Dallas Police & Fire Pension System

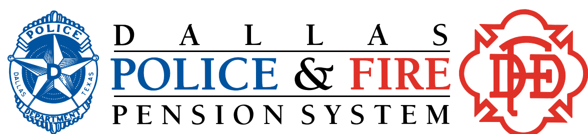
Comprehensive Annual Financial Report for the Years Ended December 31, 2016 and 2015

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

Protecting the Future

Serving those who protect the Dallas community.

Photo by: Sergeant Beth Sundquist



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

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Comprehensive Annual Financial Report for the fiscal years ended December 31, 2016 and 2015

Kelly Gottschalk, *Executive Director*

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

Cover Photo by: Dallas Police Association

Contents

Introduction

3 Transmittal Letter
8 Board of Trustees
9 Administrative Organization

Financial Information

11 Independent Auditor's Reports
15 Management's Discussion and Analysis (Unaudited)

Basic Financial Statements

24 Combining Statements of Fiduciary Net Position
25 Combining Statements of Changes in Fiduciary Net Position
26 Notes to Combining Financial Statements

Required Supplementary Information (Unaudited)

57 Schedule of Changes in the Net Pension Liability and Related Ratios
61 Schedule of Employer Contributions- Combined Pension Plan
63 Schedule of Employer Contributions - Supplemental Plan
65 Schedule of Investment Returns

Supplementary Information

66 Administrative, Investment, and Professional Services Expenses

Investment Information

69 Investment Consultant's Report
71 Investment Activities and Initiatives
71 Performance Reporting and Results
74 Overview and Goals
74 Investment Policy
75 Asset Allocation
79 Investment Management Fees and Brokerage Commissions
80 Largest Public Equity and Fixed Income Holdings
81 Investment Managers

Actuarial Information

83 Actuary's Report
87 Introduction
88 Actuarial Assumptions and Methods
94 Analysis of Financial Experience
95 Short-Term Solvency Test
97 Active Member Valuation Data
98 Retirees and Beneficiaries Added to and Removed from Rolls
99 Funding Progress

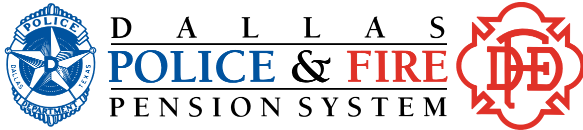
Statistical Information

101 Introduction
103 Changes in Fiduciary Net Position
104 Distributions by Type
106 DROP Growth
107 Benefit Recipients by Type
108 Yearly Retirements by Service Years
109 Benefits Payable
110 Value of Assets vs. Funded Ratio
112 Membership Count
113 DROP Participation

Introduction

Photo by: Jason Evans

Transmittal Letter



July 25, 2017

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 Comprehensive Annual Financial Report (CAFR) 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, 2016.

The CAFR has five sections: Introduction, Financial, Investment, Actuarial and Statistical. Responsibility for the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with DPFP management.

Management is 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 in statutes. DPFP 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) 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, 2016, there were 10,070 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, 2016, there were 175 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.

Funding Status

The January 1, 2016 actuarial funding level for the Combined Pension Plan was 45.1% and DPFP's actuary, Segal Consulting, had projected that the plan was to become insolvent within 15 years if no changes to plan provisions were made and all assumptions were met in the aggregate. The relatively near-term (15 year) insolvency projection was a dramatic change from two years prior when the Combined Pension Plan reported a funding ratio of 75.6% and a 26-year funding period as of January 1, 2014. The decline in the funding status has been detailed in the 2014 and 2015 Comprehensive Annual Financial Reports.

MD&A describes the steps taken to address the funding shortfall. The provisions of HB 3158 are projected to not only avoid potential insolvency, but put the Combined Pension Plan on a path to be funded in a reasonable, although not ideal, timeframe. The January 1, 2017 actuarial valuation reports an actuarial funding ratio of 49.4% and a funding period of 44 years. Without the passage of HB 3158, the actuarial funding ratio would have been 40.2% and the funding period would have been infinite.

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

2016 Financial Results

The Plans' net position decreased by $531 million in 2016 primarily as the result of payments of lump sum amounts from Deferred Retirement Option Plan (DROP) balances in the latter half of the year. With uncertainty surrounding the impact of potential plan amendments, fueled by lack of assurance of the City of Dallas's commitment to participate in a solvency resolution, and fed by negative attention in the press, members withdrew over $600 million in lump sum payments from their DROP balances during 2016 compared to only $81 million and $56 million in 2015 and 2014, respectively. Total DROP balances at July 31, 2016, prior to the increase in DROP withdrawals, were $1.54 billion which represented approximately 58% of total Plan assets at that time.

The vast increase in DROP distributions created substantial liquidity strains for the portfolio and caused debt compliance issues. In order to meet the liquidity demands created by DROP withdrawals, equity and fixed income sales ensued. In addition, private equity holdings were sold to move the actual portfolio holding closer to the asset class policy levels.

Additional information about the DROP withdrawals, resulting impacts from withdrawals and the plan amendment process is described in MD&A.

The rate of return on investments during 2016 was 3.2% net of fees, compared to a rate of return of (12.6%) and 4.0% for 2015 and 2014, respectively. The rate of return is provided by NEPC, LLC, DPFP's investment consultant. The rate of return calculations were prepared using a time-weighted rate of return in accordance with the CFA Institute's Global Investment Performance Standards and, as such, cannot be recalculated from the information provided herein.

Additional information on financial results is provided in the Financial and Investment sections. The Investment Consultant's Report in the Investment section provides additional economic information and the rate of the return for 2016.

Major Initiatives and Significant Events

2016 marks the 100th anniversary of DPFP and, ironically, it was one of the most challenging years in the 100-year existence of DPFP. The theme of this annual report is "Protecting the Future." This goal was prevalent throughout the year as DPFP's major initiatives and significant events were primarily associated with addressing the solvency issue, including efforts related to the passage of HB 3158, management of the large amounts of cash withdrawals from DROP and numerous associated legal issues.

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 sections of this report.

Investment Program

In March 2016, the Board adopted a new asset allocation designed to enhance DPFP's cash flow production and reduce the level of illiquid assets while also reducing overall portfolio volatility. It is expected that due to the nature of the existing portfolio, it will take several years to fully transition the portfolio to the new allocation targets. In addition, in April 2016, the Board adopted a new Investment Policy Statement.

The major activities in the investment portfolio in 2016 were driven by the need for cash to meet the dramatic increase in DROP withdrawal requests. As part of the asset class restructuring and driven by the significant cash needs created by the DROP balance withdrawals, the Board liquidated investments with ten investment managers across the portfolio during the year. The Board approved three new investment managers in 2016, but the funding of these managers was delayed by the increased liquidity demands. The three new investment managers were funded in June 2017.

The new asset allocation calls for a reduction of the private asset classes. In order to reduce exposure to private investments, reduce unfunded capital commitments and meet the increased liquidity demands, DPFP initiated a private asset secondary sale process in the fourth quarter of 2016. In December 2016, the Board approved the sale of 26 fund investments across the Private Equity, Private Debt and Real Estate portfolios which resulted in proceeds of approximately $246 million and reduced unfunded commitments by approximately $130 million.

The Board temporarily halted DROP balance lump sum withdrawals in December 2016 and in January 2017 passed a policy which governed how and when DROP balances could be distributed to retirees and beneficiaries. HB 3158 does not allow DROP balances to be distributed in response to lump sum requests. The timing of closing certain secondary sale transactions and the halt of lump sum DROP balance withdrawals in December resulted in excess cash (14.1% actual compared to 2% target) at December 31, 2016. With the Governor signing HB 3158 into law, the excess cash is now being deployed according to the asset allocation.

As a result of the Real Estate sales described below, asset class restructuring, and the secondary sale transactions which have closed to date, DPFP has reduced the number of investments managers from almost 100 at the end of 2015 to just over 50 in early 2017.

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.

Real Estate Portfolio

DPFP continues to be overallocated to real estate, due to the prior years' heavy investment in direct real estate assets. At December 31, 2016 the Real Estate asset category was 25.7% of the portfolio and the target is 12%. DPFP continued to work towards the new lower target allocation by executing the sales of seven wholly-owned real estate assets in 2016. The reduction of the liquid asset classes to meet the cash demands of DROP resulted in a higher percentage of the assets being allocated to Real Estate and other private asset classes as of year end.

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.

Notes Payable Repayment

DPFP had a credit agreement with Bank of America, N.A. which provided both a revolving line of credit and a term loan. The outstanding balance of the revolving line and term loan combined at December 31, 2014 was $333 million. An effort to reduce the outstanding debt began in 2015 and at December 31, 2015 the combined outstanding amount was reduced by $100 million to $233 million. Additional debt repayment continued in 2016, resulting in an outstanding balance at December 31, 2016 of $130 million. In 2017, the outstanding balance has been paid in full.

Additional information on notes payable is available in Notes 7 and 12 of the financial statements in the Financial section and MD&A.

Legal Expenses and Litigation

The challenges faced by DPFP in 2016 involved extensive legal analysis and included litigation matters related to DROP withdrawals and plan amendments. Plan related legal expenses for the year accounted for approximately 27% of total administrative and professional services expenses.

Additional information on ongoing litigation is available in MD&A and Notes 10 and 11 in the notes to the financial statements in the Financial section of this report.

Awards

Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association (GFOA) of the United States and Canada awarded the Certificate of Achievement for Excellence in Financial Reporting to DPFP for its Comprehensive Annual Financial Report for the fiscal year ended December 31, 2015. To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report whose contents meet or exceed program standards. This report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid only for one year. This was the second year DPFP received the Certificate of Achievement. We believe our current report continues to meet the Certificate of Achievement program requirements and are submitting it to the GFOA for consideration again this year.

Public Pension Standards Award for Administration

The Public Pension Coordinating Council (PPCC) gave the 2016 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. We believe we continue to meet the requirements and are applying to the PPCC for consideration again this year.

Acknowledgements

I would like to take this opportunity to thank the members of DPFP for their support as we continue to progress through a difficult transition. Also, I would like to express my sincere thanks to the Board for its dedicated effort in supporting DPFP and their commitment to ensure that benefit obligations are met over the long term. Additionally, I would like to thank the staff and consultants for their commitment to DPFP and their diligent work to assure DPFP's success. Lastly, I would like to expressly recognize the work of Summer Loveland for her efforts in preparing this annual report.

Respectfully submitted,

Kelly Gottschalk
Executive Director

Board of Trustees

The DPFP plan document establishes the makeup and the role of the Board of Trustees. 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 twelve Trustees who are selected as follows:

- The City Council names from among its members, four Trustees. The City Council Trustees are to serve for the term of office to which they were elected as Council members.
- Six Trustees are elected by the active members. The police and fire-rescue department members of DPFP who are on active service separately, by department, elect from among their respective departments three active police officer and three active firefighter members. Active police and fire Trustees serve four-year staggered terms.
- The remaining two Trustees are elected by the pensioners. One Trustee is a pensioner who has retired from the police department and the other Trustee is a pensioner who has retired from the fire-rescue department. The pensioner Trustees serve terms of four years.

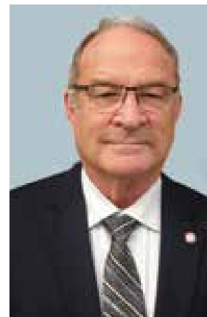
The passage of House Bill 3158, effective September 1, 2017, changes the structure of the Board as described in MD&A.

The Board serves without compensation and meets not less than once each month. Seven Trustees of the Board constitute a quorum at any meeting.

Samuel L. Friar
Fire-Rescue Department
Chairman
Term: Feb. 2011 - Aug. 2017

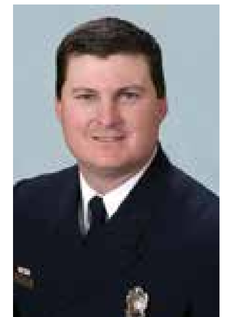
Ken Haben
Police Department
Vice Chairman
Term: June 2013 - Aug. 2017

Joseph Schutz
Police Department
Deputy Vice Chairman
Term: July 2013 - Aug. 2017

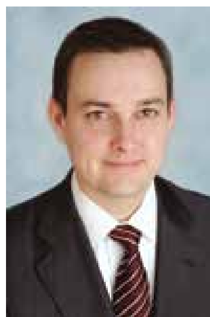


Larry Williams
Fire-Rescue Pensioner
Term June 2017 - Aug. 2017

Jennifer Staubach Gates
City Council
Term: June 2016 - Aug. 2017

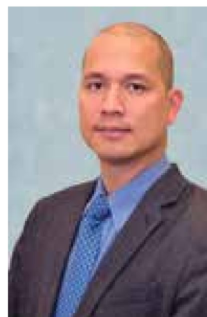


Clint Conway
Fire-Rescue Department
Term: June 2015 - Aug. 2017

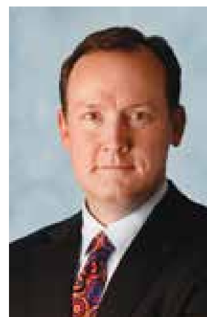


Scott Griggs
City Council
Term: Jan. 2012 - Aug. 2017

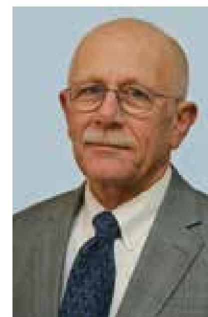
Brian Hass
Fire-Rescue Department
Term: June 2015 - Aug. 2017



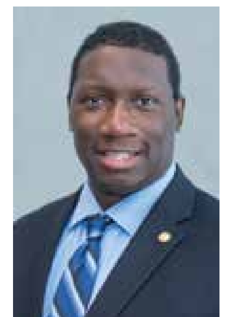
Tho Tang Ho
Police Department
Term: June 2015 - Aug. 2017



Philip T. Kingston
City Council
Term: Aug. 2013 - Aug. 2017

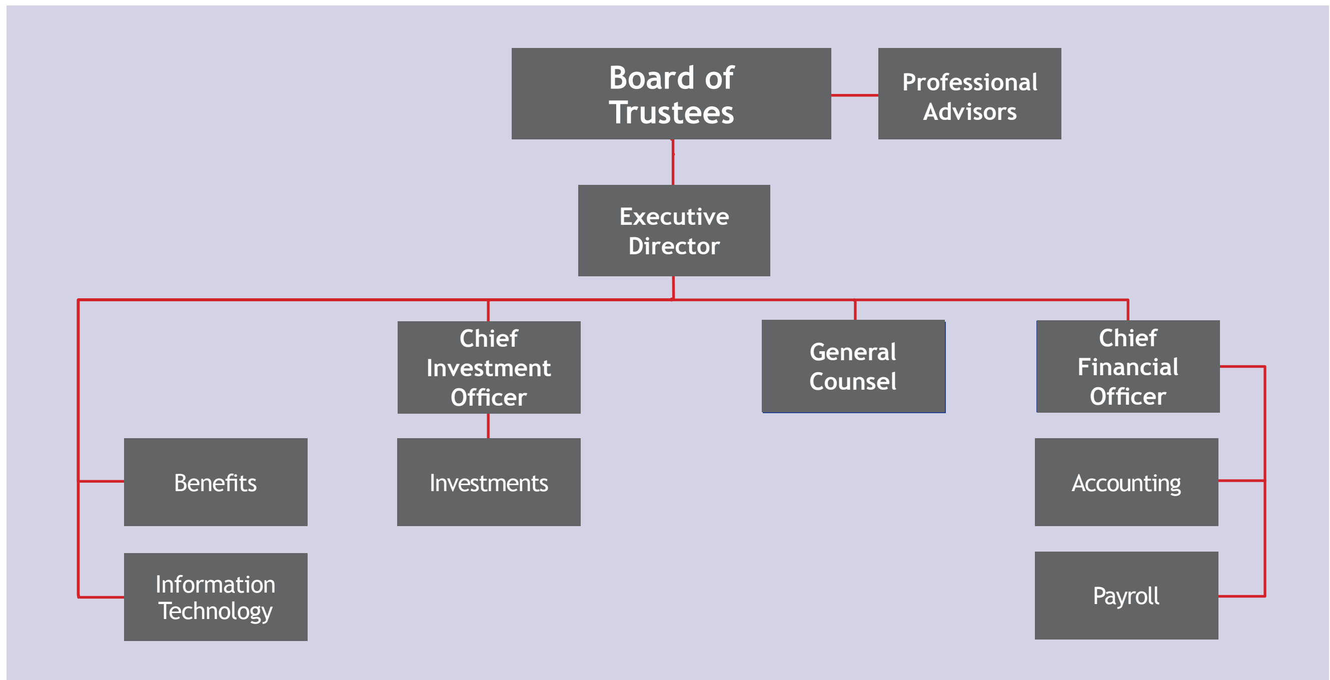


Ken Sprecher
Police Pensioner
Term: Oct. 2016 - Aug. 2017



Erik Wilson
City Council
Term: Aug. 2015 - June. 2017

Administrative Organization



Professional Advisors

Actuary
Segal Consulting

Auditor
BDO USA, LLP

Custodian Bank
JPMorgan Chase Bank, N.A.

Investment Accounting Firm
STP Investment Services, LLC

Investment Consultant
NEPC, LLC

Investment Managers
(See page 81)

Legislative Consultants
HillCo Partners, LLC
Locke Lord, LLP

Executive Staff

Executive Director
Kelly Gottschalk

General Counsel
Joshua Mond

Chief Financial Officer
Summer Loveland

Chief Investment Officer
Vacant

Note: A schedule of investment management fees is provided in the Investment section of this report at page 79.

Financial Information

Photo by: Sergeant Beth Sundquist

Independent Auditor's Reports

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Fax: 214-953-0722
www.bdo.com

700 North Pearl, Suite 2000
Dallas, Texas 75201

Independent Auditor's Report

To the Board of Trustees
Dallas Police and Fire Pension System

Report on the Financial Statements

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, 2016 and 2015, 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.

Management's Responsibility 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; this includes 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.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with 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. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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Opinion
In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of DPFP as of December 31, 2016 and 2015, 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.

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 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.

Supplementary and Other Information
Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Dallas Police and Fire Pension System's basic financial statements. 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.

The Introduction, Investment Information, Actuarial Information and Statistical Information sections, as listed in the table of contents have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards
In accordance with *Government Auditing Standards*, we have also issued our report dated July 25, 2017 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 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
July 25, 2017

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700 North Pearl, Suite 2000
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, 2016 and 2015, 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 July 25, 2017.

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) to determine the 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.

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BDO is the brand name for the BDO network and for each of the BDO Member Firms.

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 determination of financial statement amounts. 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
July 25, 2017

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, 2016 and 2015. 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 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. If change in net position increased, additions were more than deductions. If change in net position decreased, then additions were less than deductions.
>
> Notes to Combining Financial Statements which are an integral part of the combining financial statements and 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 position 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:	2016	2015	2014
Assets			
Investments, at fair value	$ 1,960,057	$ 2,827,859	$ 3,389,263
Invested securities lending collateral	21,671	94,246	147,070
Receivables	29,378	58,568	43,895
Cash and cash equivalents	326,785	77,072	32,451
Prepaid expenses	460	202	194
Capital assets, net	12,041	12,192	12,400
Total assets	**2,350,392**	**3,070,139**	**3,625,273**
Liabilities			
Notes payable	130,000	235,315	345,004
Securities purchased	24,353	37,341	32,495
Securities lending obligations	21,671	94,246	147,070
Accounts payable and accrued liabilities	6,036	3,656	5,104
Total liabilities	**182,060**	**370,558**	**529,673**
Net position held in trust - restricted for pension benefits	**$ 2,168,332**	**$ 2,699,581**	**$ 3,095,600**

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 2016 was 3.2% net of fees, compared to a rate of return of (12.6%) for 2015 and 4.0% for 2014. The rate of return is provided by NEPC, LLC (NEPC), DPFP's investment consultant. The rate of return calculation is prepared using a time-weighted rate of return in accordance with the CFA Institute's Global Investment Performance Standards and, as such, cannot be recalculated from the information provided herein. The methodology used by NEPC to calculate the rate of return incorporates a one quarter lag on market value adjustments for private equity, 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 $531 million in 2016 primarily as the result of payments of lump sum amounts from Deferred Retirement Option Plan (DROP) balances in the latter half of the year. With uncertainty surrounding the impact of potential plan amendments, fueled by lack of assurance of the City of Dallas's commitment to participate in a solvency resolution, and fed by negative attention in the press, members withdrew over $600 million in lump sum payments from their DROP balances during 2016 compared to only $81 million and $56 million in 2015 and 2014, respectively. The culmination of the volume of withdrawal requests and the resulting impact on liquidity led to the temporary halt of DROP lump sum disbursements until the DROP Policy was amended by the Board in January 2017, allowing for lesser amounts of withdrawals from that point forward which would be limited based on liquidity. The vast increase in DROP distributions created substantial liquidity strains for the portfolio and caused debt compliance issues. In order to meet the liquidity demands created by DROP withdrawals, equity and fixed income sales ensued, resulting in significant reductions of those asset classes. To provide an additional

source of liquidity and progress toward the revised asset allocation adopted by the Board in March 2016, exposure to private investments was reduced through the initiation of a secondary sales process in the fourth quarter. In December, the Board approved a sale of 26 fund investments across the private equity, private debt and real assets portfolios resulting in proceeds of $133 million and reducing unfunded commitments by $53 million prior to year end, with additional proceeds of $113 million and reduction of commitments of $54 million occurring in 2017. In addition, sales of seven wholly-owned real estate assets during the year resulted in a reduction of $58 million in the real assets portfolio, provided proceeds of $57 million, and made further progress toward the reduction of exposure to real estate, in line with the revised asset allocation target. The completion of these sales as a whole resulted in a substantial increase in cash and cash equivalents of $250 million over the previous year even after the distribution of over $600 million in DROP lump sum withdrawals.

The Plans' net position decreased by $396 million in 2015 predominately caused by declines in real estate and private equity investments. Real estate performance was adversely impacted by changes in the estimated fair value of certain development stage properties, as well as declines in the estimated enterprise value of certain real estate related business ventures which were previously included in the private equity asset class and reclassified in 2015 to the real estate asset class due to the high correlation of the nature of the business to the real estate industry.

Securities lending collateral and obligations decreased significantly in 2016 due to the decline in volume of lending activity resulting from asset sales to meet liquidity needs. 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. Notes payable decreased significantly in 2016 as a result of the pay down of amounts drawn on agreements with Bank of America, N.A. For further discussion regarding debt transactions, see Note 7 of the accompanying financial statements.

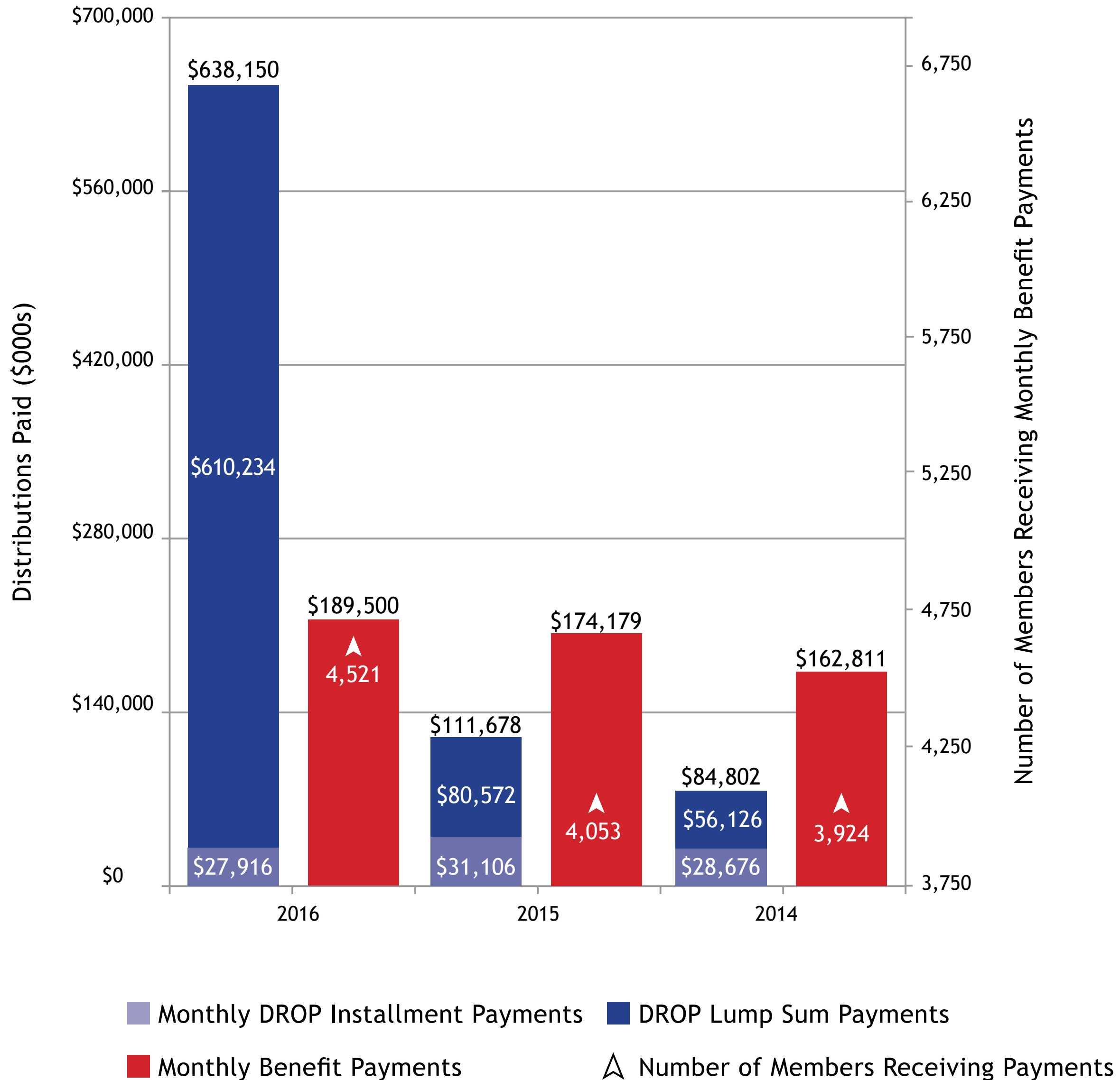
A summary of the Combining Statements of Changes in Fiduciary Net Position of the Plans is as follows (in thousands):

YEARS ENDED DECEMBER 31:	2016	2015	2014
Additions / (Reductions)			
Contributions			
City	$ 122,409	$ 117,328	$ 111,609
Members	25,553	25,720	29,382
Total contributions	**147,962**	**143,048**	**140,991**
Net income (loss) from investing activities	165,327	(237,572)	(140,039)
Net income from securities lending activities	402	544	628
Other income	204	132	-
Total additions (reductions)	**313,895**	**(93,848)**	**1,580**
Deductions			
Benefits paid to members	827,649	285,857	247,613
Refunds to members	3,354	1,786	1,733
Interest expense	4,569	6,049	7,412
Professional and administrative expenses	9,571	8,479	8,059
Total deductions	**845,143**	**302,171**	**264,817**
Net decrease in net position	(531,249)	(396,019)	(263,237)
Net position held in trust - restricted for pension benefits			
Beginning of period	2,699,581	3,095,600	3,358,837
End of period	$ 2,168,332	$ 2,699,581	$ 3,095,600

Contributions for those active members not participating in DROP are currently 8.5% of base pay plus education and longevity pay (Computation Pay) while contributions for active members participating in DROP are 4% of Computation Pay. City contributions for the Combined Pension Plan are currently 27.5% of total salary and wages, including overtime, of all members in active service. The City is required by ordinance to contribute amounts necessary to maintain the Supplemental Plan as determined by an actuary. The slight decrease in member contributions in 2016 is the result of a reduction in the number of active members compared to 2015 which has not been fully offset by pay increases, while the increase in city contributions is the result of increased overtime pay which has more than offset reductions from the decline in headcount.

The decline in member contributions from 2014 to 2015 is the result of a member election held in 2014 which reduced the contribution rate for members in active service who participate in DROP from 8.5% to 4% in 2015.

Distributions to members consist of monthly payments of retirement, disability, and survivor benefits, as well as monthly installment payments of DROP balances and lump sum payments of DROP balances. The chart below compares the components of distributions paid to members for the years ended December 31, 2016, 2015, and 2014.



Benefits paid in 2016 increased $542 million or 190% over 2015 as the result of the significant increase in DROP lump sum distributions, compared to an increase of $38 million or 15.4% between 2014 and 2015. The increase in 2016 consists of a $15 million increase in monthly benefits and a $527 million increase in DROP distributions compared to an $11 million increase in monthly benefits and a $27 million increase in DROP distributions in 2015. The change in DROP distributions in 2016 includes a decrease in monthly DROP installment payments of $3.2 million as many members chose to cease their monthly installments or depleted their DROP balance, compared to an increase of monthly installments of $2.4 million in 2015. The increase in DROP lump sum payments in 2015 over 2014 was partially due to implementation of the Required Annual Distribution as a result of the 2014 plan amendment. The total DROP balance was $1.06 billion and $1.52 billion at December 31, 2016 and 2015, respectively. At December 31, 2016, the DROP balance consisted of $358 million for active members and $702 million for retired members. Average monthly benefit payments were $18.1 million and $17.1 million per month for

2016 and 2015, respectively. The increase of average monthly benefit payments in 2016 of $1 million relates to an additional 468 retirees and beneficiaries receiving a monthly benefit in 2016, as well as considering the impact of the annual cost of living adjustment. The significant increase in the number of retirees and beneficiaries receiving monthly benefits is due to an increased number of retirements, 284 in 2016 compared to 150 in 2015, in addition to many members ceasing their deferral of benefits into DROP and instead receiving payment of their monthly benefits.

The cost of administering the benefit programs of the Plans, including administrative costs and professional fees, increased approximately $1.1 million in 2016 compared to an increase of $420 thousand in 2015. The increase in 2016 is primarily related to increased legal costs associated with a number of legal filings in connection with the proposed 2016 plan amendments, DROP distributions, and existing litigation related to the 2014 plan amendments, as well as actuarial costs related to the performance of an actuarial experience study, development of proposed 2016 plan amendments, and analysis of the impacts of possible legislative changes to the plan. See Note 10 for discussion of outstanding litigation. These increases are slightly offset by decreased staff compensation costs in 2016. The increase in administrative costs and professional fees in 2015 was primarily related to the transition of the DPFP office building to a capital asset as of December 31, 2014 and the related costs of the facilities being classified as an administrative expense beginning in 2015. This increase was somewhat offset by lower staff compensation and a decrease in legal expenses in 2015 as compared to 2014. 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

As reported in the past two years, as of January 1, 2015, as a result of the decline in portfolio value and the reduction of the assumed rate of return to 7.25%, the Combined Pension Plan's funding period significantly increased from 26 years to an infinite period. The infinite funding period remained as of January 1, 2016 and at that time, the Combined Pension Plan was projected to become insolvent within 15 years if no changes to plan provisions were made. A sub-committee of the Board was formed in 2015 to examine alternatives to improve funding over the long term while continuing to provide benefits to members. Representatives of the City of Dallas were included in meetings of the sub-committee to provide input from the plan sponsor. The work of this sub-committee led to a 2016 plan amendment election which put forth a vote to allow for raising member contributions from 8.5% to 12% over a period of two years, lower base benefit calculations, reduce future cost of living adjustments, shorten the time allowed to participate in DROP as an active member, and reduce interest paid on DROP balances. Under State statute, an increase in member contributions would have triggered an increase of City contributions from 27.5% to 28.5%. These amendments were expected to provide over 10 years of additional life to the Combined Pension Plan before projected insolvency, however additional funding from the City would have been required to avoid insolvency. The plan amendment election was completed in December 2016, however the proposed amendments impacting solvency did not pass a vote of the members. This led to legislative efforts in which DPFP and the City of Dallas worked diligently with the Texas legislature during the 85th legislative session on plan changes. Such efforts resulted in the ultimate passage of House Bill 3158 (HB 3158, or the Bill) which requires extensive contribution and benefit changes. In the January 1, 2017 actuarial valuation, as a result of the changes provide in HB 3158, the Plan is expected to be fully funded by 2061. This projection 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.

As passed, HB 3158 includes the following significant changes which are effective September 1, 2017:

- Member contributions are increased to 13.5% for all members, regardless of DROP participation status, effective September 1, 2017.
- City contributions are increased from 27.5% of total pay to 34.5% of Computation Pay, with certain minimum "floor" amounts as specified in the Bill through 2024, plus $13 million per year through 2024.
- The normal retirement age is increased from 50 to 58. Actuarially reduced early retirement benefits begin at age 45 for those members who are 45 as of September 1, 2017 and began service prior to March 1, 2011. Actuarially reduced early benefits begin at age 53 for all other members.
- The standard benefit multiplier is lowered to 2.5% for all future service and early retirement multipliers are reduced.
- For members who began service prior to March 1, 2011, Computation Pay is based on the average of the highest 36 months for service prior to September 1, 2017 and highest 60 months of pay for future service.
- The maximum amount of monthly pension benefit a member may earn is reduced from 96% to 90% of average Computation Pay.
- The automatic 4% simple cost of living adjustment (COLA) is eliminated for members who began service prior to January 1, 2007 and an ad hoc COLA may be granted by the Board for all members when the Combined Pension Plan is 70% funded and other financial benchmarks have been met. Such thresholds are not expected to be met in the foreseeable future.
- The supplemental benefit has been eliminated for members who are not yet age 55 as of September 1, 2017.
- DROP balances will be subject to annuitization over each member's remaining life expectancy, with balances as of September 1, 2017 earning interest based on a U.S. Treasury-based interest rates to be determined by the Board.
- No interest will be earned on future deferrals into DROP effective September 1, 2017.
- Active members may participate in DROP no longer than 10 years effective January 1, 2018.
- Retiree deferrals of monthly benefits into DROP are no longer allowed.
- Lump sum distributions from DROP are allowed only for the following:
  - qualifying unforeseeable emergency requests approved by the Board;
  - avoidance of early retirement distribution tax penalty under Section 72(t) of the Internal Revenue Code;
  - compliance with a court order; or
  - minimum annual distributions allowed under the January 12, 2017 addendum to the DROP Policy. Minimum annual distributions are allowed to continue until the month prior to the initial annuity payments.

One component of HB 3158 which was effective immediately upon the Governor's signing of the Bill on May 31, 2017 calls for Article 1 of the Bill containing the plan amendments to be null and void if any DROP lump sum payments are made prior to September 1, 2017 other than for the above stated purposes.

- Members who began service after February 28, 2011 are now eligible for a "20 and out" early retirement benefit after 20 years of service.

- Members who began service after February 28, 2011 vest at 5 years as opposed to 10 years.

- In 2024, an actuarial analysis shall be conducted by an independent actuary selected by the Texas Pension Review Board (PRB), with the actuary reporting to the Board whether the Combined Pension Plan meets the funding guidelines of the PRB and, if necessary, providing recommendations regarding changes to benefits and/or to member or city contribution rates in order to meet such funding guidelines. The Board shall adopt changes based on the actuary's recommendations to meet the funding and 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 Board will consist of the following:
    - 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 is a nonvoting member of the committee.

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.

- A vote of at least two-thirds of the total Board is required to increase member contributions, decrease city contributions, reduce benefits, or create a new or alternative benefit plan.

- The Board may consider and adopt rules regarding the equitable return of funds paid or credited for the benefit of active members or retirees prior to September 1, 2017 if deemed necessary for funding purposes. Any such rules would require at least a two-thirds vote of the total Board.

DPFP's actuarial firm, Segal Consulting (Segal), conducts the annual actuarial valuation to determine the funding positions of the Plans. Plan changes resulting from the passage of HB 3158 were taken into account in the January 1, 2017 actuarial valuation. Although the effective date of the plan changes is September 1, 2017, contribution and benefit changes required under the Bill will significantly impact the future funding of the Plans and therefore have been reflected in the January 1, 2017 funding analysis. As a result of the changes, the Combined Pension Plan's

funded ratio improved to 49.4% as of January 1, 2017 from 45.1% as of January 1, 2016, while the Supplemental Plan's funded ratio improved to 52.9% as of January 1, 2017 compared to 45.8% as of January 1, 2016. These funded ratios represent unfunded actuarial accrued liabilities of $2.2 billion for the Combined Pension Plan and $15.7 million for the Supplemental Plan as of January 1, 2017, compared to unfunded actuarial accrued liabilities of $3.3 billion for the Combined Pension Plan and $23.0 million for the Supplemental Plan as of January 1, 2016.

In conjunction with the January 1, 2016 actuarial valuation, a comprehensive experience study was performed by Segal as of the same date, reviewing all assumptions incorporated in the actuarial valuations. Adjustments to the demographic and economic assumptions were made based on the results of the experience study. In preparing the valuations, the actuary uses a smoothing process over a selected time period of investment data to remove year-to-year volatility in asset returns. In conjunction with the January 1, 2016 actuarial valuation, the Board elected to modify the actuarial smoothing method by resetting the actuarial value of assets to the December 31, 2015 market value of assets and beginning a five-year smoothing period for future years, as compared to the prior methodology which used a 10-year smoothing period.

This change resulted in a substantial adverse impact to the funding of the Plans. As of January 1, 2016, the Combined Pension Plan's funded ratio declined to 45.1% from 63.8% in the prior year, while the Supplemental Plan's funded ratio decreased to 45.8% compared to 51.2% in the prior year.

The total contribution rate required to pay the normal cost and to amortize the unfunded actuarial accrued liability over a 30-year period is currently 57.0% of Computation Pay compared to 79.0% as of January 1, 2016. The decrease in the required contribution rate is the effect of significant Plan changes resulting from the passage of HB 3158. This contribution rate compares to the City's actual contribution rate of 34.5% of Computation Pay effective September 1, 2017 which is subject to minimum "floor" amounts per the Bill for the next seven years, plus the member contribution of 13.5% as of September 1, 2017, plus an additional $13 million per year from the City for the next seven years. The effective amortization period was adjusted to 30 years in the January 1, 2017 valuation from 40 years used in the January 1, 2016 valuation and is based on Section 802.101(a) of the Texas Government Code.

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 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 discounted rate. 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

	2016			2015		
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	$ 7,095,453	$ 58,339	$ 7,153,792	$ 29,770,531	$ 216,183	$ 29,986,714
Fixed income securities	267,687,478	2,200,932	269,888,410	380,295,552	2,761,573	383,057,125
Equity securities	153,397,855	1,261,240	154,659,095	436,644,700	3,170,760	439,815,460
Real assets	1,119,758,392	9,206,677	1,128,965,069	1,127,163,418	8,185,064	1,135,348,482
Private equity	262,620,347	2,159,270	264,779,617	441,805,815	3,208,239	445,014,054
Alternative investments	133,798,219	1,100,092	134,898,311	392,177,664	2,847,856	395,025,520
Forward currency contracts	(284,449)	(2,339)	(286,788)	(386,037)	(2,803)	(388,840)
Total investments	1,944,073,295	15,984,211	1,960,057,506	2,807,471,643	20,386,872	2,827,858,515
Invested securities lending collateral	21,494,665	176,730	21,671,395	93,566,804	679,449	94,246,253
Receivables						
City	1,288,353	-	1,288,353	633,223	-	633,223
Members	279,043	427	279,470	140,964	207	141,171
Interest and dividends	2,920,613	24,013	2,944,626	5,600,304	40,667	5,640,971
Investment sales proceeds	24,509,363	201,516	24,710,879	51,602,962	374,723	51,977,685
Other receivables	153,268	1,260	154,528	174,099	1,264	175,363
Total receivables	29,150,640	227,216	29,377,856	58,151,552	416,861	58,568,413
Cash and cash equivalents	324,119,633	2,664,919	326,784,552	76,516,721	555,638	77,072,359
Prepaid expenses	456,034	3,750	459,784	199,999	1,452	201,451
Capital assets, net	11,943,266	98,198	12,041,464	12,103,670	87,893	12,191,563
Total assets	**2,331,237,533**	**19,155,024**	**2,350,392,557**	**3,048,010,389**	**22,128,165**	**3,070,138,554**
Liabilities						
Notes payable	128,939,854	1,060,146	130,000,000	233,618,061	1,696,452	235,314,513
Other Payables						
Other securities purchased	24,153,956	198,594	24,352,550	37,071,830	269,203	37,341,033
Securities lending obligations	21,494,665	176,730	21,671,395	93,566,804	679,449	94,246,253
Accounts payable and other accrued liabilities	5,987,255	49,227	6,036,482	3,629,391	26,355	3,655,746
Total liabilities	**180,575,730**	**1,484,697**	**182,060,427**	**367,886,086**	**2,671,459**	**370,557,545**
Net position						
Net investment in capital assets	11,943,266	98,198	12,041,464	12,103,670	87,893	12,191,563
Unrestricted	2,138,718,537	17,572,129	2,156,290,666	2,668,020,633	19,368,813	2,687,389,446
Net position held in trust-restricted for pension benefits	**$ 2,150,661,803**	**$ 17,670,327**	**$ 2,168,332,130**	**$ 2,680,124,303**	**$ 19,456,706**	**$ 2,699,581,009**

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

Combining Statements of Changes in Fiduciary Net Position

	2016			2015		
YEARS ENDED 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
Additions (Reductions)						
Contributions						
City	$ 119,345,000	$ 3,063,584	$ 122,408,584	$ 114,885,723	$ 2,442,790	$ 117,328,513
Members	25,518,317	34,612	25,552,929	25,676,327	43,358	25,719,685
Total contributions	**144,863,317**	**3,098,196**	**147,961,513**	**140,562,050**	**2,486,148**	**143,048,198**
Investment income (loss)						
Net appreciation (depreciation) in fair value of investments	121,518,053	786,478	122,304,531	(298,771,934)	(2,151,252)	(300,923,186)
Interest and dividends	54,354,246	446,902	54,801,148	72,886,522	529,276	73,415,798
Total gross investment income (loss)	175,872,299	1,233,380	177,105,679	(225,885,412)	(1,621,976)	(227,507,388)
Less: Investment expense	(11,683,217)	(96,060)	(11,779,277)	(9,991,984)	(72,558)	(10,064,542)
Net investment income (loss)	164,189,082	1,137,320	165,326,402	(235,877,396)	(1,694,534)	(237,571,930)
Securities lending income						
Securities lending income	656,928	5,401	662,329	746,475	5,421	751,896
Securities lending expense	(258,130)	(2,122)	(260,252)	(206,739)	(1,501)	(208,240)
Net securities lending income	398,798	3,279	402,077	539,736	3,920	543,656
Other income	203,076	1,670	204,746	130,750	949	131,699
Total additions (reductions)	**309,654,273**	**4,240,465**	**313,894,738**	**(94,644,860)**	**796,483**	**(93,848,377)**
Deductions						
Benefits paid to members	821,737,799	5,911,533	827,649,332	283,217,455	2,639,617	285,857,072
Refunds to members	3,354,333	-	3,354,333	1,785,719	-	1,785,719
Interest expense	4,532,196	37,264	4 ,569,460	6,005,609	43,611	6,049,220
Professional and administrative expenses	9,492,445	78,047	9,570,492	8,417,520	61,125	8,478,645
Total deductions	**839,116,773**	**6,026,844**	**845,143,617**	**299,426,303**	**2,744,353**	**302,170,656**
Net decrease in net position	(529,462,500)	(1,786,379)	(531,248,879)	(394,071,163)	(1,947,870)	(396,019,033)
Net position held in trust - restricted for pension benefits						
Beginning of period	2,680,124,303	19,456,706	2,699,581,009	3,074,195,466	21,404,576	3,095,600,042
End of period	$ 2,150,661,803	$ 17,670,327	$ 2,168,332,130	$ 2,680,124,303	$ 19,456,706	$ 2,699,581,009

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 firefighters and police officers (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). The Combined Pension Plan and Supplemental Plan are collectively referred to as the Plans. 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 non-codified City ordinance.

As of December 31, 2016 and 2015, the Combined Pension Plan’s membership consisted of:

	2016	2015
Retirees and beneficiaries	4,456	4,230
Non-active vested members not yet receiving benefits	215	200
Non-active non-vested members not yet refunded	295	126
Total non-active members	**4,966**	**4,556**
Vested active members	3,978	4,235
Non-vested active members	1,126	1,180
Total active members	**5,104**	**5,415**

As of December 31, 2016 and 2015, the Supplemental Plan’s membership consisted of:

	2016	2015
Total non-active members	128	124
Total active members	47	45

The benefit, contribution and administration plan provisions discussed below are as of December 31, 2016. As discussed in Management's Discussion and Analysis (MD&A,), House Bill 3158 (HB 3158, or the Bill) was signed by the Governor on May 31, 2017 and requires extensive contribution, benefit and governance changes which will be effective September 1, 2017.

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, 2016:

- Members with 20 years or more of pension service are entitled to monthly pension benefits beginning at age 50 equal to 50% of their 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. Additionally, a member is eligible to receive 50% of the difference between any annualized City service incentive pay granted to the member less annual longevity pay.

- Members with 20 years or more of pension service are entitled to monthly pension benefits beginning at age 55 equal to 3% of their base pay, computed as noted in the prior paragraph, for each year of pension service with a maximum of 32 years. In addition, a member receives 50% of the longevity pay and 1/24th of any City service incentive pay the member was receiving either at the time he or she left active service with the City or the effective date the member joined DROP. Pension benefit payments are increased annually on October 1 by 4% of the initial benefit amount.

Group B members of the Combined Pension Plan receive one of two benefit structures as of December 31, 2016:

- 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, up to a maximum of 32 years. Certain members who meet the service prerequisite 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 10 years of pension service and the attainment of age 55. Pension benefits are equal to the member's average Computation Pay determined over the highest 60 consecutive months of Computation Pay, multiplied by 2% for the first 20 years of service, 2.5% for the next five years of service, and 3% for years of service in excess of 25 years, and multiplied by the number of years of pension service. The member shall not accrue a monthly pension benefit that exceeds 90% of the member's average Computation Pay.

Computation Pay includes civil service pay for the highest rank attained by competitive exam and any educational incentive, longevity or City service incentive pay. 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. Group B benefits for members hired before January 1, 2007 are increased each October 1 by 4% of the initial benefit amount. Group B benefits for members hired on or after January 1, 2007 are subject to an ad hoc increase as approved by the Board of Trustees, not to exceed 4% of the initial benefit amount.

Additional provisions under the Combined Pension Plan as of December 31, 2016 are as follows

- Members with over 20 years of pension service, upon attaining age 55, shall receive a monthly supplement equal to the greater of $75 or 3% of their total monthly benefits (excluding the benefit supplement amount).

- Service-connected disability benefits are available for members in active service who 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. The benefit is equal to 60% of the average of the highest 36 consecutive months of Computation Pay for members who began membership before March 1, 2011 and 50% of the average of the highest 60 consecutive months of Computation Pay for members hired on or after that date. If a member has more than 20 years of service, 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.

- 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. 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, subject to a multiplier which is dependent upon the number of years of pension service. All non-service-connected disability benefits are subject to a minimum benefit of $110 for every year of pension service. 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 pension account balances. Members who are receiving disability benefits are not eligible to enter the DROP program. The accumulated amount in a member's DROP balance is calculated based on the member's monthly benefit, employee contributions, and an interest component during the period of their participation in DROP. See below, under Contributions, for discussion of required DROP contributions. Upon retirement with DPFP, members are able to request distribution from their DROP balance in accordance with the DROP Policy adopted by the Board. See Note 12 for discussion of amendment to the DROP Policy subsequent to year end which limited members' ability to request distributions. The total DROP account balance for the Combined Pension Plan was $1.05 billion and $1.51 billion at December 31, 2016 and 2015, respectively.

- A minimum benefit is paid to vested retired members of an amount not less than $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 and qualified surviving spouses if qualified surviving children are receiving benefits.

The Supplemental Plan's benefits are designed to supplement Group B benefits for those members holding a rank higher than the highest corresponding 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 shall be 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 the member held as a result of competitive examinations. The formula used to determine the member's Group B benefit shall also be used to determine the member's benefit under the Supplemental Plan so that the same length of time shall be used to determine average Computation Pay for both plans. Application for benefits under the provisions of the Combined Pension Plan shall be deemed to be 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 related to the Supplemental Plan was $8.0 million and $10.9 million at December 31, 2016 and 2015, respectively.

Death benefits are available to a surviving spouse, dependent children, handicapped children, or dependent parents in the event of the death of a member either after disability or service retirement, or prior to retirement.

Members retiring with 20 years of pension service or who are receiving a service-connected disability benefit are eligible to receive a benefit supplement upon reaching age 55. The supplement amount is 3% of the member's monthly benefit, with a minimum of $75 per month.

Contributions

Group B members not in DROP are required to contribute to the Combined Pension Plan 8.5% of their Computation Pay. Beginning October 1, 2011, active members in DROP paid contributions at the rate of 3% of Computation Pay through September 30, 2012, 6% of Computation Pay through October 1, 2013, and 8.5% of Computation Pay through December 31, 2014. Effective January 1, 2015, active members in DROP pay contributions at the rate of 4% of Computation Pay.

Article 6243a-1 of the Revised Civil Statutes of Texas requires the City to make contributions of 27.5% of total wages.

The City is required by ordinance to contribute amounts, as determined by an actuary, necessary to maintain the Supplemental Plan. Members participating in the Supplemental Plan must contribute 8.5% of the excess of their compensation for the rank held over the compensation of the civil service rank held as a result of competitive examinations, unless they are in DROP in which case the Supplemental Plan contribution rate is 4% of the excess of their compensation for the rank held over the compensation of the civil service rank held as a result of competitive examinations.

The contribution schedules contained in Section 4.02(d) of the Combined Pension Plan can be changed only by the Texas State Legislature. The level of contributions made by the City may be changed by 1) a vote of the citizens of the City, 2) the Texas State Legislature, or 3) a change in the member contribution level. The level of contributions made by the members may be changed by 1) a vote of the active members or 2) the Texas State Legislature.

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 termination, 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

The Plans are administered by a twelve-member Board of Trustees consisting of four City Council members appointed by the City Council, three active police officers and three active firefighters who are elected by employees of their respective departments, one pensioner who has retired from the Police Department and one pensioner who has retired from the Fire-Rescue Department who are elected by pensioners from their respective departments. 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.

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, 2016 and 2015 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 Comprehensive Annual Financial Report.

Administrative Costs

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

Federal Income Tax

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

Use of Estimates

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

Cash and Cash Equivalents

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

Plan Interest in the Group Master Trust

Effective January 1, 2006, the Board elected to establish a Group Master Trust (Group Trust) in order to unitize the investments of the Combined Pension Plan and the Supplemental Plan. JPMorgan Chase Bank, N.A. (JPMorgan) served as custodian of the Group Trust for the years ended December 31, 2016 and 2015. 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% and 99.3% at December 31, 2016 and 2015, respectively, 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 investment policy is based upon an asset allocation study that 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 policy as of December 31, 2016:

ASSET CLASS	TARGET ALLOCATION
Equity	**30%**
Global Equity	20%
Emerging Markets Equity	5%
Private Equity	5%
Fixed Income	**33%**
Short-term Core Bonds	2%
Global Bonds	3%
High Yield	5%
Bank Loans	6%
Emerging Markets Debt	6%
Structured Credit and Absolute Return	6%
Private Debt	5%
Global Asset Allocation	**10%**
Risk Parity	5%
Global Tactical Asset Allocation	3%
Absolute Return	2%
Real Assets	**25%**
Liquid Real Assets	3%
Natural Resources	5%
Infrastructure	5%
Real Estate	12%
Cash	**2%**

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. Certain infrastructure investments which were under contract to be sold subsequent to year end are held at the contracted sales price which is deemed representative of market value. 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. Certain real estate investments are managed internally by DPFP staff 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 underlying investment holdings are valued by the investment or fund manager on a continuous basis.

Private equity and alternative investments consist of various investment vehicles including limited partnerships, commingled funds, trusts and notes receivable. Alternative investments, also referred to as the global asset allocation portfolio, consist of risk parity, tactical asset allocation, and absolute return funds. Private equity limited partnership investments and notes receivable are valued as reported by the investment manager. Alternative investment commingled funds are valued using their respective NAV as reported by the fund's custodian or investment manager, as applicable. Private equity funds are valued using their respective NAV as reported by the fund's custodian or investment manager, as applicable, with the exception of certain funds which were either sold subsequent to year end or for which offers had been received. Such private equity funds are valued based on the ultimate sales price or non-binding offers which are deemed to be representative of fair value as of year end, 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, 2016 and 2015 were converted to the US dollar at the applicable foreign exchange rates quoted as of December 31, 2016 and 2015, 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

On January 1, 2016, DPFP adopted GASB Statement No. 72, *Fair Value Measurement and Application* (GASB No. 72). This statement provides guidance for determining a fair value measurement for financial reporting purposes as well as guidance for applying fair value to certain investments and disclosures related to all fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer

a liability in an orderly transaction between market participants at the measurement date. GASB No. 72 requires that DPFP use valuation techniques consistent with one or more of three approaches: market approach, cost approach, or income approach.

GASB No. 72 also measures fair value with a hierarchy of inputs in three levels. Level 1 inputs are quoted prices in active markets for identical assets or liabilities. Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs, and typically reflect estimates of assumptions that market participants would use in pricing the asset or liability. See Note 4 for disclosure of valuation techniques and inputs for hierarchy of fair value.

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, 2016 and 2015 is as follows:

	2016	2015
Short-term investments		
Short-term investment funds	$ 7,154	$ 29,987
Fixed income securities		
US Treasury bonds	6,854	27,822
US government agencies	-	3,448
Corporate bonds	88,307	162,016
Foreign-denominated bonds	28,896	62,906
Commingled funds	144,924	125,442
Municipal bonds	907	1,423
Equity securities		
Domestic	80,190	274,997
Foreign	74,469	164,819
Real assets		
Real estate	589,364	651,937
Infrastructure	273,533	197,552
Timberland	95,734	123,593
Farmland	170,334	162,267
Private equity	264,780	445,014
Alternative investments	134,898	395,026
Forward currency contracts	(287)	(389)
Total	**$ 1,960,057**	**$ 2,827,860**

Custodial Credit Risk

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 counter-party, 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 counter-party or the counter-party'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, 2015 and 2014, all investment securities held by the custodian were registered in the name of DPFP and are held by JPMorgan in the name of DPFP.

DPFP considers only demands on deposit as cash. As of December 31, 2016 and 2015, DPFP had a balance of $3.9 million and $3.4 million, respectively, on deposit at two financial institutions. The Federal Depository Insurance Corporation (FDIC) covers cash on deposit up to $250 thousand at each financial institution. Therefore, as of December 31, 2016 and 2015, $3.4 million and $2.9 million, respectively, of DPFP's cash balance was exposed to custodial credit risk. At December 31, 2016 and 2015, DPFP did not have any other investments with other financial institutions subject to custodial credit risk.

DPFP does not have a formal policy for custodial credit risk; however, management believes that custodial credit risk exposure is mitigated by the financial strength of the financial institutions in which the deposits and 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, 2016, 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, 2016, 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	$ -	$ 1,760	$ -	$ 5,094	$ 6,854
Corporate bonds	7,803	35,121	18,924	26,459	88,307
Municipal bonds	-	-	-	907	907
Foreign-denominated bonds	2,758	8,689	4,908	12,541	28,896
Total	**$ 10,561**	**$ 45,570**	**$ 23,832**	**$ 45,001**	**$ 124,964**

At December 31, 2015, the Group Trust had the following fixed income securities and maturities:

INVESTMENT TYPE	LESS THAN 1 YEAR	1 TO 5 YEARS	6 TO 10 YEARS	MORE THAN 10 YEARS	TOTAL
US Treasury bonds	$ -	$ 12,455	$ 433	$ 14,934	$ 27,822
US government agencies	-	-	-	3,448	3,448
Corporate bonds	3,110	62,317	56,841	39,748	162,016
Municipal bonds	-	-	-	1,423	1,423
Foreign-denominated bonds	2,883	13,537	22,756	23,730	62,906
Total	**$ 5,993**	**$ 88,309**	**$ 80,030**	**$ 83,283**	**$ 257,615**

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 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, 2016 is as follows (in thousands):

CURRENCY	FIXED INCOME	EQUITY	REAL ASSETS	TOTAL
Australian Dollar	$ 3,296	$ 1,665	$ 8,337	$ 13,298
Brazilian Real	2,900	-	11,428	14,328
British Pound Sterling	4,322	7,930	15,842	28,094
Canadian Dollar	-	1,970	-	1,970
Danish Krone	-	1,363	-	1,363
Euro	923	24,991	-	25,914
Hong Kong Dollar	-	5,582	-	5,582
Indonesian Rupiah	2,472	-	-	2,472
Japanese Yen	-	18,083	-	18,083
Malaysian Ringgit	2,137	-	-	2,137
Mexican Peso	8,408	-	-	8,408
New Zealand Dollar	1,228	-	-	1,228
Singaporean Dollar	-	144	-	144
South African Rand	3,210	-	33,115	36,325
Swedish Krona	-	2,302	-	2,302
Swiss Franc	-	10,439	-	10,439
Total	**$ 28,896**	**$ 74,469**	**$ 68,722**	**$ 172,087**

The Group Trust's exposure to foreign currency risk in US dollars as of December 31, 2015 was as follows (in thousands):

CURRENCY	FIXED INCOME	EQUITY	REAL ASSETS	TOTAL
Australian Dollar	$ 4,943	$ 5,977	$ 7,382	$ 18,302
Brazilian Real	3,602	170	8,818	12,590
British Pound Sterling	3,631	22,015	12,207	37,853
Canadian Dollar	923	4,577	-	5,500
Danish Krone	-	3,173	-	3,173
Euro	9,007	50,024	-	59,031
Hong Kong Dollar	-	8,886	-	8,886
Hungarian Forint	1,129	-	-	1,129
Indonesian Rupiah	3,186	-	-	3,186
Israeli Shekel	-	145	-	145
Japanese Yen	4,916	38,677	-	43,593
Malaysian Ringgit	3,132	-	-	3,132
Mexican Peso	15,947	104	-	16,051
New Zealand Dollar	6,191	-	-	6,191
Norwegian Krone	-	291	-	291
Philippine Peso	-	298	-	298
Polish Zloty	4,054	-	-	4,054
Singaporean Dollar	788	2,602	-	3,390
South Korean Won	-	324	-	324
South African Rand	1,457	-	26,170	27,627
Swedish Krona	-	7,635	-	7,635
Swiss Franc	-	19,900	-	19,900
Thailand Baht	-	21	-	21
Uruguay Peso	-	-	14,637	14,637
Total	**$ 62,906**	**$ 164,819**	**$ 69,214**	**$ 296,939**

In addition to the above exposures, certain fund-structure investments in the private equity, emerging markets debt, global asset allocation and real assets asset classes with a total fair value of $277.6 million and $649.9 million at December 31, 2016 and 2015, respectively, 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, 2016 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, 2016 and 2015 using the Standard & Poor's rating scale, at fair value, is as follows:

DECEMBER 31, 2016

RATING	CORPORATE BONDS	MUNICIPAL BONDS	FOREIGN-DENOMINATED BONDS	COMMINGLED FUNDS	SHORT-TERM INVESTMENT FUNDS[1]	US GOVERNMENT SECURITIES	TOTAL
AAA	$ 3,288	$ -	$ 1,565	$ -	$ -	$ 6,854	$ 11,707
AA+	6,888	-	7,282	-	-	-	14,170
AA	1,244	-	-	-	-	-	1,244
AA-	3,259	-	-	-	-	-	3,259
A+	2,063	-	-	-	-	-	2,063
A	2,513	907	-	-	-	-	3,420
A-	1,948	-	8,407	-	-	-	10,355
BBB+	657	-	-	-	-	-	657
BBB	1,111	-	3,210	-	-	-	4,321
BBB-	822	-	2,472	-	-	-	3,294
BB+	695	-	-	-	-	-	695
BB	5,393	-	2,900	-	-	-	8,293
BB-	8,528	-	-	-	-	-	8,528
B+	5,180	-	-	-	-	-	5,180
B	3,287	-	-	-	-	-	3,287
B-	8,295	-	448	-	-	-	8,743
CCC+	4,916	-	-	-	-	-	4,916
CCC	6,536	-	-	-	-	-	6,536
CCC-	1,944	-	475	-	-	-	2,419
CC	5,655	-	-	-	-	-	5,655
C	7,337	-	-	-	-	-	7,337
D	160	-	-	-	-	-	160
NR[2]	6,588	-	2,136	144,924	330,768	-	484,416
Total	**$ 88,307**	**$ 907**	**$ 28,895**	**$ 144,924**	**$ 330,768**	**$ 6,854**	**$ 600,655**

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

DECEMBER 31, 2015

RATING		CORPORATE BONDS		MUNICIPAL BONDS		REIGN-DENOMINATED BONDS		COMMINGLED FUNDS		SHORT-TERM INVESTMENT FUNDS[1]		US GOVERNMENT SECURITIES		TOTAL
AAA	$	6,036	$	521	$	2,725	$	84	$	-	$	3,448	$	12,814
AA+		5,333		-		12,286		737		-		-		18,356
AA		1,630		-		135		1,024		-		-		2,789
AA-		3,918		-		352		683		-		-		4,953
A+		2,406		-		4,372		523		-		-		7,301
A		3,470		902		4,054		8,986		-		-		17,412
A-		3,362		-		16,400		34		-		-		19,796
BBB+		2,558		-		-		-		-		-		2,558
BBB		3,236		-		7,612		23,777		-		-		34,625
BBB-		4,541		-		3,186		-		-		-		7,727
BB+		8,576		-		149		-		-		-		8,725
BB		9,730		-		4,583		17,270		-		-		31,583
BB-		14,843		-		-		210		-		-		15,053
B+		18,698		-		-		-		-		-		18,698
B		10,094		-		-		37,947		-		-		48,041
B-		7,985		-		807		-		-		-		8,792
CCC+		5,813		-		-		-		-		-		5,813
CCC		16,444		-		-		13,998		-		-		30,442
CCC-		3,175		-		470		-		-		-		3,645
CC		11,629		-		-		-		-		-		11,629
C		10,952		-		-		-		-		-		10,952
D		247		-		-		-		-		-		247
NR[2]		7,340		-		5,775		20,169		104,706		-		137,990
NA[3]		-		-		-		-		-		27,822		27,822
Total	**$**	**162,016**	**$**	**1,423**	**$**	**62,906**	**$**	**125,442**	**$**	**104,706**	**$**	**31,270**	**$**	**487,763**

(1) Includes short-term money market funds classified as cash equivalents.
(2) NR represents those securities that are not rated.
(3) NA represents US government securities that are explicitly guaranteed by the US government and are not considered to have credit risk.

Securities Lending

The Board has 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.

The Board did not impose any restrictions during 2016 or 2015 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 2016 or 2015. Moreover, there were no losses during 2016 or 2015 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 2016 and 2015, 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 market value for securities on loan for the Group Trust was $26.1 million and $103.0 million at December 31, 2016 and 2015, respectively. Cash collateral held for the Group Trust was $21.7 million and $94.2 million at December 31, 2016 and 2015, respectively. Non-cash collateral held for the Group Trust was $5.2 million and $12.3 million at December 31, 2016 and 2015, 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 $402 thousand and $544 thousand during 2016 and 2015, respectively.

Forward Contracts

During fiscal years 2016 and 2015, certain investment managers, on behalf of the Group Trust, entered into forward foreign exchange contracts as permitted by guidelines established by the Board. DPFP's staff monitors guidelines and compliance. 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, 2016 and 2015, 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, 2016

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	$ (102)	$ (287)	$ 2,202

DECEMBER 31, 2015

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	$ (380)	$ (389)	$ 4,922

4. Fair Value Measurement

GASB 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 pries 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, 2016, at fair value (in thousands):

	FAIR VALUE DECEMBER 31, 2016	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	$ 7,154	$ 7,154	$ -	$ -
Fixed income securities				
US Treasury bonds	6,854	-	6,854	-
Corporate bonds	88,307	-	88,307	-
Foreign-denominated bonds	28,895	-	28,895	-
Commingled funds	41,893	-	35,677	6,216
Municipal bonds	907	-	907	-
Equity securities				
Domestic	80,190	80,190	-	-
Foreign	74,469	74,469	-	-
Real assets				
Real estate [1]	444,609	-	66,483	378,126
Infrastructure	179,100	-	-	179,100
Timberland	43,536	-	-	43,536
Farmland	170,334	-	-	70,334
Private equity	149,822	-	40,023	109,799
Alternative investments	927	-	927	-
Forward currency contracts	(287)	-	(287)	-
Total Investments by Fair Value Level	**$ 1,316,710**	**$ 161,813**	**$ 267,786**	**$ 787,111**

Investments Measured at NAV	
Fixed income - commingled funds	$103,032
Real assets [(1)]	291,386
Private equity	114,958
Alternative investments	133,971
Total Investments Measured at NAV	**$ 643,347**

Total Investments Measured at Fair Value	**$ 1,960,057**

(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 assets 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. Commingled funds classified as Level 3 involve internal evaluation of collectability and therefore involve unobservable inputs.

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.

Private equity and 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 non-binding offers from potential buyers to purchase the investments. Real estate 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. Real estate and private equity holdings classified as Level 2 are investments which were sold subsequent to year end for which fair value is based on sales price.

Alternative investments in Level 2 relate to residual cash proceeds on sales of assets which were settled subsequent to year end.

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, 2016 (in thousands):

ASSET CATEGORY/CLASS	FAIR VALUE	UNFUNDED COMMITMENTS
Commingled funds	$ 103,032	$ 4,626
Real assets	291,386	249,688
Private equity	114,958	4,892
Alternative investments	133,971	-
Total	**$ 643,347**	**$ 259,206**

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

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 either 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.

Alternative investments include funds that hold securities for the specific strategy of focusing on management of total risk and on generation of returns independent of broad market movements. These investments are reported at NAV as they are fund or trust-structure investments.

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, 2016 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, 2016 and 2015 are as follows (in thousands):

Combined Pension Plan

	2016	2015
Total pension liability	$ 8,450,281	$ 9,536,840
Less: Plan fiduciary net position	(2,150,662)	(2,680,124)
Net pension liability	$ 6,299,619	$ 6,856,716

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2016 and 2015 is 25.4% and 28.1%, respectively.

Supplemental Plan

	2016	2015
Total pension liability	$ 40,647	$ 43,389
Less: Plan fiduciary net position	(17,670)	(19,457)
Net pension liability	$ 22,977	$ 23,932

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2016 and 2015 is 43.5% and 44.8%, respectively.

Actuarial Assumptions as of December 31, 2016

The total pension liability was determined by an actuarial valuation as of January 1, 2017, using the below significant assumptions, applied to all periods included in the measurement. All assumptions are based on an actuarial experience review covering the period January 1, 2010 to December 31, 2014, and based on assumption changes included in the January 1, 2017 valuation that are not related to September 1, 2017 plan changes. Plan changes which will be effective September 1, 2017 as a result of the passage of HB 3158 have not been reflected in the below assumptions as the net pension liability is based on the plan provisions which are in effect on December 31 2016. Had the September 1, 2017 plan changes been included, the December 31, 2016 net pension liability for the Combined Pension Plan and Supplemental Plan would be approximately $4.1 billion and $16.2 million respectively.

Investment rate of return	7.25% per annum, compounded annually, net of investment expenses. This rate is based on an average inflation rate of 2.75% and a real rate of return of 4.50%.
Administrative expenses	Explicit assumption of $10 million per year for the Combined Pension Plan and $60 thousand per year for the Supplemental Plan, increasing 2.75% annually. Includes investment-related personnel costs.
Projected salary increases	2017: 10% if less than 10 years; 7% if 10-11 years; 2% if more than 11 years 2018: 5% if less than 10 years; 2% if more than 10 years 2019: 10% if less than 10 years; 7% if 10-11 years; 2% if more than 11 years 2020 and later: Range of 3.00% to 5.20% per year, inclusive of 2.75% inflation assumption, dependent upon years of service, with separate tables for police officers and firefighters 2017-2019 are based on the 2016 Meet and Confer Agreement. Remaining scale is based on the City's pay plan, along with analysis completed in conjunction with the most recent experience study.
Payroll growth	2.75% 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	4% of original pension, annually

Asset valuation method	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 Plan – Market value of assets
Amortization method	Level percent-of-day
Remaining amortization period	Combined Pension Plan - 30 years; Supplemental Pension Plan – 10 years
DROP interest, compounded annually, net of expenses	At October 1, 2016 – 6.0% At October 1, 2017 – 5.0% At October 1, 2018 and thereafter - 0.0%
Retirement age	Experience-based table of rates based on age, extending to age 67, with separate tables for police officers and firefighters
Pre-retirement mortality	RP-2014 sex-distinct Employee Mortality Table, with a two-year setback for males and no adjustments for females; projected generationally using the MP-2015 improvement scale
Post-retirement mortality	RP-2014 sex-distinct Blue Collar Healthy Annuitant Mortality Table, with no adjustment for males and a two-year set forward for females; projected generationally using the MP-2015 improvement scale
Disabled mortality	RP-2014 sex-distinct Disabled Retiree Mortality Table, with a three-year setback for both males and females; projected generationally using the MP-2015 improvement scale
DROP election	100% assumed to elect DROP at first eligibility for unreduced benefits. Any active members who satisfy these criteria and have not entered DROP are assumed to never join DROP. Members who retired prior to January 1, 2015 are assumed to receive their DROP payments over a 10-year period from January 1, 2015. All retirees after January 1, 2015 are assumed to receive their DROP payments over a 10-year period from their retirement date.

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, 2016 are summarized as shown below. The rates of return below are net of the inflation component of 2.0%.

ASSET CLASS	LONG-TERM EXPECTED REAL RATE OF RETURN	TARGET ASSET ALLOCATION
Global Equity	6.87%	20%
Emerging Markets Equity	9.42%	5%
Private Equity	10.47%	5%
Short-term Core Bonds	1.35%	2%
Global Bonds	1.38%	3%
High Yield	4.09%	5%
Bank Loans	4.09%	6%
Emerging Markets Debt	4.71%	6%
Structured Credit and Absolute Return	5.67%	6%
Private Debt	7.69%	5%
Global Asset Allocation	4.90%	10%
Liquid Real Assets	4.43%	3%
Natural Resources	7.63%	5%
Infrastructure	6.25%	5%
Real Estate	5.00%	12%
Cash	1.06%	2%

Discount rate

The discount rate used to measure the total pension liability for the Combined Pension Plan was 4.12%. The projection of cash flows used to determine this discount rate assumes that member and employer contributions will be made at the contribution rates outlined in Note 1 without the impact of any changes from the passage of HB 3158. Total covered employee payroll is assumed to grow at 2.75% per year. The normal cost rate for future members is assumed to be 11.85% for all years. In order to develop the blended GASB No. 67 discount rate of 4.12%, the actuarial assumed rate of return of 7.25% was used for the first twelve years of payments, and a municipal bond rate of 3.78% was used thereafter. The 3.78% municipal bond rate is based on the Bond Buyer 20-Bond General Obligation Index as of December 31, 2016 (published weekly by the Federal Reserve System). For the December 31, 2015 measurement date, the blended discount rate used to measure total pension liability was 3.95%. The increase in the discount rate resulted in a decrease in the total pension liability of approximately $222 million.

The discount rate used to measure the total pension liability for the Supplemental Plan was 7.10%. The projection of cash flows used to determine this discount rate assumes that member and employer contributions will be made at the contribution rates outlined in Note 1 without the impact of any changes from the passage of HB 3158.

The funding policy of the Supplemental Plan is to contribute the normal cost not covered by member contributions, as well as an amount that will amortize the unfunded accrued actuarial liability over 10 years. The period is open, and the amortization payment is recalculated annually on a level percent basis over 10 years, with payments assumed to increase by 2.75% annually. Since City contributions on behalf of new members will offset the normal cost of new members, it is assumed that there are no new entrants to the plan. In order to develop the blended GASB No. 67 discount rate of 7.10%, the actuarial assumed rate of return of 7.25% was used during the period that the plan was projected to have a fiduciary net position, and a municipal bond rate of 3.78% was used thereafter. The 3.78% municipal bond rate is based on the Bond Buyer 20-Bond General Obligation Index as of December 31, 2016 (published weekly by the Federal Reserve System). For the December 31, 2015 measurement date, the blended discount rate used was 7.19%. The decrease in the discount rate resulted in an increase in the total pension liability of approximately $332 thousand.

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 rates, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate (dollars in thousands).

DECEMBER 31, 2016

Combined Pension Plan

	1% DECREASE (3.12%)	CURRENT DISCOUNT RATE (4.12%)	1% INCREASE (5.12%)
Net pension liability	$ 7,746,688	$ 6,299,619	$ 5,159,478

Supplemental Plan

	1% DECREASE (6.10%)	CURRENT DISCOUNT RATE (7.10%)	1% INCREASE (8.10%)
Net pension liability	$ 27,039	$ 22,977	$ 19,552

DECEMBER 31, 2015

Combined Pension Plan

	1% DECREASE (2.95%)	CURRENT DISCOUNT RATE (3.95%)	1% INCREASE (4.95%)
Net pension liability	$ 8,471,987	$ 6,856,716	$ 5,581,404

Supplemental Plan

	1% DECREASE (6.19%)	CURRENT DISCOUNT RATE (7.19%)	1% INCREASE (8.19%)
Net pension liability	$ 28,199	$ 23,932	$ 20,318

6. Deferred Retirement Option Plan

The following tables reflect the change in DROP balances and number of participants during the year ended December 31, 2016:

Combined Pension Plan

	DROP ACCOUNT BALANCE (000'S)		DROP PARTICIPANTS
Balance at December 31, 2015	$ 1,505,721	Participants at December 31, 2015	3,423
Accumulations	181,467	Entrants	240
Distributions	(634,037)	Withdrawals	(685)
Balance at December 31, 2016	**$ 1,053,151**	**Participants at December 31, 2016**	**2,978**

Supplemental Plan

	DROP ACCOUNT BALANCE (000'S)		DROP PARTICIPANTS
Balance at December 31, 2015	$ 10,894	Participants at December 31, 2015	79
Accumulations	1,078	Entrants	-
Distributions	(3,956)	Withdrawals	(9)
Balance at December 31, 2016	**$ 8,016**	**Participants at December 31, 2016**	**70**

See discussion of requirements for entry into DROP and DROP contributions in Note 1.

To address concerns regarding the growing balance of the DROP liability, plan amendments were proposed by the Board and voted on by the members in late 2014. The Board approved the implementation of the plan amendments in April 2015 to be effective January 1, 2015. The plan amendments included the following significant changes:

- The DROP interest rate was reduced to 7% effective October 1, 2015, and reduced to 6% effective October 1, 2016.
- The contribution rate for members participating in DROP was reduced from 8.5% to 4.0% the first pay period ending after December 31, 2014.
- DROP members and surviving spouse beneficiaries, upon attaining age 70½, are required to take a distribution from DROP each year until the DROP balance is paid out, spread over a period of less than 10 years.

See Note 10 for discussion of the status of litigation related to the 2014 plan amendments.

With the passage of HB 3158, September 1, 2017 DROP balances for existing pensioners will be annuitized over their remaining life expectancy. Upon retirement, new pensioners' DROP balances will be annuitized over their remaining life expectancy. Active members will no longer receive any interest on future deferrals into DROP effective September 1, 2017 and will be limited to participating in DROP as an active member for 10 years. Retirees will no longer be able to defer their monthly pension benefit. DROP balances as of September 1, 2017 will receive an interest credit based on a US Treasury rate which corresponds to the period over which the member's DROP balance will be annuitized. In addition, the contribution rate for active DROP participants will be raised from 4.0% to 13.5% effective September 1, 2017.

7. Notes Payable

As of December 31, 2015, DPFP had a credit agreement with Bank of America, N.A. (BoA) which provided for 1) a maximum borrowing of $200 million, bearing interest per annum at either the LIBOR daily floating rate or one month LIBOR, plus 75 basis points, payable quarterly, maturing March 31, 2017 and 2) a term loan with an initial borrowing of $200 million bearing interest at a fixed rate of 2.58% maturing March 31, 2019, with required quarterly principal payments of $10 million. The line of credit included a quarterly fee which ranged from 55 to 70 and 45 to 55 basis points, annualized, during 2016 and 2015, respectively, on the unused portion of the line of credit. In November 2016, the maximum borrowing on the line of credit was reduced to $40 million and the unused fee was eliminated. The line of credit agreement contains various covenants under which the bank may call the line of credit if DPFP is in violation of any restrictive covenants. The LIBOR margin is subject to liquidity ratio covenants which allow for increases in the rate if covenants are not met.

As of December 31, 2015, the line of credit was in technical default due to the fact that the January 1, 2015 actuarial valuation report concluded that the Plans' fiduciary net position was not projected to be available to make all projected future payments to current plan members. On July 13, 2016, BoA waived the default and the loan agreement was amended to remove the financial covenant related to the actuarial projection of DPFP's ability to make all projected future payments.

As of December 31, 2016, the line of credit was in technical default due to the fact that the surplus liquidity ratio covenant was not met for the quarter ended September 30, 2016. Non-compliance with the liquidity covenant stemmed from significant withdrawals of DROP balances by members beginning in the third quarter of 2016. On March 28, 2017, BoA waived the default and the loan agreement was amended as follows:

- Maturity on the line of credit extended to June 30, 2017;
- Interest rate of 30-day floating LIBOR plus 85 basis points;
- Term loan rate of 2.58% is reduced upon certain thresholds of pay down of the term loan;
- Maturity of term loan adjusted to a payment schedule with a maturity date of March 30, 2018;
- Unused fee on line of credit removed;
- Mandatory prepayment of term loan if certain capital commitments related to real assets are called; and
- Liquidity requirements adjusted.

At December 31, 2016, DPFP had borrowed $40,000,000 and $90,000,000 on the revolving line of credit and the term loan, respectively. At December 31, 2015, DPFP had borrowed $103,451,513 and $130,000,000 on the revolving line of credit and the term loan, respectively. As of the report date, DPFP is in compliance with all debt covenants. See Note 12 for discussion of principal payments made subsequent to year end.

DPFP had a loan agreement with BoA secured by real property which was due to mature on March 31, 2016 and bore interest at a fixed rate of 1.46%, payable quarterly. At December 31, 2015 the loan balance outstanding was $1,863,000. On March 31, 2016, upon maturity, the outstanding balance of the loan was paid in full.

Principal payments due on the BoA line of credit and term loan as of December 31, 2016 were as follows (in thousands):

YEAR ENDING DECEMBER 31,	
2017	$ 80,000
2018	40,000
2019	10,000
Total	**$ 130,000**

See Note 12 for changes to the stated maturity on the BoA debt resulting from the March 2017 amendment, as well as principal payments made subsequent to year end.

8. Deferred Compensation Plan

DPFP offers its employees a money purchase pension 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 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 2016 and 2015, DPFP contributed approximately $354 thousand and $403 thousand, respectively, and participants contributed approximately $192 thousand and $212 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.

9. Capital Assets

As of December 31, 2014, the DPFP office building and land were transferred to DPFP from a limited liability investment wholly owned by DPFP and were therefore reclassified from an investment asset to a capital asset. As donated capital assets, the DPFP office building and land are recorded at acquisition value as of December 31, 2014. Purchased capital assets which include building improvements, are recorded at historical cost. Depreciation is charged over the estimated useful lives of the assets using a straight-line method. Depreciation expense of $212 thousand and $208 thousand is included in professional and administrative expenses in the accompanying financial statements for the years ended December 31, 2016 and 2015, respectively. 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 (dollars in thousands):

ASSET CLASS	CAPITALIZATION THRESHOLD	DEPRECIABLE LIFE
Building	$ 50	50 years
Building improvements	$ 50	15 years

Capital asset balances and changes for the fiscal years ending December 31, 2016 and 2015 are as follows (in thousands):

ASSET CLASS	BALANCE DECEMBER 31, 2014	INCREASES	DECREASES	BALANCE DECEMBER 31, 2015	INCREASES	DECREASES	BALANCE DECEMBER 31, 2016
Land	$ 3,321	$ -	$ -	$ 3,321	$ -	$ -	$ 3,321
Building	8,804	-	176	8,628	-	176	8,452
Building improvements	275	-	32	243	61	35	269
Total	**$ 12,400**	**$ -**	**$ 208**	**$ 12,192**	**$ 61**	**$ 212**	**$ 12,041**

10. 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. Members who began service before March 1, 2011 who terminate employment with the City with less than five years of pension service are entitled to a refund of their accumulated employee contributions, without interest, as they vest at five years. Members who began service after February 28, 2011 are entitled to a refund, without interest, if they terminate with less than ten years of pension service as they vest at ten years. As of December 31, 2016 and 2015, aggregate contributions from non-vested members for the Combined Pension Plan were $4.2 million and $4.4 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 $537 thousand and $415 thousand were included in accounts payable and other accrued liabilities of the Combined Pension Plan as of December 31, 2016 and 2015, respectively. As of December 31, 2016 and 2015, there were no aggregate contributions from active non-vested members of the Supplemental Plan.

At December 31, 2016 and 2015, the total accumulated DROP balance was approximately $1.05 billion and $1.51 billion, respectively, for the Combined Pension Plan and approximately $8.0 million and $10.9 million, respectively, 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, 2016, by asset class (in thousands).

ASSET CLASS	TOTAL COMMITMENT	TOTAL UNFUNDED COMMITMENT
Real assets	$ 737,583	$ 271,895
Private equity	943,967	68,545
Fixed income	205,000	23,087
Total	**$ 1,886,550**	**$ 363,527**

Included in the real assets unfunded commitment is $211.1 million related to a capital commitment to a real estate joint venture which would be required to be funded if the joint venture were unable to meet its debt obligations, or if DPFP's net plan position were to drop below $1.75 billion. Subsequent to year end, $56.4 million of capital was funded by DPFP as the joint venture was unable to meet the terms of its debt maturity. The remaining commitment was reduced to $100 million in conjunction with an amendment of the terms of the related debt which has an extended maturity of December 31, 2017.

Related to an infrastructure investment, as of December 31, 2015, DPFP held an irrevocable standby letter of credit of up to $25.2 million to secure performance obligations of DPFP as it related to the infrastructure investment commitments. No amounts were drawn on the standby letter of credit as of December 31, 2015. In June 2016, the standby letter of credit was terminated in conjunction with the sale of the related infrastructure investment.

As of December 31, 2015, related to a lease agreement entered into by a real estate partnership, DPFP was committed as guarantor on annual lease payments of approximately $4.4 million. Such guarantee was a contingent liability and is therefore not recorded in the accompanying financial statements. The guaranty was released in 2016 with no obligation to DPFP.

Legal

DPFP is 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. The Texas Supreme Court has not yet determined whether it will hear the appeal. While the ultimate outcome cannot be anticipated at this time, DPFP will continue to vigorously defend this lawsuit. No amounts related to these claims have been accrued in the accompanying financial statements as of December 31, 2016 and 2015.

Lawsuits filed in 2016 are pending in state and federal court related to distributions from DROP balances. The state court proceeding was initially brought by Mike Rawlings, Mayor of Dallas, in his individual capacity. Several parties subsequently intervened, including four trustees of the Board who are City of Dallas councilmembers. Mr. Rawlings subsequently withdrew from the lawsuit. The plaintiffs seek various types of relief, including a request for a receivership and the prevention of any further amounts from being distributed from DROP balances to members. The federal court proceeding brought by a group of retirees seeks to require the Board to distribute lump sum payments from DROP upon the retirees' request. DPFP will continue to vigorously defend these lawsuits. The ultimate outcome of these lawsuits 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, 2016.

11. 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.

Several lawsuits are pending against the City by police officers and firefighters, which claim the right to significant back pay on behalf of many current and former City of Dallas police officers and firefighters. If these lawsuits are successful, they will likely result in material past due pension claims on behalf of many retired pensioners and large increases in the actuarial accrued liabilities of current members of DPFP as pension liabilities are generally a percentage of the pay of the police officers and firefighters. However, with the passage of HB 3158 by the Texas Legislature in 2017, the likelihood that any additional benefits will be due to members on back pay has been significantly limited. DPFP has intervened in such lawsuits to protect DPFP's right to member and City contributions if they were to become due upon a successful outcome of the police officers' and firefighters' claims. The ultimate outcome of these lawsuits 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, 2016 and 2015.

12. Subsequent Events

Legislation

On May 31, 2017, Governor Abbott signed into law HB 3158 which requires extensive contribution, benefit and governance changes to the Plans. The provisions of HB 3158 are effective September 1, 2017 and are projected to result in long-term solvency of the Combined Pension Plan through increased contributions and decreases in many benefit components as detailed in MD&A, and extensive changes to DROP which include the limitation of time for participation in DROP and annuitization of DROP balances as discussed in Note 6 and detailed in MD&A. One component of HB 3158 was effective immediately upon the Governor's approval calls for Article 1 of the Bill containing the plan provisions to be null and void if any DROP lump sum payments are made prior to September 1, 2017 other than for specific, limited purposes named in the Bill as discussed in MD&A.

DROP Policy

On January 12, 2017, the Board approved an addendum to the DROP Policy which allows for members to request only limited distributions from their DROP balance of $3,000 per month. Distributions under the amended policy began in March 2017 and will continue through the month prior to the first month of DROP annuity payments made under HB 3158. The addendum also allows for distributions from DROP balances for qualifying unforeseeable emergencies.

Notes Payable

As a result of the March 2017 amendment of the BoA debt described in Note 7, the scheduled maturity of principal payments due on the line of credit and term loan were as follows (in thousands):

YEAR ENDING DECEMBER 31,	
2017	$ 110,000
2018	20,000
Total	**$ 130,000**

Subsequent to the March 2017 amendment, the line of credit and term loan were paid in full.

Investment Sales

As part of a private asset secondary sales process initiated in the fourth quarter of 2016, assets across the private equity, private debt and real estate portfolios were sold subsequent to year end for approximately $117 million, resulting in net proceeds of approximately $113 million and reducing unfunded commitments by approximately $54 million. These assets were carried at a fair value based on the sale price as of December 31, 2016.

Management has evaluated subsequent events through July 25, 2017, 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 Three Fiscal Years (Dollars in Thousands)

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 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 employee payroll	$ 357,414	$ 365,210	$ 383,006
Net pension liability as a percentage of covered employee payroll	1,762.6%	1,877.5%	1,298.9%

(Continued)

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	1,106	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	(2,741)	677	(607)
Total pension liability - beginning	43,389	42,712	43,319
Total pension liability - ending (a)	**$ 40,648**	**$ 43,389**	**$ 42,712**

Plan fiduciary net position			
Employer contributions	$ 3,064	$ 2,443	$ 1,817
Employee contributions	35	43	49
Net investment 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)	$ 22,978	$ 23,932	$ 21,307
Plan fiduciary net position as a percentage of total pension liability	43.5%	44.8%	50.1%
Covered employee payroll	$ 525	$ 725	$ 557
Net pension liability as a percentage of covered employee payroll	4,376.2%	3,303.3%	3,827.3%

Notes to Schedule:

Changes of benefit terms:

As of December 31, 2016 and 2015 - None

As of December 31, 2014

The Board approved implementation of 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:

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.

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, 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 as discussed in Note 5.
- 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 is intended to show information for 10 years. Additional years will be presented as they become available.

Schedule of Employer Contributions – Combined Pension Plan
(Dollars in Thousands)

MEASUREMENT YEAR ENDING DECEMBER 31,	ACTUARIALLY DETERMINED CONTRIBUTION	ACTUAL CONTRIBUTION	CONTRIBUTION DEFICIENCY (EXCESS)	COVERED PAYROLL	ACTUAL CONTRIBUTION AS A % OF COVERED PAYROLL
2016	$ 261,859	$ 119,345	$ 142,514	$ 365,210	32.7%

Notes to Schedule:
The City's contibution rate is set by State statute rather than based on an actuarially determined contribution. The contribution deficiency represents the amount by which the actuarially determined contribution exceeds the statutory rate.

Prior to January 1, 2016, the actuarially determined contribution was not determined by the actuary.

Methods and assumptions used to determine the actuarially determined contribution as of January 1, 2016 were as follows:

Actuarial cost method	Entry age normal cost method
Amortization method	30-year level percent-of-pay
Remaining amortization period	Infinite as of January 1, 2016
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
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, ranging from 0.25% to 2.45%
Post-retirement benefit increases	4.00%
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 Blue Collar Healthy Annuitant Mortality Table, set forward two years for female, 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	At October 1, 2015 – 7.0% At October 1, 2016 – 6.0% At October 1, 2017 and thereafter – 5.0%
DROP election	100% assumed to elect DROP at first eligibility. Any active members who satisfy these criteria and have not entered DROP are assumed to never join DROP. Members who retired prior to January 1, 2015 are assumed to receive their DROP payments over a 10-year time period from January 1, 2015. All retirees after January 1, 2015 with a DROP balance are assumed to receive their DROP payments over a 10-year time period from their retirement date.

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

Schedule of Employer Contributions – Supplemental Plan
(Dollars in Thousands)

MEASUREMENT YEAR ENDING DECEMBER 31,	ACTUARIALLY DETERMINED CONTRIBUTION	ACTUAL CONTRIBUTION	CONTRIBUTION DEFICIENCY (EXCESS)	COVERED PAYROLL	ACTUAL CONTRIBUTION AS A % OF COVERED PAYROLL
2016	$ 3,063	$ 3,063	$ -	$ 725	422.9%
2015	2,443	2,443	-	557	438.8%
2014	1,817	1,817	-	521	348.5%

Notes to Schedule:

Actuarially determined employer contributions for the Supplemental Plan are required by City ordinance. Actuarially determined contributions are calculated as of January 1 in the fiscal year in which contributions are reported.

Methods and assumptions used to determine the actuarially determined contribution as of January 1, 2016 were as follows:

Actuarial cost method	Entry age normal cost method
Amortization method	Level percent-of-pay
Remaining amortization period	10 years remaining as of January 1
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, ranging from 0.25% to 2.45%
Post-retirement benefit increases	4.00%
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 Blue Collar 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	At October 1, 2015 – 7.0%
	At October 1, 2016 – 6.0%
	At October 1, 2017 and thereafter – 5.0%

DROP election	100% assumed to elect DROP at first eligibility. Any active members who satisfy these criteria and have not entered DROP are assumed to never join DROP. Members who retired prior to January 1, 2015 are assumed to receive their DROP payments over a 10-year time period from January 1, 2015. All retirees after January 1, 2015 with a DROP balance are assumed to receive their DROP payments over a 10-year time period from their retirement date.

Methods and assumptions used to determine the actuarially determined contribution as of December 31, 2015 and 2014 differed from the above as follows:

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

Schedule of Investment Returns

FISCAL YEAR ENDED DECEMBER 31,	ANNUAL MONEY-WEIGHTED RATE OF RETURN, NET OF INVESTMENT EXPENSE
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, net of pension plan investment expense, 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, 2016

ADMINISTRATIVE EXPENSES		
Information technology	$	451,892
Education		139,515
Insurance		327,713
Personnel		3,750,083
Office equipment		148,508
Dues and subscriptions		56,490
Board meetings		16,704
Office supplies		29,512
Utilities		68,359
Postage		25,157
Printing		3,524
Election		67,508
Facilities (includes depreciation expense)		679,717
Other		2,682
Total administrative expenses	$	**5,767,364**
INVESTMENT EXPENSES		
Investment management	$	6,946,691
Custodial		301,209
Valuation		718,508
Research		5,527
Consulting and reporting		674,914
Legal		2,101,876
Transaction advisory		763,377
Tax		96,096
Other		171,079
Total investment expenses	$	**11,779,277**
PROFESSIONAL SERVICES EXPENSES		
Consulting	$	61,900
Actuarial		612,675
Auditing		142,500
Accounting		61,853
Medical review		19,156
Legal		2,598,393
Mortality records		2,800
Legislative		250,014
Communications		26,646
Other		27,191
Total professional services expenses	$	**3,803,128**

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 member of the Board of Trustees serve without compensation, they are reimbursed for actual expenses incurred.

See accompanying independent auditor's report.

Investment Information

Photo by: Jason Evans

Investment Consultant's Report

June 14, 2017

Board of Trustees

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

RE: 2016 CAFR – Summary of Investment Activities & Performance

Dear Trustees:
Fiscal Year 2016 marked a time of change. It ended with economic and political surprises and with a fair amount of change for the Dallas Police & Fire Pension System (DPFP). This letter summarizes global market outcomes, DPFP's investment structure and performance, and chronicles investment changes during the year.

Global Market Commentary
At the start of the year, global investors were fretting over a potential slowdown in the US and Chinese economies. Meanwhile, in a different kind of market place, Donald Trump was vying to clinch the Republican nomination in the US presidential election. In response to US economic expansion and an improving Chinese outlook, by year end risky assets had forged gains with the S&P 500 Index returning 12%, US high-yield bonds earning over 17%, and emerging market equities delivering 11%. The unexpected victory of President Trump in the elections sent domestic small-cap equities surging 9% in the fourth quarter as bond indices slumped amid expectations of higher interest rates and inflation in anticipation of his administration's policies.

DPFP's global investment structure was broadly supported by gains in the publicly-traded asset classes. Global equities posted an 8.5% gain for the year, as measured by the MSCI ACWI, and after a subdued 2015, the fixed income asset categories saw a retracement in 2016. While the broad market global fixed income area was up 1.6% for the year as measured by the Citi WGBI, the diversifying classes generally performed much better. With spreads coming in, the Barclays US Corporate High Yield Index was up 17.1%, and emerging market debt local and hard currency bonds were up 9.9% and 10.2%, respectively, as measured by JP Morgan's GBI-EM and EMBI Indexes.

Changes in Assets
In spite of capital market gains, 2016 fiscal year came with a reduction in total assets for DPFP. The portfolio began the year with $2.92 billion and ended it with $2.29 billion in invested assets, an approximate reduction of $630 million. While the investments actually earned 3.2% for the year on a time-weighted, net-of-fee basis, there was a series of large DROP withdrawals by members attributing to the lower final net assets.

Asset Allocation & Investment Structure

The 2016 fiscal year came with a revised asset allocation policy. The new policy lowered target allocations to the illiquid asset classes, such as real estate and private equity, and increased target allocations to the publicly-traded classes in global equity and fixed income. The intended effect of this change was to increase the liquidity of the portfolio while both (a) maintaining an expectation of earning the actuarially-assumed rate of return of 7.25%, and (b) being mindful of other portfolio risks such as volatility.

With new asset allocation targets approved, the DPFP investment staff and NEPC worked to formulate implementation recommendations. The existing illiquid assets, by their nature, do not allow for immediate rebalancing and restructuring, so the year-end deviations from asset class targets were expected. That said, DPFP staff and NEPC did begin the work of delivering manager and rebalancing recommendations to the Board. Based on these recommendations, the Board approved liquidating from some managers while also approving investments in new managers. Regarding new investments, the Board approved new mandates with two global equity value managers, a short term core bond manager, and two private markets funds.

To maintain necessary levels of liquidity, the Board did approve liquidating from much of the illiquid holdings through a secondary sale of assets. They also approved liquidating from some liquid managers that were not deemed a best-fit with the new asset allocation structure. DPFP, however, remained heavily exposed to illiquid investments, in particular to real assets, which will take time to unwind with the goal of downsizing actual exposures relative to the new portfolio asset class targets. While this was a 2016 initiative, additional work along these lines will be required.

Investment Returns

DPFP earned 3.2% for the fiscal year ending December 31, 2016. To calculate this return, NEPC begins the process with an input of investment valuations and cash flows, as provided by JP Morgan, the DPFP custodian bank. For instances in which a manager reports quarterly portfolio valuations after the bank's books are closed, NEPC relies on the updated manager-supplied portfolio value, reflecting a more near-time quarterly and year-end value. Further, with regard to the private market assets, NEPC uses a Lagged with Cash-Flow Adjustments approach to achieve the most timely and accurate report of these assets.

The final return was influenced by large increases in the high yield and emerging market debt investments, which earned 20.1% and 13.6%, respectively. Real estate and infrastructure lagged with returns of -3.0% and -4.8%, respectively.

As required by DPFP policy, NEPC evaluated the traditional managers at the end of each calendar quarter for quantitative and qualitative requirements. For any breaches, NEPC provided an assessment and recommendation to the Board.

While the trailing period returns have lagged expectations and peers, NEPC expects the targeted asset allocation structure to exceed the actuarially-assumed return of 7.25% over the long term, as defined by our 30-Year Capital Markets Outlook.

Sincerely,

Rhett Humphreys, CFA
Partner

Investment Information

Investment Activities and Initiatives

Over the past year, primarily due to DROP withdrawal outflows in the latter half of the year, the size of the investment portfolio decreased by approximately $630 million to $2.29 billion in investment assets.

To reduce costs and improve upon communication with the Board, DPFP staff began producing the Monthly Investment Reporting package in-house during 2016. Staff also worked with DPFP's investment consultant, NEPC, over the year to enhance the content and format of NEPC's quarterly investment reporting to the Board. The Board adopted a new Investment Policy Statement (IPS) in 2016 which included an updated and more detailed asset allocation. In working towards this new asset allocation, staff prepared structure studies in the Fixed Income, Equity and Global Asset Allocation broad asset categories which outlined the strategy to build out these asset categories to the new target allocation. Three new public investment managers were approved by the Board in 2016 – Manulife and Boston Partners as part of the Global Equity portfolio and Income Research + Management in the Short-term Core Bonds asset class. These managers have been funded in 2017. The Board also approved new Private Equity and Private Debt commitments to Industry Ventures and Riverstone Credit Partners, respectively, and began funding capital in 2016. As part of the asset class restructuring and driven by the significant cash needs created by the heightened DROP withdrawals, the Board liquidated investments with ten investment managers across the portfolio.

In order to reduce the exposure to private investments and meet the increased liquidity demands, DPFP initiated a private asset secondary sales process in the fourth quarter of 2016. In December 2016, the Board approved the sale of 26 fund investments across the Private Equity, Private Debt and Real Estate portfolios for approximately 88% of the carrying value, which resulted in proceeds of approximately $246 million and reduced unfunded commitments by approximately $132 million.

In the Real Estate portfolio, DPFP continued to work towards the new lower target allocation by executing the sale of seven wholly-owned assets, resulting in proceeds of $57 million. The sales included land holdings in Arizona, Texas, Idaho, and the Bahamas; the final home in the former luxury housing portfolio; and an operating retail center in Hawaii.

As a result of the real estate sales, asset class restructuring and the secondary transactions closed to date, DPFP has reduced the number of investments, funds and managers from near 100 at the end of 2015 to just over 50 in early 2017.

Performance Reporting and Results

Performance Reporting Methodology

The rate of return calculation is prepared by NEPC using a time-weighted rate of return in accordance with the CFA Institute's Global Investment Performance Standards. The methodology used to calculate the rate of return is a "lagged with cash flow adjustments" methodology, which incorporates a one quarter lag on the market values of Private Equity, Private Debt, Infrastructure, Real Estate, Timberland and Farmland investments (collectively, Private Investments). The lagged methodology was recommended by NEPC, 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 of the net asset value and allocation information is based on the final audited December 31 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 NEPC. 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. The broad asset categories (Equity, Fixed Income, Global Asset Allocation, Real Assets and Cash) are benchmarked using a policy index which is weighted based on the target allocation to the asset classes within the broad asset category and their corresponding benchmarks. Each investment manager is 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	2016 RETURN	3 YRS	5 YRS	10 YRS
Total Investment Assets	$ 2,288,660	100.0%				
Plan Level Debt	(130,000)					
Net Investment Assets	2,158,660		3.2%	(2.1%)	1.6%	1.4%
Policy Benchmark [1]			9.7%	7.1%	9.3%	5.6%
InvestorForce DB Median			7.4%	4.1%	7.8%	4.9%
EQUITY	420,813	18.4%	1.9%	2.1%	9.1%	-
Total Equity Policy Index [2]			10.3%	-	-	-
Global Equity	**156,033**	**6.8%**	**7.1%**	**3.8%**	**10.0%**	**3.9%**
MSCI ACWI			8.5%	3.7%	10.0%	4.1%
Walter Scott	78,911	3.4%	6.5%	3.5%	9.7%	-
OFI Global Institutional	76,302	3.3%	1.3%	2.6%	10.9%	-
MSCI ACWI			*8.5%*	*3.7%*	*10.0%*	*4.1%*
Eagle Asset Management	278	0.0%	-	-	-	-
Pyramis	172	0.0%	-	-	-	-
RREEF Global REIT	116	0.0%	-	-	-	-
Mitchell Group	62	0.0%	-	-	-	-
Sustainable Asset Management	52	0.0%	-	-	-	-
Private Equity	**264,780**	**11.6%**	**(1.2%)**	**(5.8%)**	**(1.6%)**	**(0.5%)**
Russell 3000 + 3%			16.1%	11.7%	18.1%	10.3%
FIXED INCOME	279,654	12.2%	11.8%	2.1%	5.5%	5.4%
Total Fixed Income Policy Index [2]			10.1%	-	-	-
Global Bonds	**59,312**	**2.6%**	**3.0%**	**0.1%**	**1.2%**	**-**
Barclays Global Aggregate Index			2.1%	(0.2%)	0.2%	3.3%
Brandywine	59,312	2.6%	3.8%	0.3%	2.0%	5.3%
Barclays Global Aggregrate Index			*2.1%*	*(0.2%)*	*0.2%*	*3.3%*
High Yield	**75,418**	**3.3%**	**20.1%**	**2.3%**	**6.6%**	**-**
Barclays Global High Yield			14.3%	3.6%	7.4%	7.3%
Loomis Sayles	75,338	3.3%	21.2%	3.6%	7.9%	7.6%
70% ML High Yield Cash Pay, 30% JPM EMBI GL Comp			*15.1%*	*5.1%*	*6.7%*	*7.1%*
W.R. Huff High Yield	80	0.0%	-	-	-	-

	NET ASSET VALUE	% OF PORTFOLIO	2016 RETURN	3 YRS	5 YRS	10 YRS
FIXED INCOME (continued)						
Bank Loans	**$ 56,186**	**2.5%**	**11.8%**	**3.9%**	**-**	**-**
S&P/LSTA Leveraged Loan (All Loans Index Levels)			10.2%	3.6%	5.1%	4.6%
Loomis Sayles Sr Floating Rate and Fixed Income	56,186	2.5%	11.8%	3.9%	-	-
S&P/LSTA Leveraged Loan (All Loans Index Levels)			*10.2%*	*3.6%*	*5.1%*	*4.6%*
Emerging Markets Debt	**38,502**	**1.7%**	**13.6%**	**1.4%**	**2.6%**	**-**
50% JPM EMBI/50% JPM GBI-EM			10.3%	0.7%	2.1%	-
Ashmore Emerging Markets Debt Fund	21,215	0.9%	14.9%	4.3%	4.6%	6.4%
JPM Emerging Market Bond Global Index - Total Return			*10.2%*	*6.2%*	*5.9%*	*6.9%*
Ashmore EM Local Currency	17,287	0.8%	12.5%	(4.0%)	(1.4%)	-
JPM Government Bond Index - Emerging Market Global Diversified			*9.9%*	*(4.1%)*	*(1.3%)*	*3.8%*
Private Debt	**50,236**	**2.2%**	**3.8%**	**-**	**-**	**-**
Barclays Global High Yield + 2%			*16.5%*	-	-	-
GLOBAL ASSET ALLOCATION	134,901	5.9%	13.0%	4.2%	5.1%	-
Total GAA Policy Index [2,3]			4.6%	5.3%	5.9%	-
Risk Parity	**76,047**	**3.3%**	**12.1%**	**3.6%**	**4.7%**	-
60% MSCI ACWI / 40% BC Global Agg			*5.7%*	*1.9%*	*5.8%*	*3.8%*
Bridgewater All Weather	39,670	1.7%	11.7%	**3.5%**	**4.3%**	-
Bridgewater All Weather Linked Benchmark [5]			*5.7%*	*5.9%*	*6.0%*	-
Putnam	35,450	1.5%	9.1%	2.0%	4.3%	-
Putnam Linked Benchmark [6]			*5.7%*	*5.7%*	*6.1%*	-
AQR	927	0.0%	-	-	-	-
Global Tactical Asset Allocation	**20,635**	**0.9%**	**4.6%**	**1.3%**	**4.8%**	**-**
60% MSCI ACWI / 40% BC Global Agg			5.7%	1.9%	5.8%	3.8%
GMO	20,635	0.9%	4.6%	1.3%	4.8%	-
GMO Linked Benchmark [7]			*5.7%*	*1.9%*	*5.8%*	*3.8%*
Absolute Return	**38,219**	**1.7%**	**12.7%**	**10.6%**	**8.3%**	**-**
HFRX Absolute Return			0.3%	1.3%	1.7%	(0.7%)
Bridgewater Pure Alpha	38,219	1.7%	12.7%	10.6%	8.3%	-
Bridgewater Pure Alpha Linked Benchmark [8]			*0.3%*	*4.1%*	*4.9%*	-
REAL ASSETS	1,128,965	49.3%	(1.8%)	(8.0%)	(5.9%)	-
Total Real Assets Policy Index [2]			13.5%	-	-	-
Natural Resources	**266,068**	**11.6%**	**3.1%**	**-**	**-**	**-**
S&P Global Natural Resources			31.5%	-	-	-
Infrastructure	**273,533**	**12.0%**	**(4.8%)**	**(2.5%)**	**-**	**-**
Infrastructure Linked Benchmark [4]			12.4%	7.9%	-	-
Real Estate	**589,364**	**25.7%**	**(3.0%)**	**(11.8%)**	**(8.7%)**	**(4.4%)**
NCRIEF			8.0%	11.0%	10.9%	6.9%
CASH AND EQUIVALENTS	$ 324,328	14.2%	1.3%	-	-	-
91 Day T-Bills			0.3%	0.1%	0.1%	0.7%

(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 IPS. The current benchmark has been linked with the Policy Benchmark for the prior asset allocation policy.

(2) Custom weighted asset class benchmarks are calculated based on the weighted average monthly return of each investment and corresponding benchmark that compose the asset class.

(3) GAA benchmark changed from CPI+ 5% from July 1, 2007 to December 31, 2015 to 80% 60/40 MSCI ACWI & Barclays Global Agg and 20% HFRX Absolute Return Index January 1, 2016 to present. Current benchmark is linked with previous benchmark.

(4) Infrastructure benchmark changed from CPI +5% from July 1, 2012 to December 31, 2015 to S&P Global Infrastructure benchmark January 1, 2016 to present. Current benchmark linked with previous benchmark.

(5) Bridgewater All Weather benchmark changed from 91 Day T-Bill + 6% from September 1, 2007 to December 31, 2015 to 60/40 MSCI ACWI & Barclays Global Agg January 1, 2016 to present. Current benchmark linked with previous benchmark.

(6) GMO benchmark changed from CPI + 5% from September 1, 2007 to December 31, 2015 to 60/40 MSCI ACWI & Barclays Global Agg January 1, 2016 to present. Current benchmark linked with previous benchmark

(7) Putnam benchmark changed from CPI + 5% from December 1, 2009 to December 31, 2016 to 60/40 MSCI ACWI & Barclays Global Agg January 1, 2016 to present. Current benchmark linked with previous benchmark.

(8) Bridgewater Pure Alpha benchmark changed from 91 Day T-Bill + 6% from August 1, 2011 to December 31, 2015 to HFRX Absolute Return Index January 1, 2016 to present. Current benchmark linked with previous benchmark.

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 and objectives as outlined in the IPS are as follows:

Goals

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

Objectives

- To maintain a diversified asset allocation;
- To provide for an appropriate risk adjusted rate of return;
- To allow for both passive and active investment management;
- To monitor quarterly manager performance;
- To monitor monthly asset allocation changes;
- To outperform the Policy Benchmark over rolling three-year periods;
- To establish guidelines and procedures for selecting, monitoring and replacing investment vehicles.

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, the investment consultant, investment managers, and the 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 supervision of the investments of DPFP.

The 2016 IPS outlines a revised asset allocation approved by the Board in April 2016, details due diligence and investment review procedures, and clearly defines the roles of the Board, consultants and DPFP staff in the investment decision making process. To review the IPS in full, visit DPFP's website at www.dpfp.org.

Asset Allocation

With the adoption of the IPS, several new asset classes were added to the asset allocation and the target allocations were changed across the board. The new asset allocation created five broad asset categories: Equity, Fixed Income, Global Asset Allocation, Real Assets and Cash. The broad asset categories are comprised of 18 separate asset classes. The asset allocation as of December 31, 2016, along with targets and ranges, is as follows:

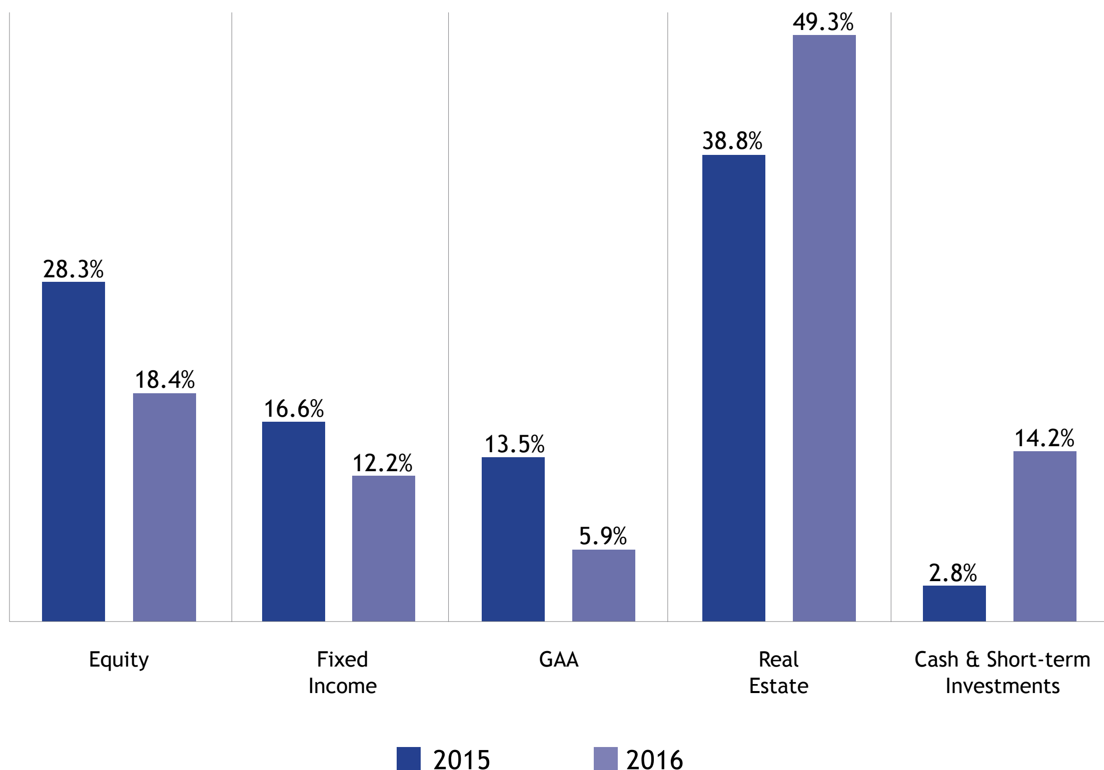
ASSET CATEGORY/CLASS	CURRENT ALLOCATION	TARGET ALLOCATION	MINIMUM ALLOCATION	MAXIMUM ALLOCATION
Equity	18.4%	30%	20%	40%
Global Equity	6.8%	20%	10%	23%
Emerging Markets Equity	-	5%	-	8%
Private Equity	11.6%	5%	4%	15%
Fixed Income	12.2%	33%	15%	38%
Short-Term Core Bonds	-	2%	-	5%
Global Bonds	2.6%	3%	-	6%
High Yield	3.3%	5%	2%	8%
Bank Loans	2.5%	6%	3%	9%
Emerging Markets Debt	1.7%	6%	-	9%
Structured Credit and Absolute Return	-	6%	-	9%
Private Debt	2.2%	5%	2%	7%
Global Asset Allocation (GAA)	5.9%	10%	5%	15%
Risk Parity	3.3%	5%	2%	8%
Global Tactical Asset Allocation (GTAA)	0.9%	3%	-	6%
Absolute Return	1.7%	2%	-	5%
Real Assets	49.3%	25%	20%	45%
Liquid Real Assets	-	3%	-	6%
Natural Resources	11.6%	5%	3%	10%
Infrastructure	12.0%	5%	3%	10%
Real Estate	25.7%	12%	10%	25%
Cash	14.2%	2%	0%	5%

As of December 31, 2016, DPFP had $130 million of Plan level debt with Bank of America as discussed in Note 7 of the notes to the combining financial statements in the Financial section. The IPS outlines a 0% target to Plan level leverage, with a range of 0% to 15%. The asset class allocation percentages in the above table and throughout the Investment section are gross of the Plan level debt and calculated based on the total investment assets of DPFP.

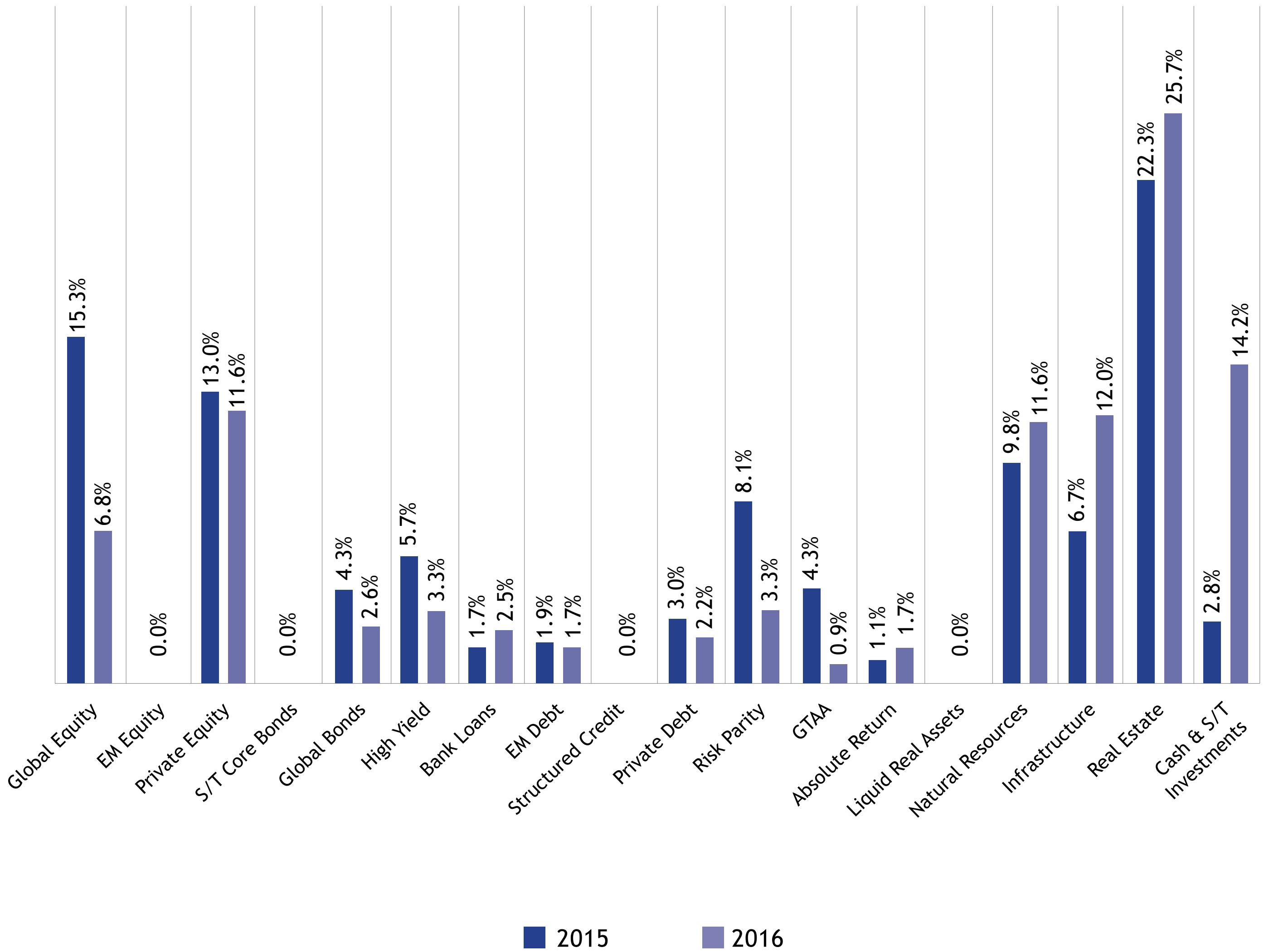
The minimum and/or maximum allocation range point reflects the actual asset allocation at the time the IPS was adopted. Over time, as the actual allocation approaches the target, the range will be adjusted to a more typical range with the target allocation generally at the mid-point of the range.

The Equity and Fixed Income asset categories ended the year with actual allocations below the minimum ranges outlined in the asset allocation per the IPS. At the asset class level, Global Equity and Bank Loans ended the year below the minimum allocation range. The underallocations were caused by the large outflows of liquid assets during the year which created the need for liquidations within these asset classes. At December 31, 2016, the Real Assets and Cash asset categories, as well as the Real Estate, Natural Resources and Infrastructure asset classes, were outside of the asset allocation ranges on the high-end. The excess cash held was fueled by proceeds of secondary sales received at year-end in addition to the build-up of excess cash in December 2016 related to uncertainty of the timing of pending DROP distribution requests. The DROP Policy was amended by the Board in January 2017. The amendment substantially slowed the payout of DROP balances and provided more certainty regarding the timing of cash needs in the near term. See MD&A in the Financial section for further discussion regarding the liquidity constraints experienced in 2016 related to DROP. The overallocation to Real Assets has carried over from prior years' heavy investment in real estate and natural resources and is further exaggerated by the reduction of more liquid asset classes to fund the outflow of DROP distributions. There was a significant gain in 2016 related to the pending sale of two infrastructure assets which caused the overallocation to that asset class.

The following graphs reflect the portfolio allocation at December 31, 2015 and 2016 by broad asset category and asset class. The 2015 allocations have been restated based on the new asset categories and classes in the 2016 IPS.

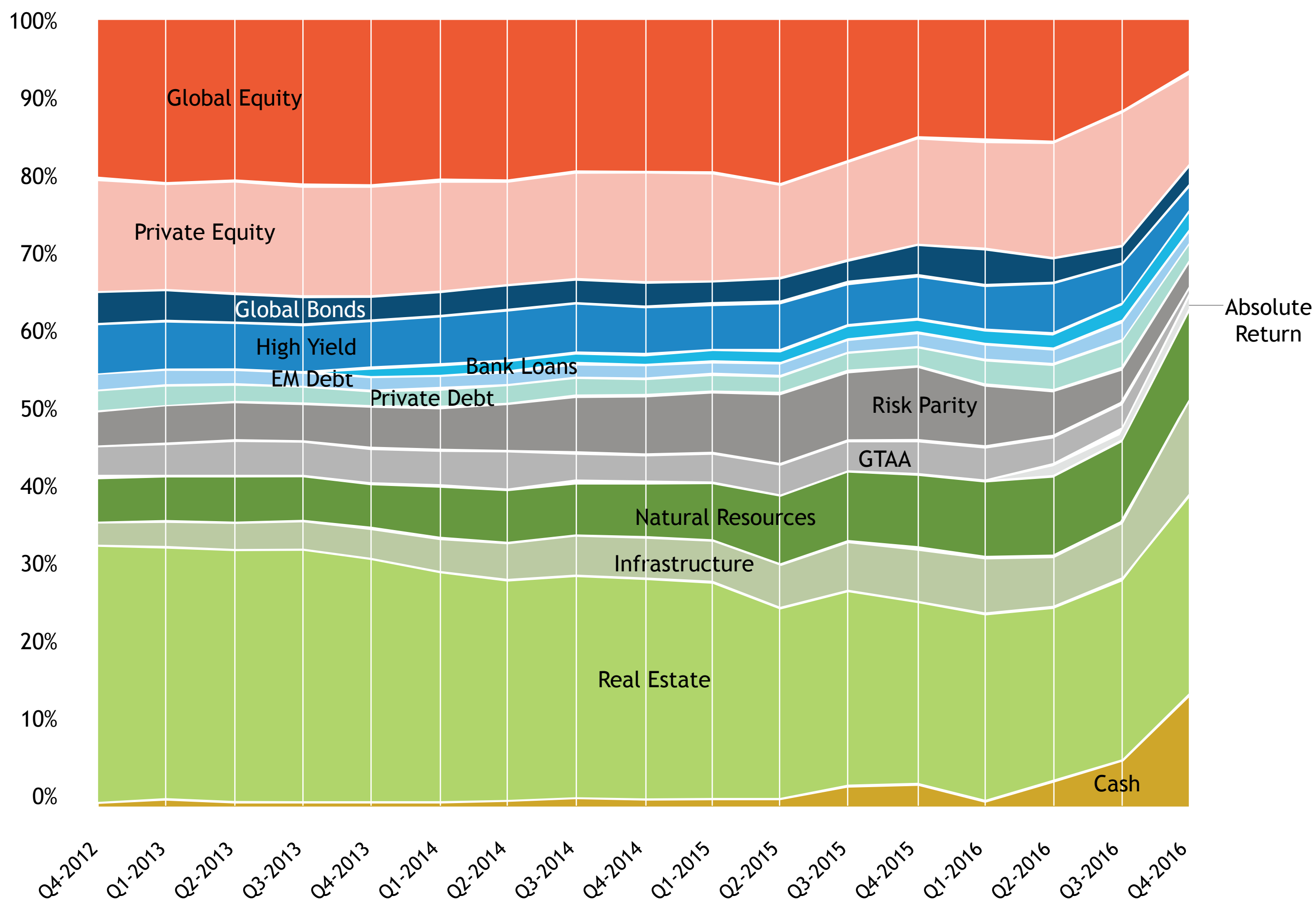


Asset Allocation by Asset Class



Over time, DPFP has made efforts to add asset classes to improve the diversification of the portfolio. The below graph reflects the asset allocation changes over the past four years, on a quarterly basis. Prior to 2016, the assets have been reclassified to match the new asset classes in the 2016 IPS.

Asset Allocation Evolution



Investment Management Fees and Brokerage Commissions

Investment management fees included in the Administrative, Investment and Professional Services Expenses supplementary schedule in the Financial section of this report represent only those fees paid directly by DPFP. In addition to the fees paid directly, DPFP incurs investment management fees which are charged by general partners or investment managers at the fund level. Fees charged at the fund level are typically seen in private equity, private debt, infrastructure, and global asset allocation funds. The below table presents all fees paid in 2016, 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 PAID	2016 AVERAGE MARKET VALUE	TOTAL MANAGEMENT FEES PAID AS A % OF AVERAGE MARKET VALUE
Equity	$ 2,171	$ 6,270	$ 8,440	$ 768,484	1.10%
Fixed Income	717	1,739	2,456	432,657	0.57%
Global Asset Allocation	-	3,059	3,059	275,390	1.11%
Real Assets	3,930	4,326	8,256	1,098,926	0.75%
TOTAL	**$ 6,818**	**$ 15,394**	**$ 22,212**	**$2,695,702***	**0.82%***

** Total average market value includes average cash balance for the year.*

During 2016, DPFP incurred approximately $416 thousand in brokerage fees and commissions paid through managers to trade a total of approximately 31 million shares across 250 firms. This represents an average cost of $0.013 per share traded.

BROKERAGE FIRM	NUMBER OF SHARES TRADED (000'S)	TOTAL FEES AND COMMISSIONS (000's)	FEES AND COMMISSIONS PER SHARE
Cap Institutional Services, Inc.	1,018	$ 51	$ 0.050
Citigroup Global Markets, Ltd.	1,429	16	0.011
J.P. Morgan Securities, Ltd.	973	15	0.015
Goldman Sachs International London	876	14	0.017
National Financial Services Corp	1,095	13	0.012
Bloomberg Tradebook, LLC	530	10	0.020
Merrill Lynch International, Ldn	996	10	0.010
Scotia Capital (USA) Inc.	196	10	0.050
JPMorganChase	545	9	0.017
Morgan Stanley & Co. Inc.	406	9	0.022
All other firms	22,874	259	0.011
TOTAL	**30,938**	**$ 416**	**$ 0.013**

Largest Public Equity and Fixed Income Holdings

The below tables contain the ten largest public equity and fixed income securities owned at December 31, 2016. A full list of securities owned is available upon written request.

PUBLIC EQUITY HOLDING	MARKET VALUE (000's)
Alphabet Inc.	$ 5,565
LVMH Moet Hennessy Louis Vuitton	3,620
Colgate-Palmolive Co.	3,403
Keyence Corp.	3,301
Industria de Diseno Textil SA	3,059
Adobe Systems Inc.	2,997
S&P Global Inc.	3,324
FANUC Corp.	2,310
Nestle SA	2,292
Citigroup Inc.	2,273

PUBLIC FIXED INCOME HOLDING	MATURITY DATE	INTEREST RATE	MARKET VALUE (000's)
Hexion Inc. Bond	2/15/2023	7.88%	$ 4,285
United States of America Bond	11/15/2046	2.88%	2,983
United Mexican States Bond	11/13/2042	7.75%	2,802
Qwest Capital Funding Inc Callable Notes	7/15/2028	6.88%	2,532
Ciena Corp. Convertible Bond	10/15/2018	3.75%	2,499
Republic of Indonesia Bond	3/15/2029	9.00%	2,472
APL Ltd. Bond	1/15/2024	8.00%	2,472
Federative Republic of Brazil Bond	1/1/2025	10.00%	2,335
United Kingdom of Great Britain	9/7/2017	1.00%	2,283
Dish Network Corp. Convertible Bond	8/15/2026	3.38%	2,134

Investment Managers

Fiscal Year Ending December 31, 2016

AEW Capital Management
Allianz Global Partners
Alvarez & Marsal
AQR Capital Management, LLC
Ashmore Investment Management Limited
BankCap Partners
Barings Real Estate Advisors
Bentall Kennedy
Boston Partners-Robeco SAM, USA
Brandywine Global Investment Management
Bridgewater Associates
BTG Pactual Asset Management
CDK Realty Advisors
Cintra US
Clarion Partners
Deutsche Asset & Wealth Management
Eagle Asset Management
Energy Opportunities Capital Management
Forest Investment Associates
Grantham, Mayo, Van Otterloo & Co. (GMO)
Hancock Agricultural Investment Group
Hearthstone, Inc.
Hudson Clean Energy Partners
Industry Ventures
JPMorgan Asset Management
Kainos Capital, LLC
L&B Realty Advisors
Levine Leichtman Capital Partners
Lone Star Funds
Lone Star Investment Advisors
Loomis, Sayles & Company
Merit Energy Partners
The Mitchell Group
Mondrian Investment Partners
OFI Institutional Asset Management
M&G Real Estate
Oaktree Capital Management
PanAgora Asset Management, Inc.
Pharos Capital Group
Putnam Fiduciary Trust Company
Pyramis Global Advisors
Riverstone Credit Partners
Walter Scott & Partners Limited
W.R. Huff Asset Management
Yellowstone Capital Partners

Actuarial Information

Photo by: Dallas Police Department Media Relations

Actuary's Report

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July 10, 2017

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

Re: Actuarial Valuations as of January 1, 2017

Dear Trustees:

We certify that the information contained in this report is accurate and fairly presents the actuarial position of the Dallas Police and Fire Pension System ("DPFP") Combined Pension Plan and Supplemental Plan ("the Plans") as of January 1, 2017.

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 are independent actuaries and consultants. Each of Mr. Joyner, Ms. Brigham and Mr. Williams is a Fellow of the Conference of Consulting Actuaries, an Associate of the Society of Actuaries, an Enrolled Actuary, a Member of the American Academy of Actuaries and experienced in performing valuations for large public retirement systems. They all meet 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 (the 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 a ten-year amortization of the unfunded actuarial accrued liability (UAAL).

In order to determine the adequacy of the Combined Pension Plan's contribution rates, they are compared to an actuarially determined recommended contribution intended to be sufficient to pay the normal cost (the current year's cost) and to amortize the UAAL as a level percentage of payroll over a period of no more than 30 years from the valuation date. For this calculation, payroll is assumed to increase 2.75% per year.

The Board should monitor the margin or deficit between the 30-year actuarially determined recommended contribution and the contribution rates, and the funding period over which the current contribution rates are expected to amortize the UAAL. If actuarial assumptions, including investment experience, are met, the objective of maintaining a relatively level contribution rate over time is achieved. However, if there is a shortfall of the rate compared to the actuarially determined contribution, the effective amortization period exceeds 30 years, and action should be taken to remedy the situation. The Board and the City may consider increases in contributions, and/or changes to the plan provisions with the objective of lowering the actuarially determined contribution. As noted below, substantial changes will be adopted as of September 1, 2017 that are anticipated to significantly improve plan funding.

PLAN CHANGES

On May 31, 2017, the Governor of Texas signed HB3158 into law. HB3158 amends Article 6243a-1 of the Texas Statues and provides changes to the pension benefits provided by the Dallas Police & Fire Pension System, as well as changes to the contributions required by both plan members and the City of Dallas. Both the benefit and contribution changes, which are effective September 1, 2017, are reflected in the January 1, 2017 actuarial valuation.

PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES

Combined Pension Plan
As of January 1, 2017, the City's actuarially determined contribution for the Combined Pension Plan is 47.25% of computation pay. The City is currently contributing 27.50% of total pay; effective September 1, 2017, the City's contribution will increase to 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. While the Combined Pension Plan is not scheduled to achieve full funding within 30 years, based on the benefit and contribution rate changes effective September 1, 2017, the Combined Pension Plan is currently projected to reach 100% funded status by January 1, 2061. The Texas Pension Review Board is aware that full funding is not projected to occur within 30 years.

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 increased from 45.07% to 49.41% between January 1, 2016 and January 1, 2017. This increase was due to the plan changes effective September 1, 2017.

Supplemental Plan

The Supplemental Plan funded ratio increased from 45.80% to 52.91% between January 1, 2016 and January 1, 2017. This increase resulted from the plan changes effective September 1, 2017. Although the funded ratio is currently low, the City contributions to this Plan are calculated in such a way as to ensure that benefits will be funded.

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 the Actuarial section of this report as well. A five-year experience review was completed in the Spring of 2016 for the period January 1, 2010 through December 31, 2014. Recommended changes in assumptions were adopted by the Board and implemented with the January 1, 2016 valuations. New assumptions in the January 1, 2017 valuation are related to the 2016 Meet and Confer agreement, Section 6.14(c) of the plan document, and plan changes effective September 1, 2017. New assumptions are in place for the salary scale, administrative expenses, retirement rates, DROP utilization rates, expected period in DROP, DROP interest, DROP payout period, terminated vested retirement age, and Cost of Living Adjustment.

Plan changes effective September 1, 2017 and assumption changes related to plan changes are not included in GASB 67 calculations as of December 31, 2016.

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 that no retirements have yet occurred subsequent to the plan changes becoming effective with which to compare the appropriateness of the 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

The actuarial valuations reflect the benefit provisions effective September 1, 2017.

DATA

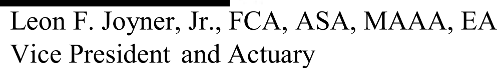
Member data for retired, active and inactive participants was supplied as of December 31, 2016 by the staff of DPFP. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and consistency with the prior year's data. The staff also supplied asset and financial information as of December 31, 2016.

COMPREHENSIVE ANNUAL FINANCIAL REPORT SCHEDULES

DPFP staff, with the assistance of Segal Consulting, prepared all of the supporting schedules in this section and the trend tables in the statistical section, based on information supplied in our reports.

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 Consulting, a Member of The Segal Group, Inc.



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Actuarial Information

Introduction

DPFP's Combined Pension Plan and Supplemental Plan are single-employer defined benefit plans. 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. 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 for.

As of January 1, 2015, the funding period of the Combined Pension Plan increased to an infinite period. This increase was primarily due to returns on the actuarial value of assets that were below the long-term expectations, as well as a change to the assumed rate of return from 8.50% to 7.25% in the January 1, 2015 valuation. Based on the January 1, 2016 valuation, the Combined Pension Plan was projected to become insolvent within 15 years if no changes to plan provisions were made and all assumptions were met in the aggregate. A sub-committee of the Board was formed to examine alternatives that would improve funding over the long term while continuing to provide benefits to members.

Plan changes resulting from the passage of HB 3158 were taken into account in the January 1, 2017 actuarial valuation performed by Segal. Although the effective date of the plan changes is September 1, 2017, contribution and benefit changes required under the Bill will significantly impact the future funding of the Plans and therefore have been reflected in the January 1, 2017 funding analysis. As a result of the changes, the Combined Pension Plan's funded ratio improved to 49.4% as of January 1, 2017 from 45.1% as of January 1, 2016. The Combined Pension Plan is expected to become fully funded by 2061 based on the current assumptions and the City's payroll projections.

The funding period of the Supplemental Plan remains at 10 years, which is the amortization period used in determining the annual employer contribution. The funding period of 10 years 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, 2017. 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 83 is a summary from Segal regarding the January 1, 2017 valuations.

Actuarial Assumptions and Methods

In conjunction with the January 1, 2016 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, 2014. Adjustments to the demographic and economic assumptions were made in the January 1, 2016 valuation based on the results of the experience study. In addition, the asset smoothing, actuarial cost, and amortization methods were revisited as part of the experience study and recommendations were provided to the Board for consideration. In addition, assumption changes were made to the January 1, 2017 valuation related to the salary scale based on the Meet and Confer agreement reached in 2016. Lastly, the following significant changes in assumptions were incorporated in the January 1, 2017 valuation as a result of the passage of HB 3158:

- The DROP utilization factor was changed from 100% to 0%
- Retirement rates for DROP participants were accelerated
- Retirement rates for members not in DROP were adjusted effective January 1, 2018
- Beginning September 1, 2017, DROP balances for annuitants are assumed to earn 2.75% interest; DROP balances for active participants are assumed to earn 2.75% upon retirement; DROP balances accrued after September 1, 2017 do not earn interest
- The DROP payment period for annuitization is based on an 85%/15% male/female blend of the current healthy annuitant mortality tables
- The cost of living adjustment is assumed to be 2.0% beginning in 2049 and thereafter

The assumptions and methods used in the valuations were selected by the Board and are considered to be reasonable individually and in the aggregate.

The Combined Pension Plan's contribution rate is set by State statute, currently 8.5% for employees not participating in DROP, 4.0% for employees in DROP and 27.5% for the employer. With the passage of HB 3158,

contributions will increase to 13.5% as of September 1, 2017 for all employees. City contributions will increase from 27.5% of total pay to 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 January 1, 2017 valuation is the third year the funding period for the Combined Pension Plan exceeds 40 years. 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 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 over 10 years.

A summary of the actuarial assumptions and methods used in the January 1, 2017 actuarial valuation follows.

Investment Rate of Return: 7.25% per annum, compounded annually, net of investment expenses. This rate reflects an underlying inflation rate of 2.75% and a real rate of return of 4.50%.

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 $10 million per year or 1% of Computation Pay for the Combined Pension Plan and $60 thousand for the Supplemental Plan.

DROP Interest: DROP balances through September 1, 2017 are assumed to earn 6.0%. Beginning September 1, 2017, DROP balances for annuitants are assumed to earn 2.75% interest, 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: The actual salary experience for police officers and firefighters was examined separately in the most recent experience study. Salary history and the current Meet and Confer agreement indicate that firefighters have a longer select period than police officers. Based on the data reviewed, taking into account the 2016 Meet and Confer agreement, and including an assumed inflation rate of 2.75%, separate service-based salary assumptions at various years of service were adopted for police officers and firefighters as follows:

2017 - 10% if less than ten years of service; 7% if ten to eleven years of service; 2% if more than eleven years of service

2018 - 5% if less than ten years of service; 2% if more than ten years of service

2019 - 10% if less than ten years of service; 7% if ten to eleven years of service; 2% if more than eleven years of service

In years 2020 and thereafter:

YEARS OF SERVICE	ANNUAL RATE OF SALARY INCREASE	
	Police	Fire
1	5.20%	5.20%
5	4.40%	4.60%
10	3.40%	3.85%
15	3.00%	3.10%
16 and over	3.00%	3.00%

Payroll Growth Rate: Total payroll is assumed to increase 2.75% per year, which is consistent with the assumed inflation rate.

Retirements: The percentage of the population assumed to retire at various ages in 2017 is as follows:

AGE	ANNUAL RATE OF RETIREMENT	
	Police	Fire
49 or less	1.00%	0.75%
50	3.00%	2.50%
51	3.00%	2.50%
52	3.00%	2.50%
53	7.00%	2.50%
54	7.00%	2.50%
55	15.00%	12.00%
56	20.00%	12.00%
57	20.00%	12.00%
58	25.00%	12.00%
59	25.00%	25.00%
60	25.00%	25.00%
61	25.00%	25.00%
62	25.00%	25.00%
63	25.00%	25.00%
64	25.00%	25.00%
65	50.00%	30.00%
66	50.00%	30.00%
67	100.00%	100.00%

Beginning in 2018, as a result of the limitations on the time active members are allowed to participate in DROP set forth in HB 3158, retirement rates for DROP participants have been adjusted as follows:

- If at least eight years in DROP as of January 1, 2017, 100% retirement rate in 2018
- If less than eight years in DROP as of January 1, 2017, 50% retirement rate in 2018

Beginning in 2018, the percentage of non-DROP participants assumed to retire at various ages is as follows:

	PARTICIPANTS HIRED PRIOR TO MARCH 1, 2011 WITH LESS THAN 20 YEARS OF SERVICE AS OF SEPTEMBER 1, 2017	PARTICIPANTS HIRED PRIOR TO MARCH 1, 2011 WITH AT LEAST 20 YEARS OF SERVICE AS OF SEPTEMBER 1, 2017	PARTICIPANTS HIRED ON OR AFTER MARCH 1, 2011
Age	Annual Rate of Retirement		
49 or less	0.00%	1.00%	1.00%
50	10.00%	20.00%	5.00%
51	5.00%	10.00%	5.00%
52	5.00%	10.00%	5.00%
53	5.00%	10.00%	5.00%
54	5.00%	20.00%	10.00%
55	15.00%	40.00%	20.00%
56	10.00%	50.00%	30.00%
57	5.00%	50.00%	40.00%
58	60.00%	60.00%	50.00%
59	50.00%	60.00%	50.00%
60	50.00%	60.00%	50.00%
61	50.00%	60.00%	50.00%
62 and over	100.00%	100.00%	100.00%

Mortality: The tables used for mortality assumptions are as follows:

Pre-retirement – RP-2014 sex-distinct Employee Mortality Table, set back two years for males

Post-retirement - RP-2014 sex-distinct Blue Collar Healthy Annuitant Mortality Table, set forward two years for females

Disabled annuitants – RP-2014 sex-distinct Disabled Retiree Mortality Table, set back three years for males and females

All tables are projected generationally using Scale MP-2015.

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 RATE	
	Police	Fire
<1	14.00%	5.50%
1	6.00%	4.50%
2	5.50%	4.00%
3	5.00%	3.50%
4	4.50%	3.00%
5	4.00%	1.50%
6	3.50%	1.00%
7	3.00%	0.75%
8	2.50%	0.50%
9	2.00%	0.50%
10 - 37	1.00%	0.50%
38 and over	0.00%	0.00%

Disability: 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.

AGE	DISABILITY RATE
20	0.10%
25	0.15%
30	0.20%
35	0.25%
40	0.30%
45	0.35%
50	0.40%

DROP Election: Based on changes to the DROP program as set forth by HB 3158, the DROP utilization factor was changed from 100% to 0% in the January 1, 2017 valuation.

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 elect a joint and survivor annuity.

Assumed Post-Retirement Cost of Living: Benefits are adjusted annually on October 1. Prior to the January 1, 2017 valuation, the assumed adjustment for Combined Pension Plan benefits was equal to 4.0% of the original pension amount for Group A and Group B members hired prior to January 1, 2007, as was the increase for Supplemental Plan benefits. Members hired after December 31, 2006 are not eligible for an automatic increase and were allowed only an ad hoc increase. Members hired after December 31, 2006 were assumed to receive no annual adjustments. 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, 2049 and payable every October 1 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 Normal 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.

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. In conjunction with the most recent experience study and as a result of significant write-downs to the carrying value of investment assets in 2013 through 2015 which were not considered to be market-driven, the asset valuation method was altered as of January 1, 2016. The revised method involved resetting the actuarial value of assets to market value as of December 31, 2015. Future gains and losses are recognized over a five-year smoothing period. In no event will the actuarial value of assets be less than 80% nor more than 120% of the market value of assets.

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 7.25%. This assumption was last changed as of January 1, 2015 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 7.25% 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
2007	10.58%	8.85%
2008	(6.14%)	(24.80%)
2009	12.29%	13.78%
2010	2.69%	10.72%
2011	0.43%	(1.78%)
2012	14.79%*	9.92%
2013	4.52%	7.70%
2014	(1.98%)	(5.35%)
2015	(24.03%)*	(8.47%)
2016	7.16%	6.82%
5-year average return	(3.41%)	1.79%
10-year average return	(0.18%)	1.00%

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, 2016	$ 3,267,050
Change due to expected increase/(amortization)	33,687
Actual contributions (greater)/less than expected	148,779
Expected unfunded actuarial accrued liability as of January 1, 2017	3,449,516
Net (gain)/loss	55,556
Unfunded actuarial accrued liability before changes **(a)**	3,505,072
Changes due to:	
Changes in assumptions not related to plan changes	(298,817)
Changes related to plan changes per HB 3158	(996,874)
Total changes **(b)**	(1,295,691)
Unfunded actuarial accrued liability at year end **(a+b)**	2,209,381
Actuarial accrued liability at beginning of year	5,947,174
Net (gain)/loss as a percentage of actuarial accrued liability at beginning of year	0.93%

SUPPLEMENTAL PLAN	
Unfunded actuarial accrued liability as of January 1, 2016	$ 23,023
Change due to expected increase/(amortization)	(1,303)
Actual contributions (greater)/less than expected	83
Expected unfunded actuarial accrued liability as of January 1, 2017	21,803
Net (gain)/loss	1,371
Unfunded actuarial accrued liability before changes **(a)**	23,174
Changes due to:	
Change in assumptions not related to plan changes	(1,193)
Changes related to plan changes per HB 3158	(6,261)
Total changes **(b)**	(7,454)
Unfunded actuarial accrued liability at year end **(a+b)**	15,720
Actuarial accrued liability at beginning of year	42,480
Net (gain)/loss as a percentage of actuarial accrued liability at beginning of year	3.23%

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 Contributions	Retirees, Beneficiaries, and Vested Terminations	Active Members (Employer Financed Portion)	Total Actuarial Accrued Liability	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)*
2008	$ 242,636	$ 1,709,964	$ 1,691,119	$ 3,643,719	$ 3,258,627	100.0%	100.0%	77.2%
2009	252,850	1,831,395	1,793,852	3,878,097	3,039,667	100.0%	100.0%	53.3%
2010	262,567	1,987,186	1,883,535	4,133,288	3,382,908	100.0%	100.0%	60.2%
2011	270,978	2,134,212	1,911,159	4,316,349	3,430,819	100.0%	100.0%	53.7%
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%	68.5%	0.0%

** The portion of accrued liabilities for active members (employer financed portion) is calculated as follows: [Actuarial value of assets-(1) - (2)]/(3).*

(Continued)

Short-Term Solvency Test (continued)

Supplemental Plan

	AGGREGATE ACCRUED LIABILITIES FOR							
	(1)	(2)	(3)					
Jan. 1 Valuation Date	Active Member Contributions	Retirees, Beneficiaries, and Vested Terminations	Active Members (Employer Financed Portion)	Total Actuarial Accrued Liability	Actuarial Value of Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)*
2008	$ 251	$ 22,265	$ 7,582	$ 30,098	$ 25,254	100.0%	100.0%	36.1%
2009	248	24,830	6,975	32,053	18,140	100.0%	72.1%	0.0%
2010	270	25,736	7,444	33,450	20,681	100.0%	79.3%	0.0%
2011	265	27,394	6,649	34,308	21,119	100.0%	76.1%	0.0%
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%

** 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
2008	4,909	$ 321,492	$ 65	1.6%
2009	5,235	348,107	66	1.5%
2010	5,476	366,720	67	0.7%
2011	5,482	365,126	67	(0.5%)
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%

Supplemental Plan (Dollars in Thousands)

JAN. 1 VALUATION DATE	ACTIVE MEMBERS	ANNUAL COVERED PAYROLL	ANNUAL AVERAGE PAY	% CHANGE IN ANNUAL AVERAGE PAY
2008	40	$ 938	$ 23	11.0%
2009	41	1,043	25	8.5%
2010	40	1,044	26	2.6%
2011	39	886	23	(13.0%)
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%)

Retirees and Beneficiaries Added to and Removed from Rolls

Consolidated Plans* (Dollars in Thousands)

	ADDED TO PAYROLL		REMOVED FROM PAYROLL		TOTAL (INCLUDES NON-ACTIVE VESTED)			
Jan. 1 Valuation Date	Number	Annual Benefits	Number	Annual Benefits	Number**	Annual Benefits	Average Annual Benefits	% Change in Average Annual Benefits
2008	159	$ 10,150	63	$ 2,040	3,294	$ 119,218	$ 36	7.3%
2009	137	8,389	56	2,139	3,375	125,465	37	5.2%
2010	136	10,375	61	2,307	3,450	133,533	39	6.4%
2011	146	10,231	61	2,239	3,535	141,522	40	6.0%
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%

** 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 maintain a DROP balance 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)
2008	$ 3,258,627	$ 3,643,719	89.4%	$ 385,092	$ 321,492	120%	14
2009	3,039,667	3,878,097	78.4%	838,429	348,107	241%	33
2010	3,382,908	4,133,289	81.8%	750,381	366,720	204%	26
2011	3,430,819	4,316,349	79.5%	885,530	365,126	243%	21
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

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
2008	$ 25,254	$ 30,098	83.9%	$ 4,844	$ 938	516%
2009	18,140	32,053	56.6%	13,913	1,043	1,334%
2010	20,681	33,449	61.8%	12,768	1,044	1,349%
2011	21,119	34,309	61.6%	13,190	886	1,489%
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%

Statistical Information

Photo by: Karen Hoskins

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.

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, 2016.

The Distributions by Type schedules present the amount of monthly benefit payments and DROP distributions by type for the 10 years ending December 31, 2016.

The DROP Growth schedule presents the changes in interest rate credited to DROP balances, the amounts deferred into and interest credited to DROP balances, and the change in DROP balances year over year. In addition, the accumulated DROP balance credit or deficit is presented for the 10 years ending December 31, 2016. A deficit exists when DPFP has credited more interest to the DROP program than has been earned on DROP assets since inception of the DROP program.

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, 2016.

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, 2016.

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, 2016.

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, 2016.

The Membership Count schedules reflect the number of members by status type for the 10 years ending December 31, 2016.

The DROP Participation schedule reflects a roll forward of the number of DROP participants and DROP balance for the 10 years ending December 31, 2016.

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

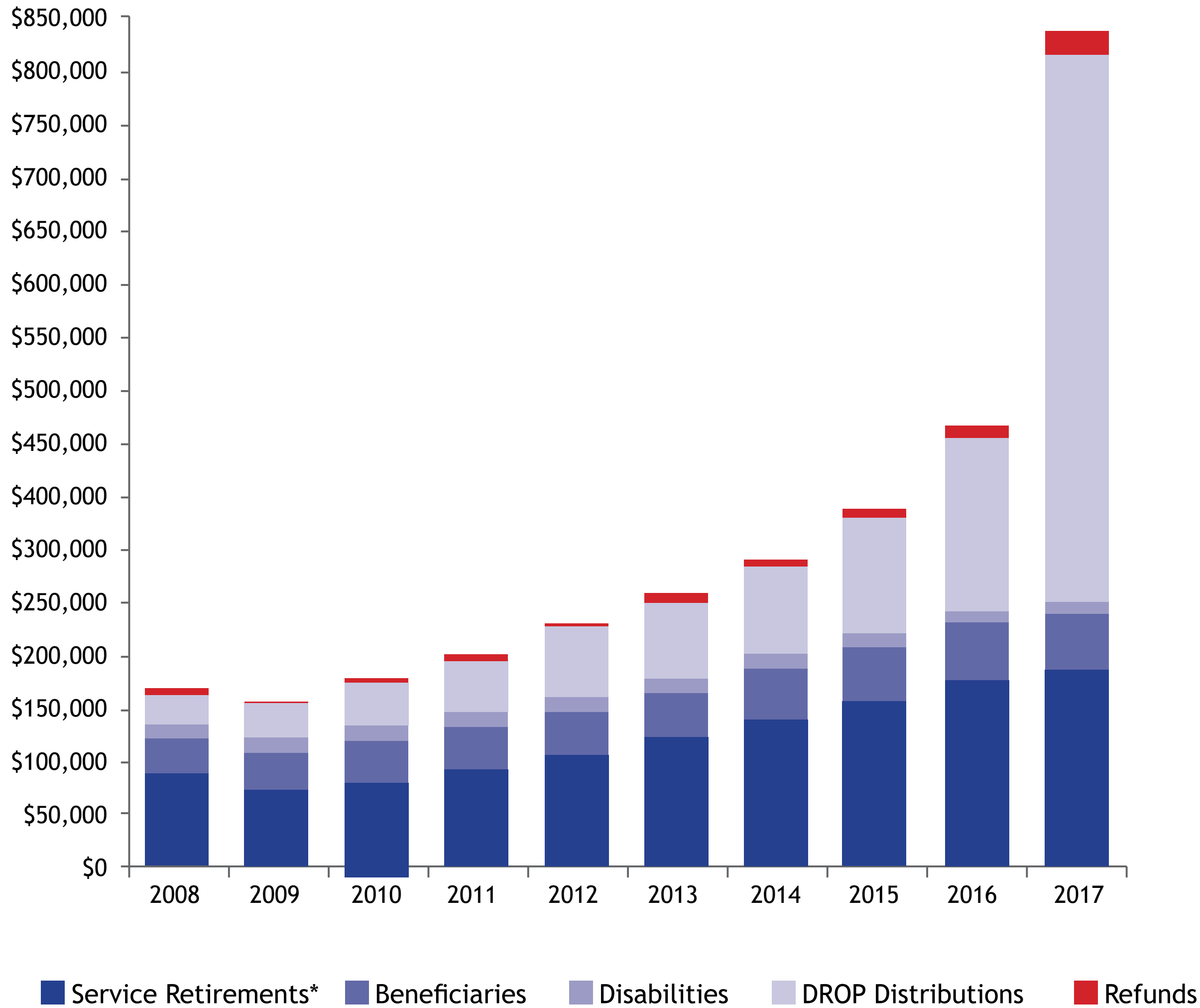
Consolidated Plans* (In Millions)

YEARS ENDED DECEMBER 31,	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Additions (Reductions)										
Contributions										
City	$ 122.4	$ 117.3	$ 111.6	$ 108.0	$ 105.9	$ 104.0	$ 109.7	$ 109.0	$ 105.6	$ 99.1
Members	25.6	25.7	29.4	26.3	22.8	19.5	19.8	19.6	18.7	17.9
Total contributions	148.0	143.0	141.0	134.3	128.7	123.5	129.5	128.6	124.3	117.0
Investment income (loss)										
Net appreciation (depreciation) in fair value of investments	95.1	(300.9)	(223.2)	94.2	301.5	(44.8)	248.7	318.7	(865.2)	148.2
Interest and dividends	54.8	73.4	94.5	86.5	67.2	59.4	65.8	89.3	92.2	128.4
Total gross investment income (loss)	149.9	(227.5)	(128.7)	180.7	368.7	14.6	314.5	408.0	(773.0)	276.6
Less: Investment expense	(11.8)	(10.1)	(11.3)	(10.1)	(28.8)	(32.3)	(18.4)	(23.9)	(20.7)	(17.8)
Net investment income (loss)	138.1	(237.6)	(140.0)	170.6	339.9	(17.7)	296.1	384.1	(793.7)	258.8
Securities lending income	0.7	0.7	0.8	1.1	0.9	0.8	1.0	1.8	6.3	13.6
Securities lending expense	(0.3)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.4)	(0.6)	(5.0)	(12.7)
Net securities lending income	0.4	0.5	0.6	0.8	0.7	0.6	0.6	1.2	1.3	0.9
Other income	0.2	0.1	-	-	-	-	-	-	-	-
Total additions (reductions)	**286.7**	**(93.8)**	**1.6**	**305.7**	**469.3**	**106.4**	**426.2**	**513.9**	**(668.1)**	**376.7**
Deductions										
Benefits paid to members	827.6	285.9	247.6	220.2	203.4	190.2	171.4	156.8	143.4	132.9
Refunds paid to members	3.4	1.8	1.7	0.9	1.5	0.7	0.8	0.8	0.4	0.9
Interest expense	4.6	6.0	7.4	5.9	6.3	6.7	7.3	3.8	9.5	12.2
Professional and administrative expenses	9.6	8.5	8.1	7.5	6.1	7.0	6.5	6.5	8.0	6.1
Total deductions	**845.2**	**302.2**	**264.8**	**234.5**	**217.3**	**204.6**	**186.0**	**167.9**	**161.3**	**152.1**
Net increase (decrease) in net position	(558.5)	(396.0)	(263.2)	71.2	252.0	(98.2)	240.2	346.0	(829.4)	224.6
Net position held in trust - restricted for pension benefits										
Beginning of period	2,699.6	3,095.6	3,358.8	3,287.6	3,035.6	3,133.8	2,893.6	2,547.6	3,377.0	3,152.4
End of period	$2,141.1	$2,699.6	$3,095.6	$3,358.8	$3,287.6	$ 3,035.6	$3,133.8	$2,893.6	$2,547.6	$3,377.0

** Includes both the Combined Pension Plan and the Supplemental Pension Plan.*

Distributions by Type

Combined Pension Plan (In Thousands)

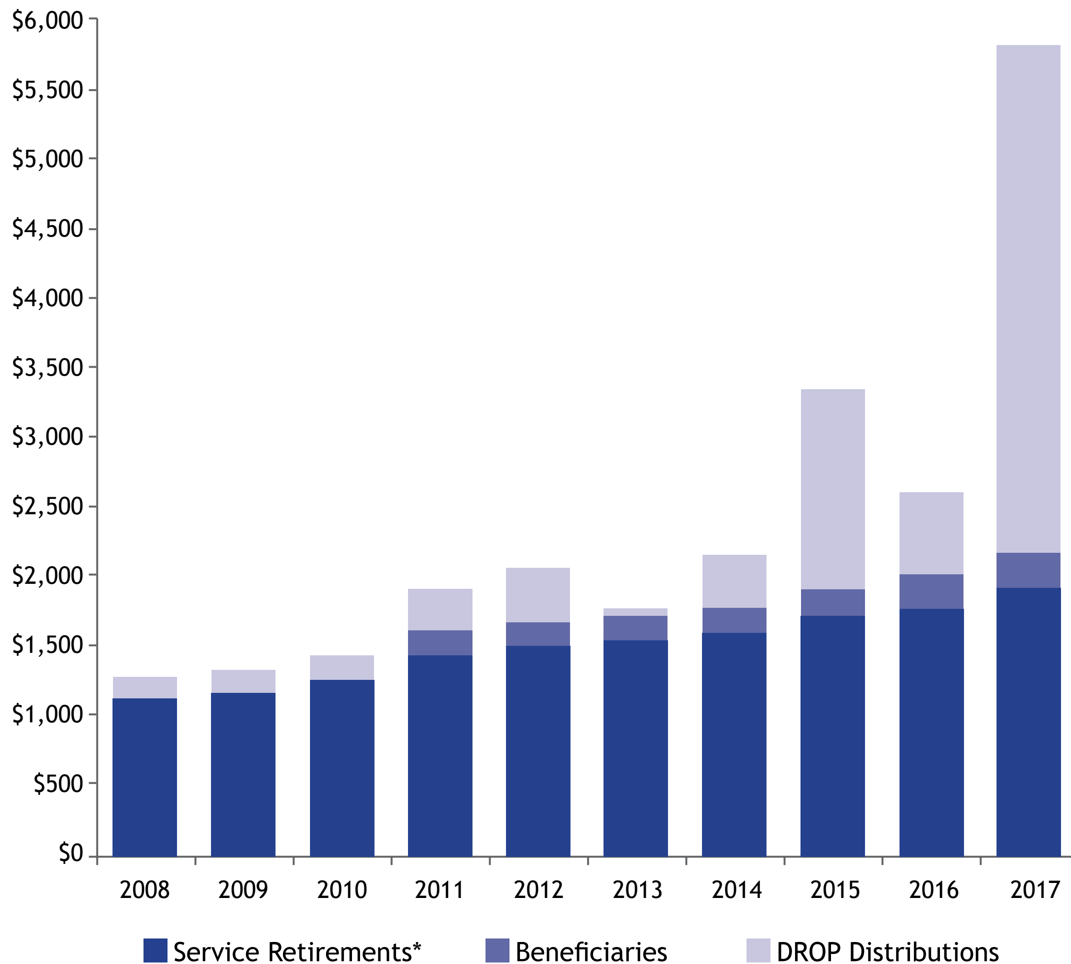


JAN. 1 VALUATION DATE	SERVICE RETIREMENTS*	BENEFICIARIES	DISABILITIES	DROP LUMP SUM DISTRIBUTIONS	REFUNDS	TOTAL
2008	$ 95,041	$ 15,817	$ 6,848	$ 13,920	$ 914	$ 132,540
2009	100,666	17,795	6,825	16,789	358	142,433
2010	108,383	19,163	6,933	20,864	771	156,114
2011	117,350	20,369	6,842	24,898	814	170,273
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

** Includes monthly DROP installment payments.*

Distributions by Type (continued)

Supplemental Plans (In Thousands)



JAN. 1 VALUATION DATE	SERVICE RETIREMENTS*	BENEFICIARIES	DROP LUMP SUM DISTRIBUTIONS	TOTAL
2008	$ 1,165	$ 150	$ -	$ 1,315
2009	1,203	162	-	1,365
2010	1,300	172	-	1,472
2011	1,482	174	308	1,964
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

** Includes monthly DROP installment payments.*

DROP Growth

Consolidated Plans* (Dollars in Thousands)

JAN. 1 VALUATION DATE	INTEREST RATE CREDITED	DEFERRALS	INTEREST CREDITED	WITHDRAWALS	CHANGE	BALANCE	DROP CREDIT/ (DEFICIT)
2008	10.00%	$ 64,202	$ 51,898	$ (25,033)	$ 91,067	$ 603,164	$ 28,600
2009	9.75%	71,317	61,642	(29,538)	103,422	706,585	(185,693)
2010	9.50%	77,495	69,975	(35,745)	111,725	818,310	(182,681)
2011	9.25%	82,306	78,780	(42,721)	118,364	936,674	(191,845)
2012	8.00%	86,880	84,846	(53,815)	117,911	1,054,586	(287,650)
2013	8.00%	90,154	85,373	(58,441)	117,085	1,171,671	(296,184)
2014	8.78%	96,062	97,066	(66,190)	126,938	1,298,609	(325,000)
2015	8.00%	96,071	111,856	(83,940)	123,988	1,422,597	(486,000)
2016	7.00%	96,510	110,060	(112,552)	94,018	1,516,615	(675,912)
2017	6.00%	89,533	92,986	(637,993)	(455,473)	1,061,168	(854,438)

** 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.*

Benefit Recipients by Type

Consolidated Plans* (As of December 31, 2016)

MONTHLY BENEFIT RANGE	TOTAL NUMBER OF BENEFITS	SERVICE RETIREMENTS	DISABILITIES	BENEFICIARIES	NON-ACTIVE VESTED	ACTIVE DROP
$0 - $500	55	12	1	35	6	1
$501 - $1,000	258	51	-	79	120	8
$1,001 - $1,500	264	70	1	134	45	14
$1,501 - $2,000	582	82	1	456	25	18
$2,001 - $2,500	255	79	11	134	8	23
$2,501 - $3,000	285	125	26	77	6	51
$3,001 - $3,500	500	361	45	26	1	67
$3,501 - $4,000	342	222	27	15	2	76
$4,001 - $4,500	529	329	16	30	-	154
$4,501 - $5,000	570	358	10	24	1	177
$5,001 - $5,500	544	356	2	17	-	169
$5,501 - $6,000	479	332	5	17	1	124
$6,001 - $6,500	330	240	1	12	-	77
$6,501 - $7,000	293	223	1	12	-	57
$7,001 - $7,500	204	152	2	1	-	49
$7,501 - $8,000	116	90	-	3	-	23
$8,001 - $8,500	56	47	-	3	-	6
Over $8,500	70	60	-	2	-	8
Total	**5,732**	**3,189**	**149**	**1,077**	**215**	**1,102**

** 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.*

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
2007								
Retirements***	-	3	10	13	44	44	16	130
Avg. FAS**	$ -	$ 2,602	$ 1,818	$ 1,426	$ 2,595	$ 3,444	$ 1,303	$ 2,547
Avg. benefit	$ -	$ 782	$ 1,020	$ 1,040	$ 2,258	$ 3,625	$ 1,535	$ 2,381
2008								
Retirements	-	-	8	22	49	35	10	124
Avg. FAS	$ -	$ -	$ 3,463	$ 2,126	$ 2,734	$ 3,593	$ 482	$ 2,734
Avg. benefit	$ -	$ -	$ 1,716	$ 1,317	$ 2,407	$ 3,700	$ 582	$ 2,387
2009								
Retirements	-	2	5	25	52	43	14	141
Avg. FAS	$ -	$ 2,691	$ 3,221	$ 1,134	$ 2,119	$ 3,497	$ 2,988	$ 2,498
Avg. benefit	$ -	$ 1,803	$ 1,718	$ 592	$ 1,685	$ 3,774	$ 4,128	$ 2,374
2010								
Retirements	1	2	10	24	52	34	15	138
Avg. FAS	$ 3,597	$ 2,655	$ 2,579	$ 1,718	$ 3,094	$ 3,947	$ 3,466	$ 3,065
Avg. benefit	$ 2,160	$ 740	$ 1,119	$ 1,017	$ 2,659	$ 4,395	$ 4,383	$ 2,845
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	67	125	69	4	290
Avg. FAS	$ -	$ 3,854	$ 2,216	$ 1,379	$ 3,318	$ 4,224	$ 1,708	$ 3,073
Avg. benefit	$ -	$ 1,535	$ 952	$ 981	$ 2,766	$ 4,662	$ 1,810	$ 2,779

** 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, 2016		NUMBER	ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
Retired members				
	Service pensions	3,189	$ 183,530	$ 58
	Disabilities	149	6,312	43
	Total	3,338	$ 189,842	$ 57
Beneficiaries*				
	Total	1,077	$ 27,466	$ 26
Total		**4,415**	**$ 217,307**	**$ 49**

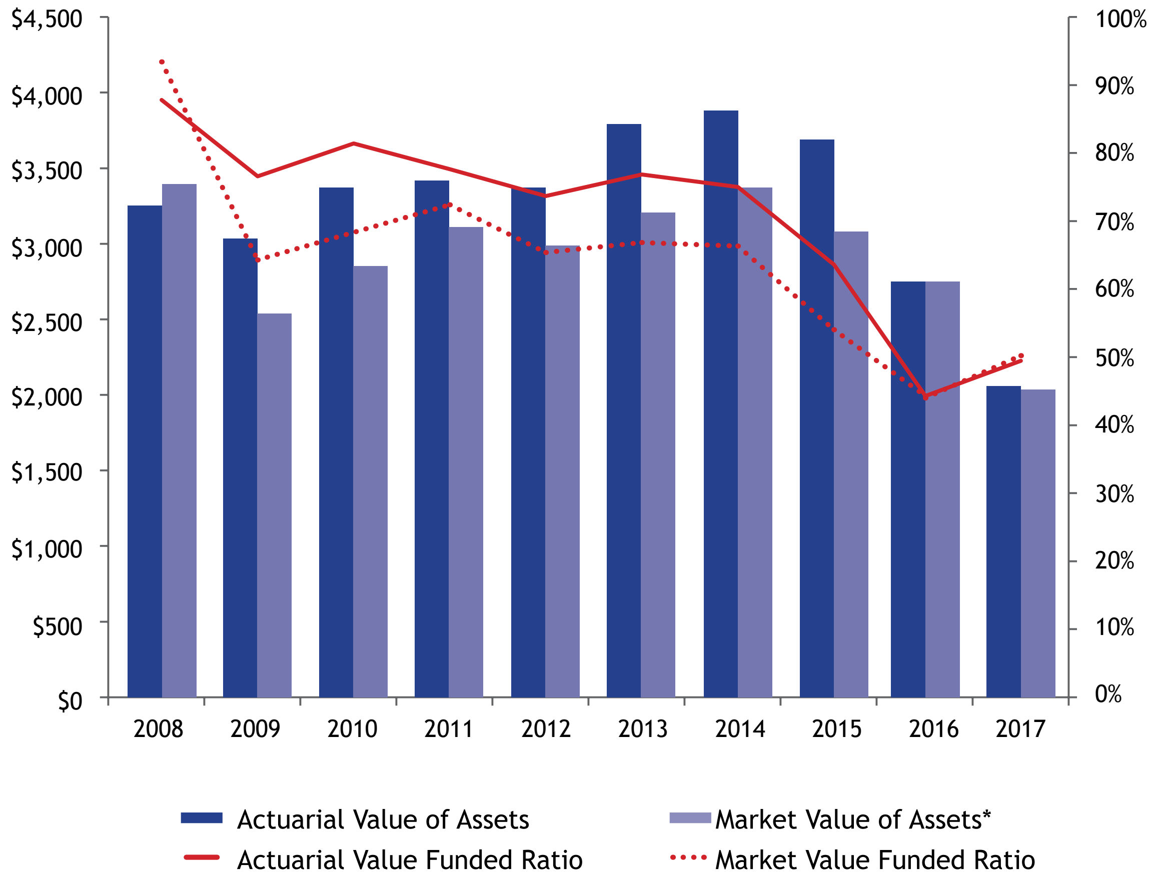
Supplemental Plan (Dollars in Thousands)

DECEMBER 31, 2016		NUMBER	ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
Retired members				
	Service pensions	100	$ 2,104	$ 21
	Disabilities	-	-	-
	Total	100	$ 2,104	$ 21
Beneficiaries*				
	Total	28	$ 276	$ 10
Total		**128**	**$ 2,380**	**$ 19**

** 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)

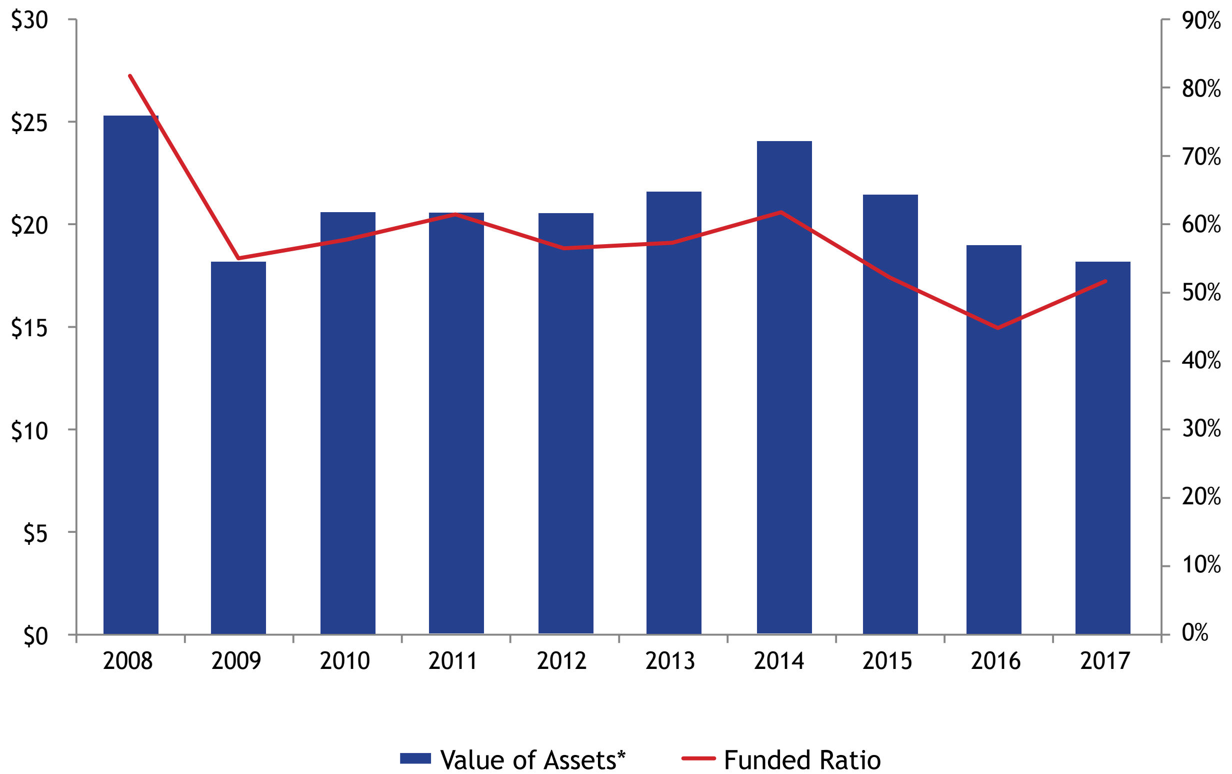


JAN. 1 VALUATION DATE	ACTUARIAL VALUE OF ASSETS	MARKET VALUE OF ASSETS*	ACTUARIAL VALUE FUNDED RATIO	MARKET VALUE FUNDED RATIO
2008	$ 3,259	$ 3,391	89.4%	93.1%
2009	3,040	2,533	78.4%	65.3%
2010	3,383	2,852	81.8%	69.0%
2011	3,431	3,113	79.5%	72.1%
2012	3,378	2,991	73.9%	65.5%
2013	3,795	3,206	78.1%	66.0%
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%

** 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
2008	$ 25	83.9%
2009	18	56.6%
2010	21	59.5%
2011	21	61.6%
2012	21	57.3%
2013	22	57.9%
2014	24	62.0%
2015	21	51.2%
2016	19	45.8%
2017	18	52.9%

** 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
2008	3,725	1,184	2,458	841	182	N/A*	8,390
2009	3,983	1,252	2,508	872	151	45	8,811
2010	4,170	1,306	2,565	894	144	57	9,136
2011	4,085	1,397	2,644	908	135	68	9,237
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

** Data not available.*

Supplemental Plan

JAN. 1 VALUATION DATE	ACTIVE (EXCLUDING DROP)	ACTIVE DROP	RETIREES	BENEFICIARIES	TOTAL
2008	17	23	87	24	151
2009	15	26	86	26	153
2010	13	27	86	26	152
2011	11	28	87	26	152
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

DROP Participation

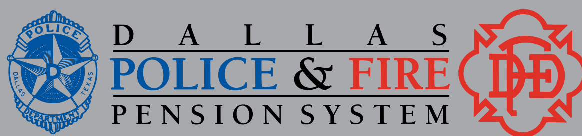
Consolidated Plans* (Dollars in Millions)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Active										
Beginning of year	1,338	1,399	1,434	1,446	1,409	1,425	1,333	1,278	1,207	1,104
Entrants	36	121	107	155	190	176	208	168	191	203
Withdrawals	(272)	(182)	(142)	(167)	(153)	(192)	(116)	(113)	(120)	(100)
End of year	1,102	1,338	1,399	1,434	1,446	1,409	1,425	1,333	1,278	1,207
DROP balance at December 31	$ 358	$ 479	$ 461	$ 441	$ 434	$ 425	$ 406	$ 374	$ 339	$ 295

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Retirees and Beneficiaries										
Beginning of year	2,085	1,971	1,855	1,718	1,525	1,414	1,265	1,138	1,028	892
Additions	204	168	170	190	215	173	164	151	126	149
Closures	(413)	(54)	(54)	(53)	(22)	(62)	(15)	(24)	(16)	(13)
End of year	1,876	2,085	1,971	1,855	1,718	1,525	1,414	1,265	1,138	1,028
DROP balance at December 31	$ 703	$ 1,038	$ 962	$ 858	$ 738	$ 630	$ 531	$ 444	$ 368	$ 308

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Total DROP participants	**2,978**	**3,423**	**3,370**	**3,289**	**3,164**	**2,934**	**2,839**	**2,598**	**2,416**	**2,235**

** 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.*



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