DALLAS POLICE & FIRE PENSION SYSTEM

2020 ANNUAL COMPREHENSIVE FINANCIAL REPORT

FOR THE YEARS ENDING DECEMBER 31, 2020 AND 2019

AN INDEPENDENTLY GOVERNED COMPONENT UNIT OF THE CITY OF DALLAS, TEXAS

Protecting the Future

Serving those who protect the Dallas community

DALLAS POLICE & FIRE PENSION SYSTEM

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

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Annual Comprehensive Financial Report for the fiscal years ended December 31, 2020 and 2019

Kelly Gottschalk, *Executive Director*

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

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INTRODUCTION

Transmittal Letter

December 9, 2021

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, 2020. 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. At December 31, 2020, there were 10,457 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. At December 31, 2020, there were 188 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

The COVID-19 pandemic impacted global commercial activity and contributed to significant volatility in the financial markets. Not only were the financial markets affected, but regional lockdowns resulted in business and school closures. Governments and central banks reacted with monetary interventions to stabilize economic conditions and mitigate the duration and extent of the COVID-19 outbreak. The full impact of the COVID-19 outbreak continues to evolve as of the date of this report.

Changes to the investment program and efforts to liquidate private assets were a major initiative in 2020. 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 required specific attention in 2020 continuing into 2021.

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, 2021 was $3 billion, an increase of approximately $424 million from the previous year. The January 1, 2021 funding ratio based on the actuarial value of assets for the Combined Pension Plan was 41.6%, a decrease from the prior year's funded ratio of 45.7%. This decrease was primarily due to investment losses, demographic experience and assumption changes. The funding period increased from 55 years to 63 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 amortization period for the Supplemental Plan was changed from a 10-year open period 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 City was involved with the amendments to the Funding Policy and has agreed to fund the Supplemental Plan based on the Actuarial Determined Contribution plus any amounts paid out of the Excess Plan and Trust, as determined by the Actuary, that relate to the Supplemental Plan benefits.

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 2020 due to additional hiring and salary adjustments. The City's Computation Pay exceeded the Hiring Plan estimates in 2020.

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 to City contribution rates, increases to member contribution rates or benefit decreases. At this time the Board believes it's 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, 2021 actuarial funding ratio for the Supplemental Plan was 43.7% and the unfunded liability was $21.1 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 $247 thousand or 16.1% in 2020 due to the change in membership and change in payments made out of the Excess Benefits Plan and Trust. The small size of the Supplemental Plan makes it more volatile to changes.

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.

2020 Financial Results

The Plans' net position decreased by $115 million in 2020 primarily the result of investment losses and benefit payments exceeding contributions. Total contributions increased by $11.6 million or 5.6% in 2020 when compared to 2019, but were mostly offset by an increase in benefit payments of $8.4 million or 2.7%.

The rate of return on investments during 2020 was 1.7% net of fees, compared to a rate of return of 11.6% and -1.5% for 2019 and 2018, respectively. The rate of return is provided by Meketa Investment Group, DPFP's investment consultant for the year ended December 31, 2020. The rate of return calculations were 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 2020. After establishing a new long-term asset allocation, implementation plan, and Investment Policy Statement (IPS) in prior years, DPFP made progress in reducing private asset exposure and increasing public markets exposure in 2020. 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. In general, the implementation plan prioritizes allocating to target in the Safety Reserve and lower risk fixed income asset classes before reallocating to public equities. Key challenges for the investment portfolio continued to be an over allocation 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 $117 million to $1.94 billion in investment assets. The portfolio returned 1.7% net of fees in 2020. DPFP trailed 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 and returns on par with our peers. 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 virtually during 2020. The IAC 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.

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 an over allocation to private assets in 2020. Distributions from the private asset portfolio were $35 million in 2020, of which $28 million represented return of principal and gain. Capital calls during 2020 were only $2 million. At December 31, 2020, private asset investments still comprised approximately 35% of the portfolio. The pace of liquidating the legacy assets slowed considerably in 2020 due to the COVID-19 pandemic.

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 DROP withdrawals, plan amendments and other matters. On March 8, 2020 the Texas Supreme Court ruled in favor of DPFP in the Eddington case which challenged a 2014 Plan amendment that prospectively lowered the interest rate paid on DROP accounts. In 2017, a group of retirees filed a lawsuit in federal court which sought to require the Board to distribute lump sum payments from DROP upon the retirees' request. This case ended in favor of DPFP after the plaintiffs filed a writ of certiorari to the United States Supreme Court which was denied thereby ending the case in August 2020. Additional litigation related matters are still pending in the courts.

Additional information on ongoing litigation is available in MD&A and Note 9 and 11 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, 2019. This was the sixth consecutive year that the government has achieved this prestigious award. In order 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. We believe that our current annual comprehensive financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to GFOA to determine its eligibility for another certificate.

Public Pension Standards Award for Administration

The Public Pension Coordinating Council (PPCC) gave the 2020 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, Greg Irlbeck and Mike Yan 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 2021 valuation projects the funding level to decline to below 30% and that funding will not begin to increase for 20 years.

Respectfully submitted,

Kelly Gottschalk, Executive Director

Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

Dallas Police & Fire Pension System
Texas

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

December 31, 2019

Christopher P. Morrill

Executive Director/CEO

Public Pension Coordinating Council

Recognition Award for Administration
2020

Presented to

Dallas Police and Fire Pension System

In recognition of meeting professional standards for
plan administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

Alan H. Winkle
Program Administrator

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.

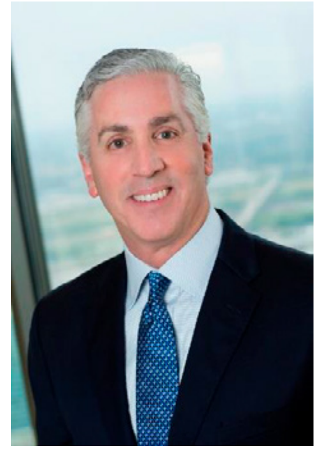
The Board serves without compensation and meets not less than once each month. Six Trustees of the Board constitute a quorum at any meeting. Six affirmative votes are required to pass a motion regardless of the number of Trustees in attendance at a meeting. Some actions, specifically identified in Article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

Board of Trustees

William F. Quinn
Chairman (1)
Mayoral Appointee
Term Expires 8/2022

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

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

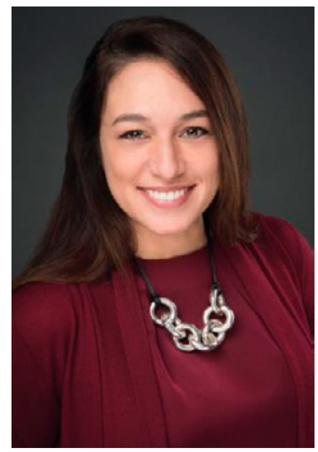


Michael Brown
Mayoral Appointee
Term Expires 8/2022

Robert French
Non-member Trustee
Term Expires 8/2022

Gilbert Garcia
Non-member Trustee
Term Expires 8/2022

Kenneth Haben
Police Trustee
Term Expires 8/2023



Tina Hernandez Patterson
Non-member Trustee
Term Expires 8/2022

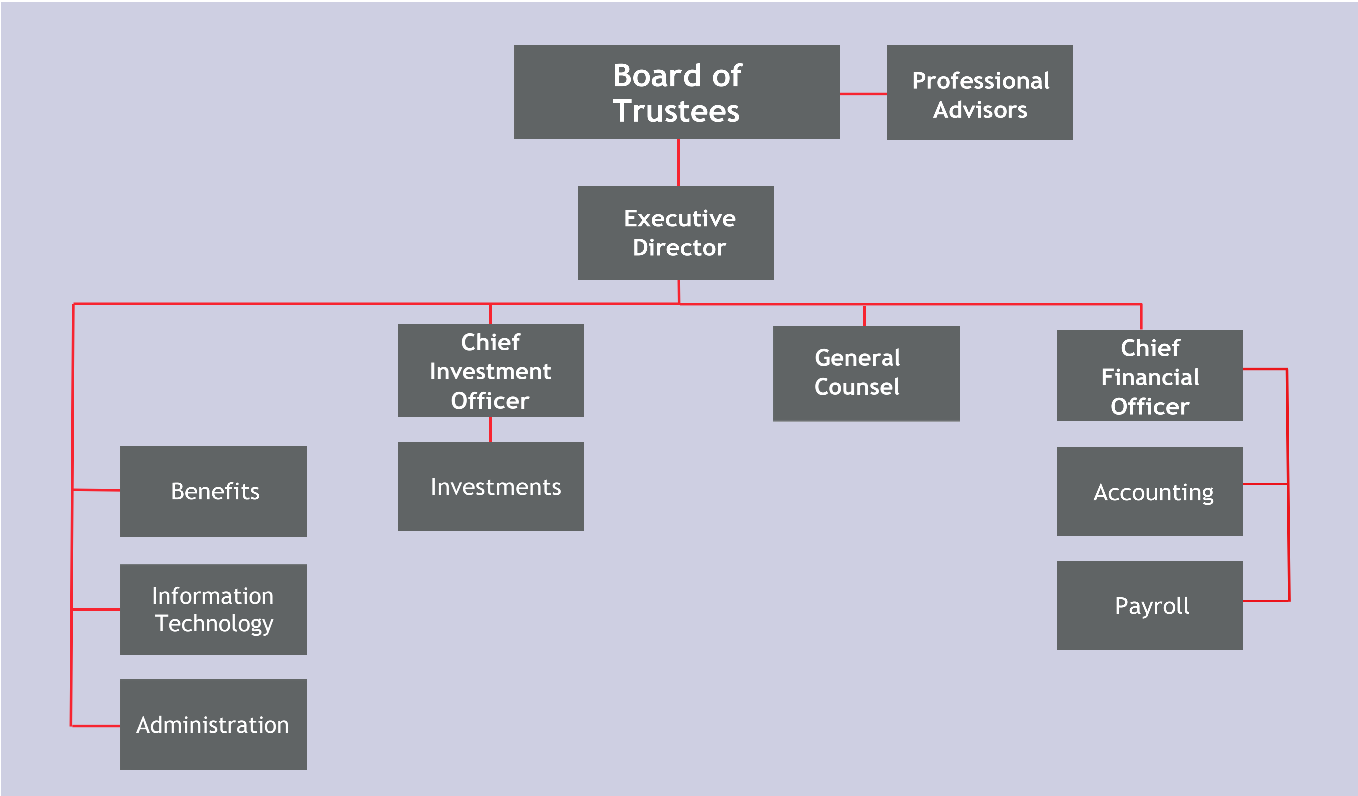
Steve Idoux
Mayoral Appointee
Term Expired 8/2021 (2)

Mark Malveaux
Mayoral Appointee
Term Expired 8/2021 (2)

Allen Vaught
Mayoral Appointee
Term Expired 8/2021
Resigned 5/2021

(1) At the July 2021 Board meeting, the Board elected Nicholas A. Merrick as Chairman, William F. Quinn as Vice Chairman, and reappointed Armando Garza as Deputy Vice Chairman.
(2) Additionally, the terms of Steve Idoux and Mark Malveaux expired on August 31, 2021, and they continue to serve as hold-over trustees pending trustee appointments by the Mayor of Dallas.

Administrative Organization



Professional Advisors
as of December 31, 2020

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 91)

Legislative Consultants
HillCo Partners, LLC

Executive Staff
as of December 31, 2020

Executive Director
Kelly Gottschalk

General Counsel
Joshua Mond

Chief Financial Officer
Brenda Barnes, CPA

Chief Investment Officer
Kent Custer

Updates
after December 31, 2020

Chief Investment Officer
Kent Custer - resigned May 2021

Interim Chief Investment Officer
Ryan Wagner - May 2021

Note: A schedule of investment management fees is provided in the Investment section of this report at page 89.

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FINANCIAL INFORMATION

Independent Auditor's Reports

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600 North Pearl, Suite 1700
Dallas, Texas 75201

Independent Auditor's Report

To the Board of Trustees
Dallas Police and Fire Pension System

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying 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, 2020 and 2019, 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.

In our opinion, the accompanying financial statements present fairly, in all material respects, the fiduciary net position of DPFP as of December 31, 2020 and 2019, 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 audit. 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 within one year after the date that the financial statements are issued or available to be issued.

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 December 9, 2021 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, LLP

Dallas, Texas

December 9, 2021

BDO USA, LLP, a Delaware limited liability partnership, 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.
BDO is the brand name for the BDO network and for each of the BDO Member Firms.

BDO

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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

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, 2020 and 2019, 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 December 9, 2021.

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, LLP

Dallas, Texas_
December 9, 2021

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, 2020 and 2019. 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 change in net position increased, additions were more than deductions. If 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:	2020	2019	2018
Assets			
Investments, at fair value	$ 1,856,965	$ 1,971,352	$ 2,007,036
Invested securities lending collateral	-	13,025	20,560
Receivables	19,233	61,308	42,634
Cash and cash equivalents	88,491	89,462	50,138
Prepaid expenses	545	402	365
Capital assets, net	12,088	12,329	12,489
Total assets	**1,977,322**	**2,147,878**	**2,133,222**
Liabilities			
Securities purchased	11,784	54,957	48,598
Securities lending obligations	-	13,025	20,560
Accounts payable and accrued liabilities	5,463	4,731	3,832
Total liabilities	**17,247**	**72,713**	**72,990**
Net position restricted for pension benefits	**$ 1,960,075**	**$ 2,075,165**	**$ 2,060,232**

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 2020 was 1.48% net of fees, compared to a rate of return of 11.51% for 2019 and -1.49% for 2018. Meketa Investment Group, Inc., DPFP's investment consultant at December 31, 2020, provides the rate of return for all years. The methodology used by the investment consultants to calculate the time-weighted rate of return incorporates a one-quarter lag on market 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 $115 million in 2020 due primarily to investment losses and benefit payments exceeding total contribution payments.

The Plans' net position increased by $15 million in 2019 due to investment gains which were partially offset by benefit payments exceeding contribution payments.

The Securities Lending balances were zero at December 31, 2020 as the program was suspended by the Board in August 2020. Securities lending collateral and obligations decreased in 2019 due to a decrease in lending activity.

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 remained fairly stable year over year. Cash increased significantly in 2019 as cash from the sale of some investments was 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:	2020	2019	2018
Additions			
Contributions			
City	$ 163,727	$ 157,251	$ 151,336
Members	57,551	52,379	49,406
Total contributions	**221,278**	**209,630**	**200,742**
Net income from investing activities	(9,432)	123,955	43,452
Net income from securities lending activities	35	114	112
Other income	347	360	479
Total additions	**212,228**	**334,059**	**244,785**
Deductions			
Benefits paid to members	318,452	310,008	297,155
Refunds to members	2,276	2,618	2,635
Professional and administrative expenses	6,590	6,500	5,914
Total deductions	**327,318**	**319,126**	**305,704**
Net increase (decrease) in net position	(115,090)	14,933	(60,919)
Net position restricted for pension benefits			
Beginning of period	**2,075,165**	**2,060,232**	**2,121,151**
End of period	**$ 1,960,075**	**$ 2,075,165**	**$ 2,060,232**

The 2020 Contribution amounts 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 2020. The floor has been greater than the 34.5% of Computation Pay for most pay periods in 2020. See Note 1 for additional information on City contribution rates.

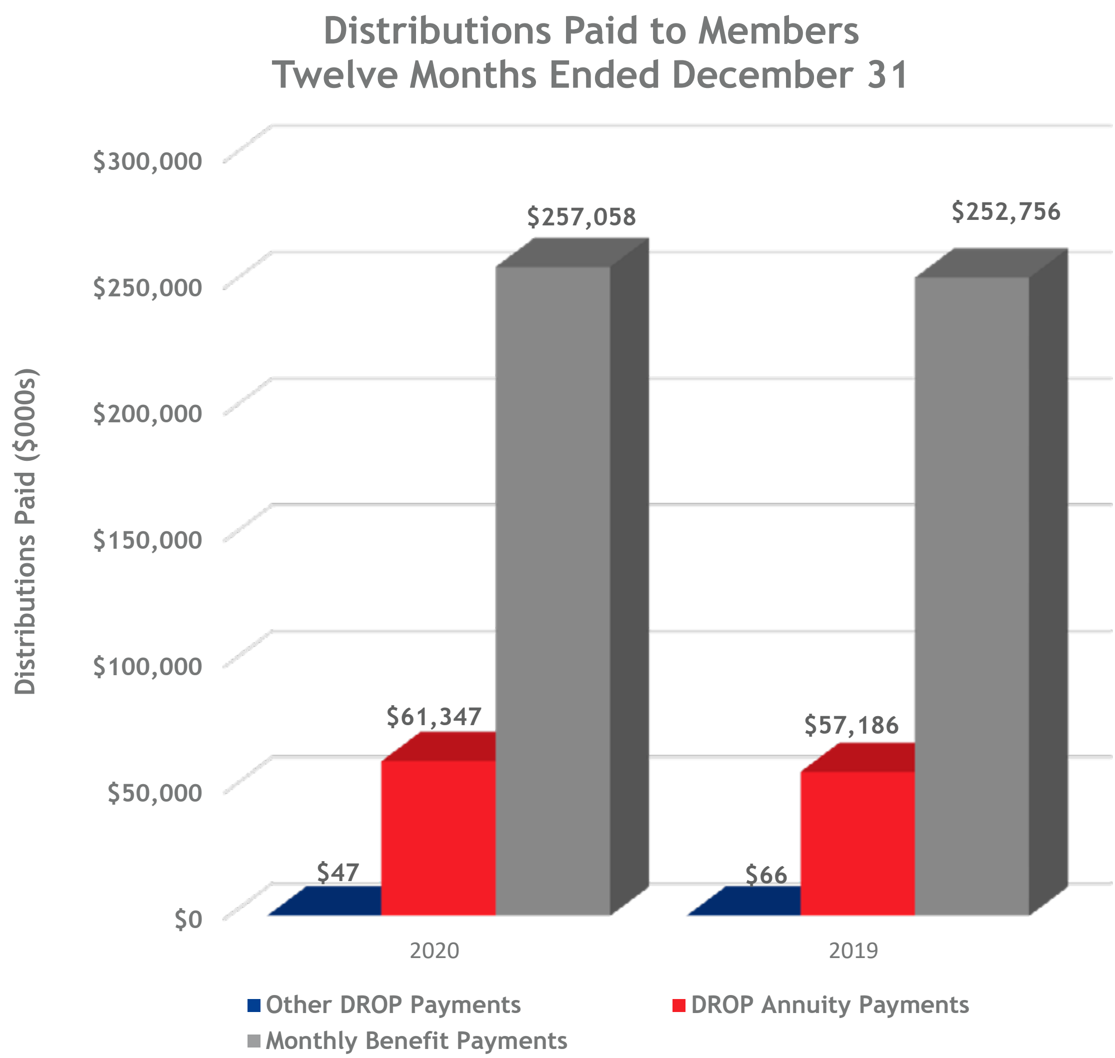
City contributions to the Plans increased by $6.5 million or 4.1% in 2020 due to an increase in the bi-weekly floor amount. Member contributions of $57.6 million exceeded 2019 contributions by $5.2 million because of increased salaries.

City Contributions to the Combined Pension Plan only increased $6.2 million or 4.0% in 2020 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 2020 increased by $247 thousand over 2019 contributions and City contributions to the Supplemental Plan in 2019 decreased by $449 thousand over 2018 contributions primarily due to contributions being redirected to the Excess Benefit Plan and Trust.

Net investment loss during 2020 was primarily driven by the depreciation in the fair value of private equity assets. Net investment income during 2019 was primarily driven by the appreciation in the fair value of public 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, 2020 and 2019.



Total benefits paid in 2020 increased $8.4 million or 2.7% over 2019. Monthly benefit payments increased $4.3 million or 1.7% due to an additional 73 retirees and beneficiaries receiving monthly benefits in 2020. Distributions from DROP balances in 2020 totaled $61.4 million with $61.3 million paid as DROP annuity payments, up $4.2 million from 2019. See Note 6 for additional information on DROP.

Refund expense declined $342 thousand in 2020 and declined $17 thousand in 2019.

The cost of administering the benefit plans increased approximately $90 thousand in 2020. Lower legal expenses, down $304 thousand, partially offset increases in salaries and benefits, up $265 thousand and risk insurance, up $92 thousand. The cost of administering the benefit programs of the Plans, including administrative costs and professional fees, increased approximately $586 thousand in 2019. The increase in 2019 is primarily related to higher legal fees, (net of insurance reimbursement, up $220 thousand) and higher salaries and benefits, up $420 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, 2021 actuarial valuation reported a funded ratio of 41.6%, based on the actuarial value of assets, an unfunded actuarial accrued liability of $3.0 billion and an expected fully funded date of 2084 for the Combined Pension Plan compared to a funded ratio of 45.7%, based on the actuarial value of assets, an unfunded actuarial accrued liability of $2.6 billion and an expected fully funded date of 2075 for the Combined Pension Plan as reported in the January 1, 2020 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, 2021, for the Combined Plan, the total ADC was $281 million or 65.3% of Computation Pay. The total ADC as of January 1, 2020 was $241 million or 60.2% of Computation Pay. The funding policy used to calculate the ADC as of January 1, 2020 was based on a closed amortization period of 25 years, established as of January 1, 2020. For the plan year beginning January 1, 2021 and forward, all changes in the unfunded actuarial accrued liability are amortized over separate closed, 20 year periods. 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 four 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, 2021 actuarial valuation for the Supplemental Plan reports a funded ratio of 43.7% and an unfunded actuarial accrued liability of $21.1 million compared to a funded ratio of 48.3%, and an unfunded actuarial accrued liability of $18.5 million as reported in the January 1, 2020 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 market 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, 2020 reports a NPL of $3.2 billion, which is an increase of $505 million from the NPL reported at December 31, 2019 for the Combined Pension Plan. The Fiduciary Net Position as a Percentage of Total Pension Liabilities (FNP) is 38.0% at December 31, 2020 compared to 43.5% at December 31, 2019 for the Combined Pension Plan. The Supplemental Plan had a NPL of $21.1 million and $18.5 million at December 31, 2020 and 2019, respectively. The Supplemental Plan had a FNP of 43.7% and 48.3% at December 31, 2020 and 2019, 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

	2020			2019		
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	$ 20,259,224	$ 170,963	$ 20,430,187	$ 25,099,677	$ 211,352	$ 25,311,029
Fixed income securities	469,459,926	3,961,671	473,421,597	550,746,613	4,637,555	555,384,168
Equity securities	694,903,302	5,864,138	700,767,440	550,594,317	4,636,273	555,230,590
Real assets	520,936,531	4,396,071	525,332,602	562,450,805	4,736,110	567,186,915
Private equity	136,160,838	1,149,032	137,309,870	265,352,308	2,234,396	267,586,704
Forward currency contracts	(294,433)	(2,485)	(296,918)	647,050	5,448	652,498
Total investments	1,841,425,388	15,539,390	1,856,964,778	1,954,890,770	16,461,134	1,971,351,904
Invested securities lending collateral	-	-	-	12,916,355	108,762	13,025,117
Receivables						
City	4,032,755	-	4,032,755	3,035,500	-	3,035,500
Members	1,441,181	4,702	1,445,883	1,053,322	2,547	1,055,869
Interest and dividends	3,750,751	31,652	3,782,403	4,422,424	37,239	4,459,663
Investment sales proceeds	9,218,823	77,796	9,296,619	52,131,442	438,972	52,570,414
Other receivables	669,988	5,654	675,642	184,550	1,554	186,104
Total receivables	19,113,498	119,804	19,233,302	60,827,238	480,312	61,307,550
Cash and cash equivalents	87,750,543	740,508	88,491,051	88,714,699	747,021	89,461,720
Prepaid expenses	540,397	4,560	544,957	399,234	3,362	402,596
Capital assets, net	11,986,674	101,153	12,087,827	12,225,827	102,947	12,328,774
Total assets	**1,960,816,500**	**16,505,415**	**1,977,321,915**	**2,129,974,123**	**17,903,538**	**2,147,877,661**
Liabilities						
Other Payables						
Securities purchased	11,685,111	98,608	11,783,719	54,498,283	458,902	54,957,185
Securities lending obligations	-	-	-	12,916,355	108,762	13,025,117
Accounts payable and other accrued liabilities	5,430,796	32,623	5,463,419	4,702,168	28,441	4,730,609
Total liabilities	**17,115,907**	**131,231**	**17,247,138**	**72,116,806**	**596,105**	**72,712,911**
Net position restricted for pension benefits	**$ 1,943,700,593**	**$ 16,374,184**	**$ 1,960,074,777**	**$ 2,057,857,317**	**$ 17,307,433**	**$ 2,075,164,750**

See accompanying independent auditor’s report and notes to combining financial statements.

Combining Statements of Changes in Fiduciary Net Position

YEARS ENDED DECEMBER 31,	2020 COMBINED PENSION PLAN	2020 SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	2020 TOTAL	2019 COMBINED PENSION PLAN	2019 SUPPLEMENTAL POLICE AND FIRE PENSION PLAN OF THE CITY OF DALLAS	2019 TOTAL
Additions (Reductions)						
Contributions						
City	$ 161,950,183	$ 1,777,311	$ 163,727,494	$ 155,721,087	$ 1,530,262	$ 157,251,349
Members	57,305,399	245,237	57,550,636	52,268,293	110,660	52,378,953
Total contributions	219,255,582	2,022,548	221,278,130	207,989,380	1,640,922	209,630,302
Investment income (loss)						
Net appreciation (depreciation) in fair value of investments	(30,452,978)	(305,074)	(30,758,052)	94,213,367	(85,530)	94,127,837
Interest and dividends	29,560,790	250,414	29,811,204	37,657,218	319,000	37,976,218
Total gross investment income	(892,188)	(54,660)	(946,848)	131,870,585	233,470	132,104,055
Less: Investment expense	(8,413,581)	(71,273)	(8,484,854)	(8,081,019)	(68,456)	(8,149,475)
Net investment income **(loss)**	(9,305,769)	(125,933)	(9,431,702)	123,789,566	165,014	123,954,580
Securities lending income						
Securities lending income	88,604	751	89,355	840,502	7,120	847,622
Securities lending expense	(53,874)	(456)	(54,330)	(727,010)	(6,159)	(733,169)
Net securities lending income	34,730	295	35,025	113,492	961	114,453
Other income	343,703	2,912	346,615	356,549	3,020	359,569
Total additions	**210,328,246**	**1,899,822**	**212,228,068**	**332,248,987**	**1,809,917**	**334,058,904**
Deductions						
Benefits paid to members	315,674,779	2,777,719	318,452,498	307,243,319	2,764,781	310,008,100
Refunds to members	2,275,841	-	2,275,841	2,617,230	998	2,618,228
Professional and administrative expenses	6,534,350	55,352	6,589,702	6,445,251	54,598	6,499,849
Total deductions	**324,484,970**	**2,833,071**	**327,318,041**	**316,305,800**	**2,820,377**	**319,126,177**
Net increase/(decrease) in net position	(114,156,724)	(933,249)	(115,089,973)	15,943,187	(1,010,460)	14,932,727
Net position restricted for pension benefits						
Beginning of period	2,057,857,317	17,307,433	2,075,164,750	2,041,914,130	18,317,893	2,060,232,023
End of period	$ 1,943,700,593	$ 16,374,184	$ 1,960,074,777	$ 2,057,857,317	$ 17,307,433	$ 2,075,164,750

See accompanying independent auditor's report and 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, 2020 and 2019, the Combined Pension Plan’s membership consisted of:

	2020	2019
Retirees and beneficiaries	5,003	4,956
Beneficiaries, DROP Only	107	83
Non-active vested members not yet receiving benefits	241	242
Non-active non-vested members not yet refunded	442	434
Total non-active members	**5,793**	**5,715**
Vested active members	3,704	3,692
Non-vested active members	1,402	1,429
Total active members	**5,106**	**5,121**

As of December 31, 2020 and 2019, the Supplemental Plan's membership consisted of:

	2020	2019
Retirees and beneficiaries	141	139
Non-active vested members not yet receiving benefits	2	2
Non-active non-vested members not yet refunded	1	1
Total non-active members	**144**	**142**
Vested active members	44	40
Non-vested active members	1	1
Total active members	**45**	**41**

No changes to benefit, contribution or administration plan provisions were made to the Combined Pension Plan or the Supplemental Plan in 2020.

The benefit, contribution and administration plan provisions discussed below are as of December 31, 2020 and 2019.

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, 2020:

- 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. Prior to September 1, 2017 pension benefit payments increased annually on October 1st by 4% of the initial benefit amount. After September 1, 2017 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, 2020:

- 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 beginning at age 53 and 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.

- After September 1, 2017, 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. Prior to September 1, 2017 Group B members hired prior to January 1, 2007 received an automatic annual increase of 4% of the initial benefit amount each October 1st. Group B members hired on or after January 1, 2007 were eligible for an ad hoc increase not to exceed 4% of the initial benefit amount.

Additional provisions under the Combined Pension Plan as of December 31, 2020 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 of 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 of 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 $1.01 billion at December 31, 2020 and $1.04 billion at December 31, 2019. 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, 2020 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 are 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 in determining 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 $6.9 million and $7.1 million at December 31, 2020 and 2019, 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.

Members retiring with 20 years of pension service or who were receiving a service-connected disability benefit had been eligible to receive a benefit supplement upon reaching age 55. The supplement amount was 3% of the member's monthly benefit, with a minimum of $75 per month in the Combined Pension Plan. After September 1, 2017, no additional members will receive the monthly supplement and no supplement amount will increase.

Contributions

Employee contribution rates did not change in 2020. The employee contribution rate is 13.5% of Computation Pay for all active members.

City contribution rates did not change in 2020. City contribution rates did not change in 2020. 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 $5.724 and $5.571 million, respectively, for 2020 and 2019. 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 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, 2020 and 2019 were not received by DPFP until subsequent to 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 authorized a filing with the Internal Revenue Service under the Voluntary Correction Program in 2018. The issues were related to DROP distributions and the Excess Benefit Plan. In 2020, a closing agreement with the IRS was completed and no additional action is expected on this issue. 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, 2020 and 2019. 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 99.2% at December 31, 2020 and December 31, 2019, 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, 2020. The actual asset allocation as of December 31, 2020 has variances to the long-term target allocation.

ASSET CLASS	TARGET ALLOCATION
Equity	**55%**
Global Equity	40%
Emerging Markets Equity	10%
Private Equity	5%
Safety Reserve and Fixed Income	**35%**
Cash	3%
Short-term Investment Grade Bonds	12%
Investment Grade Bonds	4%
High Yield Bonds	4%
Bank Loans	4%
Global Bonds	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 market 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 commingled funds, 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 and the real estate holdings of such ventures are subject to independent third-party appraisals on a periodic basis, every three years at minimum. Internally managed investments are valued at their net equity on a fair value basis. Externally managed partnerships, joint venture, commingled funds, 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 market 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 at December 31, 2020 and 2019 were converted to the US dollar at the applicable foreign exchange rates quoted as of December 31, 2020 and 2019, respectively. The resulting foreign exchange gains and losses are included in net appreciation (depreciation) in fair value of investments in the accompanying financial statements.

Recent Accounting Pronouncements Applicable to DPFP

In 2017, GASB issued Statement No. 87, Leases. This standard will require recognition of certain lease assets and liabilities for leases that are currently classified as operating leases. It is not anticipated that GASB Statement No. 87 will have a material effect on the financial statements. The effective date for GASB 87 is for reporting periods beginning after July 1, 2021 as per Statement No. 95, Postponement of the Effective Dates of Certain Authoritative Guidance, issued in May 2020.

In March 2018, GASB issued Statement No. 88, Certain Disclosures Related To Debt, Including Borrowings and Direct Placements. This Statement requires increased disclosure in notes to financial statements of all state and local governments. The effective date of GASB Statement No. 88 was for reporting periods beginning after June 15, 2019 and had no impact on the financial statements.

In October 2021, GASB issued Statement No. 98, The Annual Comprehensive Financial Report. This Statement's introduction of the new term is founded on a commitment to promoting inclusiveness. The effective date for GASB No.98 is for fiscal years ending after December 15, 2021 with early adoption permitted. DPFP has early adopted GASB No. 98 as of December 31, 2020.

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 at December 31, 2020 and 2019 is as follows (in thousands):

	2020	2019
Short-term investments		
Short-term investment funds	$ 20,430	$ 25,311
Fixed income securities		
US Treasury bonds	44,843	118,853
US government agencies	21,063	12,870
Corporate bonds	282,086	278,775
Foreign-denominated bonds	-	28,846
Commingled funds	115,538	111,385
Municipal bonds	9,892	4,655
Equity securities		
Domestic	355,856	279,709
Foreign	283,035	222,361
Commingled funds	61,876	53,161
Real assets		
Real estate	348,621	382,374
Infrastructure	44,355	52,978
Timberland	31,692	39,600
Farmland	100,665	92,235
Private equity	137,310	267,587
Forward currency contracts	(297)	652
Total	**$ 1,856,965**	**$ 1,971,352**

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. At December 31, 2020 and 2019, 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 does not have an investment policy specifically regarding concentration of credit risk; however, 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, 2020 and 2019, 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.

At December 31, 2020, 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	$ 4,086	$ 37,800	$ 1,095	$ 1,862	$ 44,843
US Government agencies	595	581	1,977	17,910	21,063
Corporate bonds	13,124	154,118	49,645	65,199	282,086
Municipal bonds	-	4,249	384	5,259	9,892
Foreign-denominated bonds	-	-	-	-	-
Total	**$ 17,805**	**$ 196,748**	**$ 53,101**	**$ 90,230**	**$ 357,884**

At December 31, 2019, 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	$ 7,855	$ 107,044	$ -	$ 3,954	$ 118,853
US Government agencies	-	1,021	2,541	9,308	12,870
Corporate bonds	26,848	137,524	40,570	73,833	278,775
Municipal bonds	-	3,067	-	1,588	4,655
Foreign-denominated bonds	1,579	10,860	7,332	9,075	28,846
Total	**$ 36,282**	**$ 259,516**	**$ 50,443**	**$ 97,758**	**$ 443,999**

Commingled fixed income funds do not have specified maturity dates and are therefore excluded from the above tables.

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 are 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, 2020 is as follows (in thousands):

CURRENCY	FIXED INCOME	EQUITY	REAL ASSETS	TOTAL
Australian Dollar	$ -	$ 6,387	$ 185	$ 6,572
Brazilian Real	-	1,486	3,629	5,115
British Pound Sterling	-	40,128	-	40,128
Canadian Dollar	-	6,795	-	6,795
Colombian Peso	-	-	-	-
Danish Krone	-	3,191	-	3,191
Euro	-	109,196	-	109,196
Hong Kong Dollar	-	4,742	-	4,742
Hungarian Forint	-	-	-	-
Indonesian Rupiah	-	-	-	-
Japanese Yen	-	68,628	-	68,628
Malaysian Ringgit	-	-	-	-
Mexican Peso	-	-	-	-
Norwegian Krone	-	-	-	-
Polish Zloty	-	-	-	-
Singaporean Dollar	-	2,430	-	2,430
South African Rand	-	-	24,269	24,269
South Korean Won	-	11,595	-	11,595
Swedish Krona	-	7,249	-	7,249
Swiss Franc	-	21,208	-	21,208
Total	**$ -**	**$ 283,035**	**$ 28,083**	**$ 311,118**

The Group Trust's exposure to foreign currency risk in US dollars as of December 31, 2019 is as follows (in thousands):

CURRENCY	FIXED INCOME	EQUITY	REAL ASSETS	TOTAL
Australian Dollar	$ 3,095	$ 6,263	$ 1,311	$ 10,669
Brazilian Real	2,880	942	4,689	8,511
British Pound Sterling	-	30,709	-	30,709
Canadian Dollar	-	5,001	-	5,001
Colombian Peso	3,074	-	-	3,074
Danish Krone	-	5,078	-	5,078
Euro	-	91,706	-	91,706
Hong Kong Dollar	-	8,403	-	8,403
Hungarian Forint	-	1,334	-	1,334
Indonesian Rupiah	2,611	730	-	3,341
Japanese Yen	-	44,759	-	44,759
Malaysian Ringgit	3,288	-	-	3,288
Mexican Peso	8,378	-	-	8,378
Norwegian Krone	217	138		355
Polish Zloty	2,525	-	-	2,525
Singaporean Dollar	-	1,159	-	1,159
South African Rand	2,778	-	25,968	28,746
South Korean Won	-	3,434	-	3,434
Swedish Krona	-	3,378	-	3,378
Swiss Franc	-	19,327	-	19,327
Total	**$ 28,846**	**$ 222,361**	**$ 31,968**	**$ 283,175**

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 $117 million at December 31, 2020 and $137 million at December 31, 2019, 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, 2020 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, including short-term investment funds classified as cash equivalents, as of December 31, 2020 and 2019 using the Standard & Poor's rating scale, at fair value, is as follows (in thousands):

DECEMBER 31, 2020

RATING	CORPORATE BONDS	MUNICIPAL BONDS	FOREIGN-DENOMINATED BONDS	COMMINGLED FUNDS	SHORT-TERM INVESTMENT FUNDS(1)	US GOVERNMENT SECURITIES	TOTAL
AAA	$ 59,035	$ 428	$ -	$ -	$ -	$ 1,626	$ 61,089
AA+	5,620	1,253	-	-	-	51,566	58,439
AA	2,101	2,707	-	-	-	725	5,533
AA-	1,585	1,128	-	-	-	-	2,713
A+	6,549	932	-	-	-	-	7,481
A	17,869	1,776	-	-	-	-	19,645
A-	21,050	666	-	-	-	-	21,716
BBB+	35,846	-	-	-	-	-	35,846
BBB	28,509	-	-	-	-	-	28,509
BBB-	21,579	-	-	-	-	-	21,579
BB+	4,412	-	-	-	-	-	4,412
BB	10,269	-	-	-	-	-	10,269
BB-	11,883	-	-	-	-	-	11,883
B+	9,454	-	-	-	-	-	9,454
B	9,927	-	-	-	-	-	9,927
B-	8,509	-	-	-	-	-	8,509
CCC+	4,038	-	-	-	-	-	4,038
CCC	1,984	-	-	-	-	-	1,984
CCC-	658	-	-	-	-	-	658
CC	668	-	-	-	-	-	668
C	-	-	-	-	-	-	-
D	226	-	-	-	-	-	226
NR(2)	20,315	1,002	-	115,538	108,921	11,989	257,765
Total	**$ 282,086**	**$ 9,892**	**$ -**	**$ 115,538**	**$ 108,921**	**$ 65,906**	**$ 582,343**

(1) Includes short-term money market funds classified as cash equivalents.
(2) NR represents those securities that are not rated.

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RATING	CORPORATE BONDS	MUNICIPAL BONDS	FOREIGN-DENOMINATED BONDS	COMMINGLED FUNDS	SHORT-TERM INVESTMENT FUNDS(1)	US GOVERNMENT SECURITIES	TOTAL
AAA	$ 49,269	$ -	$ 1,906	$ -	$ -	$ 1,022	$ 52,197
AA+	4,203	-	1,406	-	-	130,701	136,310
AA	3,039	1,588	-	-	-	-	4,627
AA-	4,173	-	-	-	-	-	4,173
A+	8,784	-	-	-	-	-	8,784
A	12,043	1,364	-	-	-	-	13,407
A-	22,655	-	5,813	-	-	-	28,468
BBB+	37,102	1,703	8,378	-	-	-	47,183
BBB	19,539	-	2,611	-	-	-	22,150
BBB-	8,670	-	3,074	-	-	-	11,744
BB+	6,636	-	-	-	-	-	6,636
BB	9,568	-	2,778	-	-	-	12,346
BB-	14,934	-	2,880	-	-	-	17,814
B+	7,785	-	-	-	-	-	7,785
B	7,155	-	-	-	-	-	7,155
B-	8,483	-	-	-	-	-	8,483
CCC+	3,599	-	-	-	-	-	3,599
CCC	4,130	-	-	-	-	-	4,130
CCC-	861	-	-	-	-	-	861
CC	185	-	-	-	-	-	185
C	-	-	-	-	-	-	-
D	439	-	-	-	-	-	439
NR(2)	45,523	-	-	111,385	113,393	-	270,301
Total	**$ 278,775**	**$ 4,655**	**$ 28,846**	**$ 111,385**	**$ 113,393**	**$ 131,723**	**$ 668,777**

(1) Includes short-term money market funds classified as cash equivalents.
(2) NR represents those securities that are not rated.

Securities Lending

The Board had authorized the Group Trust to enter into an agreement with JPMorgan for the lending of certain of the Group Trust's securities including, but not limited to, stocks and bonds to counterparty brokers and banks (borrowers) for a predetermined fee and period of time. Such transactions are allowed by State statute.

JPMorgan lends, on behalf of the Group Trust, securities held by JPMorgan as the Group Trust's custodian and receives US dollar cash and US government securities as collateral. JPMorgan does not have the ability to pledge or sell collateral securities absent a borrower default. Borrowers are required to put up collateral for each loan equal to: (i) in the case of loaned securities denominated in US dollars or whose primary trading market is in the US or sovereign debt issued by foreign governments, 102% of the fair market value of the loaned securities and (ii) in the case of loaned securities not denominated in US dollars or whose primary trading market is not in the US, 105% of the fair market value of the loaned securities.

In August 2020, the Board suspended the Securities Lending Program. Until the program suspension, the Board did not impose any restrictions during 2020 or 2019 on the amount of the loans that JPMorgan made on its behalf. There were no failures by any borrowers to return the loaned securities or pay distributions thereon during 2020 or 2019. Moreover, there were no losses during 2020 or 2019 resulting from a default of the borrower. JPMorgan indemnifies the Group Trust with respect to any loan related to any non-cash distribution and return of securities.

During 2020 and 2019, the Board and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral was invested, together with the collateral of other qualified tax-exempt plan lenders, in a collective investment pool maintained by JPMorgan. The relationship between the maturities of the collateral pool and the Group Trust's securities lent has not been determined. The fair value for securities on loan for the Group Trust was zero at December 31, 2020 and $38.6 million at December 31, 2019. Cash collateral held for the Group Trust was zero and $13 million at December 31, 2020 and 2019, respectively. Non-cash collateral held for the Group Trust was zero and $26.6 million at December 31, 2020 and 2019, respectively, consisting primarily of corporate bonds and equity securities. At year-end, credit risk is substantially mitigated as the amounts of collateral held by the Group Trust exceed the amounts the borrowers owe the Group Trust. Securities lending transactions resulted in income, net of expenses, of $35 thousand and $114 thousand during 2020 and 2019, respectively.

Forward Contracts

During fiscal years 2020 and 2019, 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 in order 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 at December 31, 2020 and 2019, 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, 2020

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	$ (949)	$ (297)	$ 18,418

DECEMBER 31, 2019

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	$ 923	$ 652	$ 105,365

4. Fair Value Measurement

GASB Statement No. 72 requires all investments 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, 2020, at fair value (in thousands):

	FAIR VALUE DECEMBER 31, 2020	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	$ 20,430	$ 20,430	$ -	$ -
Fixed income securities				
US Treasury bonds	44,843	-	44,843	-
US government agencies	21,063	-	21,063	-
Corporate bonds	282,086	-	282,086	-
Foreign-denominated bonds	-	-	-	-
Municipal bonds	9,892	-	9,892	-
Equity securities				
Domestic	355,856	355,856	-	-
Foreign	283,035	283,035	-	-
Real assets				
Real estate (1)	230,550	-	-	230,550
Timberland	3,830	-	-	3,830
Farmland	100,665	-	-	100,665
Private equity	45,732	-	-	45,732
Forward currency contracts	(297)	-	(297)	-
Total Investments by Fair Value Level	**$ 1,397,685**	**$ 659,321**	**$ 357,587**	**$ 380,777**

Investments Measured at NAV	
Equity - commingled funds	$ 61,876
Fixed income - commingled funds	115,538
Real assets (1)	190,288
Private equity	91,578
Total Investments Measured at NAV	**$ 459,280**

Total Investments Measured at Fair Value	**$ 1,856,965**

(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, 2019, at fair value (in thousands):

	FAIR VALUE DECEMBER 31, 2019	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	$ 25,311	$ 25,311	$ -	$ -
Fixed income securities				
US Treasury bonds	118,853	-	118,853	-
US government agencies	12,870	-	12,870	-
Corporate bonds	278,775	-	278,775	-
Foreign-denominated bonds	28,846	-	28,846	-
Municipal bonds	4,655	-	4,655	-
Equity securities				
Domestic	279,709	279,709	-	-
Foreign[1]	222,361	222,361	-	-
Real assets				
Real estate [2]	254,812	-	-	254,812
Timberland	8,771	-	-	8,771
Farmland	92,235	-	-	92,235
Private equity	92,064	-	-	92,064
Forward currency contracts	652	-	652	-
Total Investments by Fair Value Level	**$ 1,419,914**	**$ 527,381**	**$ 444,651**	**$ 447,882**

Investments Measured at NAV	
Equity - commingled funds	$ 53,161
Fixed income - commingled funds	111,385
Real assets [2]	211,369
Private equity	175,523
Total Investments Measured at NAV	**$ 551,438**

Total Investments Measured at Fair Value	**$ 1,971,352**

(1) Certain prior year amounts have been reclassified for consistency with current year presentation.
(2) 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, 2020 (in thousands):

ASSET CATEGORY/CLASS	FAIR VALUE	UNFUNDED COMMITMENTS
Equity - commingled funds	$ 61,876	$ -
Fixed Income - commingled funds	115,538	514
Real assets	190,288	9,501
Private equity	91,578	3,490
Total	**$ 459,280**	**$ 13,505**

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, 2019 (in thousands):

ASSET CATEGORY/CLASS	FAIR VALUE	UNFUNDED COMMITMENTS
Equity - commingled funds	$ 53,161	$ -
Fixed Income - commingled funds	111,385	640
Real assets	211,369	10,020
Private equity	175,523	3,996
Total	**$ 551,438**	**$ 14,656**

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

Fixed income commingled funds are fund-structure investments reported by the fund managers at NAV. Certain of the commingled investments have a redemption notice period 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.

Real asset investments (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.

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, 2020 and 2019 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 at December 31, 2020 and 2019 are as follows (in thousands):

Combined Pension Plan

	2020	2019
Total pension liability	$ 5,122,372	$ 4,731,960
Less: Plan fiduciary net position	(1,943,700)	(2,057,857)
Net pension liability	$ 3,178,672	$ 2,674,103

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2020 and 2019 is 38.0% and 43.5%, respectively.

Supplemental Plan

	2020	2019
Total pension liability	$ 37,484	$ 35,839
Less: Plan fiduciary net position	(16,374)	(17,307)
Net pension liability	$ 21,110	$ 18,532

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2020 and 2019 is 43.7% and 48.3%, respective.

Actuarial Assumptions as of December 31, 2020

The total pension liability was determined by an actuarial valuation as of January 1, 2021, 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%. Market value asset returns are expected to be 5.25% in 2021, 5.75% in 2022, 6.25% in 2023 and 6.50% annually thereafter.
Discount rate	6.50%, used to measure the total pension liability
Administrative expenses	Explicit assumption of $8.5 million per year or 1% of Computation Pay, whichever is greater for the Combined Pension Plan and $65 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 for participants hired prior to January 1, 2007	Ad hoc COLA after the Combined Plan is 70% funded after accounting for the impact of the COLA. 2% of original benefit, beginning October 1, 2069.
Actuarial Value of Assets	Combined Pension Plan – Reset of the actuarial value of assets to market value as of December 31, 2015, with a five-year smoothing in future periods; Supplemental Pension Plan – Market value of assets
Amortization methodology	Combined Pension Plan – closed 25 years, beginning January 1, 2021, each year's gains and losses will be amortized over a closed 20-year period. Supplemental Pension Plan – closed 20 years, beginning January 1, 2021, each year's gains and losses will be amortized over a closed 10-year period.
DROP interest, compounded annually, net of expenses	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 the 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, 2019

The total pension liability was determined by an actuarial valuation as of January 1, 2020, using the below significant assumptions, applied to all periods included in the measurement, except as noted below. The 2019 assumptions are based on an actuarial experience review covering the period January 1, 2015 to December 31, 2019.

Investment rate of return	7.00% 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 4.50%. Market value asset returns are expected to be -6.00% in 2020, 5.25% in 2021, 5.75% in 2022, 6.25% in 2023 and 7.00% annually thereafter.
Discount rate	7.00%, used to measure the total pension liability
Administrative expenses	Explicit assumption of $8.5 million per year or 1% of Computation Pay, whichever is greater for the Combined Pension Plan and $65 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 for participants hired prior to January 1, 2007	Ad hoc COLA after the Combined Plan is 70% funded after accounting for the impact of the COLA. 2% of original benefit, beginning October 1, 2063.
Actuarial Value of Assets	Combined Pension Plan – Reset of the actuarial value of assets to market value as of December 31, 2015, with a five-year smoothing in future periods; Supplemental Pension Plan – Market value of assets
Amortization methodology	Combined Pension Plan – Closed 25 years. Beginning January 1, 2021, each year's gains and losses will be amortized over a closed 20-year period. Supplemental Pension Plan – Closed 20 years. Beginning January 1, 2021, each year's gains and losses will be amortized over a closed 10-year period.
DROP interest, compounded annually, net of expenses	2.75% on active balances as of September 1, 2017, payable upon retirement, 0% on balance 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 Tables, set forward five years for males; projected generationally using the 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) 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, 2020 are summarized as shown below. The rates of return below are net of the inflation component of 2.50%.

ASSET CLASS	LONG-TERM EXPECTED REAL RATE OF RETURN	TARGET ASSET ALLOCATION
Global Equity	6.80%	40%
Emerging Markets Equity	9.20%	10%
Private Equity	10.55%	5%
Cash	-0.20%	3%
Short-Term Investment Grade Bonds	-0.10%	12%
Investment Grade Bonds	0.40%	4%
High Yield Bonds	3.10%	4%
Bank Loans	2.30%	4%
Global Bonds	0.50%	4%
Emerging Markets Debt	3.30%	4%
Real Estate	3.65%	5%
Natural Resources	7.90%	5%

Discount rate

The discount rate used to measure the Combined Pension Plan liability 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 15.66% 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 2020 unfunded actuarial accrued liability and a ten-year amortization method beginning in 2021. Member contributions will equal 13.50% of supplemental Computation Pay. Based on those assumptions, the Supplemental Plan'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.

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, 2020

Combined Pension Plan	1% DECREASE (5.50%)	CURRENT DISCOUNT RATE (6.50%)	1% INCREASE (7.50%)
Net pension liability	$ 3,787,843	$ 3,178,672	$ 2,672,602

Supplemental Plan	1% DECREASE (5.50%)	CURRENT DISCOUNT RATE (6.50%)	1% INCREASE (7.50%)
Net pension liability	$ 24,651	$ 21,110	$ 18,093

DECEMBER 31, 2019

Combined Pension Plan	1% DECREASE (6.00%)	CURRENT DISCOUNT RATE (7.00%)	1% INCREASE (8.00%)
Net pension liability	$ 3,212,526	$ 2,674,103	$ 2,224,767

Supplemental Plan	1% DECREASE (6.00%)	CURRENT DISCOUNT RATE (7.00%)	1% INCREASE (8.00%)
Net pension liability	$ 21,763	$ 18,532	$ 15,763

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, 2020:

Combined Pension Plan

	DROP BALANCE (000'S)		DROP PARTICIPANTS
Balance at December 31, 2019	$ 155,343	Participants at December 31, 2019	383
Accumulations	17,865		
Balances Annuitized	(36,771)		
Other Distributions/Deductions	(48)		
Adjustments	23		
Balance at December 31, 2020	**$ 136,412**	**Participants at December 31, 2020**	**320**
	ANNUITY BALANCE (000'S)		ANNUITY PARTICIPANTS
Present Value of Annuities at December 31, 2019 [1]	$ 880,306	Annuitants at December 31, 2019	**2,342**
Present Value of Annuities at December 31, 2020 [1]	**$ 869,967**	**Annuitants at December 31, 2020**	**2,425**

Supplemental Plan

	DROP BALANCE (000'S)		DROP PARTICIPANTS
Balance at December 31, 2019	$ 137	Participants at December 31, 2019	3
Accumulations	11		
Balances Annuitized	(28)		
Other Distributions/Deductions	-		
Adjustments	-		
Balance at December 31, 2020	**$ 120**	**Participants at December 31, 2020**	**2**
	ANNUITY BALANCE (000'S)		ANNUITY PARTICIPANTS
Present Value of Annuities at December 31, 2019 [1]	$ 6,988	Annuitants at December 31, 2019	66
Present Value of Annuities at December 31, 2020 [1]	**$ 6,750**	**Annuitants at December 31, 2020**	**65**

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

7. Defined Contribution Retirement Plan

DPFP offers its employees a money purchase plan (MPP) created in accordance with Internal Revenue Code Section 401. An employee of DPFP becomes a participant in the MPP on their first day of service. Participation ceases, except for purposes of receiving distributions in accordance with the terms of the MPP, on the day employment with DPFP is terminated. Employees are required to contribute 6.5% of their regular pay. Employees are allowed to make after-tax contributions, not to exceed IRS Code limitations. In accordance with the MPP, DPFP is 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 2020 and 2019, DPFP contributed approximately $337 thousand and $312 thousand, respectively, and participants contributed approximately $183 thousand and $169 thousand, respectively, to the MPP. The MPP is administered by a third party, Voya Financial, Inc. (Voya), and the cost of administration is borne by the MPP participants. The MPP is held in trust by Voya and is not a component of the accompanying financial statements.

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 and $233 thousand, respectively, is included in professional and administrative expenses in the accompanying financial statements for the years ended December 31, 2020 and 2019. 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, 2020 and 2019 are as follows (in thousands):

ASSET CLASS	BALANCE DECEMBER 31, 2018	INCREASES	DECREASES	BALANCE DECEMBER 31, 2019	INCREASES	DECREASES	BALANCE DECEMBER 31, 2020
Land	$ 3,562	$ -	$ -	$ 3,562	$ -	$ -	$ 3,562
Building	8,731	-	190	8,541	-	190	8,351
Building improvements	196	-	36	160	-	36	124
IT Hardware	-	73	7	66	-	15	51
Total	**$ 12,489**	**$ 73**	**$ 233**	**$ 12,329**	**$ -**	**$ 241**	**$ 12,088**

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, 2020, and 2019, aggregate contributions from active non-vested members for the Combined Pension Plan were $25.5 million and $19.4 million, respectively. 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 $1.6 million and $1.3 million for December 31, 2020 and 2019, respectively, were included in accounts payable and other accrued liabilities of the Combined Pension Plan. As of December 31, 2020, and 2019, the aggregate contributions from active non-vested members of the Supplemental Plan were $100 thousand and $2 thousand, respectively. One member was eligible for a refund from the Supplemental Plan as of December 31, 2020 and no members were eligible for refunds as of December 31, 2019.

At December 31, 2020 the total accumulated DROP balance and the present value of the DROP annuities was $1.01 billion for the Combined Plan and $6.9 million for the Supplemental Plan. At December 31, 2019 the total accumulated DROP balance and the present value of the DROP annuities was $1.04 billion for the Combined Plan and $7.1 million for the Supplemental Plan.

Investments

The following table depicts the total commitments and unfunded commitments to various limited partnerships and investment advisors at December 31, 2020, by asset class (in thousands).

ASSET CLASS	TOTAL COMMITMENT	TOTAL UNFUNDED COMMITMENT
Real assets	$ 117,000	$ 9,501
Private equity	121,000	3,490
Fixed income – commingled funds	10,000	514
Total	$ **248,000**	$ **13,505**

Capital calls related to private equity and real assets were received after December 31, 2020, which reduced the unfunded commitments to $1.9 and $9.1 million, respectively. See Note 11.

Legal

DPFP was a defendant in litigation in which certain individual members have alleged that 2014 plan amendments to the Combined Pension Plan reducing the DROP interest rate and a related policy and procedure change to accelerate DROP distributions violated Article 16, Section 66 of the Texas Constitution. On April 14, 2015, the district court entered judgment for DPFP, holding these amendments and changes are constitutional. As a result of this court decision, the Board voted on April 16, 2015 to implement the changes approved by the members. Plaintiffs appealed and on December 13, 2016, the Fifth District Court of Appeals rendered a decision affirming the district court's ruling. On January 24, 2017, plaintiffs filed a petition for review with the Texas Supreme Court. On March 8, 2019, the Texas Supreme Court upheld the decisions by the lower courts and on June 14, 2019 denied the plaintiff's motion for rehearing thereby ending the case.

In 2017, a group of retirees filed a lawsuit in federal court which seeks to require the Board to distribute lump sum payments from DROP upon the retirees' request. On March 14, 2018, the district court granted DPFP's motion to dismiss the case. The plaintiffs appealed this decision to the Fifth Circuit and requested the Fifth Circuit certify certain issues relating to the case to the Texas Supreme Court. On March 20, 2019, the Fifth Circuit certified two questions to the Texas Supreme Court. In January 2020, the Supreme Court answered these questions and in April 2020 the Fifth Circuit subsequently upheld the decision of the district court. In August 2020, the plaintiffs filed a writ of certiorari to the United States Supreme Court which was denied thereby ending the case.

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.

COVID-19 and *CARES Act*

On January 30, 2020, the World Health Organization ("WHO") announced a global health emergency because of a new strain of coronavirus originating in Wuhan, China (the "COVID-19 outbreak") and the risks to the international community as the virus spread globally beyond its point of origin. In March 2020, the WHO classified the COVID-19 outbreak as a pandemic based on the rapid increase in exposure globally. The System believes that the COVID-19 outbreak and the measures taken to control it may have a large negative impact on the economy in the United States.

The full impact of the COVID-19 outbreak continues to evolve as of the date of this report. This pandemic has adversely affected global economic activity and greatly contributed to significant deterioration and instability in financial markets. The resulting financial and economic market uncertainty could have a significant adverse impact on the System, including the fair value of its investments.

On March 27, 2020, President Trump signed into law the "Coronavirus Aid, Relief, and Economic Security (CARES) Act." The CARES Act, among other things, includes provisions appropriating funds from programs of the United States Department of the Treasury to be used to make payments for specified uses to states and certain local governments.

It also appropriated funds for the SBA Paycheck Protection Program loans (PPP) that are forgivable in certain situations to promote continued employment, as well as Economic Injury Disaster Loans (EIDL) to provide liquidity to small businesses harmed by COVID-19. The System did not receive funding from the PPP or EIDL programs.

11. Subsequent Events

Investment Policy Statement Amendments

In March 2021, the Board approved revising some language in the Investment Policy Statement (IPS) regarding the Investment Advisory Committee (IAC) public meeting provisions and the goals, objectives of the system. In August 2021, the Board approved modifying the IPS to reduce the amount of the Safety Reserve from 2.5 years of expected net cash flows to 18 months, to update the Asset Allocation targets and to clarify the language related to rebalancing efforts.

Real Asset and Private Equity Sales

Subsequent to year end and prior to the issuance date of the financials, there were 10 sales of Real Estate properties that totaled $127.0 million in proceeds to DPFP and three Private Equity distributions of $8.6 million.

Capital Calls Resulting in the Reduction of Unfunded Commitments

Subsequent to December 31, 2020, DPFP received and paid the following material capital calls: Real Assets - $364 thousand and Private Equity - $1.55 million.

Staff Retirement Plan

In November 2021 the Board passed a resolution authorizing the DPFP staff to participate in the Texas Municipal Retirement System beginning in January 2022. The employees will contribute 7% of their total pay and the system will contribute an actuarially determined amount to equal a 2:1 match. The current staff 401(a) defined contribution plan will be discontinued as of December 31, 2021.

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. The case is in its early stages. 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, 2020.

Management has evaluated subsequent events through December 9, 2021, 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 Seven Fiscal Years (in Thousands)

COMBINED PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2020	2019	2018	2017
Total pension liability				
Service cost	$ 56,244	$ 49,155	$ 44,792	$ 148,552
Interest	324,046	318,703	318,536	348,171
Changes of benefit terms	-	-	16,091	(1,167,597)
Differences between expected and actual experience	70,548	16,723	(46,555)	(134,665)
Changes of assumptions	257,525	155,569	(31,460)	(2,851,241)
Benefit payments, including refunds of employee contributions	(317,951)	(309,860)	(297,081)	(296,154)
Net change in total pension liability	390,412	230,290	4,323	(3,952,934)
Total pension liability - beginning	4,731,960	4,501,670	4,497,347	8,450,281
Total pension liability - ending (a)	**$ 5,122,372**	**$ 4,731,960**	**$ 4,501,670**	**$ 4,497,347**
Plan fiduciary net position				
Employer contributions	$ 161,950	$ 155,721	$ 149,357	$ 126,318
Employee contributions	57,305	52,268	49,332	32,977
Net investment income (loss), net of expenses	(8,927)	124,260	42,822	98,911
Benefits payments	(317,951)	(309,861)	(297,081)	(296,154)
Interest expense	-	-	-	(1,279)
Administrative expenses	(6,534)	(6,445)	(5,861)	(8,090)
Net change in plan fiduciary net position	(114,157)	15,943	(61,431)	(47,317)
Plan fiduciary net position - beginning	2,057,857	2,041,914	2,103,345	2,150,662
Plan fiduciary net position - ending (b)	**$ 1,943,700**	**$ 2,057,857**	**$ 2,041,914**	**$ 2,103,345**
Net pension liability - ending (a) - (b)	$ 3,178,672	$ 2,674,103	$ 2,459,756	$ 2,394,002
Plan fiduciary net position as a percentage of total pension liability	38.0%	43.5%	45.4%	46.8%
Covered payroll	$ 427,441	$ 396,955	$ 363,117	$ 346,037
Net pension liability as a percentage of covered payroll	743.7%	673.7%	677.4%	691.8%

(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,	2016	2015	2014
Total pension liability			
Service cost	$ 167,432	$ 125,441	$ 131,312
Interest	360,567	359,023	369,408
Changes of benefit terms	-	-	(329,794)
Differences between expected and actual experience	(77,463)	379,461	(4,453)
Changes of assumptions	(712,003)	908,988	-
Benefit payments, including refunds of employee contributions	(825,092)	(285,003)	(245,932)
Net change in total pension liability	(1,086,559)	1,487,910	(79,459)
Total pension liability - beginning	9,536,840	8,048,930	8,128,389
Total pension liability - ending (a)	**$ 8,450,281**	**$ 9,536,840**	**$ 8,048,930**
Plan fiduciary net position			
Employer contributions	$ 119,345	$ 114,886	$ 109,792
Employee contributions	25,518	25,676	29,333
Net investment income (loss), net of expenses	164,791	(235,207)	(138,893)
Benefits payments	(825,092)	(285,003)	(245,932)
Interest expense	(4,532)	(8,417)	(7,361)
Administrative expenses	(9,492)	(6,006)	(8,003)
Net change in plan fiduciary net position	(529,462)	(394,071)	(261,064)
Plan fiduciary net position - beginning	2,680,124	3,074,195	3,335,259
Plan fiduciary net position - ending (b)	**$ 2,150,662**	**$ 2,680,124**	**$ 3,074,195**
Net pension liability - ending (a) - (b)	$ 6,299,619	$ 6,856,716	$ 4,974,735
Plan fiduciary net position as a percentage of total pension liability	25.5%	28.1%	38.2%
Covered payroll	$ 357,414	$ 365,210	$ 383,006
Net pension liability as a percentage of covered payroll	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 Seven Fiscal Years (in Thousands)

SUPPLEMENTAL PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2020	2019	2018	2017
Total pension liability				
Service cost	$ 379	$ 212	$ 222	$ 111
Interest	2,438	2,223	2,359	2,799
Changes of benefit terms	-	-	888	(5,305)
Differences between expected and actual experience	47	3,007	(2,628)	(1,435)
Changes of assumptions	1,559	1,332	28	(479)
Benefit payments, including refunds of employee contributions	(2,778)	(2,766)	(2,708)	(2,668)
Net change in total pension liability	1,645	4,008	(1,839)	(6,977)
Total pension liability - beginning	35,839	31,831	33,670	40,647
Total pension liability - ending (a)	**$ 37,484**	**$ 35,839**	**$ 31,831**	**$ 33,670**
Plan fiduciary net position				
Employer contributions	$ 1,777	$ 1,530	$ 1,979	$ 2,077
Employee contributions	245	111	74	66
Net investment income (loss), net of expenses	(122)	169	1,220	740
Benefits payments	(2,778)	(2,766)	(2,708)	(2,668)
Interest expense	-	-	-	(11)
Administrative expenses	(55)	(55)	(52)	(69)
Net change in plan fiduciary net position	(933)	(1,011)	513	135
Plan fiduciary net position - beginning	17,307	18,318	17,805	17,670
Plan fiduciary net position - ending (b)	**$ 16,374**	**$ 17,307**	**$ 18,318**	**$ 17,805**
Net pension liability - ending (a) - (b)	$ 21,110	$ 18,532	$ 13,513	$ 15,865
Plan fiduciary net position as a percentage of total pension liability	43.7%	48.3%	57.6%	52.9%
Covered payroll	$ 627	$ 584	$ 622	$ 916
Net pension liability as a percentage of covered payroll	3,368.0%	3,172.8%	2,173.8%	1,731.6%

(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,	2016	2015	2014
Total pension liability			
Service cost	$ 70	$ 36	$ 28
Interest	2,911	2,953	2,969
Changes of benefit terms	-	-	(526)
Differences between expected and actual experience	1,105	928	336
Changes of assumptions	(916)	(600)	-
Benefit payments, including refunds of employee contributions	(5,912)	(2,640)	(3,414)
Net change in total pension liability	(2,742)	677	(607)
Total pension liability - beginning	43,389	42,712	43,319
Total pension liability - ending (a)	**$ 40,647**	**$ 43,389**	**$ 42,712**

Plan fiduciary net position			
Employer contributions	$ 3,064	$ 2,443	$ 1,817
Employee contributions	35	43	49
Net investment income (loss), net of expenses	1,141	(1,689)	(517)
Benefits payments	(5,912)	(2,640)	(3,414)
Interest expense	(78)	(44)	(51)
Administrative expenses	(37)	(61)	(56)
Net change in plan fiduciary net position	(1,787)	(1,948)	(2,172)
Plan fiduciary net position - beginning	19,457	21,405	23,577
Plan fiduciary net position - ending (b)	**$ 17,670**	**$ 19,457**	**$ 21,405**

Net pension liability - ending (a) - (b)	$ 22,977	$ 23,932	$ 21,307
Plan fiduciary net position as a percentage of total pension liability	43.5%	44.8%	50.1%
Covered payroll	$ 525	$ 725	$ 557
Net pension liability as a percentage of covered payroll	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, 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 market 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 their 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, 2021 actuarial valuation. For further information regarding the changes to actuarial assumptions, refer to the January 1, 2021 Dallas Police and Fire Pension System actuarial valuation reports for the Combined Pension Plan and the Supplemental Plan.

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 market 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:

- At October 1, 2014 – 8.0%;
- At October 1, 2015 – 7.0%;
- At October 1, 2016 – 6.0%; and
- At 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
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, 2020

Actuarial cost method	Entry age normal cost method
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
Asset valuation method	Market 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 market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
Projected salary increases	Inflation plus merit increases, varying by group and year
Post-retirement benefit	COLA assumed to be a 2.00% COLA beginning October 1, 2063 and increases payable every October 1 thereafter
Retirement age	Experienced-based table of 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
DROP balance returns	DROP account balances as of September 1, 2017 for active members are based on the United States Department of Commerce Daily Treasury Yield Curve Rates for durations between 5 and 30 years; interest rate is based on the expected lifetime of the members at the time they retire. Interest is only paid on DROP account balances as of September 1, 2017.
DROP election	The DROP utilization factor is 0% for new entrants.

As of December 31, 2019

Actuarial cost method	Entry age normal cost method
Amortization method	30-year level percent of pay, using 2.75% annual increases
Remaining amortization period	38 years as of January 1, 2019
Asset valuation method	Market 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 market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.
Investment rate return	7.25% per annum, compounded annually, net of all expense, including administrative expenses. This rate is based on an average inflation rate of 2.75% and a real rate of return of 4.50%.
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
Retirement age	Experienced-based table of rates, based on age

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
DROP balance returns	DROP account balances as of September 1, 2017 for active members are based on the United States Department of Commerce Daily Treasury Yield Curve Rates for durations between 5 and 30 years; interest rate is based on the expected lifetime of the members at the time they retire. Interest is only paid on DROP account balances as of September 1, 2017.
DROP election	The DROP utilization factor is 0% for new entrants.

As of December 31, 2018 that differed from above

Amortization method	30-year level percent of pay
Remaining amortization period	45 years as of January 1, 2018
Asset valuation method	Reset of the actuarial value of assets to market value as of December 31, 2015, with a five-year smoothing in future periods
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

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 increases	COLA assumed to be a 2.00% COLA beginning October 1, 2049 and payable every October 1 thereafter

DROP balance returns	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 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.

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
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, 2020

Actuarial cost method	Entry age normal cost method
Amortization method	20-year level percent of pay, using 2.5% 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
Asset valuation method	Market value of assets
Investment rate of return	7.00% per annum, compounded annually, net of all expense, including administrative expenses. This rate is based on an average inflation rate of 2.50% and a real rate of return of 4.00%.
Inflation rate	2.50%
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
Retirement age	Experienced-based table of 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
DROP balance returns	DROP account balances as of September 1, 2017 for active members are based on the United States Department of Commerce Daily Treasury Yield Curve Rates for durations between 5 and 30 years; interest rate is based on the expected lifetime of the members at the time they retire. Interest is only paid on DROP account balances as of September 1, 2017.
DROP election	The DROP utilization factor is 0% for new entrants.

As of December 31, 2019

Actuarial cost method	Entry age normal cost method
Amortization method	10 years level percent of pay
Remaining amortization period	10 years
Asset valuation method	Market value of assets
Investment rate of return	7.25% per annum, compounded annually, net of all expense, including administrative expenses. This rate is based on an average inflation rate of 2.75% and a real rate of return of 4.50%
Inflation rate	2.75%
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, 2050 and payable every October 1st thereafter
Retirement age	Experienced-based table of rates, based on age

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
DROP balance returns	DROP account balances as of September 1, 2017 for active members are based on the United States Department of Commerce Daily Treasury Yield Curve Rates for durations between 5 and 30 years; interest rate is based on the expected lifetime of the members at the time they retire. Interest is only paid on DROP account balances as of September 1, 2017.
DROP election	The DROP utilization factor is 0% for new entrants.

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

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
DROP balance returns	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	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
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 market 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, 2020

ADMINISTRATIVE EXPENSES		
Information technology	$	466,529
Education		5,591
Insurance		608,136
Personnel		3,675,664
Office equipment		53,779
Dues and subscriptions		163,970
Board meetings		1,968
Office supplies		11,407
Utilities		72,161
Postage		19,129
Printing		573
Election		-
Facilities		621,229
Other		28,119
Total administrative expenses	**$**	**5,728,255**
INVESTMENT EXPENSES		
Investment management	$	6,235,767
Custodial		221,226
Investment level valuations and audits		432,555
Consulting and reporting		363,542
Legal		948,244
Tail-end advisory		272,500
Tax		9,097
Other		1,923
Total investment expenses	**$**	**8,484,854**
PROFESSIONAL SERVICES EXPENSES		
Consulting	$	14,625
Actuarial		165,814
Auditing		158,477
Accounting		61,776
Medical review		11,260
Legal		294,373
Mortality records		3,988
Legislative		126,000
Other		25,134
Total professional services expenses	**$**	**861,447**

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

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INVESTMENT GROUP

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Meketa.com

MEMORANDUM

TO: Board of Trustees, Dallas Police & Fire Pension System
FROM: Leo Festino, Aaron Lally, Alli Wallace, Meketa Investment Group
DATE: August 1, 2021
RE: Investment Consultant's Statement for Annual Comprehensive Financial Report

This letter reviews the global capital markets in 2020 and the investment performance of the Dallas Police and Fire Pension System ("DPFP") for the year ending December 31, 2020.

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.

DPFP produced a positive return of 1.7% in the calendar year but failed to outperform its policy benchmark or achieve its actuarial return target.

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.

2020 Capital Markets Year in Review

Calendar year 2020 will be remembered for COVID-19, which upended the world and resulted in regional lockdowns, business and school closures and an economic standstill.

The impact of global lock-downs on financial markets was extreme. All major stock indices saw sharp selloffs in the first quarter of 2020. At the depth of the drawdown from January 1 - March 23 most broad equity market indices (both US and non-US) were down close to 32%.

To combat the expected significant decline in economic activity, fiscal and monetary authorities across the globe responded with immediate and historic stimulus measures. Robust stimulus coupled with incremental positive news regarding the spread of COVID-19, and economies slowly reopening, set the stage for a relatively rapid rebound in risk assets in the second calendar quarter. This recovery, particularly in the riskier assets, continued throughout the year. Vaccine approvals were a key catalyst for the significant year-end market rally that saw strong market performance across all major asset classes.

US equities, as represented by the Russell 3000 Index, finished the calendar year with a 21% return. Emerging markets (MSCI Emerging Markets) delivered 18% for the year with the index up 20% in the fourth quarter alone as a weak dollar and vaccine efficacy and approvals exceeded expectations and helped bolster returns. The MSCI EAFE Index, representing foreign developed markets, was the equity laggard of the year returning 8%.

The US Treasury yield curve declined materially during 2020 as investors flocked to safe-haven assets early in the year and aggressive Federal Reserve policies were enacted through policy rate cuts and the quantitative easing program. As such, fixed income markets generated relatively strong results for the year. The Bloomberg Barclays US Aggregate produced a total return of 8% and the Bloomberg Barclays TIPS returned 11%.

DPFP's 2020 Performance and Investment Activity

DPFP ended 2020 with nearly $2 billion in investment assets. In a year where nearly every public market asset class produced a positive return, DPFP trailed its benchmarks and peers given its underweight exposure to public equities and overweight exposure to illiquid investments in real estate and legacy private equity commitments.

	Calendar Year 2020 Return (%)
DPFP (net of fees)	1.7%
Policy Index	11.8%
Peer Median Return1	10.5%
60% Stock/40% Bond mix2	14.1%

***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.

Leandro Festino, CFA, CAIA
Managing Principal
Meketa Investment Group

Aaron Lally, CFA, CAIA
Managing Principal
Meketa Investment Group

Alli Wallace Stone, CFA
Managing Principal
Meketa Investment Group

Investment Information

Investment Activities and Initiatives

Over the course of the year, the size of the investment portfolio declined by approximately $117 million to $1.945 billion in investment assets primarily due to benefit payments which were offset by modest positive investment returns and benefit contributions.

DPFP continued to take steps towards the new long-term asset allocation targets set in the 2018 Investment Policy Statement (IPS) by reducing private asset exposure and building out parts of the public markets asset allocation in 2020. 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. In general, the implementation plan prioritizes allocating to target in the Safety Reserve and lower risk fixed income asset classes before reallocating to public equities. In 2020, the fixed income asset class was brought up to the target range and considerable progress was made to bring the public equity asset class up to target. 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, continued to hold quarterly meetings virtually despite the COVID pandemic. The IAC 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.

Investment initiatives in the public asset portfolio included Public Equity Portfolio Structure reviews throughout the year with the Board and IAC, consolidating the Bank Loans allocation to one portfolio managed by Pacific Asset Management early in 2020, switching from a passive Investment Grade Bond fund with Vanguard to an active Investment Grade Bond fund managed by Longfellow Investment Management in July 2020, terminating the Global Bond allocation managed by Brandywine in November 2020, and switching the High Yield allocation managed by Loomis from a Full Discretion strategy to a United States focused strategy. In consultation with the consultant, DPFP took rebalancing actions in 2020 during the market drawdown in 1Q20 to invest in the Global Equity managers with proceeds from the Safety Reserve.

The private asset portfolio, which includes Private Equity, Private Debt, Natural Resources, Infrastructure and Real Estate, was valued at $668 million or 34% of the portfolio at year-end. Staff continued to work with managers to sell assets in an orderly fashion and reduce the over allocation. Given the market disruption caused by the global pandemic, private asset sale activity was considerably down in 2020 as compared to prior years. Distributions from the private asset portfolio totaled approximately $35 million in 2020, while capital calls totaled only $2 million.

Performance Reporting and Results

Performance Reporting Methodology

The rate of return calculation is prepared by the investment consultant as of December 31, 2020, 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, 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, 2020 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	2020 RETURN	3 YRS	5 YRS	10 YRS
Total Investment Assets	$ 1,944,751	100.0%	1.7%	3.8%	3.9%	2.5%
Policy Benchmark [1]			11.8%	7.0%	9.1%	8.4%
InvestorForce DB Median			10.5%	7.3%	8.8%	7.7%
EQUITY	850,470	43.7%	0.9%	6.2%	3.0%	5.1%
MSCI ACWI IMI Net			16.3%	9.7%	12.1%	9.1%
Global Equity	**651,284**	**33.5%**	**15.7%**	**10.6%**	**13.0%**	**9.9%**
MSCI ACWI IMI Net			16.3%	9.7%	12.1%	9.1%
Boston Partners	160,671	8.3%	6.0%	3.4%	-	-
MSCI World Net			*15.9%*	*10.5%*	-	-
Manulife	151,920	7.8%	7.6%	8.1%	-	-
Invesco Global Equity	180,058	9.3%	29.4%	14.4%	15.5%	12.0%
Walter Scott	158,469	8.1%	19.1%	15.6%	15.4%	11.4%
MSCI ACWI Net			*16.3%*	*10.1%*	*12.3%*	*9.1%*
Transition	166	0.0%	-	-	-	-
Emerging Markets Equity	**61,876**	**3.2%**	**16.4%**	**7.2%**	**-**	**-**
MSCI Emerging Markets IMI Net			18.4%	5.8%	-	-
RBC	61,876	3.2%	16.4%	7.2%	-	-
MSCI Emerging Markets IMI Net			*18.4%*	*5.8%*	-	-
Private Equity	**137,310**	**7.1%**	**(33.0%)**	**(6.4%)**	**(10.0%)**	**(5.7%)**
Cambridge Associates US All PE (1 Qtr Lag)			13.5%	13.1%	12.9%	13.6%
FIXED INCOME	568,948	29.3%	6.2%	4.1%	7.0%	5.3%
BBgBarc Multiverse TR			9.0%	4.8%	5.0%	3.0%
Cash	**87,492**	**4.5%**	**0.6%**	**1.6%**	**1.4%**	**-**
91 Day T-Bills			0.5%	1.5%	1.1%	-

	NET ASSET VALUE	% OF PORTFOLIO	2020 RETURN	3 YRS	5 YRS	10 YRS
FIXED INCOME (continued)						
Short Term Core Bonds	**216,951**	**11.2%**	**4.6%**	**3.5%**	**-**	**-**
BBgBarc US Treasury 1-3 Yr TR			3.2%	2.8%	-	-
IR&M	216,951	11.2%	4.6%	3.5%	-	-
BBgBarc US Govt/Credit 1-3 Yr TR			*3.3%*	*3.0%*	-	-
Investment Grade Bonds	**74,583**	**3.8%**	**8.7%**	**-**	**-**	**-**
BBgBarc US Aggregate TR			7.5%	-	-	-
Longfellow Investment Management	74,583	3.8%	-	-	-	-
BBgBarc US Aggregate TR			-	-	-	-
Global Bonds	**42**	**0.0%**	**6.7%**	**3.9%**	**5.2%**	**3.4%**
BBgBarc Global Aggregate TR			9.2%	4.8%	4.8%	2.8%
Brandywine Global Fixed Income	42	0.0%	-	-	-	-
Bank Loans	**$ 71,618**	**3.7%**	**4.9%**	**4.2%**	**5.9%**	**-**
Credit Suisse Leveraged Loan			2.8%	4.0%	5.2%	-
Loomis Sayles Sr Floating Rate and Fixed Income	373	0.0%	-	-	-	-
Pacific Asset Management	71,245	3.7%	2.6%	3.9%	-	-
Credit Suisse Leveraged Loan			*2.8%*	*4.0%*	-	-
High Yield Bonds	**74,342**	**3.8%**	**8.6%**	**4.5%**	**8.8%**	**6.3%**
BBgBarc US Corporate High Yield			7.1%	6.2%	8.6%	6.8%
Loomis Sayles US High Yield	74,168	3.8%	-	-	-	-
BBgBarc Global High Yield			-	-	-	-
Loomis Sayles High Yield Full Discretion[2]	174	0.0%	8.6%	4.5%	9.0%	6.7%
BBgBarc Global High Yield			*7.0%*	*4.9%*	*7.8%*	*6.5%*
Emerging Markets Debt	**38,330**	**2.0%**	**2.4%**	**2.2%**	**6.8%**	**3.7%**
50% JPM EMBI/50% JPM GBI-EM			4.0%	4.1%	7.0%	3.8%
Ashmore Emerging Markets Blended Debt	38,330	2.0%	2.4%	2.2%	-	-
50% JPM EMBI/25% JPM GBI-EM/25% JPM ELMI+			*3.9%*	*3.6%*	-	-
Private Debt	**5,590**	**0.3%**	**(16.3%)**	**(1.4%)**	**(5.0%)**	**-**
BBgBarc Global High Yield + 2%			9.2%	7.0%	10.0%	-
REAL ASSETS	525,333	27.0%	(1.8%)	0.1%	2.0%	(1.9%)
50% NCREIF Property /50% Farmland Total Return (1Qtr			2.9%	5.2%	6.2%	10.1%
Real Estate	**348,621**	**17.9%**	**0.2%**	**2.7%**	**1.5%**	**(3.5%)**
NCRIEF Property (1Qtr Lag)			2.0%	5.1%	6.3%	9.4%
Natural Resources	**132,357**	**6.8%**	**0.6%**	**(0.3%)**	**(0.9%)**	**3.4%**
NCRIEF Farmland Total Return Index (1Qtr Lag)			3.8%	5.3%	6.1%	10.9%
Infrastructure	**44,354**	**2.3%**	**(20.2%)**	**(11.1%)**	**2.9%**	**-**
S&P Global Infrastructure Index			(5.8%)	2.7%	7.9%	-

(1) The Policy Benchmark is calculated as the weighted return based on the asset class target allocations and their corresponding benchmarks. The Policy Benchmark was changed on April 1, 2016 to match the new asset allocation and asset class benchmarks in the Investment Policy Statement. The current benchmark has been linked with the Policy Benchmark for the prior asset allocation policy.
(2) Loomis Sayles High Yield Full Discretion Account was transitioned to the Loomis Sayles US High Yield Account on 12/31/2020

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

- To ensure funds are available to meet current and future obligations of DPFP when due.
- To earn a long-term, net of fees investment return greater than the actuarial return assumption.
- To rank in the top half of the public fund universe over the rolling five-year period, net of fees.

Objectives

- To maintain a diversified asset allocation.
- To accept the minimum level of risk required to achieve the return objective.
- To outperform the Policy Benchmark over rolling five-year periods.
- To 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 two to three years 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 process.

Updates to the IPS were approved by the Board on three occasions in 2020. Notable changes to the IPS approved in 2020 incorporated the following, among others:

- Updated language to clarify that the Safety Reserve will be viewed both in terms of the 15% target and two and a half years of projected net cash outflows when making rebalancing decisions.
- Clarified the roles and responsibilities of the consultant and staff.
- Allows DPFP to engage Advisors that are not fiduciaries.
- Updated several Asset Class benchmarks.
- Expanded IAC to seven total members.

Thus far in 2021, the IPS has been updated to incorporate changes in the long-term Asset Allocation and Asset Class targets, removed the Asset Allocation Implementation Plan, updated rebalancing approval and notification processes, changes to the IAC meeting provisions to address public meetings and quorum considerations, and changes to some Asset Class benchmarks.

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 14 separate asset classes. Initial variances to long-term allocation targets may be quite large but are expected to gradually diminish. 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, 2020, along with targets and ranges, is as follows:

ASSET CATEGORY/CLASS	DECEMBER 31, 2020 ALLOCATION	TARGET ALLOCATION	MINIMUM ALLOCATION	MAXIMUM ALLOCATION
Equity	43.7%	55%		
Global Equity	33.5%	40%	18%	48%
Emerging Markets Equity	3.2%	10%	0%	12%
Private Equity	7.0%	5%	-	-
Fixed Income	29.3%	35%		
Cash	4.5%	3%	0%	5%
Short-Term Grade Bonds	11.2%	12%	5%	15%
Investment Grade Bonds	3.8%	4%	2%	6%
Global Bonds	0.0%	4%	2%	6%
Bank Loans	3.7%	4%	2%	6%
High Yield Bonds	3.8%	4%	2%	6%
Emerging Markets Debt	2.0%	4%	2%	6%
Private Debt	0.3%	0%	-	-
Real Assets	27.0%	10%		
Real Estate	17.9%	5%	-	-
Natural Resources	6.8%	5%	-	-
Infrastructure	2.3%	0%	-	-

In November 2018, the Board approved an asset allocation implementation plan to prioritize the reallocation of cash distributions from private market assets as follows:

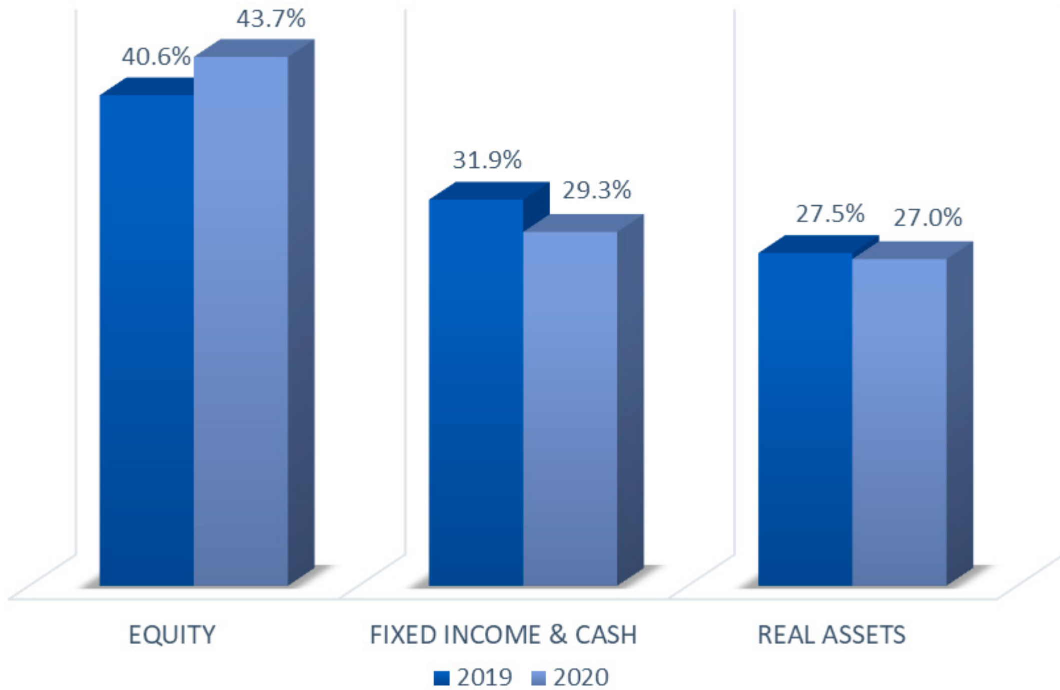
ORDER OF REALLOCATION
Allocate up to Target, then proceed to next asset class
1. Safety Reserve – Cash[1]
2. Safety Reserve – Short-Term Investment Grade Bonds[1]
3. Global Equity, only if current exposure is less than 22% of DPFP[2]
4. Emerging Markets Equity, only if current exposure is less than 2.5% of DPFP[3]
5. Investment Grade Bonds
6. Global Bonds
7. Bank Loans
8. High Yield Bonds
9. Global Equity above 22%, contributions limited to 6% per year
10. Emerging Markets Debt
11. Emerging Markets Equity above 2.5%, contributions limited to 2.5% per year
12. Private Real Estate (aggregate illiquid exposure must be under 20%)
13. Private Equity (aggregate illiquid exposure must be under 15%)

(1) The Safety Reserve is not required to be allocated to target if deemed prudent by Staff and Consultant.
(2) Global Equity target weight is 40%. If current exposure is more than 22% proceed to next asset class in the matrix. The reallocation framework is designed to maintain at least the mid-2018 exposure to public equity, prior to increasing fixed-income exposure.
(3) Emerging Markets Equity Target weight is 10%. If current exposure is more than 2.5% proceed to next asset class in the matrix. The reallocation framework is designed to maintain at least the mid-2018 exposure to public equity, prior to increasing fixed-income exposure.

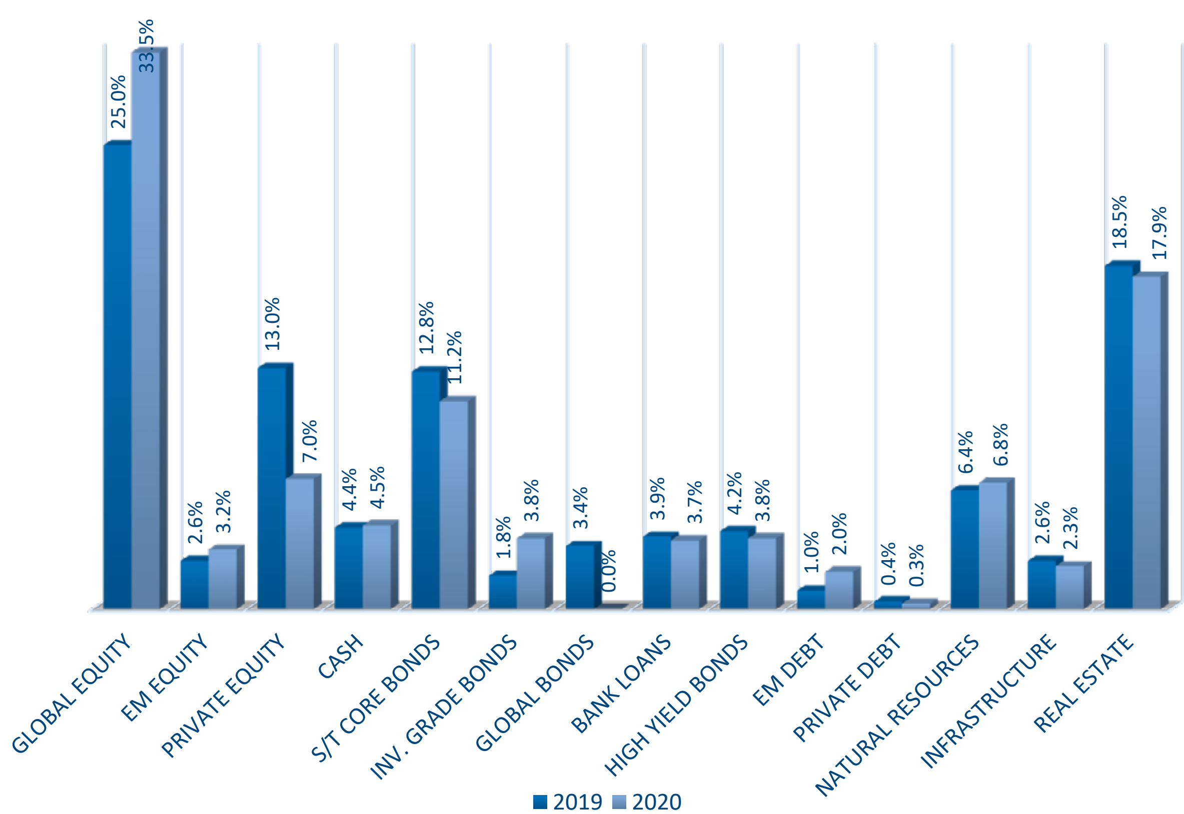
The Investment Grade Bonds asset class was brought up to target in 2020 as proceeds from private asset distributions were invested into the Longfellow account. Additional private asset proceeds followed the implementation plan and were invested into Global Equity. Global Bonds was the only asset class that ended the year with actual allocations below the minimum range outlined in the asset allocation in the IPS. In November 2020, DPFP liquidated the Global Bond's account managed by Brandywine with the intention to eliminate the Global Bond asset class with the updated Asset Allocation study in 2021. At the same time, DPFP funded $16 million to the Emerging Markets Debt asset class to maintain similar overall exposure to Emerging Markets Debt exposure through an additional investment in the Ashmore Emerging Markets Debt Fund. Global Equities would be the next asset class to receive distributions from private asset distributions based on the implementation plan and asset class weight at December 31, 2020. All the private markets asset classes (Private Equity, Private Debt, Real Estate, Natural Resources and Infrastructure) ended the year above their respective target allocations. Given the overallocation to private markets, many public asset classes ended the year below the target allocation though progress was made throughout 2020 in getting most fixed income asset classes at or near their respective targets.

The following graphs reflect the portfolio allocation at December 31, 2020 and 2019 by broad asset category and asset class.

Asset Allocation by Broad Asset Category

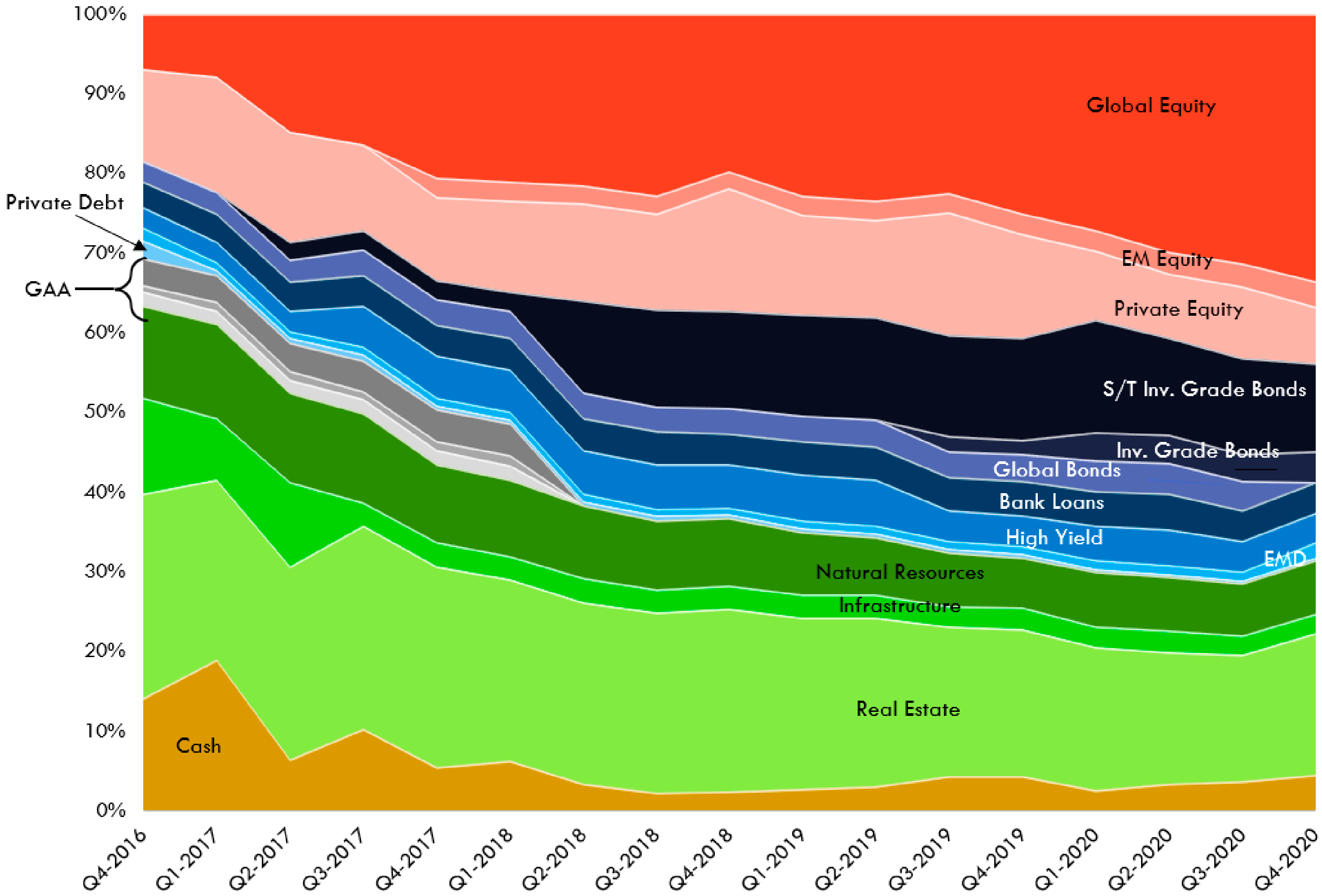


Asset Allocation by Asset Class



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 four years, on a quarterly basis.

Asset Allocation Evolution



2021 Updated Asset Allocation

An updated long-term Asset Allocation was approved by the Board in July 2021, which increased the target allocation to Global Equity by 15%, eliminated the 4% allocation to Global Bonds, reduced the target to Short Term Investment Grade Bonds, held within the Safety Reserve, by 6% and reduced the target allocation to Emerging Markets Equity by 5%. The previous Implementation Plan was also eliminated with the updated Asset Allocation, as most public asset classes besides Global Equity are nearing or at the target allocation. The below table outlines the actual allocation at December 31, 2020, compared to the 2020 and updated 2021 asset class targets.

ASSET CATEGORY/CLASS	DECEMBER 31, 2020 ALLOCATION	2020 TARGET ALLOCATION	UPDATED 2021 TARGET ALLOCATION
Equity	43.7%	55%	65%
Global Equity	33.5%	40%	55%
Emerging Markets Equity	3.2%	10%	5%
Private Equity	7.0%	5%	5%
Fixed Income	29.3%	35%	25%
Cash	4.5%	3%	3%
Short-Term Investment Grade Bonds	11.2%	12%	6%
Investment Grade Bonds	3.8%	4%	4%
Global Bonds	0.0%	4%	0%
Bank Loans	3.7%	4%	4%
High Yield Bonds	3.8%	4%	4%
Emerging Markets Debt	2.0%	4%	4%
Private Debt	0.3%	0%	0%
Real Assets	27.0%	10%	10%
Real Estate	17.9%	5%	5%
Natural Resources	6.8%	5%	5%
Infrastructure	2.3%	0%	0%

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 2020, 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	2020 AVERAGE MARKET VALUE	TOTAL MANAGEMENT FEES PAID AS A % OF AVERAGE MARKET VALUE
Equity	$ 3,023	$ 2,541	$ 5,564	$ 848,703	0.66%
Fixed Income & Cash	705	475	1,180	583,884	0.20%
Real Assets	2,508	1,657	4,165	538,606	0.77%
TOTAL	**$ 6,236**	**$ 4,673**	**$ 10,909**	**$ 1,971,194**	**0.55%**

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. 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. Other Investment Expenses include 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. DPFP has included all management fees, commissions and other fees as outlined in the chart below (dollars in thousands).

ASSET CLASS	INVESTMENT MANAGEMENT FEES	BROKERAGE FEES OR COMMISSIONS	CARRIED INTEREST	OTHER INVESTMENT EXPENSES	TOTAL OF ALL FEES AND EXPENSES
Cash	$ -	$ -	$ -	$ -	$ -
Equity	3,376	478	-	-	3,854
Fixed Income	1,180	-	-	-	1,180
Real Assets	4,165	1,557	-	-	5,722
Alternatives (GAA & Private Equity)	2,188	-	184	-	2,372
DPFP Plan Level	-	-	-	2,249	2,249
TOTAL	**$ 10,909**	**$ 2,035**	**$ 184**	**$ 2,249**	**$ 15,377**

Below is a breakdown of DPFP Plan Level investment expenses by category:

OTHER INVESTMENT EXPENSES (000's)		
Custodial	$	221
Investment Level Valuation & Audit		433
Consulting and Reporting		364
Legal		948
Tail-end Advisory		272
Tax		9
Other		2
TOTAL	**$**	**2,249**

During 2020, DPFP incurred approximately $478 thousand in brokerage fees and commissions paid through managers to trade a total of approximately 31 million shares across 116 brokerage firms. This represents an average cost of $0.016 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	2,213	45	0.020
J.P. Morgan Securities Ltd.	1,538	40	0.026
Sanford C Bernstein Ltd	717	27	0.038
Credit Suisse Securities (USA) LLC	2,378	22	0.009
Merrill Lynch International	777	22	0.028
Citigroup Global Markets Ltd.	926	19	0.021
Goldman Sachs	1,808	16	0.009
Goldman Sachs International	513	16	0.031
Jefferies International	388	14	0.037
Morgan Stanley	642	14	0.022
All other firms	18,789	243	0.013
Totals	30,689	$ 478	$ 0.016

Largest Public Equity and Fixed Income Holdings

The below tables contain the ten largest public equity and fixed income securities owned at December 31, 2020. A full list of securities owned is available upon written request.

PUBLIC EQUITY HOLDING	MARKET VALUE (000's)
Alphabet Inc.	$ 20,594
Microsoft Corp.	14,453
Adobe Inc.	11,724
LVMH Moet Hennessy Louis Vuitton	10,587
Keyence Corp.	10,226
Oracle Corp.	8,906
Samsung Electronics Co.	8,842
Novartis AG	8,503
Walt Disney Co.	7,544
Fanuc Corp.	7,302

PUBLIC FIXED INCOME HOLDING	MATURITY DATE	INTEREST RATE	MARKET VALUE (000's)
United States of America Notes	7/15/2023	0.13%	$ 16,771
United States of America Notes	12/31/2023	2.25%	8,353
United States of America Notes	4/15/2023	0.25%	5,807
United States of America Notes	5/15/2023	0.13%	4,994
United States of America Notes	4/15/2021	2.38%	4,107
Citigroup Inc. Callable Notes	10/30/2024	Floating	3,268
Toyota Motor Credit Corp. Medium Term	3/30/2023	2.90%	3,222
JP Morgan Chase Commercial Mortgage	6/15/2045	3.48%	2,568
Truist Bank Callable Medium Term Note	3/9/2023	1.25%	2,559
BMW US Capital LLC Callable Notes	4/6/2023	3.80%	2,491

Investment Managers

Assets under management during 2020

AEW Capital Management

Alvarez & Marsal

Ashmore Investment Management Limited

BentallGreenOak

Boston Partners Global Investors

Brandywine Global Investment Management

BTG Pactual Asset Management

Clarion Partners

Conway MacKenzie, LLC

Forest Investment Associates

Hancock Agricultural Investment Group

Hearthstone, Inc.

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

Pacific Asset Management

RBC Global Asset Management

Riverstone Credit Partners

The Rohatyn Group

Vanguard

Walter Scott & Partners Limited

W.R. Huff Asset Management

Yellowstone Capital Partners

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ACTUARIAL INFORMATION

Actuary's Report

Segal

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November 30, 2021

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

Re: Actuarial Valuations as of January 1, 2021

Dear Board Members:

At the request of the Dallas Police and Fire Pension System (DPFP), Segal has completed January 1, 2021 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.

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. Beginning in 2021, future gains or losses each year are amortized over separate, closed, 10-year periods. The effective amortization period as of January 1, 2021 is 17 years. Amortization is on a level percentage of pay basis, with payroll assumed to increase 2.50% per year.

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. Beginning in 2021, future gains or losses each year are amortized over separate, closed, 20-year periods. The effective amortization period as of January 1, 2021 is 24 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, 2020, by $23.5M or 12.7% of the actuarially determined contribution. The System and the actuary will monitor the contributions on the shorter amortization basis going forward.

PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES

Combined Pension Plan

As of January 1, 2021, the City's actuarially determined contribution for the Combined Pension Plan is a dollar amount equivalent to 51.77% 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, 2084, if actuarial assumptions are met in the aggregate. This full-funding date, which is effectively a 63-year amortization of the UAL, is significantly later than was expected last year. The delay is due, in part, to the change in the valuation interest rate and coinciding long-term assumed asset return from 7% to 6.5% with this year's valuation. 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 45.73% to 41.59% between January 1, 2020 and January 1, 2021. This decrease was primarily due to investment losses, demographic experience and assumption changes. The UAL increased from $2.6 billion to $3.0 billion on an actuarial basis.

Supplemental Plan

The Supplemental Plan funded ratio decreased from 48.30% to 43.69% between January 1, 2020 and January 1, 2021. This decrease is primarily due to investment losses, demographic experience and assumption changes. 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. Beginning in 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, 2021 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. The COLA assumption was also updated, as it is annually.

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, 2020 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, 2020.

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 45.7% as of January 1, 2020 to 41.6% as of January 1, 2021. Additionally, the Combined Pension Plan is projected to become fully funded by 2084 as of the January 1, 2021 valuation, an extension over the January 1, 2020 fully funded expectation of 2075. 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 in 2021, future gains or losses each year are amortized over separate, closed 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, 2021. 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 93 is a summary from Segal regarding the January 1, 2021 valuations.

Actuarial Assumptions and Methods

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. Last year, the COLA was assumed to begin October 1, 2063.

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, 2021 valuation projects the full funding of the plan at 63 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, 2021 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 value asset returns are expected to be 5.25% in 2021, 5.75% in 2022, 6.25% in 2023 and 6.50% annually thereafter.

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 $8.5 million per year or 1% of Computation Pay for the Combined Pension Plan and $65 thousand per year or 1% of the Computation Pay for the Supplemental Plan.

DROP Interest: DROP balances for active participants are assumed to earn 2.75% upon retirement and 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 Meet and Confer Agreement.

In years 2020 and thereafter:

	OFFICERS	CORPORALS, DRIVERS, SENIOR OFFICERS & CHIEFS	SERGEANTS, LIEUTENANTS, CAPTAINS, MAJORS, DEPUTY CHIEFS & ASSISTANT CHIEFS
Year	RATE (%)		
2020 – 2022	3.25%	3.00%	2.50%
2023 and thereafter	2.50%	2.50%	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 2021 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: 100% 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 Election: The DROP utilization factor is 0% for new entrants.

Spouses and Children: 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.

Retiree Payment Form Assumption: All married members are assumed to receive a joint and survivor 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 2.0% beginning October 1, 2069 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	(6.1%)	(24.8%)
2009	12.3%	13.8%
2010	2.7%	10.7%
2011	0.4%	(1.8%)
2012	14.8%*	9.9%
2013	4.5%	7.7%
2014	(2.0%)	(5.3%)
2015	(24.0%)*	(8.5%)
2016	7.2%	6.8%
2017	6.6%	4.7%
2018	5.5%	2.1%
2019	5.1%	6.3%
2020	3.5%	(0.4%)
5-year average return	5.6%	4.0%
10-year average return	(0.8%)	1.8%
13-year average return	0.2%	0.8%

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, 2020	$ 2,563,847
Normal cost at beginning of year	69,084
Total contributions	(219,256)
Total interest	176,718
Expected unfunded actuarial accrued liability as of January 1, 2020 **(a)**	2,590,393
Changes due to:	
Net experience loss	141,018
Plan provisions	-
Assumptions	256,721
Total changes **(b)**	397,739
Unfunded actuarial accrued liability at year end **(a+b)**	2,988,132
Actuarial accrued liability at beginning of year	4,723,972
Net (gain)/loss as a percentage of actuarial accrued liability at beginning of year	3.0%

SUPPLEMENTAL PLAN	
Unfunded actuarial accrued liability as of January 1, 2020	$ 18,523
Normal cost at beginning of year	448
Total contributions	(2,023)
Total interest	1,258
Expected unfunded actuarial accrued liability as of January 1, 2020 **(a)**	18,206
Changes due to:	
Net experience loss	1,341
Plan provisions	-
Assumptions	1,559
Total changes **(b)**	2,900
Unfunded actuarial accrued liability at year end **(a+b)**	21,106
Actuarial accrued liability at beginning of year	35,830
Net (gain)/loss as a percentage of actuarial accrued liability at beginning of year	3.7%

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)*
2012	$ 274,302	$ 2,376,907	$ 1,917,642	$ 4,568,851	$ 3,378,481	100.0%	100.0%	37.9%
2013	278,391	2,570,327	2,009,488	4,858,206	3,795,025	100.0%	100.0%	47.1%
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%

** 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

Jan. 1 Valuation Date	AGGREGATE ACCRUED LIABILITIES FOR (1) Active Member Contributions	(2) Retirees, Beneficiaries, and Vested Termination	(3) Active Members (Employer Financed Portion)	Total Actuarial Accrued Liability	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)*
2012	$ 226	$ 28,001	$ 8,102	$ 36,329	$ 20,823	100.0%	73.6%	0.0%
2013	138	31,871	5,256	37,265	21,563	100.0%	67.2%	0.0%
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%

** 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
2012	5,376	$ 349,495	$ 65	(2.4%)
2013	5,400	361,044	67	2.8%
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%

Supplemental Plan (Dollars in Thousands)

JAN. 1 VALUATION DATE	ACTIVE MEMBERS	ANNUAL COVERED PAYROLL	ANNUAL AVERAGE PAY	% CHANGE IN ANNUAL AVERAGE PAY
2012	37	$ 621	$ 17	(26.2%)
2013	39	450	12	(31.2%)
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%)

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
2012	209	$ 13,671	75	$ 2,750	3,669	$ 152,444	42	7.7%
2013	192	13,452	78	7,436	3,783	158,453	42	3.9%
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%

** 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)
2012	$ 3,378,481	$ 4,568,851	73.9%	$ 1,190,370	$ 349,495	341%	30
2013	3,795,025	4,858,206	78.1%	1,063,181	361,044	295%	23
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

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
2012	$ 20,823	$ 36,330	57.3%	$ 15,507	$ 621	2,497%
2013	21,563	37,265	57.9%	15,702	450	3,489%
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%

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, 2020.

The Distributions by Type schedules present the amount of monthly benefit payments and DROP distributions by type for the 10 years ending December 31, 2020.

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, 2020.

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, 2020.

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, 2020.

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, 2020.

The Membership Count schedules reflect the number of members by status type for the 10 years ending December 31, 2020.

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, 2020.

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,	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Additions (Reductions)										
Contributions										
City	$ 162.0	$ 155.7	$ 149.4	$ 126.3	$ 119.4	$ 114.9	$ 109.8	$ 106.1	$ 103.9	$ 102.4
Members	57.3	52.3	49.3	33.0	25.5	25.7	29.3	26.2	22.8	19.5
Total contributions	219.3	208.0	198.7	159.3	144.9	140.6	139.1	132.3	126.7	121.9
Investment income (loss)										
Net appreciation (depreciation) in fair value of investments	(30.4)	94.2	5.5	74.8	121.5	(298.8)	(222.1)	93.5	297.6	(44.9)
Interest and dividends	29.6	37.7	44.7	30.9	54.4	72.9	93.8	85.9	60.5	52.4
Total gross investment income (loss)	(0.8)	131.9	50.2	105.7	175.9	(225.9)	(128.3)	179.4	358.1	7.5
Less: Investment expense	(8.4)	(8.1)	(8.0)	(9.0)	(11.7)	(10.0)	(11.2)	(10.0)	(28.6)	(32.1)
Net investment income (loss)	(9.2)	123.8	42.2	96.7	164.2	(235.9)	(139.5)	169.4	329.5	(24.6)
Securities lending income	1.0	0.8	0.3	0.2	0.7	0.7	0.8	1.1	0.7	0.6
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	0.7	0.6
Other income	0.3	0.3	0.5	2.1	0.2	0.1	-	-	2.1	0.4
Total additions (reductions)	**210.4**	**332.2**	**241.5**	**258.2**	**309.7**	**(94.7)**	**0.2**	**302.5**	**459.0**	**98.3**
Deductions										
Benefits paid to members	315.7	307.2	294.4	292.6	821.7	283.2	244.2	218.0	201.6	188.1
Refunds paid to members	2.3	2.6	2.6	3.6	3.4	1.8	1.7	0.9	1.5	0.7
Interest expense	-	-	-	1.3	4.5	6.0	7.4	5.8	-	-
Professional and administrative expenses	6.5	6.5	5.9	8.1	9.5	8.4	8.0	7.4	6.3	6.9
Total deductions	**324.5**	**316.3**	**302.9**	**305.6**	**839.1**	**299.4**	**261.3**	**232.1**	**209.4**	**195.7**
Net increase (decrease) in net position	(114.1)	15.9	(61.4)	(47.4)	(529.4)	(394.1)	(261.1)	70.4	249.6	(97.4)
Net position restricted for pension benefits										
Beginning of period	2,057.8	2,041.9	2,103.3	2,150.7	2,680.1	3,074.2	3,335.3	3,264.9	3,015.3	3,112.7
End of period	$ 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	$ 3,015.3

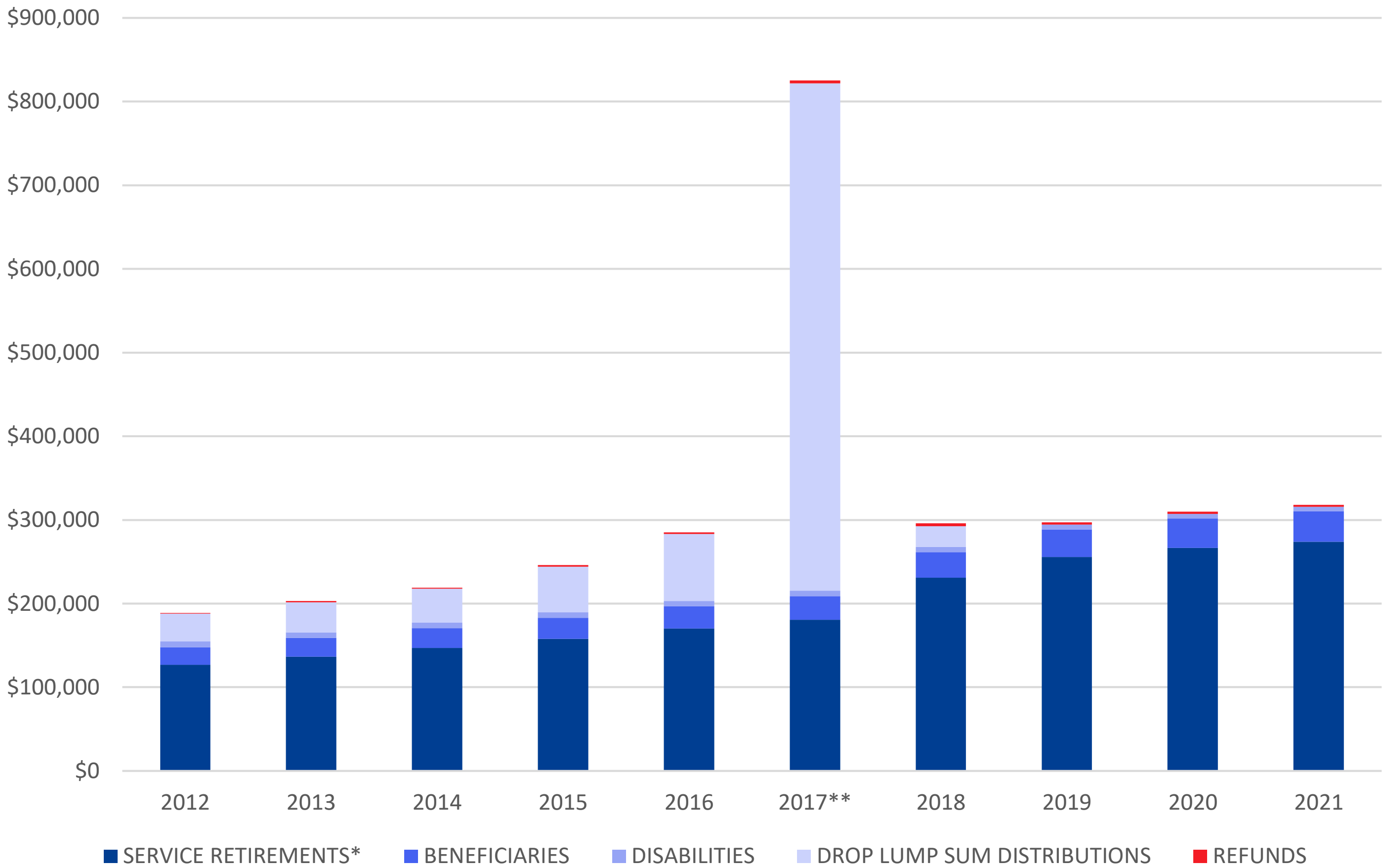
Changes in Fiduciary Net Position

Supplemental Plan (In Millions)

YEARS ENDED DECEMBER 31,	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Additions (Reductions)										
Contributions										
City	$ 1.8	$ 1.5	$ 2.0	$ 2.0	$ 3.1	$ 2.5	$ 1.8	$ 1.9	$ 2.0	$ 1.5
Members	0.2	0.1	0.1	0.1	-	-	0.1	0.1	-	-
Total contributions	2.0	16	2.1	2.1	3.1	2.5	1.9	2.0	2.0	1.5
Investment income (loss)										
Net appreciation (depreciation) in fair value of investments	(0.3)	(0.1)	0.9	0.5	0.8	(2.1)	(1.1)	0.7	2.0	(0.3)
Interest and dividends	0.3	0.3	0.4	0.3	0.4	0.5	0.6	0.6	0.4	0.4
Total gross investment income (loss)	-	0.2	1.3	0.8	1.2	(1.6)	(0.5)	1.3	2.4	0.1
Less: Investment expense	(0.1)	-	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)
Net investment income (loss)	(0.1)	0.2	1.2	0.7	1.1	(1.7)	(0.6)	1.2	2.2	(0.1)
Securities lending income	-	-	-	-	-	-	-	-	-	-
Securities lending expense	-	-	-	-	-	-	-	-	-	-
Net securities lending income	-	-	-	-	-	-	-	-	-	-
Other income	-	-	-	-	-	-	-	-	-	-
Total additions (reductions)	**1.9**	**1.8**	**3.3**	**2.8**	**4.2**	**0.8**	**1.3**	**3.2**	**4.2**	**1.4**
Deductions										
Benefits paid to members	2.8	2.8	2.7	2.7	5.9	2.6	3.4	2.2	1.9	2.1
Refunds paid to members	-	-	-	-	-	-	-	-	-	-
Interest expense	-	-	-	-	-	-	-	-	-	-
Professional and administrative expenses	-	-	0.1	-	0.1	0.1	0.1	0.1	-	-
Total deductions	**2.8**	**2.8**	**2.8**	**2.7**	**6.0**	**2.7**	**3.5**	**2.3**	**1.9**	**2.1**
Net increase (decrease) in net position	(0.9)	(1.0)	0.5	0.1	(1.8)	(1.9)	(2.2)	0.9	2.3	(0.7)
Net position restricted for pension benefits										
Beginning of period	17.3	18.3	17.8	17.7	19.5	21.4	23.6	22.7	20.4	21.1
End of period	$ 16.4	$ 17.3	$ 18.3	$ 17.8	$ 17.7	$ 19.5	$ 21.4	$ 23.6	$ 22.7	$ 20.4

Distributions by Type

Combined Pension Plan (In Thousands)

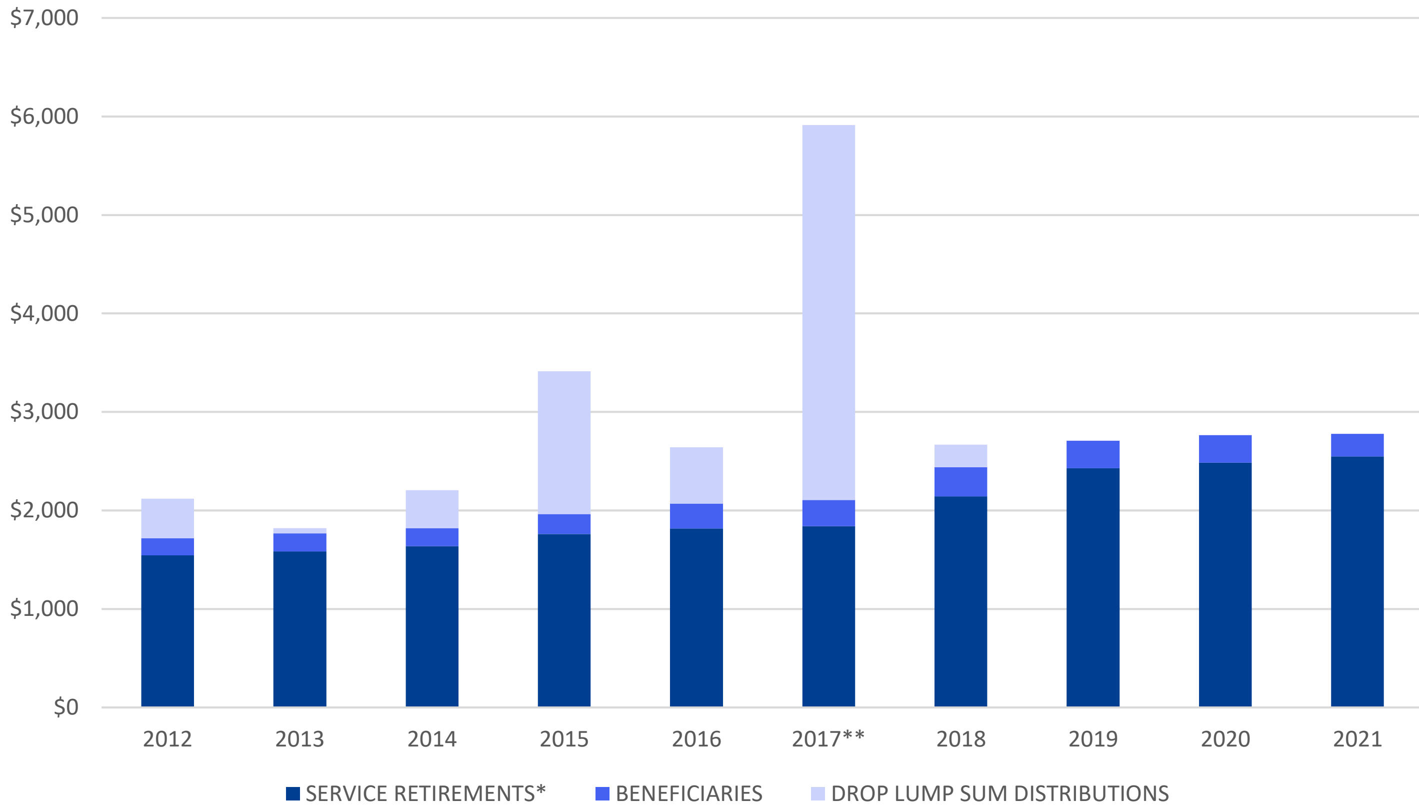


JAN. 1 VALUATION DATE	SERVICE RETIREMENTS*	BENEFICIARIES	DISABILITIES	DROP LUMP SUM DISTRIBUTIONS	REFUNDS	TOTAL
2012	$ 127,048	$ 20,860	$ 6,860	$ 33,325	$ 736	$ 188,829
2013	136,677	22,338	6,724	35,826	1,535	203,100
2014	146,846	23,849	6,543	40,744	900	218,882
2015	157,987	25,104	6,433	54,675	1,733	245,932
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

**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)



JAN. 1 VALUATION DATE	SERVICE RETIREMENTS*	BENEFICIARIES	DROP LUMP SUM DISTRIBUTIONS	TOTAL
2012	$ 1,545	$ 172	$ 402	$ 2,119
2013	1,584	182	53	1,819
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

**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 CREDIT	DEFERRALS	INTEREST CREDITED	WITHDRAWALS	ADJUSTMENTS	CHANGE	BALANCE	ANNUITY PAYMENTS	ANNUITY BALANCE
2012	8.00%	$ 86,880	$ 84,846	$ (53,815)	$ -	$ 117,911	$ 1,054,586	$ -	$ -
2013	8.00%	90,154	85,373	(58,441)	-	117,085	1,171,671	-	-
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

** 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, 2020)

MONTHLY BENEFIT RANGE	TOTAL NUMBER OF BENEFITS	SERVICE RETIREMENTS	DISABILITIES	BENEFICIARIES	NON-ACTIVE VESTED	ACTIVE DROP
$0 - $500	61	14	1	43	2	1
$501 - $1,000	262	60	-	85	116	1
$1,001 - $1,500	293	83	1	140	65	4
$1,501 - $2,000	544	82	1	428	26	7
$2,001 - $2,500	271	81	10	156	13	11
$2,501 - $3,000	285	158	20	78	15	14
$3,001 - $3,500	252	168	20	46	-	18
$3,501 - $4,000	449	370	38	18	2	21
$4,001 - $4,500	494	392	14	39	1	48
$4,501 - $5,000	531	453	5	35	-	38
$5,001 - $5,500	518	449	2	25	-	42
$5,501 - $6,000	491	431	5	23	-	32
$6,001 - $6,500	347	294	1	15	1	36
$6,501 - $7,000	306	271	1	18	-	16
$7,001 - $7,500	208	189	2	3	-	14
$7,501 - $8,000	124	107	-	6	-	11
$8,001 - $8,500	56	52	-	3	-	1
Over $8,500	72	65	-	2	-	5
Total	**5,564**	**3,719**	**121**	**1,163**	**241**	**320**

** 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
2011								
Retirements***	-	2	10	40	74	66	12	204
Avg. FAS**	$ -	$ 3,361	$ 2,367	$ 1,299	$ 2,840	$ 4,371	$ 2,910	$ 3,019
Avg. benefit	$ -	$ 1,068	$ 1,148	$ 1,016	$ 2,462	$ 4,740	$ 3,905	$ 2,922
2012								
Retirements	-	4	10	28	64	48	13	167
Avg. FAS	$ -	$ 3,624	$ 1,912	$ 2,045	$ 2,840	$ 3,473	$ 2,149	$ 2,798
Avg. benefit	$ -	$ 944	$ 968	$ 1,148	$ 2,535	$ 3,674	$ 2,899	$ 2,526
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

** 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, 2020		NUMBER	ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
Retired members				
	Service pensions	3,719	$ 218,875	$ 59
	Disabilities	121	$ 5,245	$ 43
	Total	3,840	$ 224,120	$ 58
Beneficiaries*				
	Total	1,163	$ 32,363	$ 28
Total		**5,003**	**$ 256,483**	**$ 51**

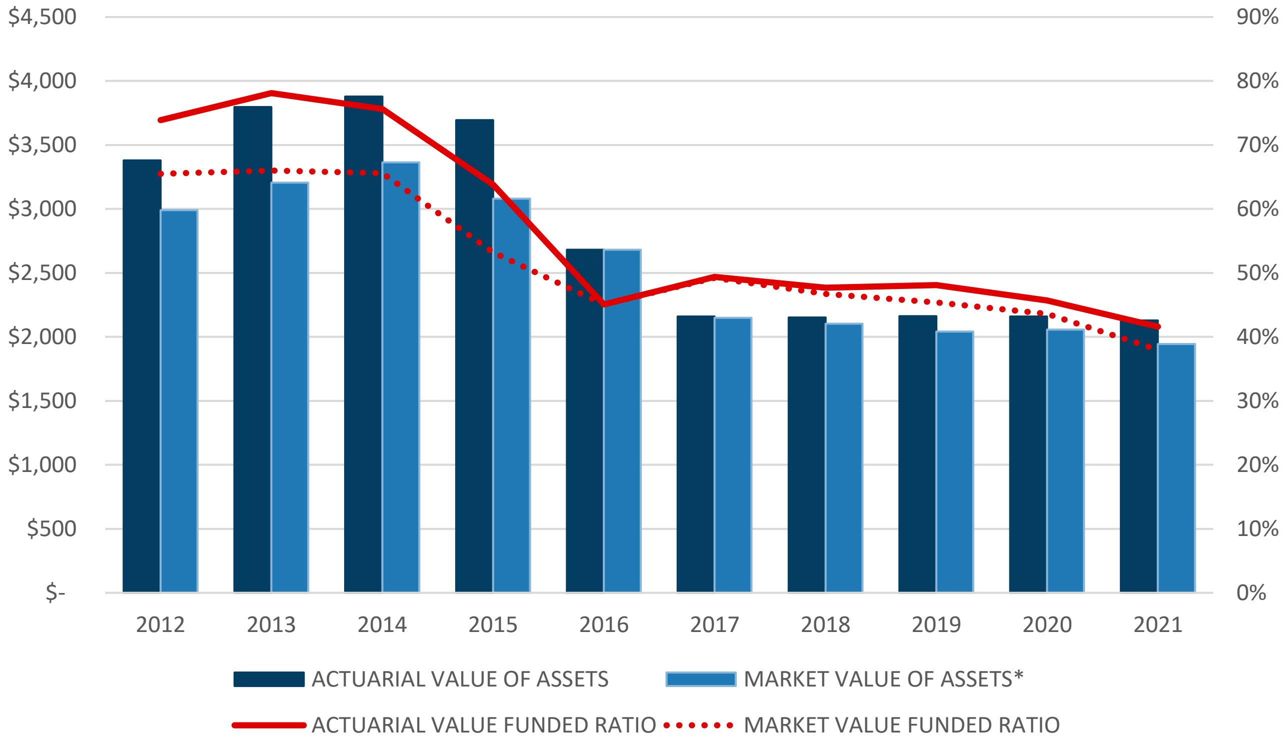
Supplemental Plan (Dollars in Thousands)

DECEMBER 31, 2020		NUMBER	ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
Retired members				
	Service pensions	118	$ 2,226	$ 19
Beneficiaries*				
	Total	23	$ 232	$ 10
Total		**141**	**$ 2,458**	**$ 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)

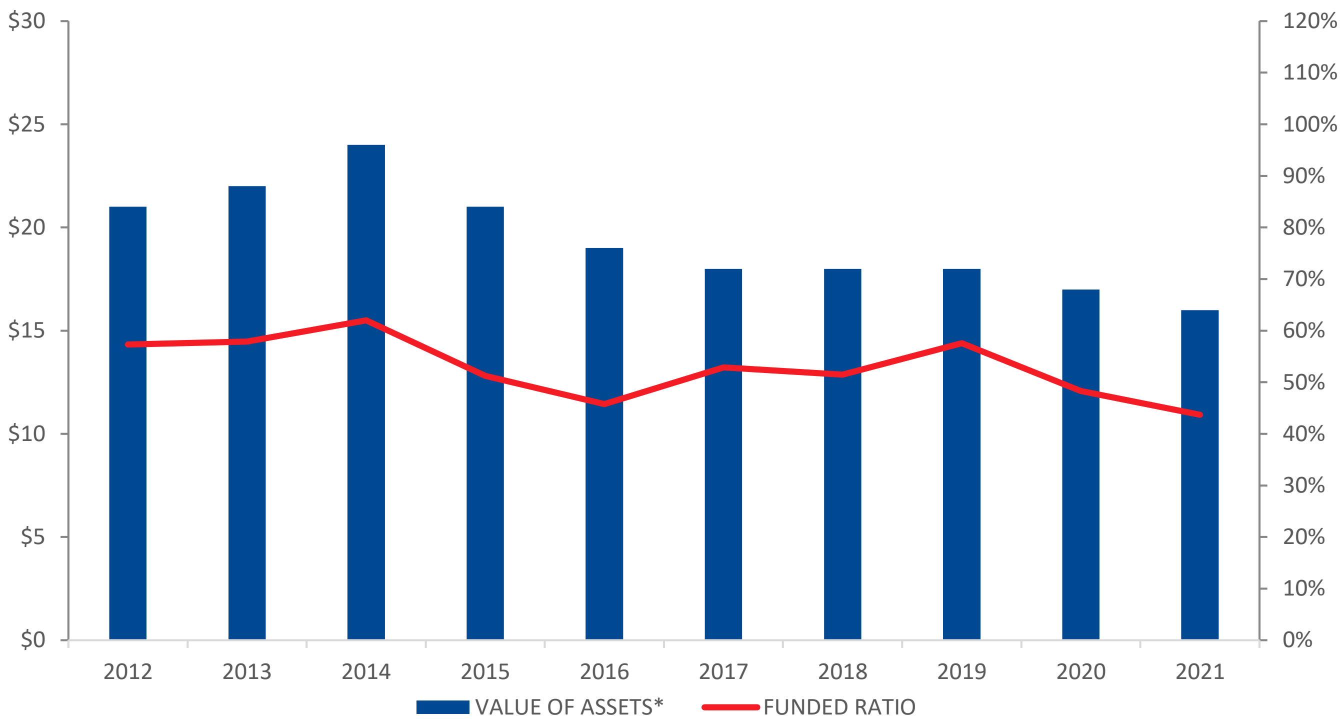


JAN. 1 VALUATION DATE	ACTUARIAL VALUE OF ASSETS	MARKET VALUE OF ASSETS*	ACTUARIAL VALUE FUNDED RATIO	MARKET VALUE FUNDED RATIO
2012	$ 3,378	$ 2,991	73.9%	65.5%
2013	3,795	3,206	78.1%	66.0%
2014	3,877	3,363	75.6%	65.6%
2015	3,695	3,079	63.8%	53.2%
2016	2,680	2,680	45.1%	45.1%
2017	2,158	2,150	49.4%	49.2%
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%

** 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
2012	$ 21	57.3%
2013	22	57.9%
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%

** 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
2012	3,995	1,381	2,767	926	128	75	9,272
2013	3,974	1,426	2,854	969	96	86	9,405
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

Supplemental Plan

JAN. 1 VALUATION DATE	ACTIVE (EXCLUDING DROP)	ACTIVE DROP	RETIREES	BENEFICIARIES	NON-ACTIVE VESTED	NON-ACTIVE NON-VESTED	TOTAL
2012	9	28	90	23	-	-	150
2013	19	20	96	24	-	-	159
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

DROP Participation

Consolidated Plans* (Dollars in Millions)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Active - DROP Participants										
Beginning of year	383	483	626	1,102	1,338	1,399	1,434	1,446	1,409	1,425
Entrants	11	15	15	17	36	121	107	155	190	176
Withdrawals	(74)	(115)	(158)	(493)	(272)	(182)	(142)	(167)	(153)	(192)
End of year	320	383	483	626	1,102	1,338	1,399	1,434	1,446	1,409
DROP balance at December 31	$ 135	$ 154	$ 192	$ 242	$ 358	$ 479	$ 461	$ 441	$ 434	$ 425

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Retirees and Beneficiaries - DROP Participants										
Beginning of year	11	16	16	1,876	2,085	1,971	1,855	1,718	1,525	1,414
Additions	-	-	3	-	204	168	170	190	215	173
Closures	(1)	(5)	(3)	(1,860)	(413)	(54)	(54)	(53)	(22)	(62)
End of year	10	11	16	16	1,876	2,085	1,971	1,855	1,718	1,525
DROP balance at December 31	$ 1	$ 1	$ 2	$ 2	$ 703	$ 1,038	$ 962	$ 858	$ 738	$ 630

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Total DROP participants	**330**	**394**	**499**	**642**	**2,978**	**3,423**	**3,370**	**3,289**	**3,164**	**2,934**

** 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

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Retirees and Beneficiaries - DROP Annuities										
Beginning of year	2,342	2,186	1,978	-	-	-	-	-	-	-
Additions	109	173	216	1,978	-	-	-	-	-	-
Closures	(26)	(17)	(8)	-	-	-	-	-	-	-
End of year	2,425	2,342	2,186	1,978	-	-	-	-	-	-
Present Value of Annuities at December 31	$ 870	$ 880	$ 829	$ 810	-	-	-	-	-	-

Supplemental Plan

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Retirees and Beneficiaries - DROP Annuities										
Beginning of year	66	57	55	-	-	-	-	-	-	-
Additions	2	9	2	55	-	-	-	-	-	-
Closures	(3)	-	-	-	-	-	-	-	-	-
End of year	65	66	57	55	-	-	-	-	-	-
Present Value of Annuities at December 31	$ 7	$ 7	$ 4	$ 7	-	-	-	-	-	-

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