds paid to members	4.4	3.3	2.3	2.6	2.6	3.6	3.4	1.8	1.7	0.9
Interest expense	-	-	-	-	-	1.3	4.5	6.0	7.4	5.8
Professional and administrative expenses	6.4	6.4	6.5	6.5	5.9	8.1	9.5	8.4	8.0	7.4
Total deductions	**340.0**	**331.0**	**324.5**	**316.3**	**302.9**	**305.6**	**839.1**	**299.4**	**261.3**	**232.1**
Net increase (decrease) in net position	(351.2)	214.1	(114.1)	15.9	(61.4)	(47.4)	(529.4)	(394.1)	(261.1)	70.4
Net position restricted for pension benefits										
Beginning of period	2,157.8	1,943.7	2,057.8	2,041.9	2,103.3	2,150.7	2,680.1	3,074.2	3,335.3	3,264.9
End of period	$ 1,806.6	$ 2,157.8	$ 1,943.7	$ 2,057.8	$ 2,041.9	$ 2,103.3	$ 2,150.7	$ 2,680.1	$ 3,074.2	$ 3,335.5

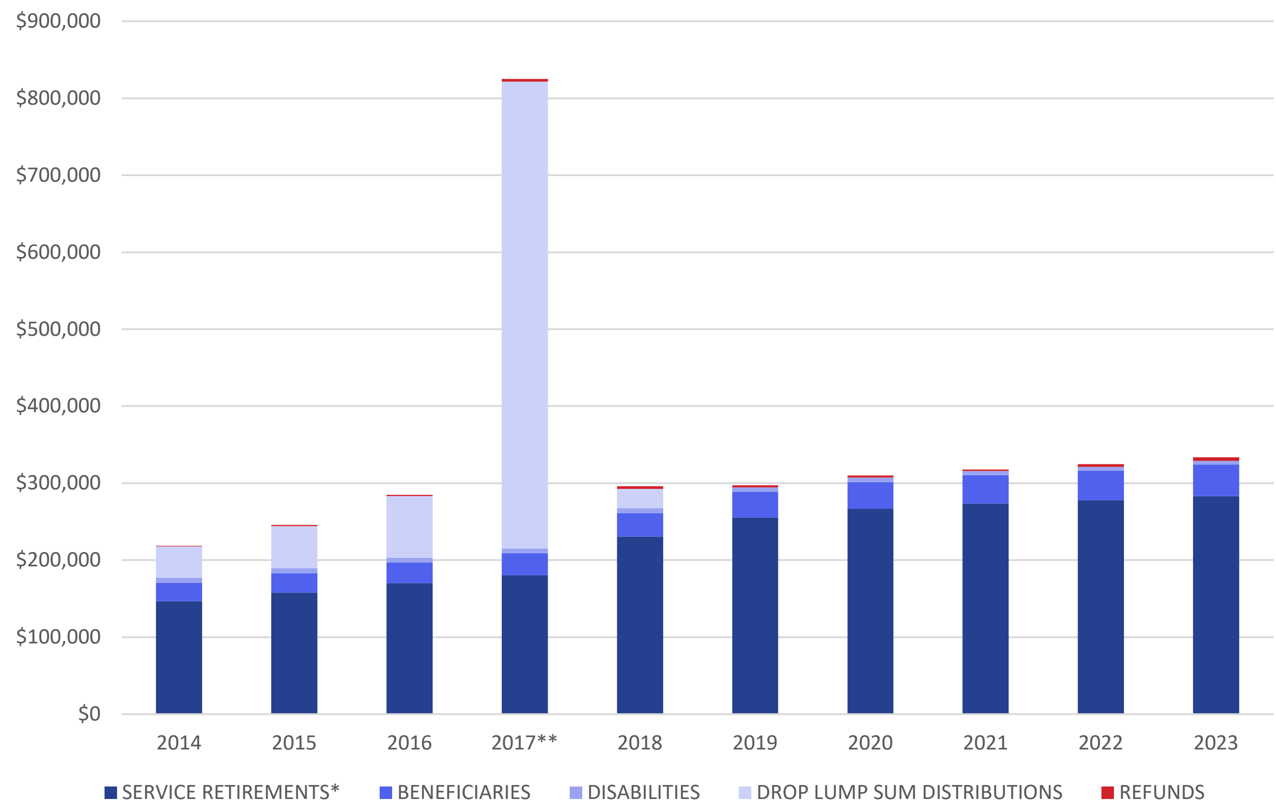
Changes in Fiduciary Net Position
Supplemental Plan (In Millions)

YEARS ENDED DECEMBER 31,	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Additions (Reductions)										
Contributions										
City	$ 2.8	$ 2.1	$ 1.8	$ 1.5	$ 2.0	$ 2.0	$ 3.1	$ 2.5	$ 1.8	$ 1.9
Members	0.2	0.2	0.2	0.1	0.1	0.1	-	-	0.1	0.1
Total contributions	3.0	2.3	2.0	1.6	2.1	2.1	3.1	2.5	1.9	2.0
Investment income (loss)										
Net appreciation (depreciation) in fair value of investments	(2.3)	2.6	(0.3)	(0.1)	0.9	0.5	0.8	(2.1)	(1.1)	0.7
Interest and dividends	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.5	0.6	0.6
Total gross investment income (loss)	(2.1)	2.9	-	0.2	1.3	0.8	1.2	(1.6)	(0.5)	1.3
Less: Investment expense	(0.1)	(0.1)	(0.1)	-	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Net investment income (loss)	(2.2)	2.8	(0.1)	0.2	1.2	0.7	1.1	(1.7)	(0.6)	1.2
Securities lending income	-	-	-	-	-	-	-	-	-	-
Securities lending expense	-	-	-	-	-	-	-	-	-	-
Net securities lending income	-	-	-	-	-	-	-	-	-	-
Other income	-	-	-	-	-	-	-	-	-	-
Total additions (reductions)	**0.8**	**5.1**	**1.9**	**1.8**	**3.3**	**2.8**	**4.2**	**0.8**	**1.3**	**3.2**
Deductions										
Benefits paid to members	2.8	2.8	2.8	2.8	2.7	2.7	5.9	2.6	3.4	2.2
Refunds paid to members	-	-	-	-	-	-	-	-	-	-
Interest expense	-	-	-	-	-	-	-	-	-	-
Professional and administrative expenses	0.1	-	-	-	0.1	-	0.1	0.1	0.1	0.1
Total deductions	**2.9**	**2.8**	**2.8**	**2.8**	**2.8**	**2.7**	**6.0**	**2.7**	**3.5**	**2.3**
Net increase (decrease) in net position	(2.1)	2.3	(0.9)	(1.0)	0.5	0.1	(1.8)	(1.9)	(2.2)	0.9
Net position restricted for pension benefits										
Beginning of period	18.7	16.4	17.3	18.3	17.8	17.7	19.5	21.4	23.6	22.7
End of period	$ 16.6	$ 18.7	$ 16.4	$ 17.3	$ 18.3	$ 17.8	$ 17.7	$ 19.5	$ 21.4	$ 23.6

Distributions by Type

Combined Pension Plan (In Thousands)

January 1 Valuation Date



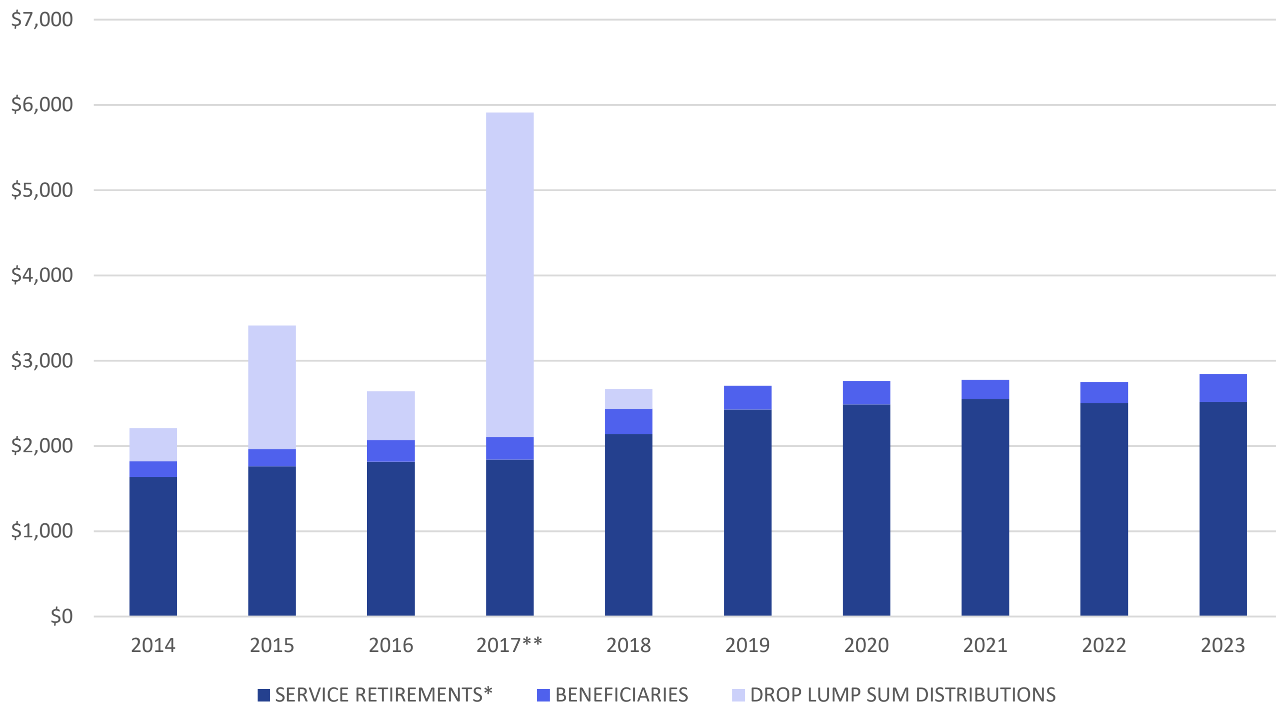
JAN. 1 VALUATION DATE	SERVICE RETIREMENTS*	BENEFICIARIES	DISABILITIES	DROP LUMP SUM DISTRIBUTIONS	REFUNDS	TOTAL
2014	$ 146,846	$ 23,849	$ 6,543	$ 40,744	$ 900	$ 218,882
2015	157,987	25,104	6,433	54,675	1,733	245,932
2016	170,323	26,559	6,335	80,000	1,786	285,003
2017**	180,577	28,392	6,340	606,429	3,354	825,092
2018	230,774	30,706	6,154	24,942	3,578	296,154
2019	255,664	32,954	5,806	23	2,634	297,081
2020	266,578	35,026	5,609	31	2,617	309,861
2021	273,752	36,580	5,330	13	2,276	317,951
2022	278,106	38,053	5,153	36	3,285	324,633
2023	283,279	41,079	4,804	26	4,450	333,638

**Includes monthly DROP installment payments.*
***The January 1, 2017 valuation date data reflects the $600 million withdrawal from DROP accounts that occurred during the funding crisis.*

Distributions by Type (continued)

Supplemental Plans (In Thousands)

January 1 Valuation Date



JAN. 1 VALUATION DATE	SERVICE RETIREMENTS*	BENEFICIARIES	DROP LUMP SUM DISTRIBUTIONS	TOTAL
2014	$ 1,637	$ 182	$ 388	$ 2,207
2015	1,761	202	1,451	3,414
2016	1,817	251	572	2,640
2017**	1,841	266	3,805	5,912
2018	2,143	295	230	2,668
2019	2,428	280	-	2,708
2020	2,486	279	-	2,765
2021	2,549	228	-	2,777
2022	2,506	244	-	2,750
2023	2,519	324	-	2,843

*Includes monthly DROP installment payments.
**The January 1, 2017 valuation date data reflects the $600 million withdrawal from DROP accounts that occurred during the funding crisis.*

DROP Growth

Consolidated Plans* (Dollars in Thousands)

JAN. 1 VALUATION DATE	INTEREST RATE CREDITED	DEFERRALS	INTEREST CREDITED	WITHDRAWAL	ADJUSTMENTS	CHANGE	BALANCE	ANNUITY PAYMENTS	ANNUITY BALANCE
2014	8.78%	$ 96,062	$ 97,066	$ (66,190)	$ -	$ 126,938	$ 1,298,609	$ -	$ -
2015	8.00%	96,071	111,856	(83,940)	-	123,988	1,422,597	-	-
2016	7.00%	96,510	110,060	(112,552)	-	94,018	1,516,615	-	-
2017	6.00%	89,533	92,986	(637,993)	-	(455,473)	1,061,168	-	-
2018[1]	6.00%/0.00%[2]	18,293[3]	40,616[2]	(876,365)[4]	-	(817,456)	243,712	(8,819)	817,106
2019	0.00%	26,029[5]	(1) [6]	(75,634)	-	(49,606)	194,106	(53,299)	832,816
2020	0.00%	21,184	(1) [6]	(50,005)	(9,804)	(38,626)	155,480	(57,183)	887,294
2021	0.00%	17,876	-	(36,847)	23	(18,948)	136,532	(61,346)	873,717
2022	0.00%	14,924	-	(35,504)	(1,910)	(22,490)	114,042	(62,800)	870,548
2023	0.00%	11,795	-	(26,297)	(2,266)	(16,768)	97,274	(64,383)	851,477

** Due to confidentiality issues arising from the small number of members in the Supplemental Plan, data from the Combined Pension Plan and Supplemental Plan is presented on a consolidated basis.*

[1] 2018 reflects the changes to the DROP program as a result of HB 3158.

[2] Interest was credited at 6% until August 31, 2017. Interest does not accrue beginning September 1, 2017. DROP balances accrued prior to September 1, 2017 are annuitized with interest upon retirement or at the initial annuitization date of November 30, 2017 for those already retired. Balances accrued after September 1, 2017 are annuitized upon retirement with no interest.

[3] Includes $45,413 in Deferrals and $27,120 in DROP Revocations.

[4] Includes withdrawals of $56,421 and DROP balance annuitization of $819,944.

[5] Includes $26,934 in deferrals and $905 in DROP revocations.

[6] Interest is due to DROP corrections prior to 9-1-2017

Benefit Recipients by Type

Consolidated Plans* (As of December 31, 2022)

MONTHLY BENEFIT RANGE	TOTAL NUMBER OF BENEFITS	SERVICE RETIREMENTS	DISABILITIES	BENEFICIARIES	NON-ACTIVE VESTED	ACTIVE DROP
$0 - $500	65	16	1	47	-	1
$501 - $1,000	279	72	-	91	115	1
$1,001 - $1,500	287	81	1	135	66	4
$1,501 - $2,000	495	83	1	373	33	5
$2,001 - $2,500	282	90	10	160	13	9
$2,501 - $3,000	309	159	20	105	15	10
$3,001 - $3,500	275	184	19	59	5	8
$3,501 - $4,000	407	335	32	21	4	15
$4,001 - $4,500	501	419	12	44	1	25
$4,501 - $5,000	527	465	4	37	-	21
$5,001 - $5,500	509	454	1	28	-	26
$5,501 - $6,000	502	450	5	27	-	20
$6,001 - $6,500	366	319	2	17	-	28
$6,501 - $7,000	345	297	-	24	-	24
$7,001 - $7,500	238	211	2	8	-	17
$7,501 - $8,000	131	113	-	6	-	12
$8,001 - $8,500	72	68	-	2	-	2
Over $8,500	34	29	-	3	-	2
Total	**5,624**	**3,845**	**110**	**1,187**	**252**	**230**

** Due to confidentiality issues arising from the small number of members in the Supplemental Plan, data from the Combined Pension Plan and Supplemental Plan is presented on a consolidated basis.*
***Refer to the Financial Section for additional information on the major features of the plans.*

Yearly Retirements by Service Years

Consolidated Plans* (Monthly Benefit) (As of December 31st)

	YEARS OF SERVICE							
	0-5	6-10	11-15	16-20	21-25	26-30	30+	TOTAL
2013								
Retirements	-	2	9	25	63	74	11	184
Avg. FAS	$ -	$ 2,775	$ 2,849	$ 1,825	$ 2,930	$ 4,237	$ 957	$ 3,182
Avg. benefit	$ -	$ 670	$ 1,348	$ 1,167	$ 2,615	$ 4,607	$ 1,359	$ 3,061
2014								
Retirements	-	2	7	16	47	44	5	121
Avg. FAS	$ -	$ 3,812	$ 3,478	$ 1,661	$ 3,144	$ 4,628	$ 3,047	$ 3,514
Avg. benefit	$ -	$ 921	$ 1,672	$ 1,053	$ 2,851	$ 4,870	$ 3,550	$ 3,276
2015								
Retirements	-	4	12	23	55	40	8	142
Avg. FAS	$ -	$ 4,142	$ 3,101	$ 2,649	$ 3,898	$ 4,947	$ 791	$ 3,756
Avg. benefit	$ -	$ 1,277	$ 1,456	$ 1,840	$ 3,360	$ 5,383	$ 1,807	$ 3,376
2016								
Retirements	2	8	15	66	125	69	4	289
Avg. FAS	$ 6,566	$ 1,455	$ 2,954	$ 1,454	$ 4,622	$ 6,208	$ 5,553	$ 4,129
Avg. benefit	$ 1,220	$ 586	$ 1,270	$ 1,024	$ 3,851	$ 6,841	$ 5,882	$ 3,705
2017								
Retirements	1	11	15	77	171	83	3	361
Avg. FAS	$ 6,403	$ 2,873	$ 2,741	$ 2,121	$ 4,572	$ 6,628	$ 5,938	$ 4,410
Avg. benefit	$ 2,041	$ 882	$ 1,349	$ 1,350	$ 3,736	$ 6,677	$ 7,488	$ 3,743
2018								
Retirements	1	2	9	38	79	54	2	185
Avg. FAS	$ 2,883	$ 2,191	$ 3,248	$ 1,557	$ 4,416	$ 6,676	$ 7,463	$ 4,432
Avg. benefit	$ 575	$ 450	$ 1,490	$ 980	$ 3,525	$ 6,230	$ 7,377	$ 3,685
2019								
Retirements	3	5	7	28	64	50	2	159
Avg. FAS	$ 3,789	$ 1,563	$ 2,044	$ 2,499	$ 4,468	$ 6,626	$ 6,769	$ 4,618
Avg. benefit	$ 898	$ 426	$ 882	$ 1,612	$ 3,593	$ 6,160	$ 5,092	$ 3,800
2020								
Retirements	2	4	5	20	52	28	20	131
Avg. FAS	$ 3,002	$ 4,612	$ 3,601	$ 3,504	$ 4,956	$ 7,186	$ 7,179	$ 5,458
Avg. benefit	$ 641	$ 1,262	$ 2,320	$ 2,136	$ 3,821	$ 6,221	$ 6,681	$ 4,329
2021								
Retirements	4	6	8	28	45	46	29	166
Avg. FAS	$ 3,257	$ 2,977	$ 3,008	$ 2,516	$ 5,521	$ 7,241	$ 7,659	$ 5,597
Avg. benefit	$ 573	$ 654	$ 1,183	$ 1,460	$ 3,973	$ 6,340	$ 7,001	$ 4,397
2022								
Retirements	4	5	6	36	39	33	36	159
Avg. FAS	$ 3,106	$ 3,731	$ 4,483	$ 3,089	$ 7,645	$ 8,547	$ 7,898	$ 6,501
Avg. benefit	$ 615	$ 889	$ 1,893	$ 1,732	$ 5,418	$ 7,052	$ 7,281	$ 4,948

** Due to confidentiality issues arising from the small number of members in the Supplemental Plan, data from the Combined Pension Plan and Supplemental Plan is presented on a consolidated basis.*

***FAS: Final average salary*

****Retirements include non-active vested members who have begun receiving a monthly benefit.*

Benefits Payable

Combined Pension Plan (Dollars in Thousands)

DECEMBER 31, 2022		NUMBER	ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
Retired members				
	Service pensions	3,845	$ 227,701	$ 59
	Disabilities	110	4,719	43
	Total	3,955	232,420	59
Beneficiaries*				
	Total	1,187	35,069	30
Total		**5,142**	**$ 267,489**	**$ 52**

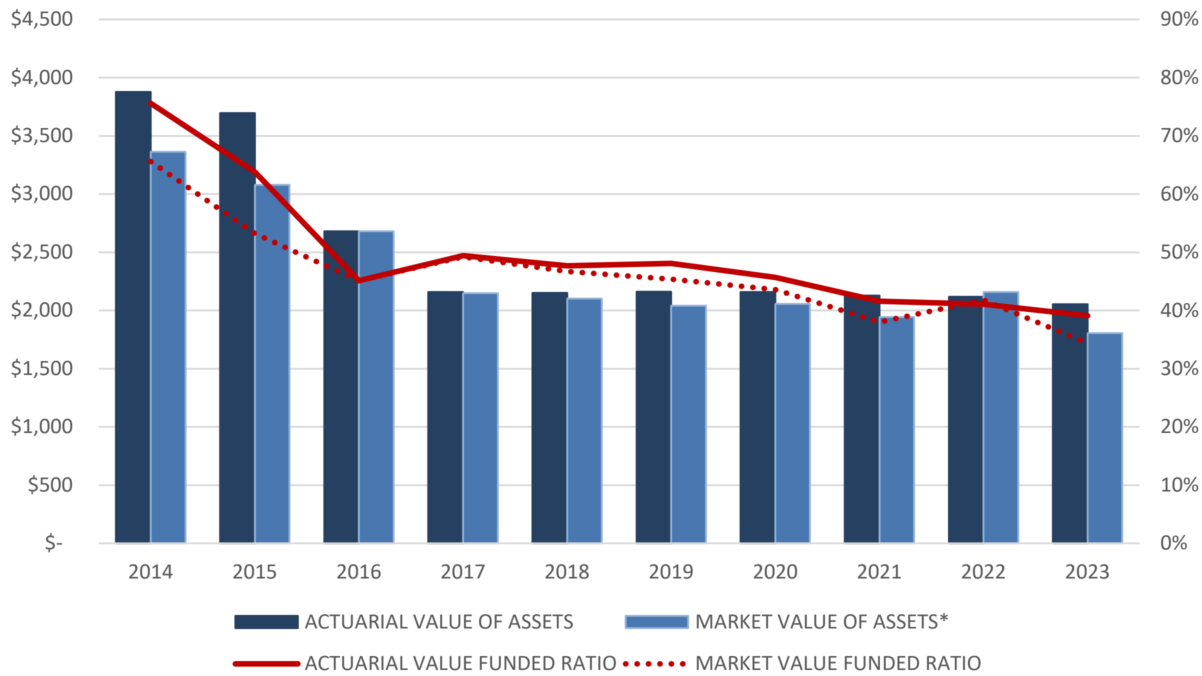
Supplemental Plan (Dollars in Thousands)

DECEMBER 31, 2022		NUMBER	ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
Retired members				
	Service pensions	119	$ 2,206	$ 19
Beneficiaries*				
	Total	30	320	11
Total		**149**	**$ 2,526**	**$ 17**

** Excludes beneficiaries who maintain a DROP account balance but do not receive a monthly benefit.*

Value of Assets vs. Funded Ratio

Combined Pension Plan (Dollars in Millions)

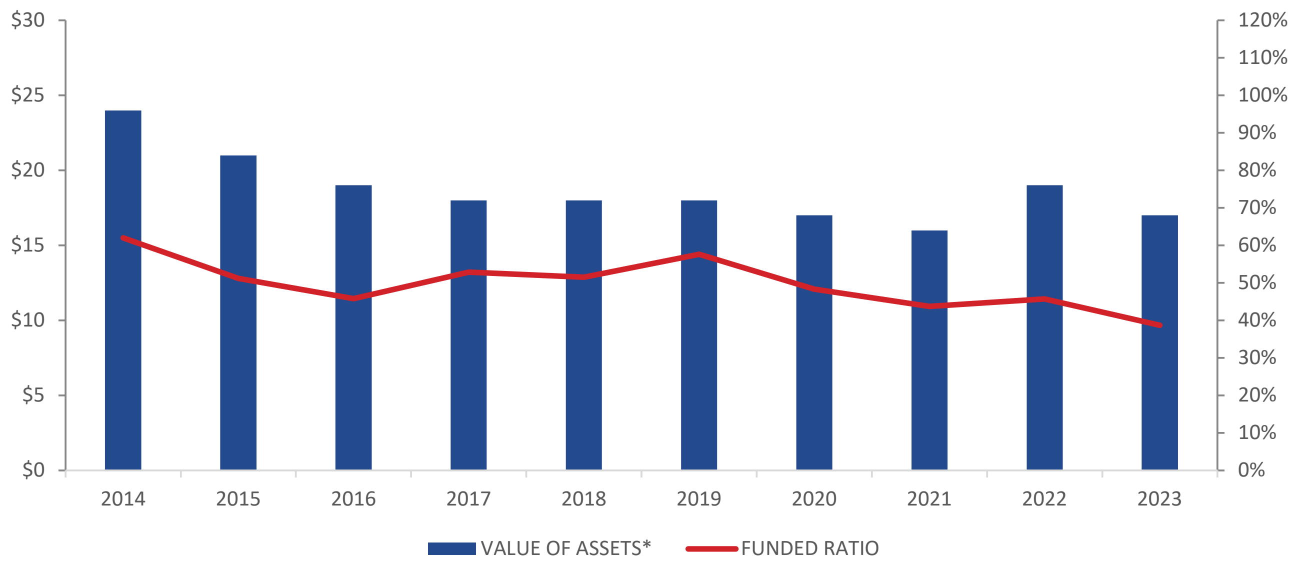


JAN. 1 VALUATION DATE	ACTUARIAL VALUE OF ASSETS	MARKET VALUE OF ASSETS*	ACTUARIAL VALUE FUNDED RATIO	MARKET VALUE FUNDED RATIO
2014	$ 3,877	$ 3,363	75.6%	65.6%
2015	3,695	3,079	63.8%	53.2%
2016	2,680	2,680	45.1%	45.1%
2017	2,158	2,150	49.4%	49.2%
2018	2,151	2,103	47.7%	46.7%
2019	2,162	2,042	48.1%	45.4%
2020	2,160	2,058	45.7%	43.6%
2021	2,128	1,944	41.6%	38.0%
2022	2.118	2,158	41.1%	41.8%
2023	2,053	1,807	39.1%	34.4%

** The market value of assets is per the actuarial valuation report as of the valuation date. This value may differ immaterially from the audited market value for the prior December 31 due to timing of adjustments made to valuations after the finalization of the actuarial valuation report.*

Value of Assets vs. Funded Ratio (continued)

Supplemental Plan (Dollars in Millions)



JAN. 1 VALUATION DATE	VALUE OF ASSETS*	FUNDED RATIO
2014	$ 24	62.0%
2015	21	51.2%
2016	19	45.8%
2017	18	52.9%
2018	18	51.5%
2019	18	57.6%
2020	17	48.3%
2021	16	43.7%
2022	19	45.7%
2023	17	38.7%

** The value of assets represents both the market value of assets and the actuarial value of assets.*

Membership Count

Combined Pension Plan

JAN. 1 VALUATION DATE	ACTIVE (EXCLUDING DROP)	ACTIVE DROP	RETIREES	BENEFICIARIES	NON-ACTIVE VESTED	NON-ACTIVE NON-VESTED	TOTAL
2014	3,983	1,414	2,956	969	122	106	9,550
2015	4,107	1,380	3,033	1,092	157	99	9,868
2016	4,077	1,338	3,115	1,115	200	126	9,971
2017	4,002	1,102	3,338	1,118	215	295	10,070
2018	4,326	626	3,598	1,158	226	399	10,333
2019	4,529	483	3,717	1,202	230	431	10,592
2020	4,738	383	3,803	1,236	242	434	10,836
2021	4,786	320	3,840	1,270	241	442	10,899
2022	4,812	276	3,902	1,294	233	462	10,979
2023	4,855	230	3,955	1,334	252	474	11,100

Supplemental Plan

JAN. 1 VALUATION DATE	ACTIVE (EXCLUDING DROP)	ACTIVE DROP	RETIREES	BENEFICIARIES	NON-ACTIVE VESTED	NON-ACTIVE NON-VESTED	TOTAL
2014	18	20	99	21	-	-	158
2015	21	19	99	22	-	-	161
2016	25	20	98	26	-	-	169
2017	31	16	100	28	-	-	175
2018	37	7	110	30	1	-	185
2019	34	5	112	26	2	1	180
2020	38	3	116	23	2	1	183
2021	43	2	118	23	2	1	189
2022	48	2	119	28	1	1	199
2023	50	2	119	32	1	-	204

DROP Participation

Consolidated Plans* (Dollars in Millions)

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Active - DROP Participants										
Beginning of year	276	320	383	483	626	1,102	1,338	1,399	1,434	1,446
Entrants	14	26	11	15	15	17	36	121	107	155
Withdrawals	(60)	(70)	(74)	(115)	(158)	(493)	(272)	(182)	(142)	(167)
End of year	230	276	320	383	483	626	1,102	1,338	1,399	1,434
DROP balance at December 31	$ 97	$ 113	$ 135	$ 154	$ 192	$ 242	$ 358	$ 479	$ 461	$ 441

Retirees and Beneficiaries - DROP Participants										
Beginning of year	9	10	11	16	16	1,876	2,085	1,971	1,855	1,718
Additions	4	-	-	-	3	-	204	168	170	190
Closures	(1)	(1)	(1)	(5)	(3)	(1,860)	(413)	(54)	(54)	(53)
End of year	12	9	10	11	16	16	1,876	2,085	1,971	1,855
DROP balance at December 31	$ 1	$ 1	$ 1	$ 1	$ 2	$ 2	$ 703	$ 1,038	$ 962	$ 858

Total DROP participants	**242**	**285**	**330**	**394**	**499**	**642**	**2,978**	**3,423**	**3,370**	**3,289**

**Due to confidentiality issues arising from the small number of members in the Supplemental Plan, data from the Combined Pension Plan and Supplemental Plan is presented on a consolidated basis.*

Combined Pension Plan

Retirees and Beneficiaries - DROP Annuities										
Beginning of year	2,518	2,425	2,342	2,186	1,978	-	-	-	-	-
Additions	118	128	109	173	216	1,978	-	-	-	-
Closures	(35)	(35)	(26)	(17)	(8)	-	-	-	-	-
End of year	2,601	2,518	2,425	2,342	2,186	1,978	-	-	-	-
Present Value of Annuities at December 31	$ 846	$ 864	$ 870	$ 880	$ 829	$ 810	-	-	-	-

Supplemental Plan

Retirees and Beneficiaries - DROP Annuities										
Beginning of year	68	65	66	57	55	-	-	-	-	-
Additions	-	4	2	9	2	55	-	-	-	-
Closures	(1)	(1)	(3)	-	-	-	-	-	-	-
End of year	67	68	65	66	57	55	-	-	-	-
Present Value of Annuities at December 31	$ 6	$ 6	$ 7	$ 7	$ 4	$ 7	-	-	-	-

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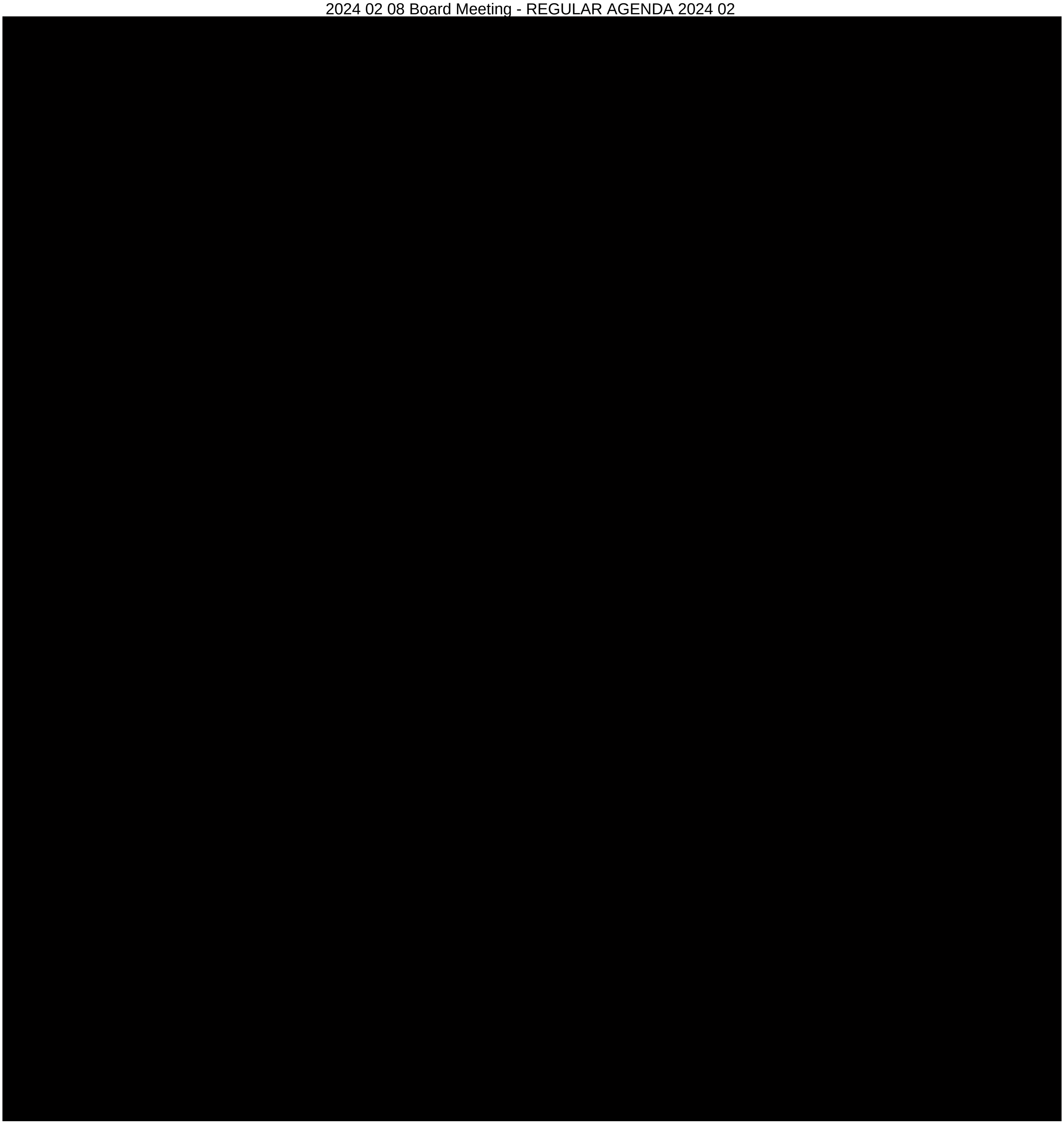


DALLAS POLICE & FIRE PENSION SYSTEM

Phone: 214.638.3863 | 800.638.3861 | Fax: 214.638.6403
Website: www.dpfp.org | Email: info@dpfp.org

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C5

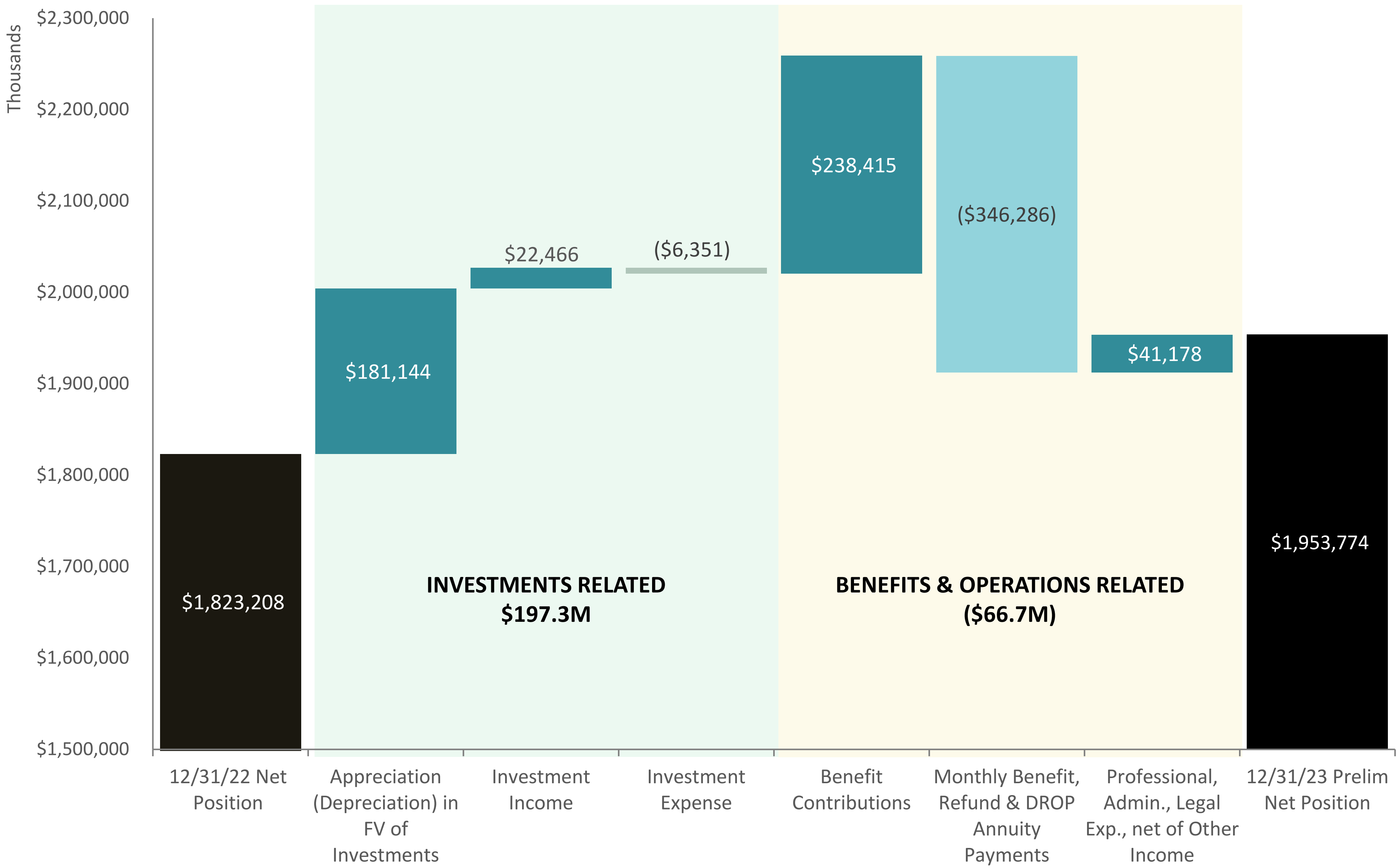
Topic: **Quarterly Financial Reports**

Discussion: The Chief Financial Officer will present the fourth quarter 2023 financial statements.

Regular Board Meeting – Thursday, February 8, 2024

Change in Net Fiduciary Position

January 1, 2023 – December 31, 2023



Components may not sum exactly due to rounding.

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

	PRELIMINARY December 31, 2023	December 31, 2022	$ Change	% Change
Assets				
Investments, at fair value				
Short-term investments	$ 16,982,561	$ 14,890,840	$ 2,091,721	14%
Fixed income securities	365,243,626	321,363,734	43,879,892	14%
Equity securities	995,629,628	826,996,060	168,633,568	20%
Real assets	279,704,530	347,921,962	(68,217,432)	-20%
Private equity	217,778,463	219,182,373	(1,403,910)	-1%
Forward currency contracts	-	(970)	970	100%
Total investments	1,875,338,808	1,730,353,999	144,984,809	8%
Receivables				
City	5,728,687	5,140,928	587,759	11%
Members	2,083,313	1,819,338	263,975	15%
Interest and dividends	4,668,498	3,788,204	880,294	23%
Investment sales proceeds	1,963	1,152,406	(1,150,443)	-100%
Other receivables	95,848	49,887	45,961	92%
Total receivables	12,578,309	11,950,763	627,546	5%
Cash and cash equivalents	62,346,331	75,285,576	(12,939,245)	-17%
Prepaid expenses	550,604	403,166	147,438	37%
Capital assets, net	11,455,745	11,605,932	(150,187)	-1%
Total assets	$ 1,962,269,797	$ 1,829,599,436	$ 132,670,361	7%
Liabilities				
Payables				
Securities purchased	4,476,297	1,138,945	3,337,352	293%
Accounts payable and other accrued liabilities	4,019,297	5,252,748	(1,233,451)	-23%
Total liabilities	8,495,594	6,391,693	2,103,901	33%
Net position restricted for pension benefits	$ 1,953,774,203 *	$ 1,823,207,743	$ 130,566,460	7%

***The ending period amounts are preliminary and may change as the 2023 results are finalized.**

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

PRELIMINARY

	Twelve Months Ended December 31, 2023	Twelve Months Ended December 31, 2022	$ Change	% Change
Contributions				
City	$ 175,626,622	$ 172,718,283	$ 2,908,339	2%
Members	62,788,685	59,962,277	2,826,408	5%
Total Contributions	238,415,307	232,680,560	5,734,747	2%
Investment income				
Net appreciation (depreciation) in fair value of investments	181,144,015	(258,096,177)	439,240,192	170%
Interest and dividends	22,466,303	21,429,284	1,037,019	5%
Total gross investment income	203,610,318	(236,666,893)	440,277,211	186%
less: investment expense	(6,350,739)	(8,723,136)	2,372,397	27%
Net investment income	197,259,579	(245,390,029)	442,649,608	180%
Other income	47,705,872	2,317,525	45,388,347	1958%
Total additions	483,380,758	(10,391,944)	493,772,702	4751%
Deductions				
Benefits paid to members	341,097,166	332,030,747	9,066,419	3%
Refunds to members	5,189,181	4,449,977	739,204	17%
Legal expense	173,284	358,636	(185,352)	-52%
Legal expense reimbursement	-	-	-	0%
Legal expense, net of reimbursement	173,284	358,636	(185,352)	-52%
Staff Salaries and Benefits	2,879,791	2,729,467	150,324	6%
Professional and administrative expenses	3,474,876	3,332,627	142,249	4%
Total deductions	352,814,298	342,901,454	9,912,844	3%
Net increase (decrease) in net position	130,566,460	(353,293,398)		
Beginning of period	1,823,207,743	2,176,501,141		
End of period	$ 1,953,774,203 *	$ 1,823,207,743		

***The ending period amounts are preliminary and may change as the 2023 results are finalized.**

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C6

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

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

Regular Board Meeting – Thursday, February 8, 2024

Membership Actions -2024

	January	February	March	April	May	June	July	August	September	October	November	December	YTD Totals
Refunds	23	22											45
DROP - Join	1	1											2
Estate Payments	2	1											3
Survivor Benefits	4	6											10
Retirements	10	9											19
Alternate Payees	2	0											2
Spouse Wed After Retirement	0	0											0
Service Purchases	0	2											2
Earnings Test	0	0											0

Membership Actions -2023

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

Data is based on Agenda/Executive Approval Date

Service purchases include Military, DROP Revocation, and Previously Withdrawn Contributions

The increase in Refunds in September 2023 and October 2023 is due to the Refund Project

87 of the Estate Payments in August 2023 are approvals for the Pending Death Project

G:\Kelly\Executive Director Ministrial Action Approvals\Membership Actions Data 2024 February 2024

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

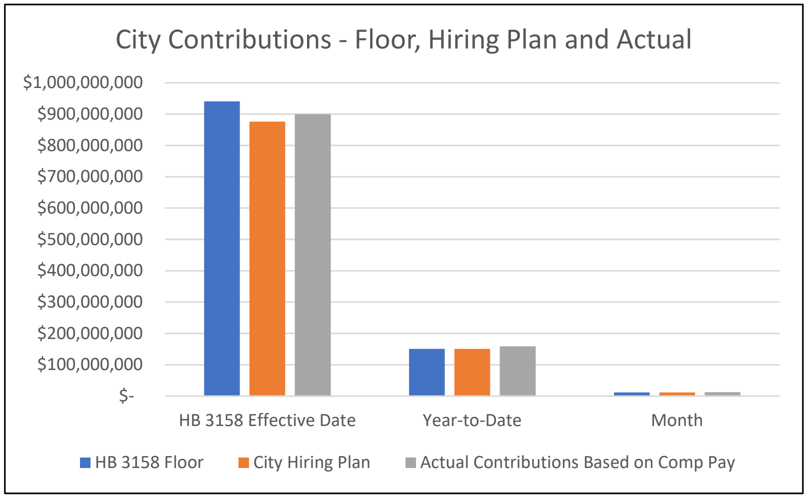
ITEM #C7

Topic: **Monthly Contribution Report**

Discussion: Staff will review the Monthly Contribution Report.

Regular Board Meeting – Thursday, February 8, 2024

Contribution Tracking Summary - February 2024 (December 2023 Data)

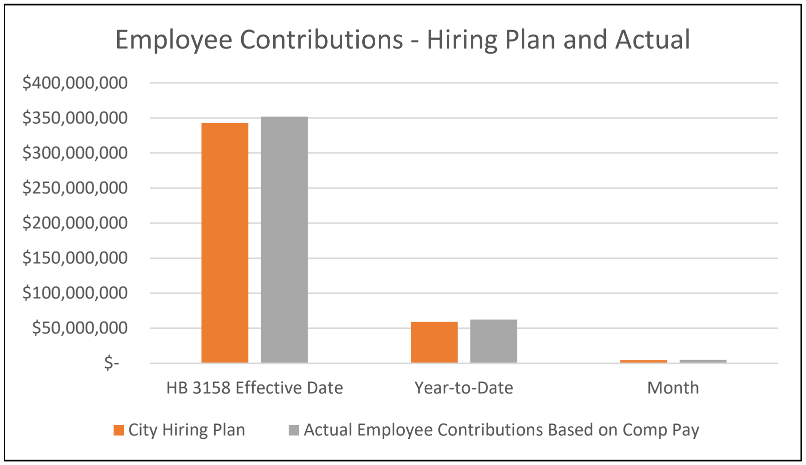


Actual Comp Pay was 103% of the Hiring Plan estimate since the effective date of HB 3158.

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 27 less than the Hiring Plan for the pay period ending January 4, 2023. Fire was over the estimate by 201 Fire Fighters and Police under by 228 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

Dec-23	Number of Pay Periods Beginning in the Month	HB 3158 Floor	City Hiring Plan	Actual Contributions Based 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	$ 12,357,932	$ -	106%	106%
Year-to-Date		$ 151,112,000	$ 151,110,000	$ 159,038,807	$ -	105%	105%
HB 3158 Effective Date		$ 940,333,000	$ 876,220,385	$ 899,356,411	$ 48,990,866	96%	103%

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.

Employee Contributions

Dec-23	Number of Pay Periods Beginning in the Month	City Hiring Plan	Actual Employee Contributions Based on Comp Pay	Actual Contribution Excess Compared to Hiring Plan	Actuarial Valuation Contribution Assumption	Actual Contributions as a % of Hiring Plan Contributions	Actual Contributions as a % of Actuarial Val Assumption
Month	2	$ 4,548,462	$ 4,835,505	$ 287,043	$ 4,236,924	106%	114%
Year-to-Date		$ 59,130,000	$ 62,249,111	$ 3,119,111	$ 55,080,012	105%	113%
HB 3158 Effective Date		$ 342,868,846	$ 351,739,323	$ 8,870,477	$ 331,819,678	103%	106%

Potential Earnings Loss from the Shortfall based on Assumed Rate of Return $ 358,940

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	City Hiring Plan-Bi-weekly	HB 3158 Floor Compared 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 ends after 2024

Employee Contributions: City Hiring Plan and Actuarial Val. Converted to Bi-weekly Contributions

		City Hiring Plan Converted to Bi-weekly Employee Contributions	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
YE 2017 (1/1/2018 Valuation)		
2018 Employee Contributions Assumption - based on 2017 actual plus growth rate not the Hiring Plan Payroll	$ (2,425,047)	*
2019 Estimate (1/1/2019 Valuation)		
2019 Employee Contribution Assumption	$ 9,278	*

**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.

City Hiring Plan - Annual Computation Pay and Numbers of Employees						
	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	$ 460,982,051	$ 22,982,051	5,163	5,136	(27)
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	Annual 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	$ 35,621,220	$ 1,928,912	$ 18,653,975	5149	(14)
November	$ 33,692,308	$ 35,892,597	$ 2,200,290	$ 20,854,265	5142	(21)
December	$ 33,692,308	$ 35,820,093	$ 2,127,786	$ 22,982,051	5136	(27)

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C8

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 – February 8, 2024

			ATTENDING	APPROVED
1.	**Conference:**	**TEXPERS Basic Trustee Training**	**MT**	**12/14/2023**
	Dates:	April 6, 2024		
	Location:	Dallas, TX		
	Est Cost:	$225		
2.	**Conference:**	**TEXPERS Advance Trustee Training**	**NR**	**12/14/2023**
	Dates:	April 6, 2024		
	Location:	Dallas, TX		
	Est Cost:	$150		
3.	**Conference:**	**TEXPERS Annual Conference**	**NR, MT**	**12/14/2023**
	Dates:	April 7-10, 2024		
	Location:	Dallas, TX		
	Est Cost:	$25		
4.	**Conference:**	**NCPERS Trustee Educational Seminar (TED)**		
	Dates:	May 18-19, 2024		
	Location:	Seattle, WA		
	Est Cost:	$500		

Future Education and Business Related Travel & Webinars
Regular Board Meeting – February 8, 2024

ATTENDING **APPROVED**

5.	**Conference:**	**NCPERS Accredited Fiduciary (NAF)**
	Dates:	May 18-19, 2024
	Location:	Seattle, WA
	Est Cost:	$900
6.	**Conference:**	**NCPERS Annual Conference**
	Dates:	May 19-22, 2024
	Location:	Seattle, WA
	Est Cost:	$1,050
7.	**Conference:**	**TEXPERS Summer Educational Forum**
	Dates:	August 18-20, 2024
	Location:	San Antonio, TX
	Est Cost:	TBD

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C9

Topic: **TMRS Restricted Prior Service Credit**

Discussion: The DPFP staff's retirement plan was changed from a 401-defined contribution plan to participation in the Texas Municipal Retirement Plan effective January 1, 2022. At that time, prior service was credited to each employee based on their time with DPFP for vesting purposes only. This service credit does not increase a staff member's benefit. The only impact relates to retirement eligibility.

The resolution previously adopted by the Board only related to then current or future DPFP employees. To allow prior service to count for vesting purposes only for anyone with prior DPFP service or service with other governmental agencies, the Board must adopt the Restricted Prior Service Credit resolution.

The resolution will allow Restricted Prior Service Credit for not only former DPFP employees but also for other employees from 1) a public authority or agency created by the United States, 2) any state or territory of the United States, 3) any political subdivision of any state of the United States, 4) any public agency or authority created by a state or territory of the United States, 5) active-duty military service, 6) previously forfeited service with TMRS or one of the following retirement systems: Teacher Retirement System of Texas, Employees Retirement System of Texas, and Judicial Retirement System of Texas.

DISCUSSION SHEET

ITEM #C9
(continued)

This additional coverage may assist DPFP with recruiting efforts in the future.

Staff Recommendation: **Approve** the resolutions authorizing Restricted Prior Service Credit in the TMRS staff retirement plan for vesting purposes only.

A RESOLUTION AUTHORIZING RESTRICTED PRIOR SERVICE CREDIT FOR EMPLOYEES WHO ARE MEMBERS OF THE TEXAS MUNICIPAL RETIREMENT SYSTEM.

BE IT RESOLVED BY THE DALLAS POLICE AND FIRE PENSION SYSTEM:

Authorization of Restricted Prior Service Credit.

(a) The Board of Trustees of the Dallas Police and Fire Pension System (the "DPFPS") authorizes each employee who is a member ("Member") of the Texas Municipal Retirement System (the "System"), now or in the future, to be granted restricted prior service credit for service previously performed as an employee of any entity described in Section 853.305 of Subtitle G of Title 8, Texas Government Code, as amended (which subtitle is referred to as the "TMRS Act"), provided that (1) the employee does not otherwise have credited service in the System for that service, (2) the service meets the requirements of TMRS Act §853.305, and (3) the Member seeking to establish restricted prior service credit submits an application with the verifications required by TMRS Act §853.305.

(b) Pursuant to TMRS Act §853.305, restricted prior service credit may be used only to satisfy length-of-service requirements for retirement eligibility with the System, has no monetary value in computing the annuity payments allowable to the Member, and may not be used in other computations, including computation of Updated Service Credits.

(c) This Resolution shall be effective on the first day of ________________, 20_______.

Passed and approved ______________________________, 20_______.

ATTEST: **APPROVED:**

______________________________________ ______________________________________

Board Secretary Board Chair

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C10

Topic: **Potential Budget Amendment – Information Technology**

Discussion: Staff is proposing a budget amendment of $80,000 to replace and upgrade Boardroom Audio/Visual Equipment. The main controller has failed and needs to be replaced which also necessitates replacing other equipment. Additionally, the boardroom TV screens were installed in 2009 and staff is recommending their replacement as well. Staff believes doing all the work at once will be more cost-effective as well as avoid instances where equipment failures could affect Board meetings.

Staff Recommendation: **Increase** the information technology budget by $80,000.

Regular Board Meeting – Thursday, February 8, 2024

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C11

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

Discussion: The Investment Advisory Committee met on January 23, 2024. The Committee Chair and Investment Staff will comment on Committee observations and advice.

Regular Board Meeting – Thursday, February 8, 2024

DISCUSSION SHEET

ITEM #C12

Topic: **Portfolio Update**

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

Regular Board Meeting – Thursday, February 8, 2024

DALLAS POLICE & FIRE PENSION SYSTEM

Portfolio Update

February 8, 2024

Board Meeting

Executive Summary

- **Estimated 2023 Return:** 9.8% for DPFP portfolio.
- **Estimated YTD Return (As of 1/31/2024):** 0.13% for DPFP Portfolio; 0.1% for Public Portfolio (ex-Cash) which makes up 71% of the assets.
- **Liquidation of private market assets remains a top focus.**
  - $2M of distributions received YTD, $69M in distributions received in 2023.
- **New Global Growth Equity Manager:** The WCM account was funded on December 18th, 2023.
- **Custodian Search:** Staff has engaged Callan's Implementation Services group to assist with the custodian search and RFP process.

Investment Initiatives – 2024 Plan

Q1 2024

- Begin Custodian Search
- Initiate 2024 Asset Allocation Study

Q2 2024

- Custodian Search & RFP
- Asset Allocation potential changes presented to IAC and Board

Q3 2024 & Beyond

- Investment Policy Statement review and updates
- Private Market Planning – Update IPS provision, pacing studies, etc.

2024 Asset Allocation Study Timeline

January IAC
Meketa Mean Reversion Presentation and Staff Asset Allocation Planning Review.

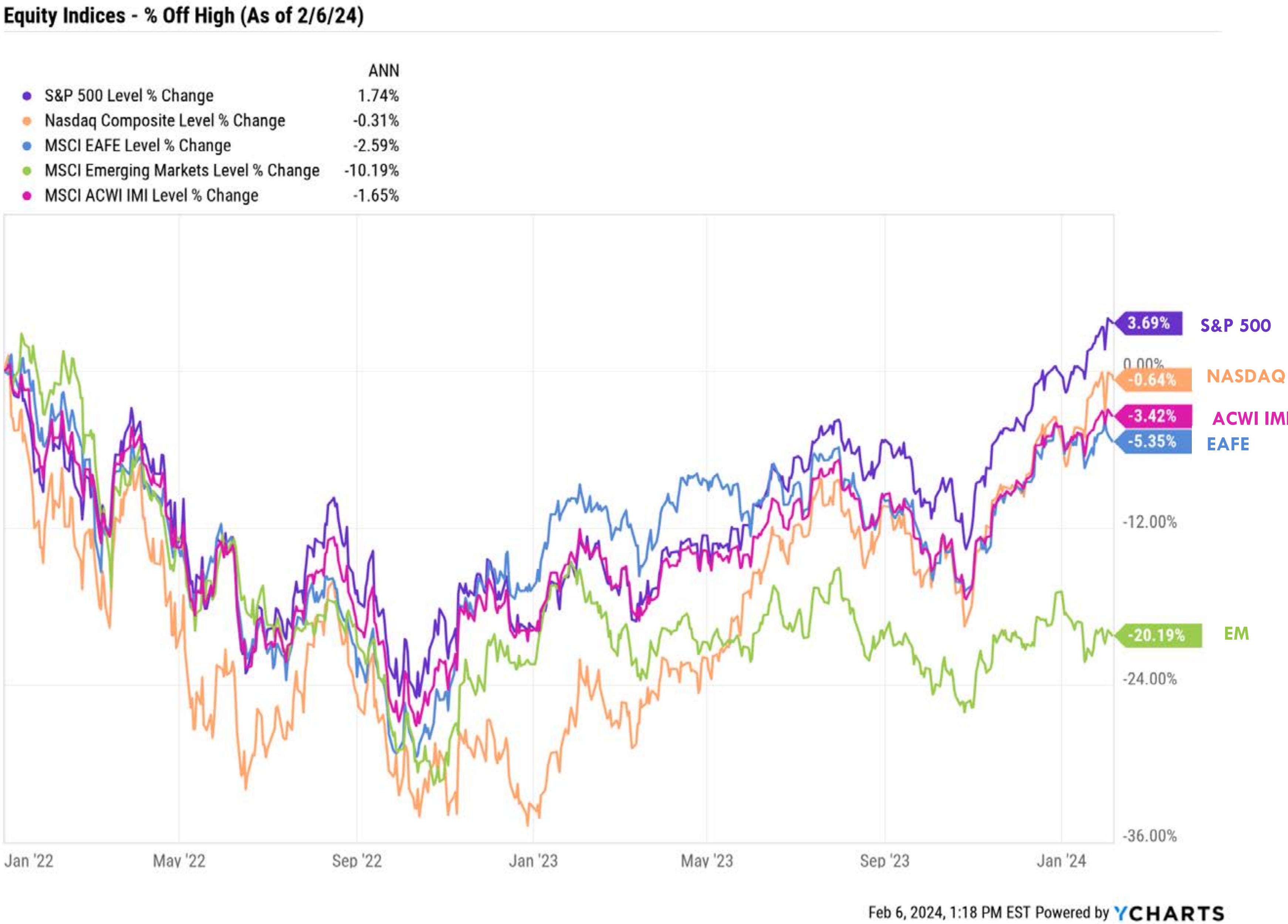
Late January
Meketa releases 2024 Asset Allocation Assumptions.

March IAC
Staff and Meketa review possible Asset Allocation mixes with IAC.

April or May Board
Asset Allocation Review with Board.

June Board
Board approval of any Asset Allocation changes & corresponding updates to the IPS.

Equity Market Returns (1/1/22 to 2/6/24)

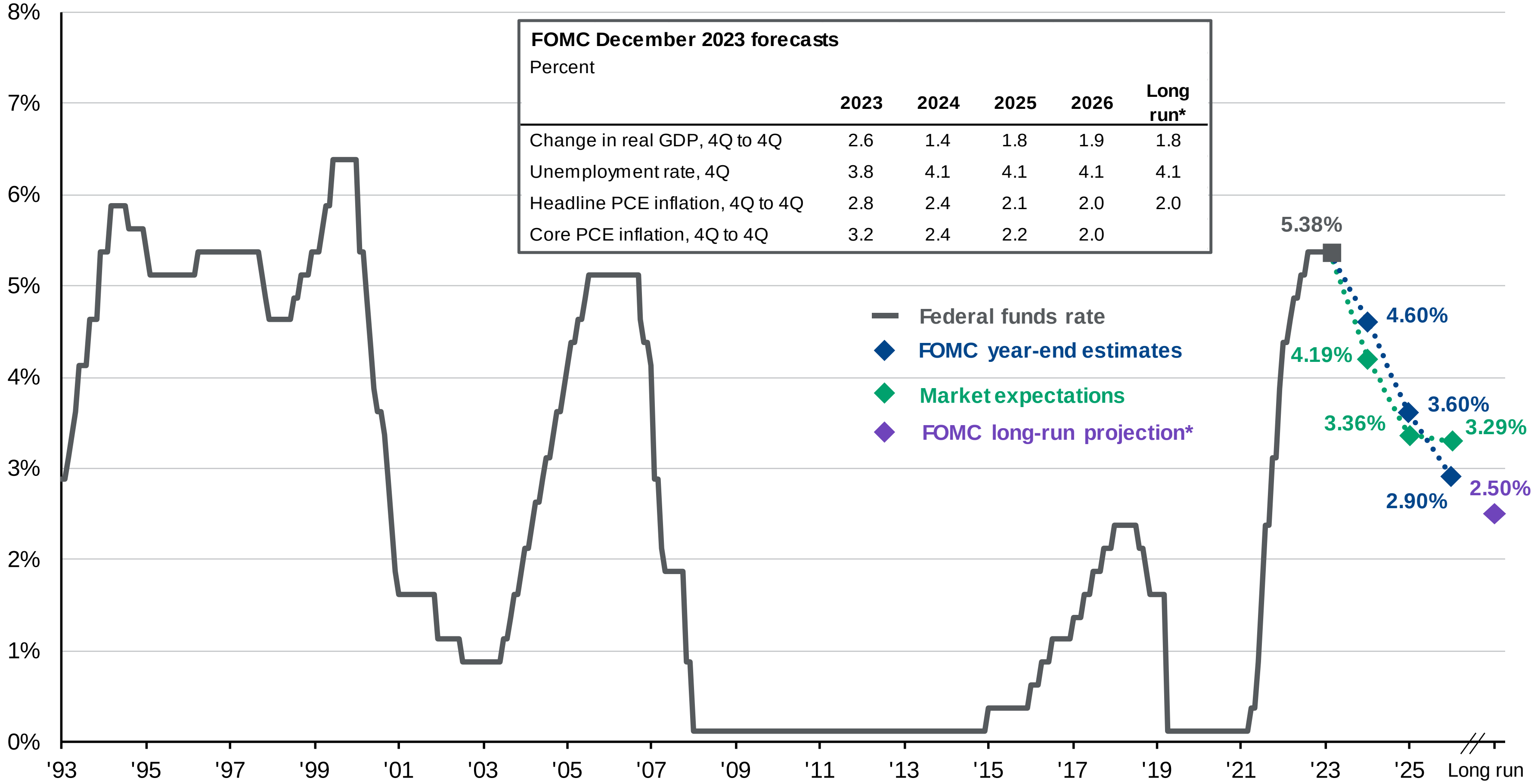


DALLAS POLICE & FIRE PENSION SYSTEM

The Fed and Interest Rates – JPM Guide to the Markets

Federal funds rate expectations

FOMC and market expectations for the federal funds rate



FOMC December 2023 forecasts

Percent

	2023	2024	2025	2026	Long run*
Change in real GDP, 4Q to 4Q	2.6	1.4	1.8	1.9	1.8
Unemployment rate, 4Q	3.8	4.1	4.1	4.1	4.1
Headline PCE inflation, 4Q to 4Q	2.8	2.4	2.1	2.0	2.0
Core PCE inflation, 4Q to 4Q	3.2	2.4	2.2	2.0	

Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management.
Market expectations are based off of USD Overnight Index Swaps. *Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.
Guide to the Markets – U.S. Data are as of February 5, 2024.

Asset Class Returns – JPM Guide to the Markets

2009-2023																	
Ann.	Vol.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD
Large Cap 14.0%	Small Cap 21.9%	EM Equity 79.0%	REITs 27.9%	REITs 8.3%	REITs 19.7%	Small Cap 38.8%	REITs 28.0%	REITs 2.8%	Small Cap 21.3%	EM Equity 37.8%	Cash 1.8%	Large Cap 31.5%	Small Cap 20.0%	REITs 41.3%	Comdty. 16.1%	Large Cap 26.3%	Large Cap 3.7%
Small Cap 11.3%	REITs 21.2%	High Yield 59.4%	Small Cap 26.9%	Fixed Income 7.8%	High Yield 19.6%	Large Cap 32.4%	Large Cap 13.7%	Large Cap 1.4%	High Yield 14.3%	DM Equity 25.6%	Fixed Income 0.0%	REITs 28.7%	EM Equity 18.7%	Large Cap 28.7%	Cash 1.5%	DM Equity 18.9%	Cash 0.5%
REITs 10.9%	EM Equity 20.3%	DM Equity 32.5%	EM Equity 19.2%	High Yield 3.1%	EM Equity 18.6%	DM Equity 23.3%	Fixed Income 6.0%	Fixed Income 0.5%	Large Cap 12.0%	Large Cap 21.8%	REITs -4.0%	Small Cap 25.5%	Large Cap 18.4%	Comdty. 27.1%	High Yield -12.7%	Small Cap 16.9%	Asset Alloc. -0.6%
High Yield 8.6%	DM Equity 18.4%	REITs 28.0%	Comdty. 16.8%	Large Cap 2.1%	DM Equity 17.9%	Asset Alloc. 14.9%	Asset Alloc. 5.2%	Cash 0.0%	Comdty. 11.8%	Small Cap 14.6%	High Yield -4.1%	DM Equity 22.7%	Asset Alloc. 10.6%	Small Cap 14.8%	Fixed Income -13.0%	Asset Alloc. 14.1%	High Yield -0.7%
Asset Alloc. 8.1%	Comdty. 16.6%	Small Cap 27.2%	Large Cap 15.1%	Cash 0.1%	Small Cap 16.3%	High Yield 7.3%	Small Cap 4.9%	DM Equity -0.4%	EM Equity 11.6%	Asset Alloc. 14.6%	Large Cap -4.4%	Asset Alloc. 19.5%	DM Equity 8.3%	Asset Alloc. 13.5%	Asset Alloc. -13.9%	High Yield 14.0%	DM Equity -1.1%
DM Equity 7.4%	Large Cap 16.1%	Large Cap 26.5%	High Yield 14.8%	Asset Alloc. -0.7%	Large Cap 16.0%	REITs 2.9%	Cash 0.0%	Asset Alloc. -2.0%	REITs 8.6%	High Yield 10.4%	Asset Alloc. -5.8%	EM Equity 18.9%	Fixed Income 7.5%	DM Equity 11.8%	DM Equity -14.0%	REITs 11.4%	Fixed Income -1.4%
EM Equity 6.9%	High Yield 11.5%	Asset Alloc. 25.0%	Asset Alloc. 13.3%	Small Cap -4.2%	Asset Alloc. 12.2%	Cash 0.0%	High Yield 0.0%	High Yield -2.7%	Asset Alloc. 8.3%	REITs 8.7%	Small Cap -11.0%	High Yield 12.6%	High Yield 7.0%	High Yield 1.0%	Large Cap -18.1%	EM Equity 10.3%	Comdty. -1.7%
Fixed Income 2.7%	Asset Alloc. 11.5%	Comdty. 18.9%	DM Equity 8.2%	DM Equity -11.7%	Fixed Income 4.2%	Fixed Income -2.0%	EM Equity -1.8%	Small Cap -4.4%	Fixed Income 2.6%	Fixed Income 3.5%	Comdty. -11.2%	Fixed Income 8.7%	Cash 0.5%	Cash 0.0%	EM Equity -19.7%	Fixed Income 5.5%	EM Equity -3.9%
Cash 0.8%	Fixed Income 4.5%	Fixed Income 5.9%	Fixed Income 6.5%	Comdty. -13.3%	Cash 0.1%	EM Equity -2.3%	DM Equity -4.5%	EM Equity -14.6%	DM Equity 1.5%	Comdty. 1.7%	DM Equity -13.4%	Comdty. 7.7%	Comdty. -3.1%	Fixed Income -1.5%	Small Cap -20.4%	Cash 5.1%	Small Cap -4.4%
Comdty. -0.2%	Cash 0.7%	Cash 0.1%	Cash 0.1%	EM Equity -18.2%	Comdty. -1.1%	Comdty. -9.5%	Comdty. -17.0%	Comdty. -24.7%	Cash 0.3%	Cash 0.8%	EM Equity -14.2%	Cash 2.2%	REITs -5.1%	EM Equity -2.2%	REITs -24.9%	Comdty. -7.9%	REITs -6.3%

Source: Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.
Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Bloomberg Global HY Index, Fixed Income: Bloomberg US Aggregate, REITs: NAREIT Equity REIT Index, Cash: Bloomberg 1-3m Treasury. The "Asset Allocation" portfolio assumes the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Bloomberg US Aggregate, 5% in the Bloomberg 1-3m Treasury, 5% in the Bloomberg Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period from 12/31/2009 to 12/31/2023. Please see disclosure page at end for index definitions. All data represents total return for stated period. The "Asset Allocation" portfolio is for illustrative purposes only. Past performance is not indicative of future returns.
Guide to the Markets – U.S. Data are as of February 5, 2024.

Public Markets Performance Snapshot

Public Markets (ex-Cash) currently make up 71% of DPFP Investment Portfolio.

MEKETA

Dallas Police & Fire Pension System

DPFP | As of January 31, 2024

Performance Summary

	Ending January 31, 2024				
	Market Value ($)	1 Mo (%)	YTD (%)	3 Yrs (%)	5 Yrs (%)
Total Public Portfolio (ex-Cash)	1,375,439,794	0.1	0.1	3.4	6.5
60% MSCI ACWI IMI Net/40% Bloomberg Global Aggregate Index		-0.4	-0.4	1.1	5.7
Public Equity	1,007,367,943	0.0	0.0	5.4	9.8
MSCI ACWI IMI Net USD		0.2	0.2	5.6	9.8
Global Equity	919,869,178	0.6	0.6	6.5	10.6
MSCI ACWI IMI Net USD		0.2	0.2	5.6	9.8
Boston Partners Global Equity Fund	115,533,048	-0.1	-0.1	10.8	10.1
MSCI World Net		1.2	1.2	8.1	11.4
Manulife Global Equity Strategy	115,963,057	0.9	0.9	8.8	10.7
MSCI ACWI Net		0.6	0.6	6.1	10.2
Walter Scott Global Equity Fund	119,571,686	2.5	2.5	7.2	11.6
MSCI ACWI Net		0.6	0.6	6.1	10.2
WCM Global Equity	120,311,206	3.0	3.0	--	--
MSCI ACWI Growth NR USD		1.3	1.3	4.1	13.0
NT ACWI Index IMI	334,568,810	0.2	0.2	--	--
MSCI ACWI IMI Net USD		0.2	0.2	5.6	9.8
Eastern Shore US Small Cap	59,477,910	-2.8	-2.8	--	--
Russell 2000		-3.9	-3.9	-0.8	6.8
Global Alpha International Small Cap	54,347,697	-1.6	-1.6	--	--
MSCI EAFE Small Cap		-1.6	-1.6	-1.1	4.6

DALLAS POLICE & FIRE PENSION SYSTEM

Public Markets Performance Snapshot

MEKETA

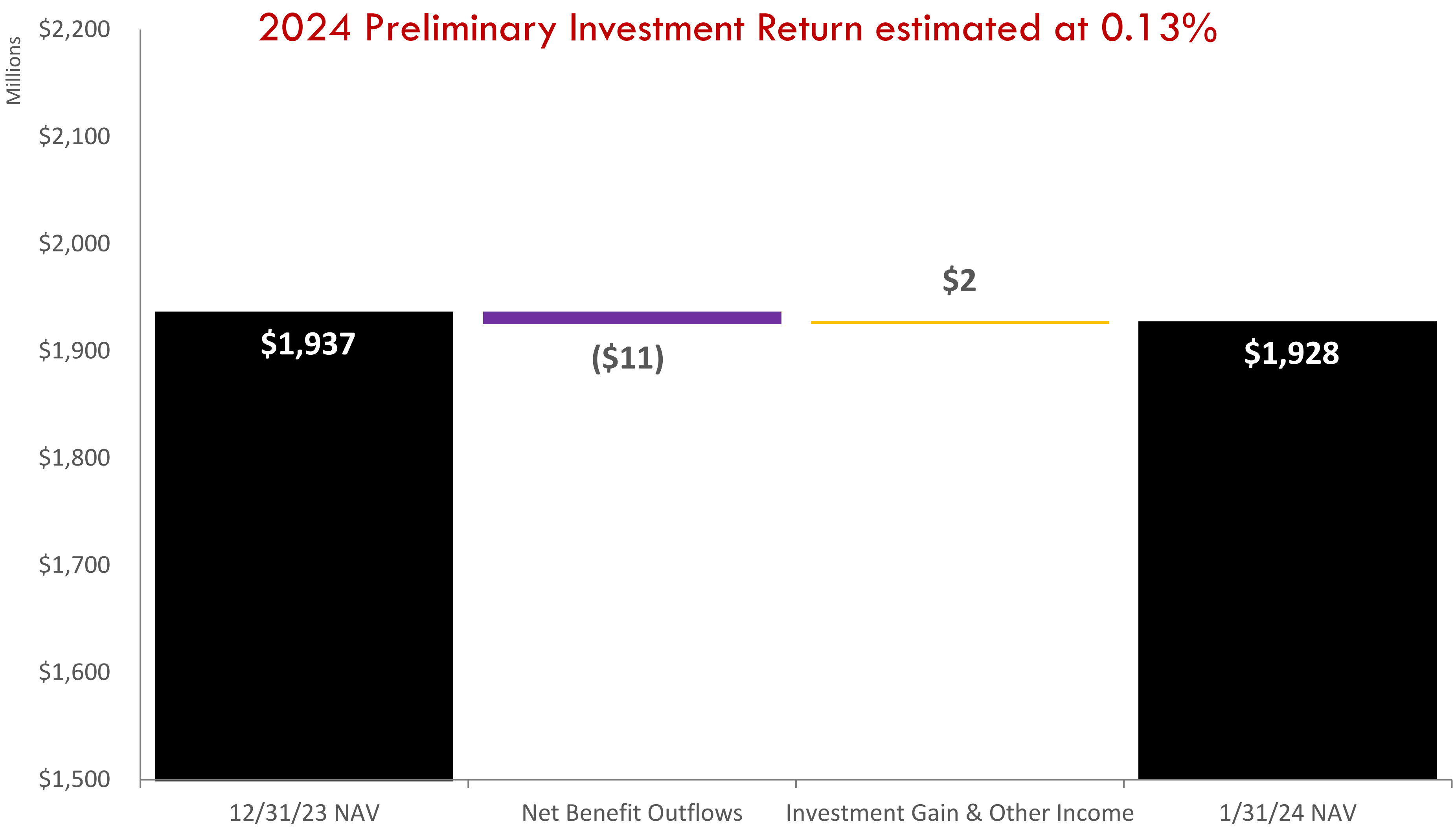
Dallas Police & Fire Pension System

DPFP | As of January 31, 2024

	Market Value ($)	1 Mo (%)	YTD (%)	3 Yrs (%)	5 Yrs (%)
	Ending January 31, 2024				
Emerging Markets Equity	**87,498,765**	**-5.6**	**-5.6**	**-5.4**	**1.9**
MSCI Emerging Markets IMI Net		*-4.2*	*-4.2*	*-5.9*	*1.9*
RBC Emerging Markets Equity	87,498,765	-5.6	-5.6	-5.4	1.9
MSCI Emerging Markets IMI Net		*-4.2*	*-4.2*	*-5.9*	*1.9*
Public Fixed Income	**368,071,851**	**0.2**	**0.2**	**-0.4**	**1.8**
Bloomberg Multiverse TR		*-1.3*	*-1.3*	*-5.4*	*-0.7*
IR&M 1-3 Year Strategy	115,218,390	0.5	0.5	0.5	2.0
Bloomberg US Aggregate 1-3 Yr TR		*0.4*	*0.4*	*0.2*	*1.5*
Longfellow Core Fixed Income	63,834,976	0.1	0.1	-2.8	--
Bloomberg US Aggregate TR		*-0.3*	*-0.3*	*-3.2*	*0.8*
Aristotle Pacific Capital Bank Loan	61,396,767	0.7	0.7	5.6	5.3
Credit Suisse Leveraged Loan		*0.8*	*0.8*	*5.5*	*5.3*
Loomis US High Yield Fund	62,827,577	-0.3	-0.3	0.5	--
Bloomberg US High Yield 2% Issuer Cap TR		*0.0*	*0.0*	*1.9*	*4.4*
Metlife Emerging Markets Debt Blend	64,794,142	-0.3	-0.3	--	--
35% JPMEMBI Global Index/35% JPM CEMBI Broad Diversified Index/ 30% JPMGBI-EM Diversified Global Index		*-0.7*	*-0.7*	*--*	*--*

2024 - Change in Market Value Bridge Chart

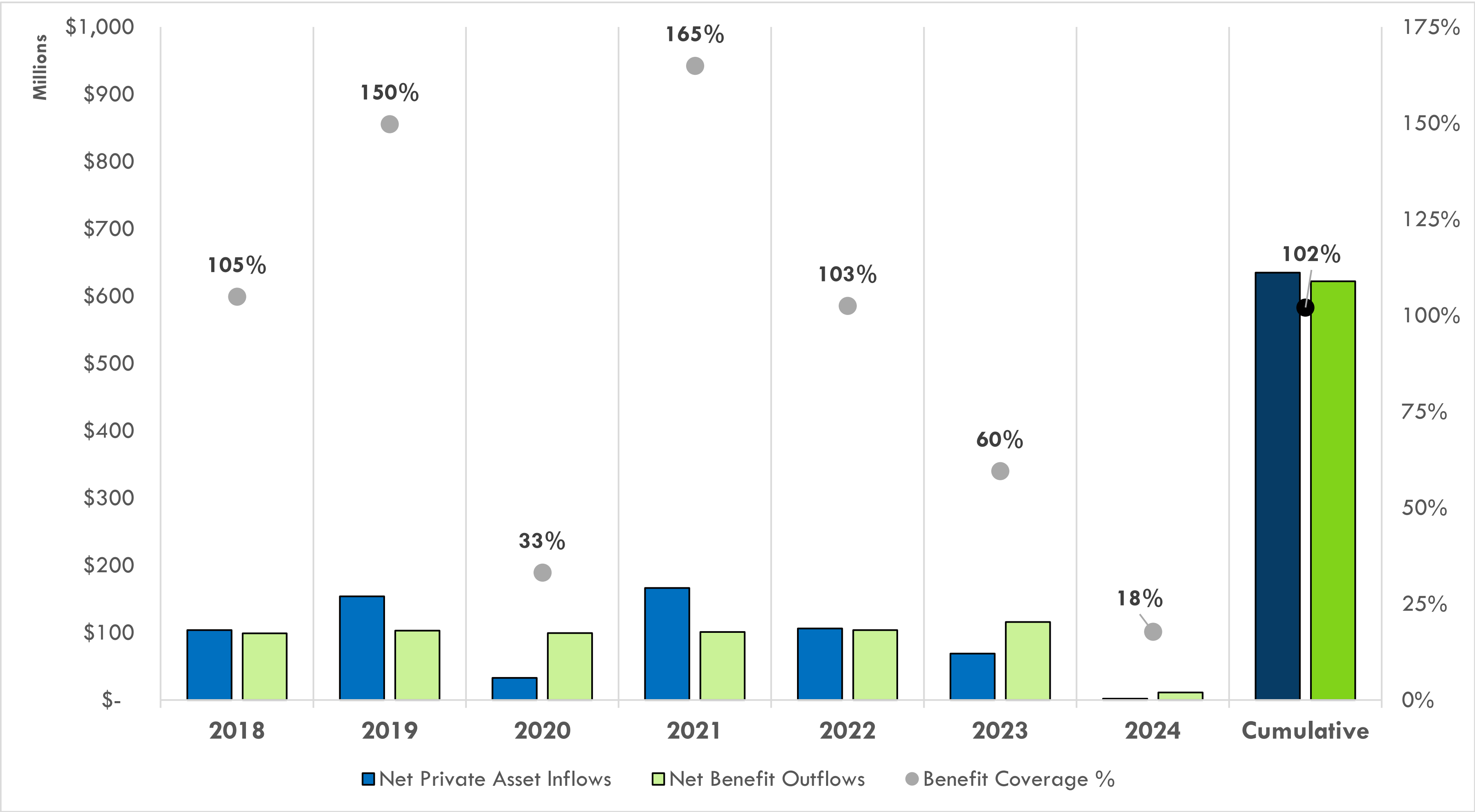
In Millions



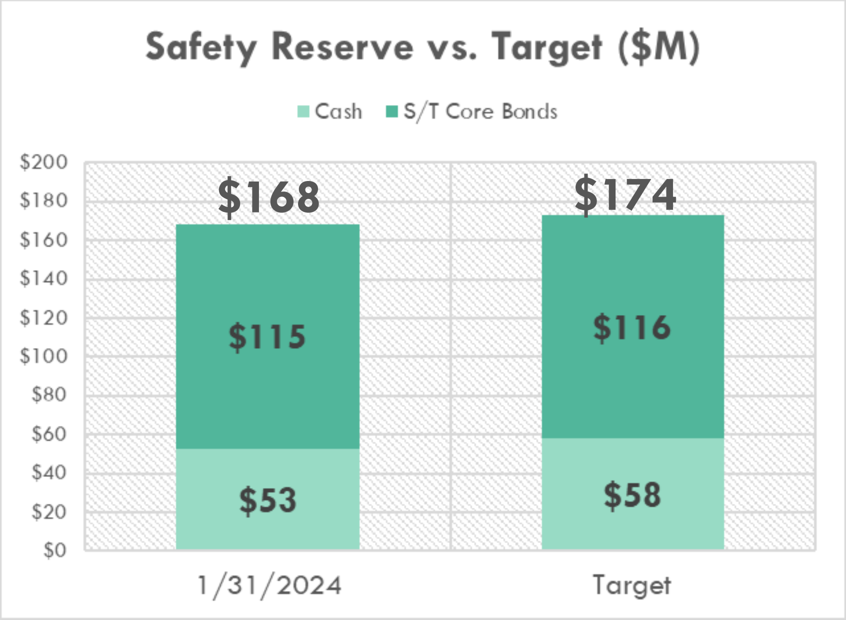
The beginning 12/31/23 value is from the January Board Monthly Reports and includes a one-quarter lag on private assets.
Numbers may not foot due to rounding.

Benefit Outflow Coverage

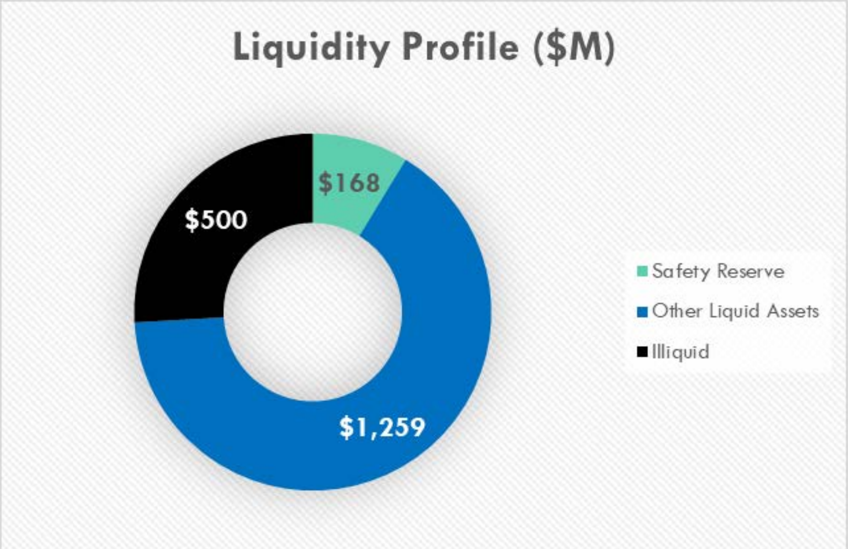
Since 2018, net Private Asset inflows have covered 102% of net benefit outflows.



Safety Reserve Dashboard



Projected Net Monthly outflows of **$9.0M** per month. Safety Reserve of **$168M** would cover net monthly outflows for next **18 months** or through **July 2025.**



Expected Cash Activity	Date	Amount ($M)	Projected Cash Balance ($M)	Projected Cash (%)
	1/31/24		$52.8	2.7%
City Contribution	2/16/24	$9.4	$62.2	3.2%
Pension Payroll	2/28/24	($28.7)	$33.5	1.7%
City Contribution	3/1/24	$9.4	$42.9	2.2%
City Contribution	3/15/24	$9.4	$52.4	2.7%
Pension Payroll	3/27/24	($28.7)	$23.7	1.2%
City Contribution	3/29/24	$9.4	$33.1	1.7%
City Contribution	4/12/24	$9.4	$42.5	2.2%
Pension Payroll	4/24/24	($28.7)	$13.8	0.7%

Numbers may not foot due to rounding

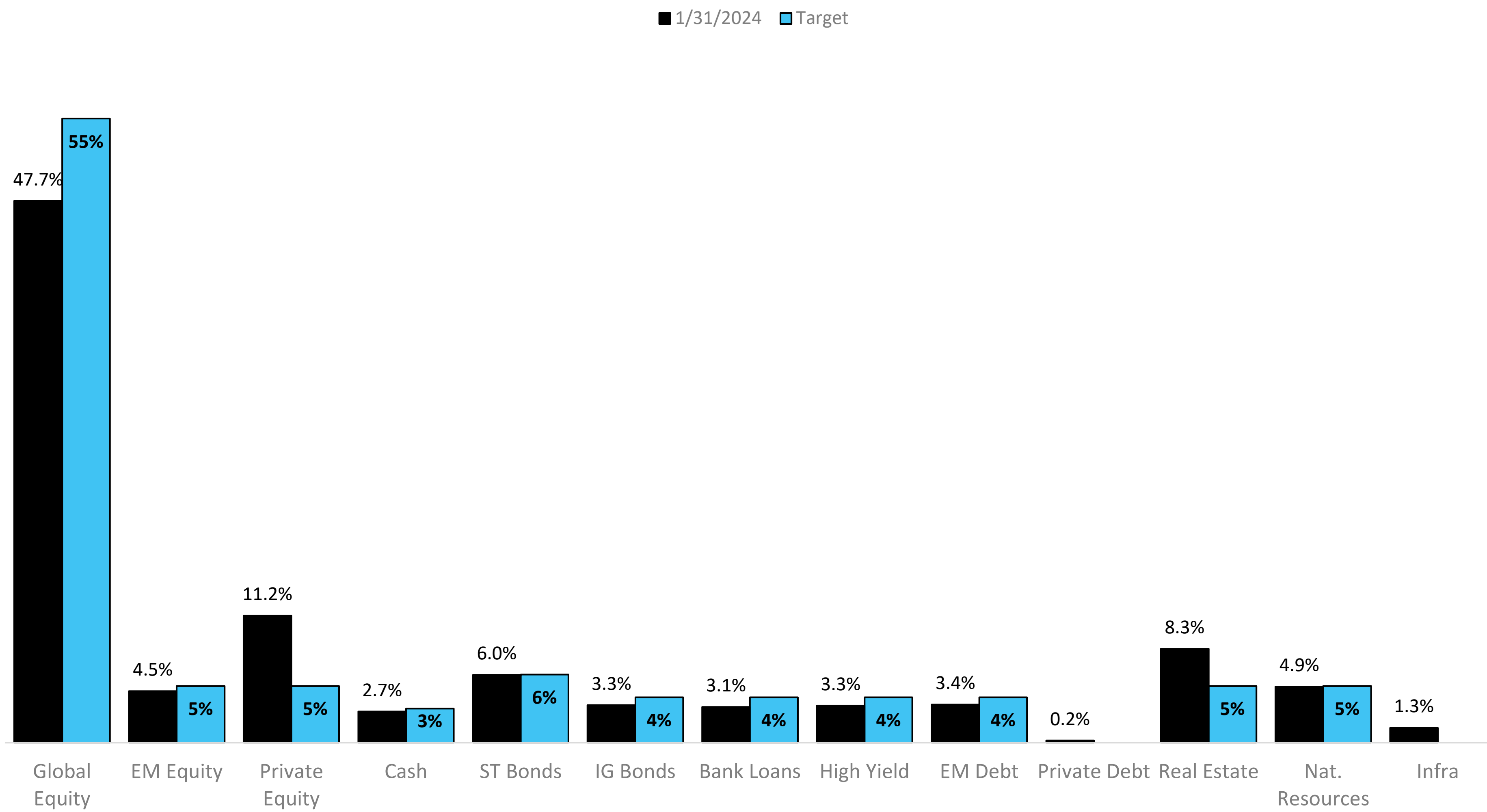
DALLAS POLICE & FIRE PENSION SYSTEM

Asset Allocation Detail

DPFP Asset Allocation	1/31/2024 NAV	%	Targets $ mil.	%	% of Target	Variance $ mil.	%
Equity	**1,223**	**63.5%**	**1,253**	**65%**	**98%**	**-30**	**-1.5%**
Global Equity	920	47.7%	1,060	55%	87%	-140	-7.3%
Boston Partners	*116*	*6.0%*	*116*	*6%*	*100%*	*0*	*0.0%*
Manulife	*116*	*6.0%*	*116*	*6%*	*100%*	*0*	*0.0%*
Walter Scott	*120*	*6.2%*	*116*	*6%*	*103%*	*4*	*0.2%*
WCM	*120*	*6.2%*	*116*	*6%*	*104%*	*5*	*0.2%*
Northern Trust ACWI IMI Index	*335*	*17.4%*	*482*	*25%*	*69%*	*-147*	*-7.6%*
Eastern Shore US Small Cap	*60*	*3.1%*	*58*	*3%*	*103%*	*2*	*0.1%*
Global Alpha Intl Small Cap	*54*	*2.8%*	*58*	*3%*	*94%*	*-3*	*-0.2%*
Emerging Markets Equity - RBC	87	4.5%	96	5%	91%	-9	-0.5%
Private Equity*	216	11.2%	96	5%	224%	119	6.2%
Fixed Income	**425**	**22.0%**	**482**	**25%**	**88%**	**-57**	**-3.0%**
Cash	53	2.7%	58	3%	91%	-5	-0.3%
S/T Investment Grade Bonds - IR+M	115	6.0%	116	6%	100%	0	0.0%
Investment Grade Bonds - Longfellow	64	3.3%	77	4%	83%	-13	-0.7%
Bank Loans - Aristotle Pacific	61	3.2%	77	4%	80%	-16	-0.8%
High Yield Bonds - Loomis Sayles	63	3.3%	77	4%	81%	-14	-0.7%
Emerging Markets Debt - MetLife	65	3.4%	77	4%	84%	-12	-0.6%
Private Debt*	4	0.2%	0	0%		4	0.2%
Real Assets*	**280**	**14.5%**	**193**	**10%**	**145%**	**87**	**4.5%**
Real Estate*	160	8.3%	96	5%	166%	63	3.3%
Natural Resources*	95	4.9%	96	5%	99%	-1	-0.1%
Infrastructure*	25	1.3%	0	0%		25	1.3%
Total	**1,928**	**100.0%**	**1,928**	**100%**		**0**	**0.0%**
Safety Reserve ~$162M=18 mo net CF	168	8.7%	174	9%	97%	-6	-0.3%
*Private Market Assets	500	25.9%	289	15%		210	10.9%

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

Asset Allocation – Actual vs Target



DALLAS POLICE & FIRE PENSION SYSTEM

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #C13

Topic: **Clarion – Possible sale of CCH Lamar**

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: Bohdy Hedgcock, Managing Director (by phone)
Kevin McCabe, Senior Associate (by phone)

Discussion: Clarion will discuss the proposed sale of DPFP's interest in CCH Lamar, an investment in the Cedars neighborhood of Dallas. Clarion was engaged in October 2015 to take over the investment management of DPFP's interest in several Dallas area real estate assets, including CCH Lamar.

Staff Recommendation: **Available** at meeting.

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

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.

Regular Board Meeting – Thursday, February 8, 2024

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #D1

Topic: **Public Comment**

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

Regular Board Meeting – Thursday, February 8, 2024

DALLAS POLICE & FIRE PENSION SYSTEM

DISCUSSION SHEET

ITEM #D2

Topic: **Executive Director's Report**

a. Associations' newsletters
- NCPERS Monitor (February 2024)
- NCPERS PERSist (Winter 2024)
- TEXPERS Pension Observer (Vol. 1 2024)
  https://online.anyflip.com/mxfu/wdkk/mobile/index.html

b. Open Records

c. Staffing Update

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

Regular Board Meeting – Thursday, February 8, 2024

THE NCPERS MONITOR

The Latest in Legislative News February 2024

Maximizing Your NCPERS Membership in 2024

By: William Whitman, Director, Membership & Strategic Alliances, NCPERS

Your membership with the National Conference on Public Employee Retirement Systems makes possible our essential work to protect and promote public pensions. With a community drawn from over 600 pension plans and stakeholders, NCPERS brings together plan trustees, administrators, public officials, and investment professionals to advance the cause of public pensions throughout the United States and Canada.

As the new Director of Membership & Strategic Alliances for NCPERS, my goal is to make sure that you and your organization receive significant value for your membership dollar. Each year, NCPERS delivers a comprehensive suite of programs, resources, and services to our members. Utilizing these benefits ensures your organization stays abreast of important developments in the public pension arena and stays connected with other stakeholders who help you accomplish your goals.

I've listed below some key programs and services that will benefit all NCPERS members throughout 2024. Please take advantage of these benefits and get the most out of membership this year.

NCPERS Conferences

This year's in-person conferences will keep you educated on the latest trends impacting public pensions and allow you to engage with leaders from pension plans, actuarial practices, financial services firms, and other organizations.

The 2024 Annual Conference & Exhibition (ACE) on May 19-22 will bring together more than 800 pension plan trustees, staff, and stakeholders for the premier education and networking event in the public pension space.

Additional in-person conferences throughout the year will be tailored to the needs of Chief Officers, Public Safety Plans, HR Professionals, and other segments of our community.

Webinar Series

NCPERS will host regular webinars on topics important to our community throughout 2024, bringing members free educational opportunities on headline issues.

Our next event: 2024 Public Retirement Systems Study: Trends in Fiscal, Operational, and Business Practices on February 13 at 1:00pm ET will dive into the results of the *2024 Public Retirement Systems Study* and highlight trends in plan benefits, allocating assets, and operational performance.

To receive updates on future webinars, sign up through the NCPERS Center for Online Learning.

NCPERS University

NCPERS University is where pension trustees and administrators can find the education they need to be successful in carrying out their duties, no matter their experience level. We have courses for new trustees and experienced trustees, as well as the NCPERS Accredited Fiduciary Program for those who want to earn a certification demonstrating their mastery of plan governance.

Fund Member Roundtables

For our pension professional members, we have a peer Roundtable network where you can gather critical intelligence, discuss industry developments, and crowd-source solutions to issues you face. No matter your role – CEO, CIO, communications head, or HR lead – these virtual chats bring together pension professionals to tackle common challenges.

Stay Connected and Informed

NCPERS keeps our community updated by relaying important industry news, research releases, and legislative analysis through our publications and communications platforms. Please ensure you are receiving and following:

- *PERSist*, our quarterly online journal, highlights the latest research and educational content for fund members. The Winter 2024 PERSist can be found here (login required).
- NCPERS Blog is our community hub for think pieces on the latest news, trends, and policy updates in the public pension industry.
- Subscribe to NCPERS Retirement Security SmartBrief to receive our weekly selection of the latest news from the public pension industry and updates on issues that impact financial wellbeing in retirement.
- Meet the CorPERS Members on our website to easily find the products and services available from leading service providers in the NCPERS community.
- Follow NCPERS on Facebook or LinkedIn for real-time updates and to connect with your peers.

Affinity Programs

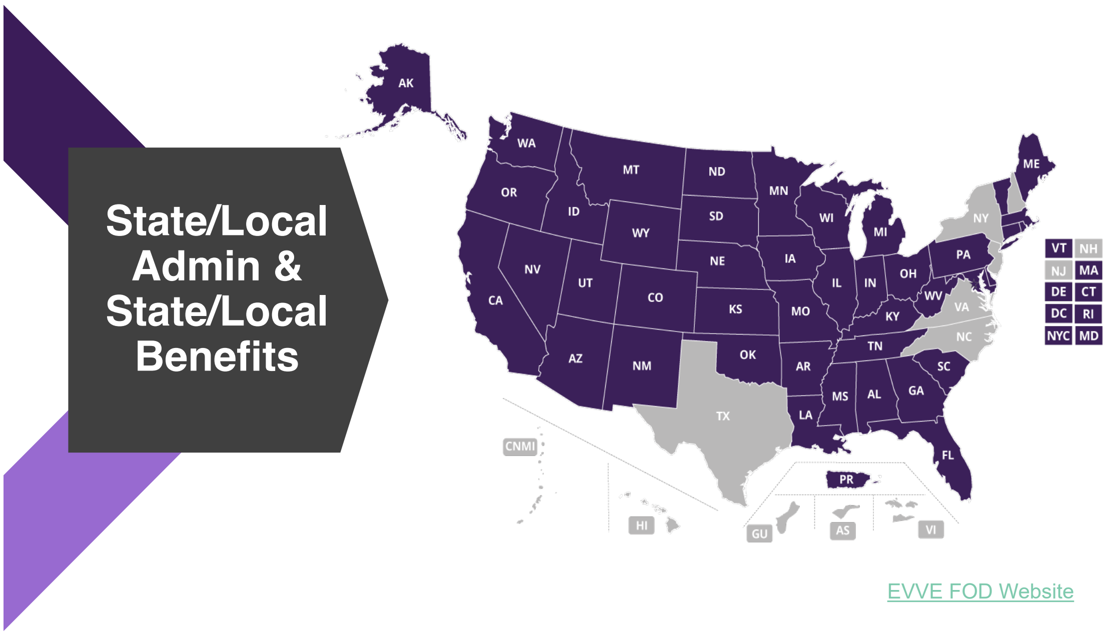
NCPERS has many strategic partnerships with organizations providing products and services to pension funds and their participants. Fund members can receive discounts on the PensionX digital platform and access to insurance products—including cyber liability, identity protection, and financial protection plans—through their NCPERS membership.

In addition to the above, there are *many* other benefits to being a member of NCPERS! If you would like to learn more about how your organization can take full advantage of membership, please do not hesitate to reach out to me at william@ncpers.org. I am extremely pleased to be part of this terrific team working to support you in 2024. ◆

NCPERS **Feature**

Death Verification Data, Cybersecurity, and Public Pensions

By: Tony Roda, Partner, Williams & Jensen



EVVE FOD Website

State and local governmental retirement plans pay pension, survivor, and other post-employment benefits to millions of retirees and beneficiaries throughout the 50 states, the District of Columbia, and the territories. In order to administer these programs in the most accurate manner, governmental plans need access to the most complete sources of death verification data. When payments are made to deceased individuals due to a lack of timely information, administrative burdens and costs are imposed not only on state and local governments as they seek to recoup the improper payments, but also on the federal government as it must unravel complicated tax situations created by income taxes withheld on the improper payments.

Significant data breaches occurred in the spring of 2023 that were related to private sector vendors of death verification information. Some of the breaches impacted state and local governmental retirement systems. In the aftermath, public plans began internal reviews of their cyber defenses and external investigations into alternative sources of death verification data. As part of the external investigation, NCPERS met with senior staff of the House and Senate Subcommittees on Social Security to explore options at the Social Security Administration (SSA) and other non-private sector sources.

The SSA provides two versions of death data to be shared with external organizations, as authorized by law: the public Death Master File, which does not contain data from the states, and the public plus state file, also known as the "full file," which contains state information. Experts in the field claim that the public file covers only 19 percent of deaths, while the full-file covers 95 percent.

The full-file may be shared as authorized under Section 205(r) of the Social Security Act, which allows SSA to enter into agreements with, among other entities, qualifying federal and state agencies. This includes state agencies administering programs wholly funded by the state. In 2012 in an exchange of communications between the SSA and a public pension plan, the SSA took the position that public plans are not eligible for the full-file because employee contributions partially fund the plan, i.e., the plans are not wholly funded by the state.

In order for public plans to be eligible for the full-file, then, Section 205(r) would have to be amended. Our Congressional contacts made clear that both SSA and Congress would not support such an amendment. Their position is that the greater the demand placed on SSA to be a national clearinghouse of death data, the more it detracts from SSA's core mission of administering the largest benefit program in the country. In other words, legislative changes would meet serious opposition in Congress and at the SSA, which would make chances of success unlikely at least in the short term.

Likewise, by statutory law, the U.S. Treasury Department's Do-Not-Pay (DNP) service may provide access only to federally funded, state-administered programs. State and local governmental retirement systems are not federally funded and, as a consequence, we would need to change DNP's statutory authority to allow state plans to be eligible. Our discussions have led us to conclude that an amendment to expand DNP's authority would meet with resistance in Congress as well.

Our research then led us to a non-profit organization — the National Association for Public Health Statistics and Information Systems (NAPHSIS). The vital records divisions of all 50 states, five territories, New York City, and the District of Columbia participate in NAPHSIS, but each jurisdiction has a different set of conditions on the use of their data. NAPHSIS categorizes its users, and working off the jurisdictions' various conditions, each user category has a different group of jurisdictions available to them.

NAPHSIS categorizes state and local governmental pension plans in the State/Local Benefits user category. There are 43 states, New York City, the District of Columbia, and Puerto Rico allowing users in this category access to their data. However, Hawaii, New Hampshire, New Jersey, New York, North Carolina, Texas, and Virginia currently would not permit access. NAPHSIS believes that recent developments in some of these states are promising and that additional states may soon allow access to this user category.

Please be assured that as we learn more about NAPHSIS and death data verification sources, in general, 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. Tony has an undergraduate degree in government and politics from the University of Maryland, J.D. from the Catholic University of America, and LL.M (tax law) from the Georgetown University Law Center.

NCPERS **Feature**

NCPERS Recognizes Industry Leaders with Inaugural Public Pension Communicator of the Year Award

By: Lizzy Lees, Director of Communications, NCPERS

NCPERS announced the winners of the inaugural Public Pension Communicator of the Year Award on January 22 during the 2024 Pension Communications Summit. Read the event recap here to find other highlights.

As the largest trade association of public pension professionals in the US and Canada, NCPERS is uniquely positioned to bring together and identify best practices from leading professionals across the industry. The newly-created award honors the communications staff person at a public pension who has demonstrated exceptional leadership skills; shown superior innovation and creativity; and created an impact with their communications endeavors in the preceding year.

"In 2023, NCPERS held its first Pension Communications Summit to provide a space for public pension communications professionals to share best practices, network, and learn from each other. With the Public Pension Communicator of the Year Award, we're thrilled to recognize the impressive communications efforts at our member pension funds and honor the individuals within these organizations who are leading the way and making a real impact," said NCPERS Executive Director and Counsel, Hank Kim.

Using the scoring criteria, judges selected three winners in categories based on funds' assets under management (AUM) and awarded one Honorable Mention:

Alison Taylor-Thévenin, Deputy Director, Member Communications for the New York City Board of Education Retirement System won the 2023 Public Pension Communicator of the Year Award in the less than $10 billion AUM category. With a background in graphic arts, she prioritizes aesthetically pleasing, understandable, and user-friendly communications. She has worked to help NYCBERS utilize Plain Language Guidelines and remains committed to ensuring the fund's communications are accessible, relatable, and representative of the diversity of its members and the city. She has worked for NYCBERS for more than 14 years.

Taneda Larios, Chief Benefits Analyst for the Los Angeles City Employees' Retirement System won the 2023 Public Pension Communicator of the Year Award in the $10-50 billion AUM category. She has taken a data-driven approach to strategically improve LACERS' communications, recognizing the diverse communication preferences of the fund's members and working to create efficiencies through technology and innovation. Larios led the creation of LACERS' web-based Retirement Application Portal, with 73 percent of eligible members choosing to retire using the portal in the last year. Her leadership skills and vision for serving LACERS' members were recently recognized with the elevation of her section, Communications and Stakeholder Relations, to a full-fledged division.

Patrick von Keyserling, Senior Director of Communications for Colorado PERA won the 2023 Public Pension Communicator of the Year Award in the greater than $50 billion AUM category. He recently oversaw the launch of Colorado PERA's first mobile app—which has had more than 20,000 downloads since July 2023. A natural collaborator, von Keyserling co-led an initiative to develop 60-second informational videos to help educate members in a format that is easy to digest. He has taken an innovative approach to improving employee engagement, overseeing the production of an organization-wide employee newsletter and an employee video news segment (PERAPhrase TV). To ensure the success of organization-wide initiatives, he led the effort to provide change management training to organizational leaders last year.

Michelle Holleman, Director, Communications and Stakeholder Relations for the Chicago Teachers' Pension Fund received an Honorable Mention for the 2023 Public Pension Communicator of the Year Award for her leadership abilities and contributions to both CTPF stakeholders and the broader community. Following the July 4th shooting in Highland Park (where she served as a volunteer Councilperson), Holleman used her crisis communications skills to support the coordinated response. She served as communications lead on the committee to distribute funds to victims and used the tragedy as an opportunity to educate public pensions on crisis communications best practices.

NCPERS would like to thank the judges for their time and efforts in selecting this year's winners: Laurie Mitchell, senior business consultant for Tegrit; Joe Potischman, marketing specialist for Linea Solutions; and Margaret Rogers, director of communications and member relations for the National Institute on Retirement Security.

NCPERS **Executive Director's Corner**

Preview: NCPERS 2024 Public Retirement Systems Study

By Hank Kim, Executive Director and Counsel, NCPERS

Photo Illustration © 2024, istock.com

For the past 13 years, NCPERS has conducted its annual Public Retirement Systems Study to gather the most current available data on funds' fiscal, operational, and business practices. Nearly 160 public retirement funds with more than 13.8 million active and retired members participated in the most recent study, which was conducted from September to December 2023.

NCPERS will host a webinar on February 13th where we'll discuss the methodology and share key insights from the soon-to-be released 2024 Public Retirement Systems Study. Register now to join the conversation and learn about the latest trends in public retirement benefits administration. The full results of the study will also be made available exclusively to NCPERS members via an interactive dashboard, allowing users to filter data for more relevant peer-to-peer benchmarking.

The preliminary analysis of NCPERS 2024 Public Retirement Systems Study data shows that the overall average expense to administer funds and pay investment fees decreased year over year to 56 basis points (down from 64 basis points). It's worth noting the data is based on reporting funds' most recent CAFR, so the data represents varying fiscal years.

Surveyed funds were asked to rate on a 10-point scale their readiness to address retirement trends and issues over the next two years. The results indicate an increase in fund confidence compared to the year prior. Despite this increase, market volatility and global economic uncertainty remain a challenge. Thus public pensions continue to tighten assumptions. Responding funds' aggregate discount rate was 6.91 percent, and the average amortization period was 20.4 years—a reduction of 0.4 years from the most recent study. In terms of sources of funding of public pensions, in the aggregate for every dollar of pension benefit paid, 63 cents are attributable to investment returns, 28 cents are from plan sponsor contributions, and nine cents are from employee contributions.

NCPERS conducts its Public Retirement Systems Study annually because public pensions are long-term investors who operate in complex environments. Funding ratios and investment returns rarely tell the whole story, so it's crucial to regularly benchmark overall fiscal and operational performance. There are new methods available to assess the health of public pensions, and having a clear understanding of the datapoints surrounding your fund can help you better educate policymakers, the public, and plan participants.

We hope you'll join us for the upcoming webinar to learn more about the 2024 Public Retirement Systems Study results. The full report and accompanying dashboard will be released in the coming weeks, and we hope they serve as valuable tools in understanding how your fund's fiscal and operational performance measures up.

NCPERS Names Illinois State Treasurer Policymaker of the Year

By: Lizzy Lees, Director of Communications, NCPERS

NCPERS presented The Honorable Michael Frerichs, Illinois State Treasurer, with its 2023 Policymaker of the Year Award on January 23 during its Legislative Conference. Read the event recap here to learn more.

The award, presented annually at NCPERS Legislative Conference, recognizes the efforts of a policymaker who has had a positive impact on public pensions or whose efforts have contributed to improvements in retirement security more broadly.

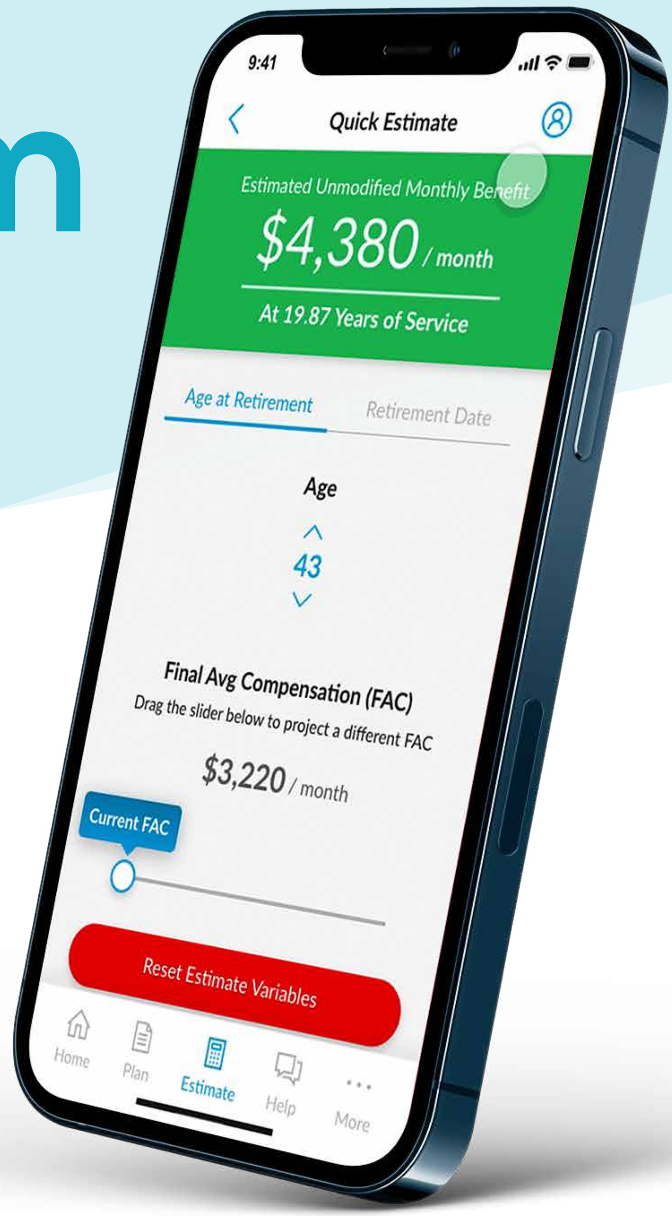
"The Honorable Michael Frerichs is proof of the profound impact that policymakers can have on retirement security. NCPERS believes that all Americans deserve to retire with dignity, and we are pleased to recognize him as our 2023 Policymaker of the Year for his efforts in both the private and public sector," said NCPERS Executive Director and Counsel, Hank Kim.

Frerichs—currently serving his third term as State Treasurer—launched Illinois Secure Choice in 2018 to serve the estimated 1.2 million private-sector workers in Illinois without access to an employer-sponsored retirement plan. The state-run retirement program completed its final wave of implementation in 2023. The program has already made a significant impact on the retirement security of Illinoisans, with over 140,000 workers collectively saving more than $145 million so far.

Frerichs has also served on the Illinois State Board of Investment (ISBI) since 2015. The ISBI has fiduciary responsibility for managing the pension assets of the State Employees' Retirement System of Illinois, the General Assembly Retirement System, the Illinois Power Agency, the Judges' Retirement System of Illinois, and the State of Illinois Deferred Compensation Plan. In this capacity, Frerichs directly supports the retirement security of more than 250,000 public sector beneficiaries.

"I am honored to be recognized by NCPERS especially now, as more states have realized the importance of improving retirement savings access," Frerichs said. "We have a looming retirement savings crisis in our country, and we know workers are much more likely to save for retirement if they can do so through payroll deductions, for instance through programs like Illinois Secure Choice. We foster a spirit of collaboration with other states to help workers across the country save for retirement." ◆

NCPERS PensionX Digital Platform



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

NCPERS 1941 | pensionX

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

NCPERS Around the Regions

Illinois Supreme Court Upholds Law Consolidating Police, Firefighter Pension Funds

The law consolidated some 650 retirement funds for municipal public safety workers into two funds — one for firefighters and another for police officers. Chicago is not included. The local funds' assets are merged only for administrative and investment purposes; their values are protected, in the sense that one fund's assets can't be used to shore up another's.

READ MORE   *Source: WTTW*

Alaska Bill Reviving Public Employees Pension System Advances to Senate Floor

Senate Bill 88 would revive a pension-like system (referred to as defined benefit) in place of the existing 401(k)-style system (known as defined contribution), which supporters say is a key element to resolving a workforce shortage due to people being reluctant to apply for — and remain at — state and other public sector jobs.

READ MORE   *Source: Juneau Empire*

Connecticut Pension Funds Shine Through Difficult 2023

The Connecticut State Treasury Department reported that, in the fiscal year ending June 30, 2023, Connecticut Retirement Plans and Trust Funds (CRPTF) posted a return of 8.5%. This placed the organization in the top quartile of public funds with assets greater than $1 billion.

READ MORE   *Source: Banking Exchange*

NCPERS 2023 Public Retirement Systems Study:

Trends in Fiscal, Operational, and Business Practices

READ THE REPORT

NCPERS Around the Regions

Maine Public Employees Divesting Fossil Fuels But Warns of Potential Cost

The Maine Public Employees Retirement System, Augusta, cut its fossil-fuel investments to 6.5% of total assets in fiscal year 2023 from 7.8% in fiscal year 2022, said a MainePERS report tracking progress in the state law calling for divesting fossil fuel holdings. The report also warned that eliminating all fossil-fuel investments by the law's Jan. 1, 2026, deadline would be cumbersome, complicated and costly.

READ MORE *Source: Pensions & Investments*

CalSTRS Revises Corporate Governance Principles to Focus on Labor Practices

CalSTRS revised its corporate governance principles that guide pension fund officials' stewardship and also adopted a three-year plan that includes a company's workforce and its community as an issue for engagement with portfolio companies.

READ MORE *Source: Pensions & Investments*

Upcoming Events

May

NCPERS Accredited Fiduciary (NAF) Program

May 18–19
Seattle, WA

Trustee Educational Seminar (TEDS)

May 18–19
Seattle, WA

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

September

Public Pension HR Summit

September 24-26
Denver, CO

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

The Voice for Public Pensions

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PERSist

The Voice for Public Pensions

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NCPERS Message

NCPERS 2024 Public Retirement Systems Study: Trends in Fiscal, Operational, and Business Practices

Photo Illustration © 2024, istock.com

For the past 13 years, NCPERS has conducted its annual Public Retirement Systems Study to gather the most current available data on funds' fiscal, operational, and business practices. Nearly 160 public retirement funds with more than 13.8 million active and retired members participated in the most recent study, which was conducted from September to December 2023.

Next month, NCPERS will host a webinar where we'll discuss the methodology and share key insights from the soon-to-be released 2024 Public Retirement Systems Study. Register now to join the conversation and learn about the latest trends in public retirement benefits administration. The full results of the study will also be made available exclusively to NCPERS members via an interactive dashboard, allowing users to filter data for more relevant peer-to-peer benchmarking.

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Surveyed funds were asked to rate on a 10-point scale their readiness to address retirement trends and issues over the next two years. The results indicate an increase in fund confidence compared to the year prior. Despite this increase, market volatility and global economic uncertainty remain a challenge. Thus public pensions continue to tighten assumptions. Responding funds' aggregate discount rate was 6.91 percent, and the average amortization period was 20.4 years—a reduction of 0.4 years from the most recent study. In terms of sources of funding of public pensions, in the aggregate for every dollar of pension benefit paid, 63 cents are attributable to investment returns, 28 cents are from plan sponsor contributions, and nine cents are from employee contributions.

NCPERS conducts its Public Retirement Systems Study annually because public pensions are long-term investors who operate in complex environments. Funding ratios and investment returns rarely tell the whole story, so it's crucial to regularly benchmark overall fiscal and operational performance. There are new methods available to assess the health of public pensions, and having a clear understanding of the datapoints surrounding your fund can help you better educate policymakers, the public, and plan participants.

We hope you'll join us for next month's webinar to learn more about the 2024 Public Retirement Systems Study results. The full report and accompanying dashboard will be released in the coming weeks, and we hope they serve as valuable tools in understanding how your fund's fiscal and operational performance measures up. ◆

In This Issue

NCPERS In This issue

2024 Outlook: What's Next for High Yield?

By: Brian Pacheco, Barings

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Against a backdrop of heightened uncertainty, what has surprised you most about high yield over the past year?

One of the biggest surprises this year has been the strong performance across the high yield bond and loan markets. While that was partly due to high yield's shorter duration/lower interest rate sensitivity, it was also a result of the lack of negative catalysts. As we expected, the wave of defaults that some were anticipating at the start of the year have not transpired. At the same time, downgrades have been manageable. The big question, of course, is can the strength continue if the macro picture starts to worsen?

What is your view of the credit quality in high yield bonds and loans?

With 2023 having been a relatively benign year for defaults, some analysts are still predicting draconian default rates and widespread investor losses in the next 12 to 18 months. However, that's not our base case scenario for a few key reasons. First, if a recession or a sharp slowdown were to occur, it would be one of the most anticipated downturns in history. Since markets are forward-looking, they have already priced in a downturn such that most credits likely to default over the next 12 to 18 months are already trading at steep discounts to par—and the high yields currently on offer should help absorb any defaults that do materialize.

> *One of the biggest surprises this year has been the strong performance across the high yield bond and loan markets.*

At the same time, the quality of the high yield market has improved significantly over the last decade. BBs, for example, now represent around half of the market, up from 40% a decade ago. CCCs, which have the highest risk of default, now account for only 10% of the market versus more than 20% after the financial crisis.[1]

Looking ahead over the next year, what areas look most attractive?

With yields across the high yield market remaining at elevated levels versus much of the period following the Global Financial Crisis, there is no need to "stretch for yield" by taking on additional credit risk. In particular, we see select opportunities in high-spread, yield-to-takeout trades, in which there are near- to medium-term maturities and where the borrower has liquidity levers or secured capacity—essentially, multiple ways to refinance. In BBs and high-quality single Bs, we look for catalysts for spread tightening, which could be earnings momentum or upgrade potential due to improving fundamentals. Meanwhile, in the loans market, there is considerable carry.

What do you see as the biggest risks to high yield today and tomorrow?

While we're not too concerned about the high yield market overall given the default rate math and elevated yields, what's different about this cycle is the poor creditor protection in recent-vintage loans and how companies and sponsors are finding creative ways to exploit gaps. Being caught on the wrong side of liability management worries us, and while there are ways to mitigate the risks, none is foolproof.

At the same time, there is a risk in sitting on the sidelines and trying to time things perfectly. There is simply too much income available right now to wait because buying opportunities like this don't typically last very long. But given the uncertainties on the horizon, we believe that a bottom-up approach to investing remains crucial to both avoiding additional downside and identifying issuers that can withstand the challenges ahead. ◆

> *There is simply too much income available right now to wait because buying opportunities like this don't typically last very long.*

Brian Pacheco*, Portfolio Manager, Global High Yield, is a member of Barings' U.S. High Yield Investments Group, responsible for portfolio management for multi-asset credit, high yield bond and senior secured loan strategies. Prior to his current role, Brian was the sector head for commodities and provided lead research coverage of the exploration and production and oilfield services segments within the energy industry. Brian has worked in the financial sector since 2000. Prior to joining Barings in 2018, Brian held senior investment analyst roles at UBS O'Connor LLC, Bardin Hill Investment Partners and Chicago Fundamental Investment Partners. Before transitioning to the buy-side, Brian was employed by J.P. Morgan in both leveraged finance and industry coverage. Brian is a member of the CFA Institute and holds a BBA in Finance from the University of Massachusetts at Amherst and an MBA from the University of Chicago Booth School of Business.*

Endnotes:

1 *Source: Bank of America. As of September 29, 2023.*

Don’t Wait for Goldilocks: Riding the Curve in Fixed Income

By: Janet Rilling, Daniel Sarnowski, and George Bory, Allspring Global Investments

Photo Illustration © 2024, istock.com

Key Takeaways:

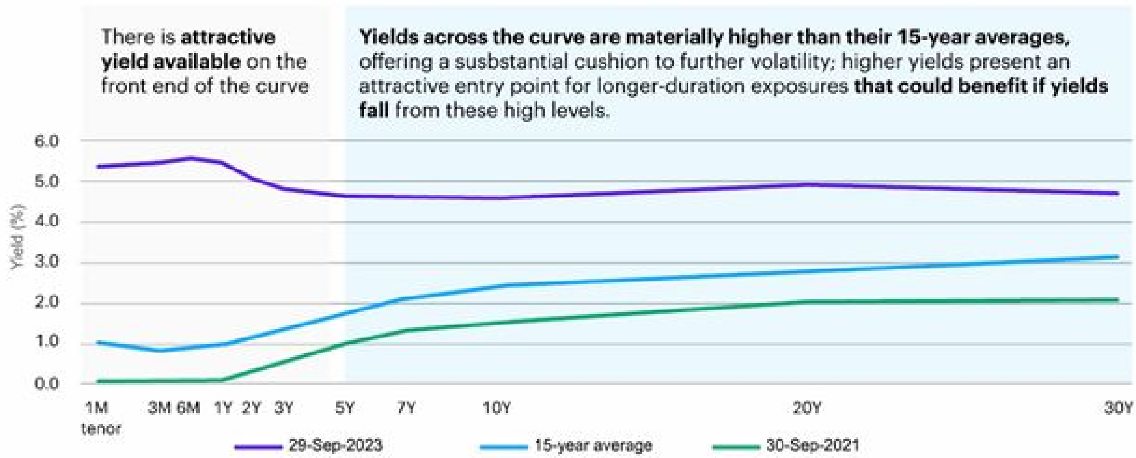
- **Prepare for different outcomes.** Fixed income markets remain unsettled. Taking a measured approach to allocating across the yield curve, or "Riding the Curve," may help investors enhance the ballast of their portfolios and position for different economic environments and outcomes.
- **Diversify duration exposures.** Yield curves have steepened recently, bringing longer-maturity yields more in line with those found on the front end of the curve—offering an attractive entry point for adding duration across the yield curve.
- **Don't wait.** The opportunity cost for investors waiting for a "Goldilocks moment" to add duration has risen of late. In prior periods, those who waited to increase duration significantly underperformed those who diversified.

Preparing for a range of outcomes

Investors face a highly uncertain future. We believe this requires preparation for a range of outcomes, rather than placing a single "bet" on a shift to a specific set of conditions. We see value in adding a broad mix of duration exposure, or "Riding the Curve" to prepare for a wide range of possible outcomes at this point in the economic cycle. Creating a more diversified portfolio ballast through adding duration in small increments along the yield curve may offer a better approach than solely targeting the long end of the curve.

Yields are currently at multiple-year highs across the yield curve. For example, yields at the front end of the yield curve are at their highest point in over 20 years. Nearly every spot along the curve is at the highest point in more than 15 years and well above its 15-year average (Exhibit 1). This higher level of income forms the basis for the total returns bond portfolios may generate over the coming years and may leave bond investors in a more advantageous position than nearly any time since the Global Financial Crisis.

Exhibit 1: Riding the Curve Offers Several Advantages



Source: Bloomberg L.P. As of 29-Sep-23.

Exhibit 2: Current Yields Provide a Generous Buffer Against Future Volatility

	Short duration	U.S. Aggregate	Municipal
Yield breakeven[1] (basis points)	302	89	68
Last time yield breakeven was this high	2007	2009	2000

Source: Bloomberg. 1. Yield breakeven = amount yields can rise (in bps) without generating a negative total return over a one-year holding period. Short duration = Bloomberg 1–3 Year Gov/Credit (LGC3TRUU Index), U.S. Aggregate = Bloomberg U.S. Aggregate (LBUSTRUU Index), Municipal = Bloomberg Municipal (LMBITR Index). As of 29-Sep-23.

Source: Bloomberg. 1. Yield breakeven = amount yields can rise (in bps) without generating a negative total return over a one-year holding period. Short duration = Bloomberg 1-3 Year Gov/Credit (LG3TRUU Index), U.S. Aggregate = Bloomberg U.S. Aggregate (LUSTRUU Index), Municipal = Bloomberg Municipal (LMBITR Index). As of 29-Sep-23.

By diversifying exposures across the yield curve, investors can position for different economic outcomes. If yields decline and the yield curve normalizes, then bond prices would rise, helping boost total returns. However, if bond yields were to rise, then current yields would likely provide a significant "volatility cushion" against lower bond prices (Exhibit 2).

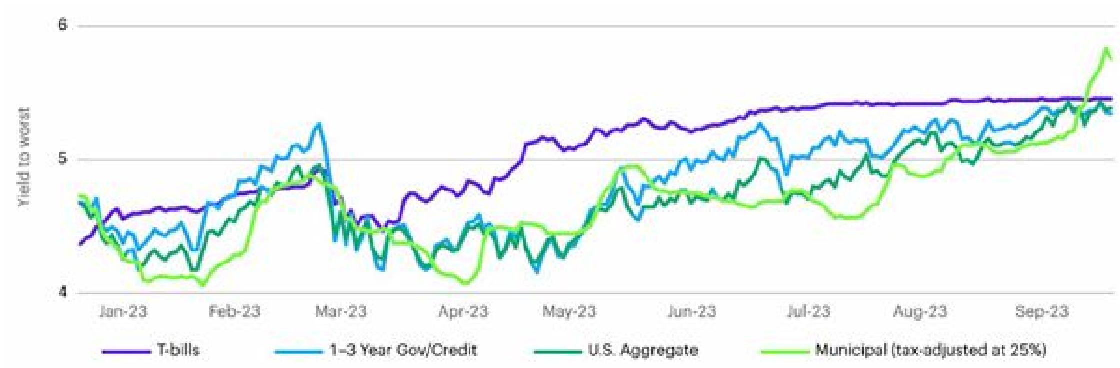
The falling opportunity cost of diversifying across a steepened yield curve

Making a significant shift in portfolio duration at the optimal time can be very difficult, and making such a move during a period of economic stress can be even more challenging. Allocating across duration exposures may offer a better approach where there can be diversification and return benefits as the curve normalizes.

It may also help reduce the inertia that can lead to suboptimal investment returns. As yield curves have steepened recently, longer-maturity yields are now more in line with those found on the front end of the curve. This has reduced the relative yield cost investors may be willing to give up to diversify their duration exposures (Exhibit 3), creating a potentially compelling entry point. Curve steepening has also occurred in the municipal bond market, offering investors the opportunity to capture the highest tax-exempt yields since 2009.

As yield curves have steepened recently, longer-maturity yields are now more in line with those found on the front end of the curve.

Exhibit 3: Lower Cost of Diversification



Source: Bloomberg. T-bills = Bloomberg U.S. Treasury Bills (LD20TRUU Index), 1-3 Year Gov/Credit = Bloomberg 1-3 Year Gov/Credit (LGC3TRUU Index), U.S. Aggregate = Bloomberg U.S. Aggregate (LBUSTRUU Index), Municipal = Bloomberg Municipal (LMBITR Index). Municipal yield to worst is adjusted for 25% federal tax rate. As of 29-Sep-23.

The rising opportunity cost of waiting for Goldilocks

Attempting to time the market is always difficult, and the inflection points that offer the optimal catalyst for change are often best identified in the rearview mirror. In prior periods of monetary policy transition, investors who waited for a "Goldilocks moment" to make a substantial shift in their duration positioning incurred significant opportunity costs and realized returns approximately 58% lower on average than those with a diversified duration portfolio during the period of transition (Exhibit 4). Data also shows that industry-wide money market fund (MMF) assets continued to climb during these periods even as the Federal Reserve (Fed) cut rates (Exhibit 4).

Exhibit 4: Returns During Transitionary Periods in Monetary Policy

Transitionary period[1] in monetary policy	31-Oct-94 to 31-Jan-96	20-Jan-00 to 25-Jun-03	28-Jun-06 to 16-Dec-08	05-Oct-18 to 16-Mar-20
Total returns for cash-only[2] investors (%)	7.38	14.01	11.27	3.73
Total returns for diversified investors[3] (%)	16.91	32.62	20.88	13.48
Opportunity cost (return difference) for cash-only investors	56% less	57% less	46% less	72% less
Growth in MMF assets while the Fed was cutting the federal funds rate	11%	9%	34%	29%

Sources: Allspring, iMoneyNet, and Bloomberg L.P. Data as of 29-Sep-23. 1. Transitionary period = peak of 10-year U.S. Treasury yield until last cut to the federal funds rate for the period. 2. Cash-only investors are represented by the Bloomberg U.S. Treasury Bills 3-6 Month (LD21TRUU Index). 3. Diversified investors are represented by an allocation of 25% portfolio value in each of the following four indexes: Bloomberg U.S. Treasury Bills 3-6 Month (LD21TRUU Index), Bloomberg U.S. 1-3 Year Gov/Credit (LGC3TRUU Index), Bloomberg U.S. Aggregate (LBUSTRUU Index), and ICE BofA Current 10-Year Treasury (GA10 Index).

Potential benefits of "Riding the Curve"

Preparing your portfolio for a broader range of outcomes. A "soft landing" scenario has become more widely accepted by investors throughout 2023, but history tells us that monetary policy cycles often meet a more abrupt end and the benefit of being prepared ahead of time for bond investors can be significant.

Diversifying your exposures. By staking positions across the yield curve, investors can diversify their portfolio and may increase the number of environments in which the portfolio can thrive.

Increasing the volatility buffer afforded through positive real yields. Yield and credit spread volatility may persist as the impact of higher rates flows through the economy. Yield breakeven points are high across the curve, affording investors the biggest cushion for volatility in more than 15 years. ◆

***Janet Rilling, CFA**, is a senior portfolio manager and the head of the Plus Fixed Income team at Allspring Global Investments. In this capacity, she has oversight and portfolio management responsibilities for separate accounts, mutual funds, and commingled vehicles across a range of strategies. Janet joined Allspring from its predecessor firm, Wells Fargo Asset Management (WFAM). She joined WFAM from Strong Capital Management. Prior to joining WFAM, she was a high-yield and investment-grade credit research analyst and a portfolio manager. Janet began her investment industry career in 1990 as an auditor with Coopers & Lybrand, specializing in the manufacturing and financial services industries.*

***Daniel (Danny) Sarnowski** is a portfolio specialist for the Plus Fixed Income team at Allspring Global Investments. In this role, he serves as the primary investment contact on accounts and works closely with portfolio managers and sales team members. He joined Allspring from its predecessor firm, Wells Fargo Asset Management (WFAM). Prior to his current role, Danny served as a key accounts manager for WFAM's Liquidity Solutions team. He was responsible for the distribution of institutional money market funds and ultra-short-term fixed income funds. Previous roles include managing sales and service teams within the retail intermediary and former direct-to-fund businesses for Wells Fargo Funds Distributor, LLC, and serving as a preferred client specialist at Strong Capital Management.*

***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. George joined Allspring from its predecessor firm, Wells Fargo Asset Management (WFAM). Prior to joining WFAM, he served as head of fixed income research for Wells Fargo Securities and earlier served as the head of credit strategy. Before that, George was the global head of credit strategy for UBS Securities. Previous roles include working for J.P. Morgan Investment Management, where George held several positions, including senior global credit portfolio manager.*

Disclosures:

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Public Pension Oversimplification Can Complicate Things Quickly

By: Daniel J. Siblik, Segal

Photo Illustration © 2024, istock.com

It's not breaking news that some journalists use a "hot take" approach when covering public pensions to create a splashy summary that glosses over details and roughly hits whatever mark is aimed at.

Public pension plans are frequently lumped together, often at a national level. They may also be broken out by state, but even that can be somewhat inaccurate. As a result, many plans get painted negatively with a broad brush.

For example, a Google search for "public pension plans time bomb" might yield results like these:

- "Time Bomb of Public Pension Funding Ticks Louder" (*Bloomberg*)
- "US Pension Plans Are on the Brink of Implosion – And Wall Street Is Ignoring It" (*The Guardian*)
- "Ticking Time Bomb: The Impending Collapse of The Pension System" (*Epicenter*) Oh no worries, this one is only about Europe.

Aggregation at a State Level

Pew Charitable Trusts summarizes plans and gives total liabilities, assets and resulting funded percentages (assets over liabilities) by state. Overall, Pew shows states ranging from 44% to 119% funded for 2021 (the most recent year summarized.

Public pension plans are frequently lumped together, often at a national level.

For some states, many plans are summed. For others, just one. A state may have a funded percentage of 80% but contain nine individual plans ranging from 25% to 101%. The overall average of 80% is a weighted average, but still paints an overly simplistic picture.

State	Funded %	#of Plans	State	Funded %	#of Plans	State	Funded %	#of Plans	State	Funded %	#of Plans
ALABAMA	75%	3	INDIANA	80%	9	NEBRASKA	111%	5	SOUTH CAROLINA	62%	5
ALASKA	81%	4	IOWA	101%	3	NEVADA	87%	3	SOUTH DAKOTA	106%	1
ARIZONA	74%	4	KANSAS	76%	1	NEW HAMPSHIRE	72%	2	TENNESSEE	114%	3
ARKANSAS	91%	5	KENTUCKY	52%	6	NEW JERSEY	50%	7	TEXAS	86%	5
CALIFORNIA	85%	5	LOUISIANA	80%	4	NEW MEXICO	74%	5	UTAH	105%	8
COLORADO	78%	5	MAINE	93%	4	NEW YORK	99%	2	VERMONT	68%	3
CONNECTICUT	53%	3	MARYLAND	81%	6	NORTH CAROLINA	95%	7	VIRGINIA	88%	4
DELAWARE	108%	8	MASSACHUSETTS	69%	2	NORTH DAKOTA	78%	4	WASHINGTON	119%	12
FLORIDA	91%	2	MICHIGAN	73%	6	OHIO	90%	3	WEST VIRGINIA	98%	5
GEORGIA	92%	7	MINNESOTA	90%	9	OKLAHOMA	92%	7	WISCONSIN	106%	1
HAWAII	64%	1	MISSISSIPPI	71%	3	OREGON	88%	1	WYOMING	85%	8
IDAHO	102%	3	MISSOURI	88%	6	PENNSYLVANIA	68%	2			
ILLINOIS	44%	5	MONTANA	79%	8	RHODE ISLAND	66%	5			

Pew Charitable Trusts, 2021 Fiscal Years

Pew data includes 230 individual plans ranging from 0% to approximately 200% funded. The median plan count by state is five plans. Teacher and education plans are often the largest by liability, and judicial and legislative plans are often smallest.

Some states have large public plans that are not included in these analyses. Illinois, for example, has five plans in the Pew summary averaging 44% funded and resides at the bottom of the rankings. Total liabilities for these five plans are approximately $250 billion, but there is another plan in the state with over $50 billion in liability, covering a population of approximately 500,000 that is 98% funded: The Illinois Municipal Retirement Fund, which does not receive money from the state of Illinois.

Plan Considerations

In contrast to private pension plans that largely reside under the national umbrella of ERISA, resulting in them having the same basic rules, public pension plans operate within the governance structure of individual states. So, for these plans, we are basically looking at 50 mini-nations. A plan in California has different statutes affecting benefits and funding than one in Tennessee. Some Native American plans may be governed by tribal law. Naturally, this causes significant variance among plans. Plans in different states have distinct provisions, assumptions, funding policies, contribution structures and history — basically, their own stories on how they got where they are and where they are headed.

Because public plans operate so differently from one another based on state laws and regulations, they need to be considered at a more granular level.

Because public plans operate so differently from one another based on state laws and regulations, they need to be considered at a more granular level, not always treated as a single state metric. Lumping them together can result in a one-size-fits-all approach to “fixing” them when they have different strengths and weaknesses. Within a particular state, there are often large pension plans funded much better than the overall ratio of all plans.

Below is a non-exhaustive list of some of key features that vary from plan to plan. These items affect aspects of plans like benefit levels, governance, funding, future plan health and plan costs.

Benefit Provisions	
Multiplier	Can cover a wide range; rates near 2% are common
	Multiplier may be low if plan is a supplemental plan
Pay Average	May be averaged over a whole career or a few years (or even one)
	Pay may be limited in individual years to a certain amount
Service Maximum	All years may be included or limit may apply
COLA	Annual benefit increases for inflation, ad hoc increases, or no COLA at all
Eligibilities	
Vesting	Plan may require five years or possibly more (or less)
	Vesting may vary within a plan in different tiers
Retirement Age	Ages range, some plans could be near 50, others in the 60s
Retirement Service	May require a few years or up to 20
Funding	
Contributions	Employees often contribute, but not always
Members:	Rates vary, from near zero to close to 20% of pay
Employers:	Rates vary widely, from single digits to approaching or exceeding 50% of pay
Fixed Rate or Varying	Many plans pay an actuarially determined contribution while some use a fixed rate, adusted occasionally, with others somewhere in between
Other	Some plans pay less than is recommended or have taken contribution holidays
Additional Considerations	
Social Security	Members may participate or plan may be a Social Security replacement plan
Multiple Tiers	Members treated differently within the plan
Underlying Economy	Local economy supporting plan members may be robust or receding
Governing Structure	State statutes, local code, Tribal law
Assumptions	Discount and inflation rates vary, for example
Cost Sharing	Employers bear all adverse experience or share with members
Open or Closed	Plan may be closed to new members, most are still open

While some clearly (and unfortunately) see the public pension plan system collectively as being on borrowed time, most plans have paid benefits for decades (or more) and never missed a benefit payment. Each plan's individual underlying structure, assumptions and other features can provide insight into the health and funding trajectory of the plan.

Why Each Public Plan Should be Analyzed Individually

Each plan is unique, and decisions stakeholders make affecting a plan's future health should be understood. Clustering them can be reckless and misleading on all fronts. As a collective group of plans improves funding in certain years, other plans that lose ground and maintain short-sighted policies should also not get to hide under that umbrella.

It's important to read articles about "public pension plan funding" critically and draw your own conclusion based on data for individual plans. ◆

Daniel J. Siblik, ASA, MAAA, FCA, EA *is a Vice President and Actuary in Segal's Chicago office. Dan has more than 25 years of experience as a benefits consultant. He has spoken at actuarial conferences and participated in organized pension trustee training forums. He focuses on public sector pension consulting.*

Diversifying Income in a New Era

By: Brian Griggs, Nuveen

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With investors facing an uncertain economic and interest rate environment, many are tempted to over-allocate to cash and wait for further clarity. But we believe investors should continue seeking opportunities for portfolio growth and income generation, even if that means looking in unexpected areas. We offer three themes to consider, along with ideas for portfolio positioning.

1. Investors are accumulating cash alternatives at the wrong time.

Historically, investors have moved to cash at precisely the wrong times — when rising short-term interest rates were near their peaks. Elevated short-term bond yields may look enticing during economic uncertainty. But each time short yields have surged by 100 basis points over the past 30 years, a recession has followed. This means investors should consider being longer, not shorter, on the duration curve.

2. After dramatic rate increases, longer-duration sectors have offered more favorable risk/return characteristics.

When short-term yields spiked in the past — like we've seen the last couple of years — fixed income risk/reward tended to be more favorable than cash alternatives.

But consider where the world may be heading. In the 12 months after the yield spikes, average fixed income returns improved significantly. An elevated rate environment means investors may collect higher coupons, as well as benefit from price returns as rates decline. These advantages are compounded for investments with longer durations. Sitting in cash, in contrast, tended to be a worse strategy due to its lower starting yield and shorter duration.

> *Historically, investors have moved to cash at precisely the wrong times — when rising short-term interest rates were near their peaks.*

3. Prepare Portfolios for the Road Ahead.

To be clear, we are not advocating market timing. And we think considering only the likely direction of interest rates is missing the forest for the trees. A better solution? Build an income portfolio that diversifies across risk factors.

Drivers of risk and return are embedded in every investment, and different risk factors will out- and under-perform over time. Since we will never know when each risk factor may perform better or worse, diversifying across these factors should be a more solid approach.

Drivers of risk and return are embedded in every investment, and different risk factors will out- and under-perform over time.

Income portfolios have different sensitivities to risk factors, depending on the underlying asset classes. Choose an allocation based on risk tolerance, return goals and liquidity needs, as well as the factors you think will be rewarded in the near term. Risk factors that we model include:

- Rates: The risk of rising interest rates due to monetary policy and/or investor willingness to part ways with their capital for longer periods of time (i.e., duration risk).
- Credit: The risk of credit spreads widening due to uncertainty around borrower defaults.
- Equity: The risk of an equity market selloff due to an unforeseen economic shock.
- Commodities: The risk of higher commodity prices driving a sudden inflation shock.
- Idiosyncratic: Volatility unexplained by equity, credit, and rates. ◆

Defensive income

Offers moderate income potential to help mitigate against falling interest rates

- **Designed for:** traditional risk-off environment
- **Allocations:** core sectors to help reduce rate sensitivity; high quality municipals for tax efficiency; farmland for defensiveness and embedded inflation protection
- **Largest risk factors:** interest rates

Nontraditional income

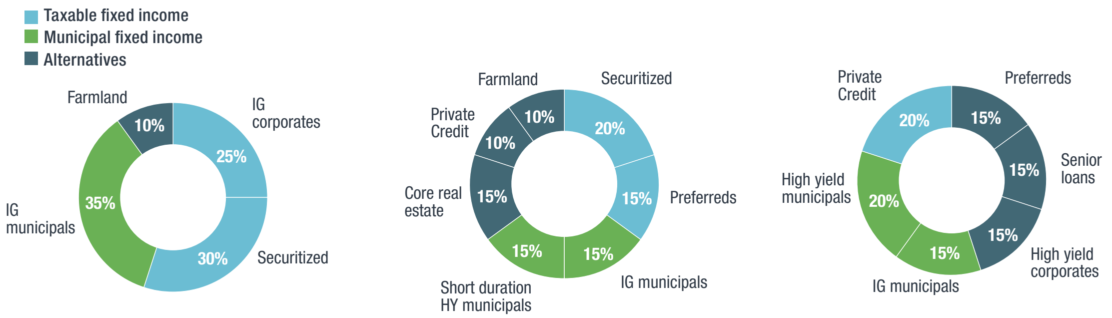
Balances public and private assets to help build resiliency against macro shifts

- **Designed for:** high allocation to private markets
- **Allocations:** private investments result in only ~60% of volatility explained by macro factors; private assets for inflation protection
- **Largest risk factors:** idiosyncratic; equity

Credit income

Seeks higher yield potential per unit of risk and is directly related to credit conditions

- **Designed for:** risk-on income allocation
- **Allocations:** diversified income-producing assets; private credit to help improve the yield per unit of volatility
- **Largest risk factors:** changes in credit spreads; equity



Data sources: Nuveen Portfolio Strategy Group, Bloomberg, L.P., data as of 30 Jun 2023. **Performance data shown represents past performance and does not predict or guarantee future results. Representative indexes: core real estate:** NCREIF Fund Index Open End Diversified Core (NFI-ODCE) Index; **farmland:** NCREIF Farmland Index; **investment grade corporates:** Bloomberg U.S. Corporate Bond Index; **investment grade municipals:** Bloomberg Municipal Bond Index; **high yield corporates:** Bloomberg U.S. Corporate High Yield Index; **high yield municipals:** Bloomberg High Yield Municipal Bond Index; **preferreds:** S&P U.S. Preferred Stock Index; **private credit/direct lending:** Cliffwater Direct Lending Index; **securitized:** Bloomberg U.S. Securitized: MBS/ABS/CMBS and Covered Index; **senior loans:** Morningstar LSTA U.S. Leveraged Loan Index; **short duration high yield municipals:** Bloomberg Municipal High Yield Short Duration Index. Diversification does not insure against loss in a declining market. Different benchmarks, economic periods, methodologies and market conditions will produce different results. There is no assurance that any asset class or index will provide positive performance over time.

Brian Grigg, CFA, CMT, FRM*, Managing Director, Portfolio Strategist, has over a decade of experience as a cross-asset investment strategist focused on both public and private markets. As a senior member of Nuveen's Portfolio Strategy & Solutions team, he develops and delivers custom analytics, thought leadership and portfolio construction views to investment advisors and their clients.*

Prior to joining Nuveen, Brian worked at State Street Global Advisors as an investment strategist, representing the firm's target-date capabilities to defined contribution plan clients. Prior to that, he worked at Voya Investment Management as a client portfolio manager covering multi-asset and option-based income strategies. He began his career at Bloomberg LP as a portfolio risk, factor investing & derivatives specialist.

Brian graduated with a B.S. from Syracuse University and an M.B.A. from Columbia Business School. He also holds the CFA, CMT and FRM designations and is a member of CFA Society Stamford.

Disclosures:

Important information

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The views and opinions expressed are for informational and educational purposes only as of the date of writing and may change without notice at any time based on numerous factors and may not come to pass.

Investing involves risk; principal loss is possible.

For term definitions and index descriptions; please access the glossary on nuveen.com. **Please note, it is not possible to invest directly in an index.**

Supreme Court Clarifies Pleading Requirement for Claims Arising Under the Securities Act of 1933

By: Eric J. Belfi and Guillaume Buell, Labaton Keller Sucharow LLP

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The U.S. Supreme Court recently clarified the scope of certain claims for securities class actions brought pursuant to Section 11 of the Securities Act of 1933. The Court held that an investor who alleges claims regarding a purportedly defective registration statement (often issued in connection with an IPO or secondary public offering), must specifically allege that he purchased some shares traceable to that registration statement.

Facts of the Case

After the Plaintiff purchased the shares, Slack's stock price dropped, leading to a class-action lawsuit.

The case involved claims against Slack Technologies, a company that offers a platform for instant messaging. In 2019, Slack conducted a "direct listing" on the New York Stock Exchange. Because Slack "employed a direct listing rather than an IPO, there was no underwriter and no lockup agreement" and thus, "holders of preexisting unregistered shares were free to sell them to the public right away." Using a direct listing rather than an IPO purportedly allowed Slack to avoid paying "significant transaction costs." The direct listing "offered for purchase 118 million registered shares and 165 million unregistered shares" to which the Plaintiff in the case bought 30,000 Slack shares on the day the direct listing went public, and 220,000 additional shares over the next few months. After the Plaintiff purchased the shares, Slack's stock price dropped, leading to a class-action lawsuit. *Slack Technologies* v. *Pirani*, 598 U.S. 759, 764 (2023).

The lawsuit alleged that Slack violated Section 11 by filing a materially misleading registration statement: which touted the business and "implied that the Slack App was a market leader with unique advantages over its competitors and that [Slack] possessed the ability to scale up its services to reach more lucrative enterprise customers," However, Slack's "growth was [allegedly] slowing down in several aspects, including its key metric, [daily active users]." *Pirani* v. *Slack Technologies*, 445 F. Supp. 3d 367, 374 (N.D. Cal. 2020).

The 1933 Act requires a company to "register the securities it intends to offer to the public with the Securities and Exchange Commission" and "[a]s part of that process, a company must prepare a registration statement that includes detailed information about the firm's business and financial health so prospective buyers may fairly assess whether to invest." And the "law imposes strict liability on issuing companies when their registration statements contain material misstatements or misleading omissions." *Slack*, 598 U.S. at 762.

The case resolved a dispute among lower federal courts about the reach of Section 11 claims. To interpret the scope of Section 11 standing, the Supreme Court analyzed whether the term "such security" in the statute refers only to a security issued pursuant to the allegedly misleading registration statement, or also includes a security not issued pursuant to that registration statement. *Id.* at 766-767.

The Supreme Court concluded that the statute "imposes liability for false statements or misleading omissions in 'the registration statement'" and "[t]he statute uses the definite article to reference the particular registration statement alleged to be misleading, and in this way seems to suggest the plaintiff must 'acquir[e] such security' under that document's terms." As a result, Section 11 "requires a plaintiff to plead and prove that he purchased shares traceable to the allegedly defective registration statement." *Id.* at 766-767, 770.

Key Takeaways

Going forward, shareholders bringing Section 11 claims will have to plead and prove they purchased shares traceable to the defective registration statement they claim caused them to suffer harm. A future battle before the Supreme Court may also be in the offing with respect to claims under Section 12 of the 1933 Act, which the Court declined to address. ◆

Eric J. Belfi and Guillaume Buell *are Partners in the New York office of Labaton Keller Sucharow LLP.*

An accomplished litigator, Eric Belfi represents many of the world's leading pension funds and other institutional investors concerning the merits of U.S. and non-U.S. securities, shareholder, and other investment-related litigation. Eric advises clients throughout the lifecycle of an action, participating in the complaint drafting process, as well as litigation, mediation, and settlement strategy meetings. Eric is a member of the Firm's Executive Committee and head of the Client Development Group.

With over a decade of experience in securities law, Guillaume Buell represents investors based in the United States, the United Kingdom, and Europe in connection with domestic and international securities litigation, corporate governance matters, and shareholder rights disputes. His clients include a wide range of pension funds, asset managers, insurance companies, and other sophisticated investors.

Enhancing Healthcare Coverage for Public Safety Retirees

By: Eric Stanger, Via Benefits by WTW

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Important improvements to the Healthcare Enhancement for Local Public Safety (HELPS) Retirees Act

What is HELPS?

Since its passage in 2006, the HELPS Act has allowed retired public safety officers to benefit from an annual pre-tax distribution of up to $3,000 from a governmental retirement plan when funds were used to pay for healthcare or long-term care insurance. However, the legislation required that the governmental retirement plan make the premium payments directly to the insurance provider.

Unfortunately, the high administrative burden prevented many governmental retirement plans from implementing the direct payments to insurance providers, which prevented eligible public safety retirees from accessing this important benefit.[1]

> **"Ohio firefighters and other first responders wear their bodies out protecting our families and communities, and they shouldn't have to worry about being penalized for withdrawing from retirement that they've earned," said Senator Sherrod Brown (OH). "This is a simple solution that allows first responders to keep their own money and alleviate pressure on state and local governments."**

Sherrod Brown
U.S. Senator for Ohio

What is new?

In December 2022, Congress passed legislation to enhance the HELPS Retirees Act that removed the requirement that premiums be paid directly by the governmental retirement plan. Now, all eligible public safety retirees can elect to exclude up to $3,000 from their taxable income from an eligible governmental retirement plan to pay qualified health or long-term care insurance premiums.

$3,000 → **$660**

tax exemption*

annual reduction in taxes to retiree in 22% income tax bracket[2]

* **Tax Exemption:** The dollar amount that can be deducted from an individual's total income, thereby reducing one's taxable income.[3]

Why is this important?

Since 2003, there have been significant legislative updates impacting retiree healthcare, including the Medicare Modernization Act, the Affordable Care Act, the American Rescue Plan Act, and the Inflation Reduction Act. The laws have created and strengthened health insurance markets for retirees by driving competition among insurers, eliminating barriers to coverage, enhancing benefits, and providing government subsidies to lower the cost of healthcare. As a result of finding better value on the individual market, there has been dramatic growth in enrollment in plans purchased directly by individuals as compared to group purchasing.[4] Many public safety retirees are choosing to waive group health plan coverage from former employers because they can find better value by purchasing individual coverage. Now these public safety retirees can also take full advantage of the pre-tax distribution they earned as a public safety officer.

How can Via Benefits help plan sponsors assist public safety retirees to take advantage of this tax benefit?

Plans sponsors *NOT providing* retirees with group health benefits:	Via Benefits can assist retirees with evaluating and enrolling in healthcare coverage and will educate retirees on the existence and benefits of the HELPS law. For retirees who are not yet eligible for Medicare, Via Benefits will help retirees evaluate whether they qualify for any federal premium tax credits that would further reduce the cost of health insurance premiums.
Plans sponsors *providing* retirees with group health benefits:	Via Benefits will help evaluate how the costs and benefits of your group plan(s) compares to the plans available on the individual marketplace. Most plan sponsors reduce their administrative burden while providing an increase in personalized plan choice and savings to retirees.

Via Benefits respects the sacrifices made by our public safety officers, which is why it advocated for the passage of the 2022 HELPS Retirees legislation by educating lawmakers of the administrative challenges to the law in its previous form and how to improve access to the benefit for public safety retirees. ◆

Endnotes:

[1] spanberger.house.gov/posts/president-signs-into-law-spanbergers-bipartisan-legislation-to-protect-tax-credits-of-retired-police-officers-firefighters and ncpers.org/blog_home.asp?display=193

[2] nerdwallet.com/article/taxes/federal-income-tax-brackets

[3] irs.gov/pub/irs-dft/p575--dft.pdf

[4] kff.org/policy-watch/as-aca-marketplace-enrollment-reaches-record-high-fewer-are-buying-individual-market-coverage-elsewhere and cms.gov/news-room/press-releases/nearly-16-million-people-have-signed-up-affordable-health-coverage-aca-marketplaces-start-open

Eric Stanger *supports large, complex employers in evaluating and designing individual market solutions for retiree healthcare. Eric has over 20 years of human resource consulting and product management experience, having started in the industry with a focus on HR benchmarking, then transitioned to developing and managing health benefits solutions.*

Prior to Via Benefits by WTW, Eric led the retiree health exchange at Conduent for seven years, responsible for client satisfaction, operations, sales, P&L and product development. More recently, Eric led business development for Aon's retiree health exchange, helping organizations understand and closely evaluate exchange solutions for their retirees.

Prior to his work with healthcare exchanges, Eric helped develop the first (he claims) health savings account in the industry at Mellon HR Solutions. He designed and managed the HSA product for Mellon before moving to Fidelity Investments to implement and manage the Fidelity HSA product.

The Inflation Reduction Act's Impact on Medicare Part D and Retiree Healthcare Plans

By: Alisa Bennett, Cavanaugh Macdonald Consulting

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The Inflation Reduction Act of 2022 (IRA) was signed into law on August 16, 2022. Of particular interest to public sector retiree healthcare plans and retirement systems are the changes to Medicare Part D and drug pricing. These provisions are relevant even to retirement systems who do not sponsor retiree healthcare plans because a significant portion of a retiree's pension benefit goes to healthcare costs.

The provisions applicable to members with Medicare Part D plans include:

- The copay for insulin is capped at $35 per month.
- Price negotiations will take effect in 2026 for 10 drugs covered by Medicare, increasing to 20 drugs in 2029.
- Drug companies will pay rebates for drugs used by Medicare beneficiaries if prices rise faster than inflation.
- The 5% coinsurance for catastrophic coverage in Medicare Part D is eliminated in 2024, there will be a $2,000 cap on Part D out-of-pocket spending in 2025, and annual increases in Part D premiums will be limited for 2024-2030.

Prescription drugs are expensive and are only becoming more expensive with biologics and other specialty drugs being approved. These drugs represent a positive outcome for preservation and quality of life of the users, but someone has to pay for them.

When it comes to Medicare, costs are shared between various entities:

- the Federal Government,
- the Health Plan (commercial Part D plan or employer sponsored plan),
- the participant in the form of premiums and/or out of pocket costs such as deductibles, coinsurance and copays,
- and the drug manufacturers in the form of price concessions and rebates.

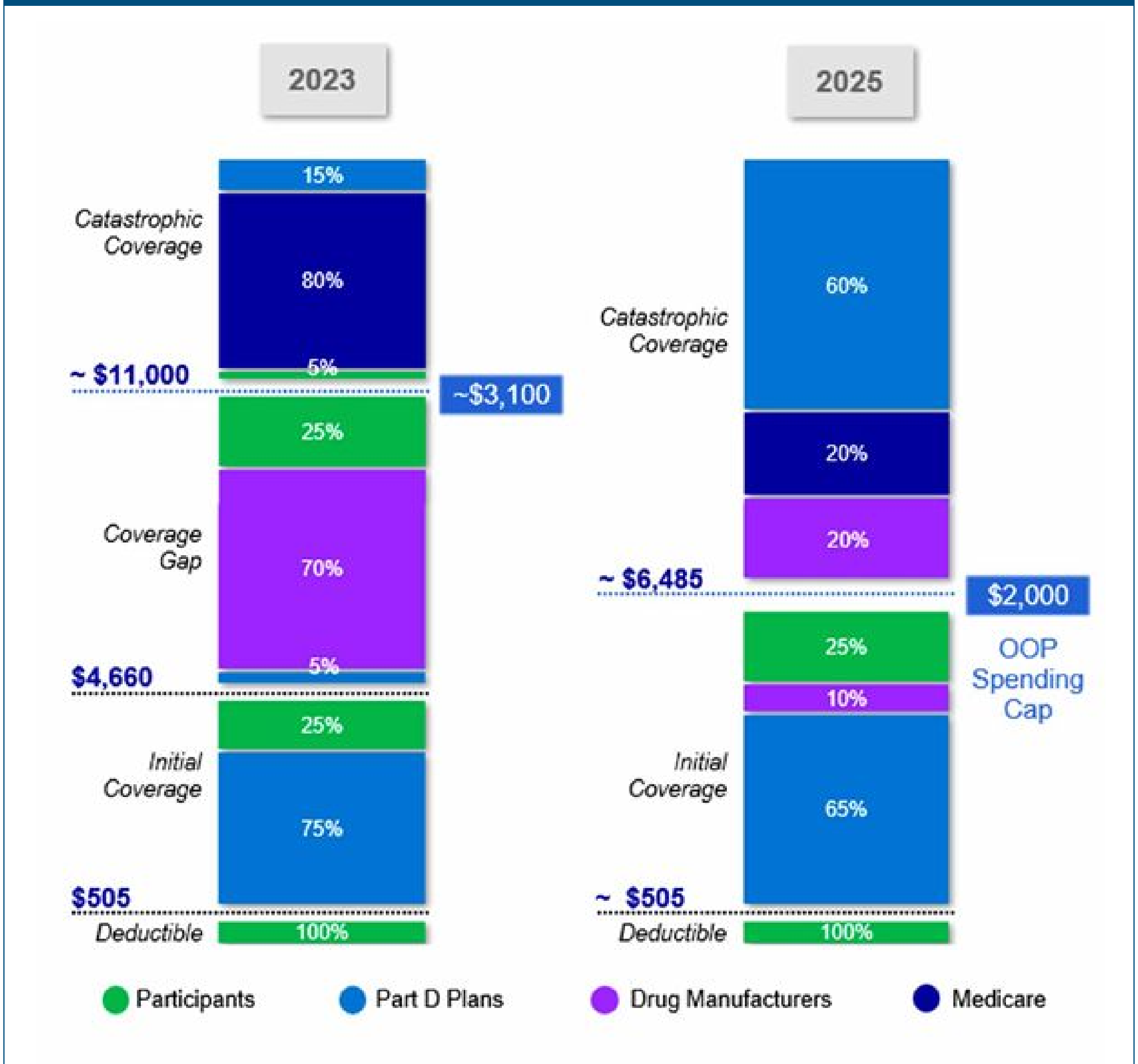
The IRA is intended to lower drug prices and catastrophic retiree costs, but plan design changes shift costs from one payer to another. A potential implication of these provisions is that the drug companies will attempt to make up any lost revenue on Medicare beneficiaries by increasing costs for everyone else. This would impact the active employee population as well as pre-Medicare retirees.

The limits on price increases to that of general inflation could impact launch prices, meaning that the drug manufacturers could increase the initial price of a new drug that enters the market to protect against restrictions on their ability to increase prices later.

Drug negotiations do have the potential to encourage additional lower-cost biosimilars. The law limits biologics eligible for Medicare negotiation to those which have been on the market for 11 years and which do not have a biosimilar version in the pipeline. This may alter incentives for brand-name biologic companies and drive more low-cost biosimilars.

By 2025, the Medicare Part D plan design will cap participant out of pocket spending at $2,000 and alter the cost sharing between the participant, the Part D Plan, the drug manufacturers and Medicare. The chart below shows how this will work.

Inflation Reduction Act



For very expensive drugs, the participant's current 5% share in the catastrophic phase can be significant. Under the 2025 design, plan participants out of pocket costs will be capped at $2,000 which is protection for those with very high-cost drugs. At the same time, drug manufacturers will have some liability in the catastrophic phase which could potentially encourage them to bring down costs on very expensive specialty drugs. Stakeholders will be watching carefully to see how the cost impacts of the law unfold over the next few years. ◆

Stakeholders will be watching carefully to see how the cost impacts of the law unfold over the next few years.

***Alisa Bennett, FSA, EA, MAAA**, is a President and Consulting Actuary at Cavanaugh Macdonald Consulting. Alisa has 30 years of consulting experience providing healthcare and pension actuarial valuation services to public sector clients. Alisa is a Fellow of the Society of Actuaries and an Enrolled Actuary.*

Leveraging vCISO Expertise to Protect Pension Funds Against Cybersecurity Threats

By: Peter Dewar, Linea

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Managing cybersecurity risk is an essential task for any organization operating in today's digital landscape. Cybersecurity encompasses a wide range of disciplines that seeks to identify, mitigate, manage, avoid, and recover from risks and negative events in both technologies and business processes.

The primary goal of cybersecurity is to achieve the CIA triad: maintaining Confidentiality, Integrity, and Availability of information and systems under the care of any organization charged with that mandate. This means protecting sensitive data such as Personally Identifiable Information (PII) from unauthorized access, ensuring its accuracy and reliability, and ensuring that critical systems are available when needed.

One way to achieve the CIA triad is by leveraging virtual Chief Information Security Officer (vCISO) services to secure confidential business processes and protect information and sensitive systems.

To manage cybersecurity threats, organizations must first understand the inherent risks that they are exposed to that are manifested in technologies that they use and the business processes they perform. This involves evaluating all systems and processes that are in use or managed by the organization, as well as those employed by service providers to serve clients, members, or constituents.

Understanding the probability and likelihood of potential risks, such as data leakage, data theft, or denial-of-service attacks, is crucial in developing a comprehensive cybersecurity strategy.

Does taking a holistic look at your organization's entire area of business operations to determine this probability seem daunting? It should because it is.

A vCISO can provide several services to help organizations develop a complete information security program, including:

- Policy Audit and Development
- Network/Wireless Assessment
- Applications Security Review
- Social Engineering Awareness and Training
- Risk Assessment/Cyberscore Development
- Incident Response Plan Assessment and Development
- Vulnerability/Penetration Testing

As well as ongoing activities that would continue after the information security program is in place:

- System Security Management
- Threat Management/Managed Detection and Response
- Meetings & Reporting
- 3rd Party Vendor Risk Management

Implementing appropriate security is like fitting the pieces of a puzzle together. When the implementation is done you want the pieces to fit together to show the landscape that is the cybersecurity program comprised of different layers of protection. For this reason, make sure the information security program is tailored to the uniqueness of your organization and the industry within which you operate.

Implementing these cybersecurity measures requires a skilled team with expertise in each of the above areas. Typically, organizations will need 5 to 10 cybersecurity experts to handle the complexities of cybersecurity risk management effectively.

However, many organizations face challenges in staffing the right talent to manage cybersecurity risks. To overcome this hurdle, some have adopted the vCISO approach by utilizing cybersecurity service providers that offer a range of cybersecurity services without adding to the organization's overhead costs.

Delegating external cybersecurity management can prove to be an economical solution, similar to how businesses hire financial services from external vendors. It allows organizations to access expert-level cybersecurity services without the burden of hiring and maintaining an extensive cybersecurity team. ◆

__Peter Dewar__, President, has over 25 years of experience in cybersecurity and leads the cybersecurity practice for the Linea group of companies that provide services across the United States and Canada. Under his leadership Linea has developed a Pension Cyber Security Framework (PCSF) to complement the generalized standards for protecting information systems. The PCSF focuses on the business process employed, services provided, and technology utilized by pension and benefits organizations, and devises controls to minimize and mitigate the inherent cybersecurity risk experienced by the industry. Peter has a Master's degree in Information Systems from the George Washington University, a Bachelor's degree in Information Systems from the University of the District of Columbia, is a Certified Information Systems Security Professional (CISSP), Certified Data Privacy Security Engineer (CDPSE), and has received certificates of achievements from the Harvard Kennedy School of Government, Gartner CIO Academy, and International Foundation of Employee Benefit Plans.

Guard Against Optimism when Retirement Scenario Planning

By: Thomas Anichini, GuidedChoice

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Have you ever planned a road trip, only to encounter unexpected obstacles, prolonging the trip? You might encounter accidents, roadblocks, and traffic jams. Experience teaches you things can go wrong, so you might have to refresh navigation apps periodically.

The unexpected can also occur with your retirement savings. When saving for retirement, a lot of unplanned events might occur:

- Market conditions might be worse than anticipated
- Your portfolio might be different from the one assumed
- Your earnings path might be interrupted

If people mistake the best-case scenario for the expected, the advisor needs to help clients plan without misleading them with undue optimism.

Their optimism misleads people into thinking the best-case is most likely

A recently published study, The Best-Case Heuristic: Relative Optimism in Relationships, Politics, and a Global Health Pandemic, found that when subjects predicted optimistic best-case, pessimistic worst-case, and most realistic scenarios, their most realistic scenarios tended to be closer to their best-case scenario prediction than to their worst-case scenario[1].

To a retirement advisor, this finding is troubling. If people mistake the best-case scenario for the expected, the advisor needs to help clients plan without misleading them with undue optimism.

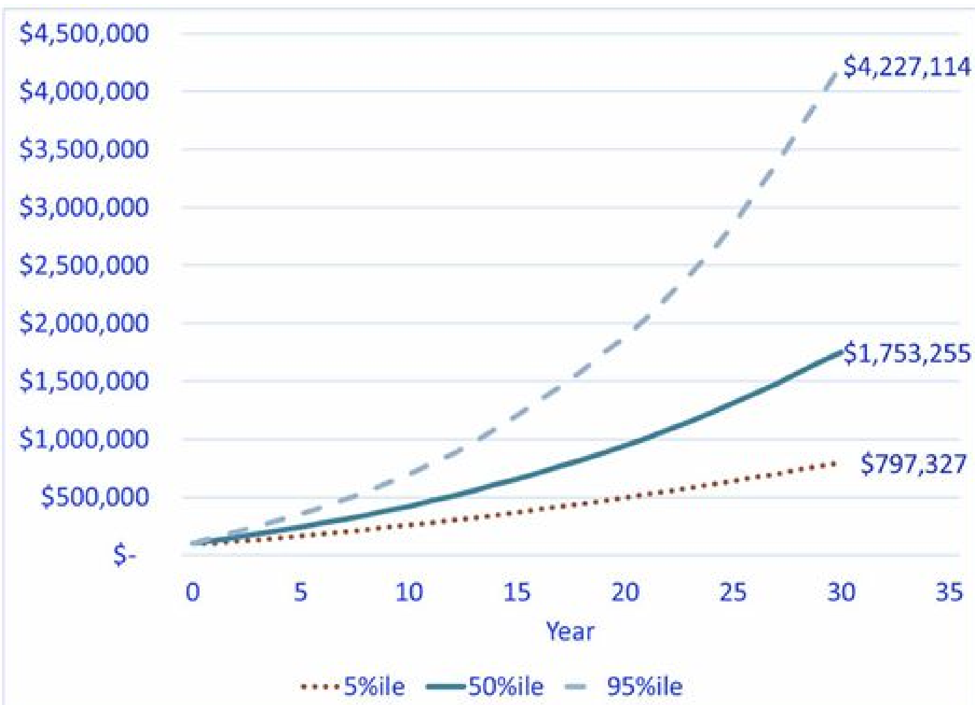
How should you treat optimistic projections? Ignore them

When retirement advisors display the range of your possible retirement wealth or income, often they show the 95th percentile, the median (or 50th percentile), and the 5th percentile. We think this practice can lead to overoptimism in the minds of clients.

Simulations of growth of wealth can be heavily skewed, especially over long time periods. To illustrate this skewness, we invite you to compare the 95th and 50th percentiles of simulated wealth growth in Figure 1. This chart depicts hypothetical growth over 30 years of an account with ongoing contributions.

Simulations of growth of wealth can be heavily skewed, especially over long time periods.

Figure. 1. Growth of $100,000 with ongoing contributions, current dollars, 5th through 95th %iles

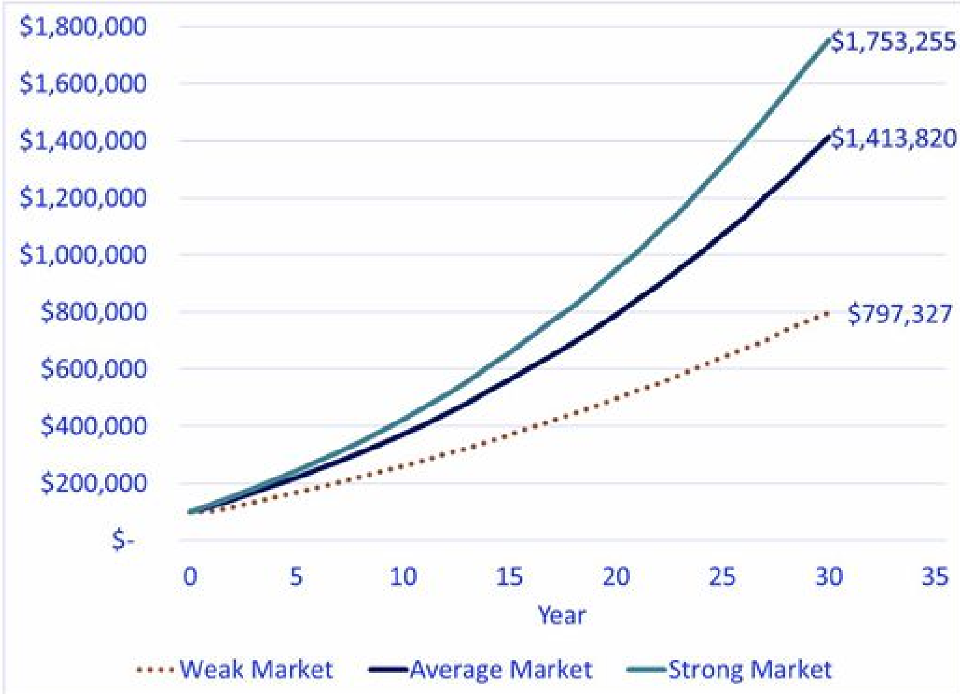


Source: GuidedChoice. Log return assumptions: 7% expected return, 12.5% standard deviation. Contributions in years 1 to 30 equivalent to $20,000 in current dollars. Assumed inflation rate 2.5% annually. This figure represents a hypothetical situation and is not intended as a forecast or as retirement or investment advice.

Notice after 30 years the 95th percentile projection is over twice that of the median. This is what positive skewness looks like.

Reflecting on all that could go wrong in your savings journey, we recommend you focus your attention on the bottom half of the distribution. Figure 2 displays how the bottom half of simulation results appear without the 95th percentile distracting you.

Figure 2: Growth of $100,000 with ongoing contributions, current dollars, 5th through 50th %iles



Source: GuidedChoice. Log return assumptions: 7% expected return, 12.5% standard deviation. Contributions in years 1 to 30 equivalent to $20,000 in current dollars. Assumed inflation rate 2.5% annually. This figure represents a hypothetical situation and is not intended as a forecast or as retirement or investment advice.

We recommend you treat the median as the "Strong Market" result and focus your attention on the bottom half of the distribution. Thus, you guard against error in your advisor's assumptions, and guide yourself away from optimism bias. You might feel compelled to save more, giving yourself a better chance of overcoming all the things that could go wrong and improving your ability to retire securely.

Takeaways

Try not to base your expected retirement outcome on rosy scenarios. If your retirement advisor shows you projections that include 95th percentile results, focus on the outcomes that are median and below.

Lots of events during your life can slow your progress to retirement security. Since you might experience some years when you cannot contribute as much as you would like, make sure you contribute as much as you can during the years when you can. ◆

Endnotes:

[1] Sjåstad, H., & Van Bavel, J. (2023). The Best-Case Heuristic: Relative Optimism in Relationships, Politics, and a Global Health Pandemic. Personality and Social Psychology Bulletin, 0(0).

Thomas M. Anichini, CFA, CFP, Chief Investment Strategist, joined GuidedChoice in 2011 and is currently the chief investment strategist. He is responsible for articulating our investment philosophy and methodology. Additionally, he serves on our Investment Committee and is involved in research, investment processes, and operational risk management. Prior to joining GuidedChoice, Tom held a variety of investment positions, including leading the U.S. manager research team at Mercer, managing portfolios at Westpeak Global Advisors, and as partner, director of portfolio management at Freeman Investment Management. In addition, from 2011 to 2014 he served on the Society of Actuaries Investment Section Council, including one year as chair. Thomas holds a B.S. in Actuarial Science from the University of Illinois and an M.B.A. in Finance from the University of Chicago. ◆

Worker Turnover Soars After Closing a Public Plan

By: Tyler Bond, National Institute on Retirement Security (NIRS)

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Public pension plans were established as workforce management tools for the end of an employee's career: helping older teachers, firefighters, and civil servants transition from working to retirement when the concept of "saving for retirement" was much less common. Over time, plan sponsors realized that pension plans helped with the beginning and middle stages of a career as well: recruiting and retaining a strong public workforce. Pensions are now seen to play a key role throughout an employee's career, so it should come as no surprise that closing a public pension plan has adverse outcomes for workforce management.

The workforce challenges that result from closing a public pension plan are documented in a new report from NIRS called No Quick Fix. The report examines five states - Alaska, Kentucky, Michigan, Oklahoma, and West Virginia - that either closed or significantly changed public plans in their state and, in the case of West Virginia, eventually reopened its closed plan.

Alaska stands out as the prime example due to the severity of its worker shortages. Alaska is already a difficult-to-staff state due to its remoteness and imposing geography. Also, many public employees in that state do not participate in Social Security. So, closing the two statewide public plans 17 years ago removed much of the incentive for someone to work in public service in Alaska.

The actuary for the two closed Alaska plans tracks the employee turnover data for both the defined benefit (DB) and the defined contribution (DC) plans. Employee turnover is much higher in the DC plans than in the DB plans. This data can be used to project the years of expected service in the two plans. For example, for a group of 100 male peace officers vesting in their plan at age 30, the DB plan would expect to still have 63 of them working at age 54, but the DC plan would only expect to have 17 of those 100 still working then. Similarly, for 100 female general government employees, 26 of 100 would be expected to still be working at age 55 in the DB plan, but only 7 of those in the DC plan. Put another way, the state expects to receive 67 percent more service from male peace officers in the DB plan, and 51 percent more service from female general government employees in the DB plan.

Figure A7: AK PERS - Male Peace Officer Retention for DB & DC Plans Based on Ultimate Termination Rates

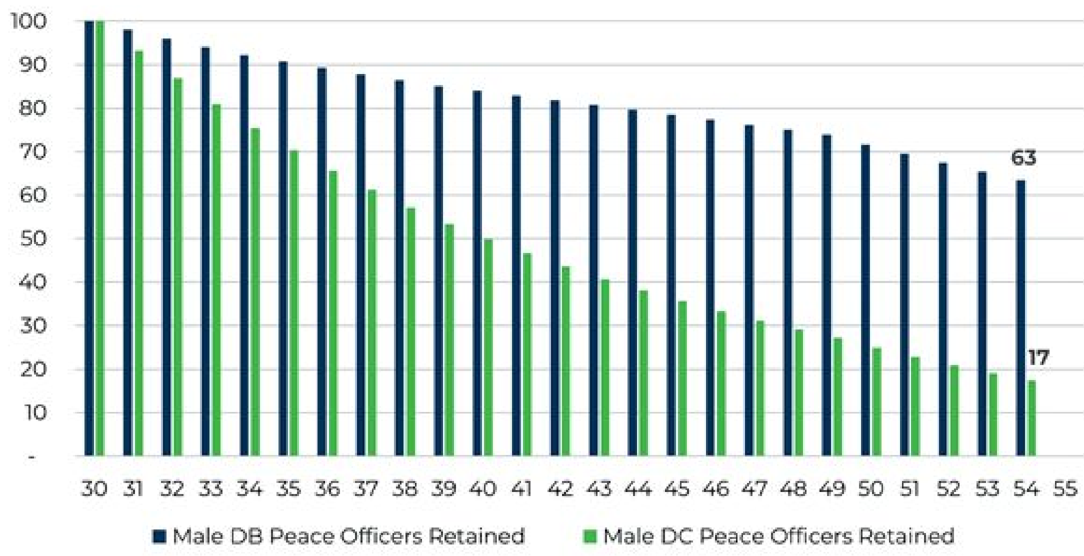
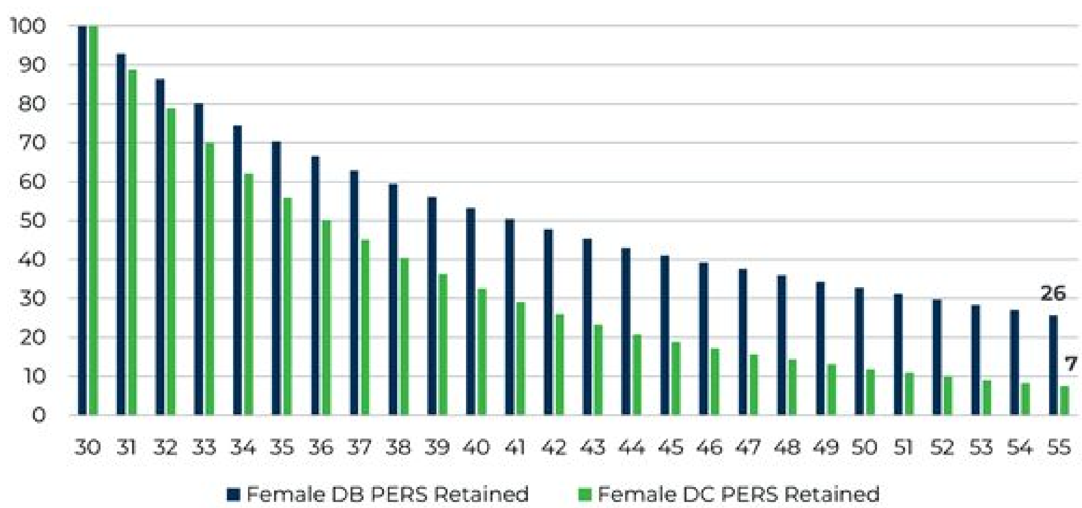


Figure A6: AK PERS - Female Non-Peace Officer Retention for DB & DC Plans Based on Ultimate Termination Rates



Data like this show up in other states. The Michigan State Employees' Retirement System (SERS) DB plan has been closed for more than 26 years. While DC plans are often sold as appealing to new workers, the number of recent hires that terminated in the last experience study was 62 percent above what the withdrawal assumptions anticipated, which is certainly not good news regarding retaining new talent.

Figure 9: Change in Worker Count by Tenure: 2005 vs. 2021

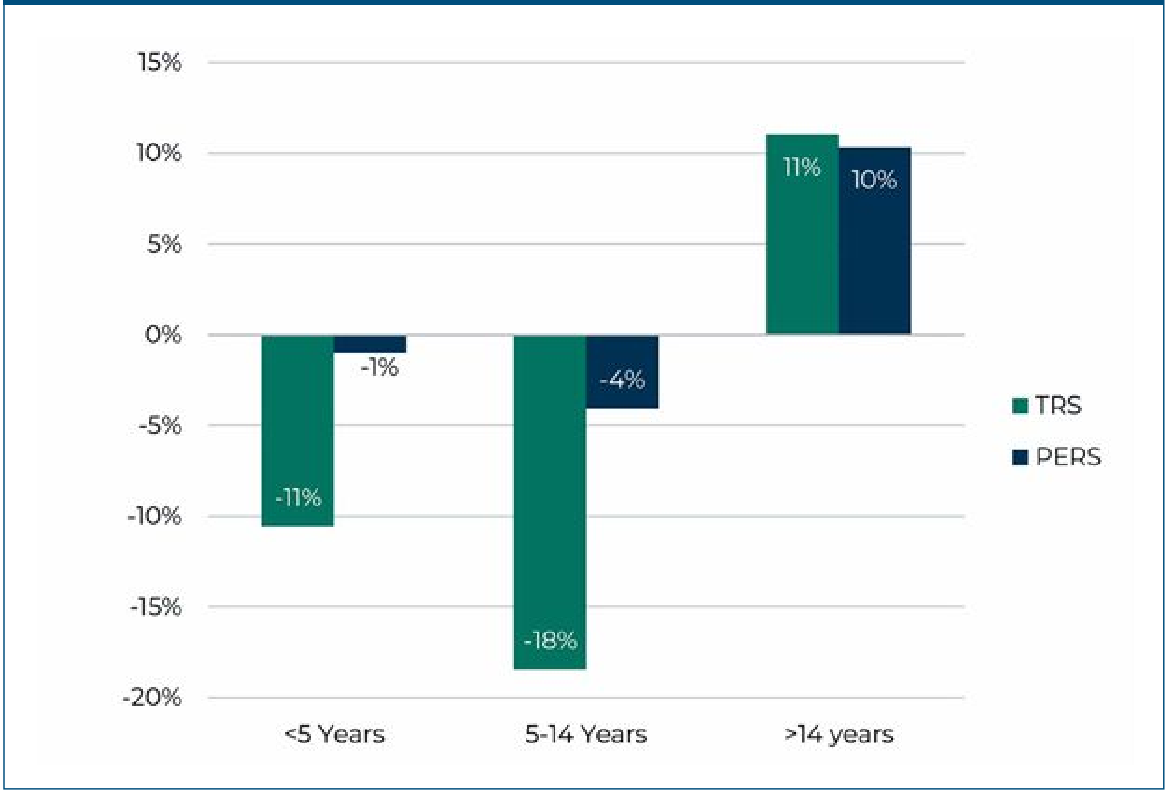


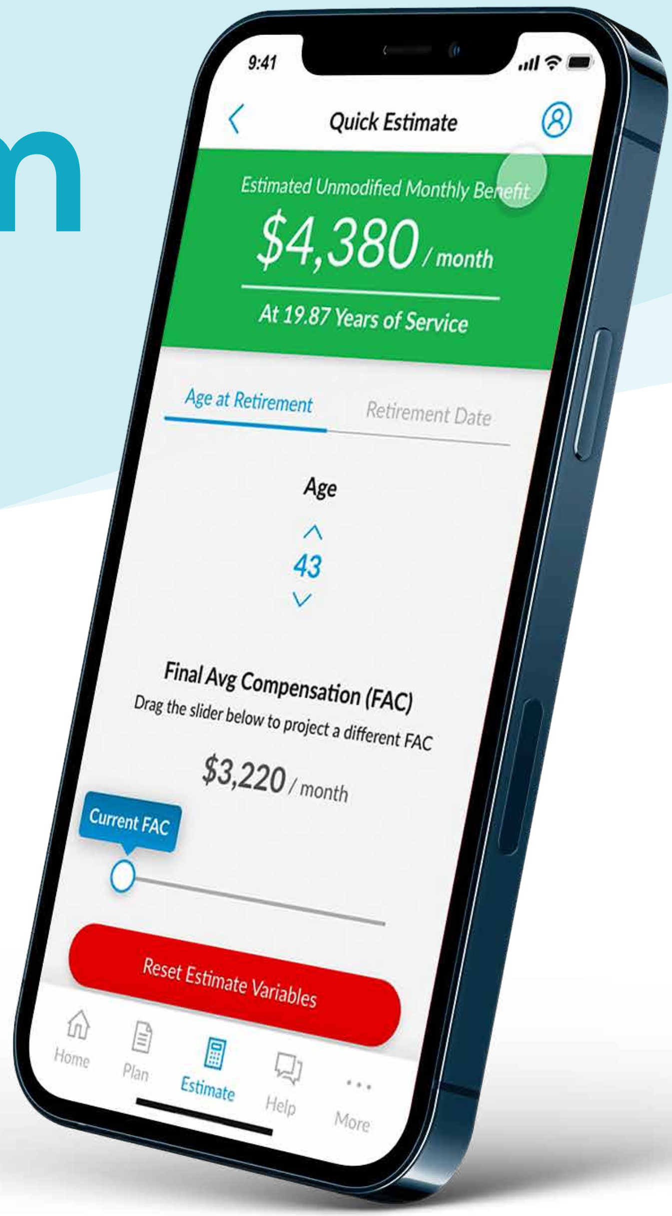
Figure 10: Percentage TRS DC Quits Is Expected to Exceed TRS DB - Based on Actuarial Experience

DB pension plans have provided an effective workforce management tool to public employers for decades. That is one reason why most public employees today still have access to a pension. The few states that have moved away from pension plans have not only seen employee turnover increase, but have seen costs rise, negative cash flow grow, and retirement security for workers weakened. It's obvious that closing a public pension plan provides no quick fix to the ongoing challenge of maintaining a robust public workforce. ◆

DB pension plans have provided an effective workforce management tool to public employers for decades.

Tyler Bond is the research director for the National Institute on Retirement Security (NIRS). He works with the executive director to plan all NIRS research products. Since joining NIRS, Bond has authored or co-authored numerous research reports, issue briefs, and fact sheets on a wide range of topics relating to retirement security. He regularly speaks at conferences about NIRS research and testifies before policymakers. Previously, Bond spent four years at the National Public Pension Coalition, where he directed the research program and authored six original research reports. He also has held positions on Capitol Hill and at the Center on Budget and Policy Priorities. Bond holds a B.A. in political science and philosophy from Indiana University and an M.A. in public policy from The George Washington University. He is a member of the National Academy of Social Insurance.

NCPERS PensionX Digital Platform



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May

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