

# Dallas Police & Fire Pension System

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**Comprehensive Annual Financial Report for  
the Years Ended December 31, 2017 and 2016**

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



# Protecting the Future

*Serving those who protect the Dallas community.*



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

4100 Harry Hines Blvd, Suite 100, Dallas, Texas 75219

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**Comprehensive Annual Financial Report** for the fiscal years ended December 31, 2017 and 2016

**Kelly Gottschalk, Executive Director**

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

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# *Introduction*



# Transmittal Letter



October 10, 2018

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, 2017.

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 or the bill) which was passed unanimously by the 85th Legislature and was signed into law by Governor Abbott on May 31, 2017. This plan is referred to as the Combined Pension Plan. At December 31, 2017, there were 10,325 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, 2017, there were 185 members and beneficiaries in the Supplemental Plan.

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

## Major Initiatives and Significant Events

Throughout the past year, DPFP remained focused on the work started in 2015 to restore the solvency of the Combined Pension Plan and ensure a secure retirement for former, current and future Dallas Police Officers and Firefighters. In July 2015, the actuary reported for the first time that the Plan was projected to be insolvent within 15 years due to the reductions in the valuation of certain real estate and private equity investments and recognition that the investment portfolio was not expected to earn the rate of return previously projected. The assumed rate of return was reduced from 8.5% to 7.25% in 2015. During 2016, the crisis accelerated when members withdrew more than \$600 million from their Deferred Retirement Option Plan (DROP) accounts in the latter half of the year. The vast increase in DROP distributions created substantial liquidity strains for the portfolio and caused debt compliance issues. In order to meet liquidity demands, equity and fixed income sales ensued. In addition, private equity and real estate assets were sold to generate liquidity, to bring the asset classes closer to the target and reduce unfunded commitments. The Board voted to stop honoring DROP withdrawal requests in December 2016 and adopted a DROP policy in January 2017 which limited future DROP distributions based on liquidity and debt covenant requirements.

A sub-committee of the Board began working with the actuary to evaluate all potential plan design changes when the insolvency was first reported in 2015. A Plan Amendment election which would have increased contribution rates and reduced benefits, including changes to the DROP program, was presented to the members in December 2016. However, it failed to receive the required 65% approval rate by the members who voted. After the members failed to approve the Plan Amendments, the Board had to turn to the legislature for a solution. A portion of the Trustees and staff worked with the City of Dallas to develop plan changes to propose to the legislature. DPFP drafted a bill working with the Chairman of the House Pensions Committee, Representative Dan Flynn. HB 3158 was passed unanimously by both the House of Representatives and the Senate and signed by Governor Abbott on May 31, 2017.

HB 3158 was effective September 1, 2017 and made significant changes to governance, contribution rates and benefits, including the structure of DROP. A full new Board was seated on October 12, 2017. As soon as HB 3158 was signed into law, staff provided information about the specific changes in letters and presentations to members. All members, whether active or retired were impacted by the changes in the bill. In addition to benefit, contribution and governance changes, the bill also had approximately two dozen additional requirements that were to be completed by specific dates with the majority of the deadlines December 31, 2017. These requirements included a variety of items such as performing a hybrid pension analysis, preparing a report that identified potential pension spiking opportunities, adopting an ethics policy, appointing an executive director, providing members the

opportunity to revoke a prior DROP election, and many others. The DROP revocation process had a deadline of February 28, 2018 and 183 members elected to revoke their prior election to participate in DROP.

The Board and staff timely completed all requirements of the bill. Implementing the benefit and contribution changes required policy, procedure and significant software changes. Software changes were prioritized and those critical to be completed prior to September 1, 2017 were completed, tested and implemented. As of the date of this letter the majority of the software changes have been completed and a small number of non-critical and “clean up” items remain outstanding.

The uncertainty caused by the pension crisis, as well as other issues not related to the pension, resulted in a historic number of employees leaving their employment with the City of Dallas Police and Fire departments both by retiring and terminating prior to retirement. Active members at January 1, 2018 declined by 463 or 8.6% from January 1, 2016. The rates of employees leaving the departments by both retirement and termination has reverted back to more typical levels. However, the City has significantly underachieved their hiring goals and their Computation Pay projections. Achieving the City’s Hiring Plan Computation Pay projections as represented in the legislative process is a critical component to the solvency of the Plan.

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

## Funding Status

The January 1, 2018 funding ratio based on the actuarial value of assets for the Combined Pension Plan was 47.7% and the funding period was 45 years. The unfunded actuarial accrued liability as of January 1, 2018 was \$2.4 billion a increase of approximately \$145 million from the previous year. A decrease in the funded ratio is expected for many years even if all assumptions are met. The decrease was greater than expected due to the change in assumption of the interest rate assumed on DROP annuitization and the impact of the DROP revocations.

The legislation was based on payroll projections that were prepared by the City of Dallas. The projections, referred to as the Hiring Plan, have total computation pay at \$372 million in 2017 increasing to \$684 million in 2037, an average annual growth rate of 3.1%. Through 2024 there is a minimum floor on City contribution levels, therefore the risk of underachieving contribution revenue only relates to the employee contributions. Beginning in 2025, when the City is expected to contribute based solely on computation pay, differences between actual computation pay and the City’s Hiring Plan will have a significant impact on the funding level of the Plan. The actuarial valuation is based on the City’s Hiring Plan projections. The City has not met the Hiring Plan projected computation pay in any pay period since the passage of the bill.

The December 31, 2017 GASB No. 67 pension liability calculation was based on cash flows of 90% of the City’s Hiring Plan projections after 2024. It is too soon to determine if the trend of underachieving the Hiring Plan will continue into future years. If it appears the Hiring Plan is not achievable, further discounts to the Hiring Plan computation pay will be included in future years’ GASB No. 67 liability calculations, which may result in a lower discount rate and significantly higher pension liabilities.

Due to the timing of the passage of HB 3158 and the issuance of the actuarial valuation, the January 1, 2017 actuarial valuation calculations included the impacts of HB 3158 and reported an actuarial funding ratio of 49.4% and the funding period was 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. The unfunded liability in the Combined Plan declined by 32% or approximately \$1 billion due to the passage of HB 3158. The decline in the unfunded liability would have been greater but total assets declined by \$531 million during the same period due to the increased DROP withdrawals.

The changes resulting from HB 3158 also apply to the Supplemental Plan. The January 1, 2018 actuarial funding ratio for the Supplemental Plan was 51.5% and the unfunded liability as of January 1, 2018 was \$16.7 million. The City's contribution to the Supplemental Plan is based on a ten-year amortization period. The City's contribution to the Supplemental Plan decreased by 32% or \$987 thousand in 2017 due to the reduction in the liability resulting from HB 3158.

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

## 2017 Financial Results

The Plans' net position decreased by \$47 million in 2017 primarily the result of benefit payments exceeding total contribution payments. The net benefit outflow was partially offset by investment gains. The net position was relatively stable for the first time since 2013 due to the passage of HB 3158. Although positive, investment returns were lower than many other public pension plans primarily a result of holding large cash balances during the majority of 2017, the under allocation to equity securities and the underperforming illiquid legacy real estate portfolio.

The rate of return on investments during 2017 was 5.1% net of fees, compared to a rate of return of 3.2% and (12.6%) for 2016 and 2015, respectively. The rate of return is provided by NEPC, LLC, DFPF's investment consultant as of December 31, 2017. 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.

During 2018 DFPF hired Brenda Barnes to serve as the Chief Financial Officer.

Additional information on financial results is provided in the MD&A, Financial and Investment sections. The Investment Consultant's Report in the Investment section provides additional economic information and the rate of the return for 2017.

## Investment Program

In 2016, the Board adopted a new Investment Policy Statement and a new asset allocation designed to enhance DFPF'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.

DFPF began 2017 with excess cash which was a result of efforts to generate liquidity to meet DROP lump sum withdrawal requests in the latter half of 2016. The Board temporarily stopped accepting DROP lump sum withdrawal requests in December of 2016 and adopted a DROP policy in January of 2017 which governed how and when DROP balances could be distributed to retirees and beneficiaries. The timing of these actions as well as closing on Private Equity, Private Debt and Real Estate sales in early 2017 resulted in excess cash (14.1% actual compared to 2% target) and an under-allocation to the equity and fixed income asset classes. The Board did not begin deploying the excess cash until June after HB 3158 was signed into law due to the uncertainty surrounding the legislation and pending litigation and the transition to a new Board.

The Board made investments in six new asset managers in the latter half of 2017, two global equity managers, one manager each in bank loans, short-term core bonds, emerging markets debt and emerging markets equity.

With the passage of HB 3158, the new governing Board of Trustees was fully seated in October 2017. As one of their first investment related actions, the Board directed staff to conduct an Investment Consultant Search in November 2017.



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The Meketa Investment Group was selected as DPFP's new investment consultant in April 2018. Meketa provided an initial fund review to the Board in August 2018 which provides a roadmap for portfolio related activities over the next few years. It is anticipated that the Board will adopt a new asset allocation and an updated Investment Policy Statement in late 2018 or early 2019. The Board acted based on Meketa recommendations, in 2018 to temporarily suspend the asset allocation for the cash and short-term core bonds categories allowing the combination of those asset categories to be a total of 15% and reducing, the allocation to the GAA asset class to zero. The Board liquidated the GAA investments and deployed the funds to short-term core bonds to create a safety reserve equal to approximately two and a half years of benefit payments.

Over the course of the year, the size of the investment portfolio decreased by approximately \$178 million to \$2.11 billion in investment assets.

During 2018 DPFP hired Kent Custer to serve as the Chief Investment Officer.

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

## Illiquid Real Estate and Private Asset Portfolio

During 2017 DPFP made progress towards reducing an overallocation to private assets primarily through sales of Real Assets and Private Equity interests. Despite the sales progress, due in large part to the reduction in liquid assets caused by the DROP outflows of 2016, illiquid investments still comprised approximately 49% of the portfolio as of December 31, 2017. DPFP sold two wholly-owned assets as well as continued condominium and land parcel sales during 2017 resulting in proceeds of \$75.5 million. In addition, DPFP sold its direct investment in two North Texas managed lanes projects for \$180 million in September 2017. DPFP had a combined \$87 million invested in these projects. At December 31, 2017 the following illiquid asset classes had balances exceeding the target allocation: the Real Estate asset category was 25.2% of the portfolio and the target is 12%, Private Equity was 10.5% of the portfolio with a target of 5% and Natural Resources was 9.9% of the portfolio with a target of 5%.

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 continued its efforts begun in 2015 to eliminate Plan level debt. DPFP had a credit agreement with Bank of America, N.A. which provided both a revolving line of credit and a term loan. Repayments of \$100 million and \$103 million were made in 2015 and 2016, respectively. At December 31, 2016 the combined outstanding debt was \$130 million. The balance was paid in full during 2017.

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

## Legal Expenses and Litigation

The challenges faced by DPFP involved extensive legal analysis and included litigation matters related to DROP withdrawals and plan amendments. In 2017 DPFP incurred \$2.4 million in legal expenses which were offset by an insurance reimbursement of \$1.4 million. Non-investment related legal expenses net and gross of the insurance reimbursement were 13% and 29% of total administrative and professional expenses in 2017, respectively.

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

## Awards

### Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to DFPF for its Comprehensive Annual Financial Report for the fiscal year ended December 31, 2017. This was the third consecutive year that the government has achieved this prestigious award. In order to be awarded a Certificate of Achievement a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to GFOA to determine its eligibility for another certificate.

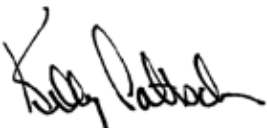
### Public Pension Standards Award for Administration

The Public Pension Coordinating Council (PPCC) gave the 2017 Public Pension Standards Award for Administration to DFPF 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 DFPF for their support as we addressed the solvency of the Plan, it was and continues to be a very challenging time for many of our members. Also, I would like to express my sincere thanks to the immediate past Board for their perseverance and dedicated efforts in passing HB 3158 and putting the Plan on a path to solvency. I would like to thank the new Board, a group of talented individuals who stepped up in a challenging time and are using their knowledge, skills and abilities to guide DFPF for the benefit of the members which is critical for the success of the Dallas community. Additionally, I would like to thank the staff and consultants for their commitment to DFPF and their diligent work to assure DFPF's success. Lastly, I would like to expressly recognize the work of Joshua Mond, General Counsel, Summer Loveland former Chief Financial Officer, Sam Friar, former Board Chair and current Deputy Vice Chair for their support and dedicated work throughout the crisis and in passing the legislative process.

Respectfully submitted,



Kelly Gottschalk  
Executive Director

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# Board of Trustees

HB 3158 changed the makeup of the Board of Trustees. Article 6243a-1 governs the makeup and responsibilities of the Board as of September 1, 2017. The Board is responsible for the administration of DPFP and investment of the assets of the Combined Pension Plan and Supplemental Police and Fire Pension Plan of the City of Dallas.

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

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

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

The Board serves without compensation and meets not less than once each month. Six Trustees of the Board constitute a quorum at any meeting. Six affirmative votes are required to pass a motion regardless of the number of Trustees in attendance at a meeting. Some actions, specifically identified in HB 3158, require a vote of at least eight Trustees.

# Board of Trustees



**William F. Quinn**  
Chairman  
Mayoral Appointee  
Term Expires 8/2020



**Nicolas A. Merrick**  
Vice Chairman  
Mayoral Appointee  
Term Expires 8/2019



**Samuel Friar**  
Deputy Vice Chairman  
Fire Trustee  
Term Expires 8/2020



**Blaine Dickens**  
Non-member Trustee  
Term Expires 8/2019



**Gilbert Garcia**  
Non-member Trustee  
Term Expires 8/2019



**Tina Hernandez Patterson**  
Non-member Trustee  
Term Expires 8/2019



**Ray Nixon**  
Mayoral Appointee  
Term Expires 8/2019



**Frederick E. Rowe**  
Mayoral Appointee  
Term Expires 8/2020



**Joseph Schultz**  
Police Trustee  
Term Expires 8/2020

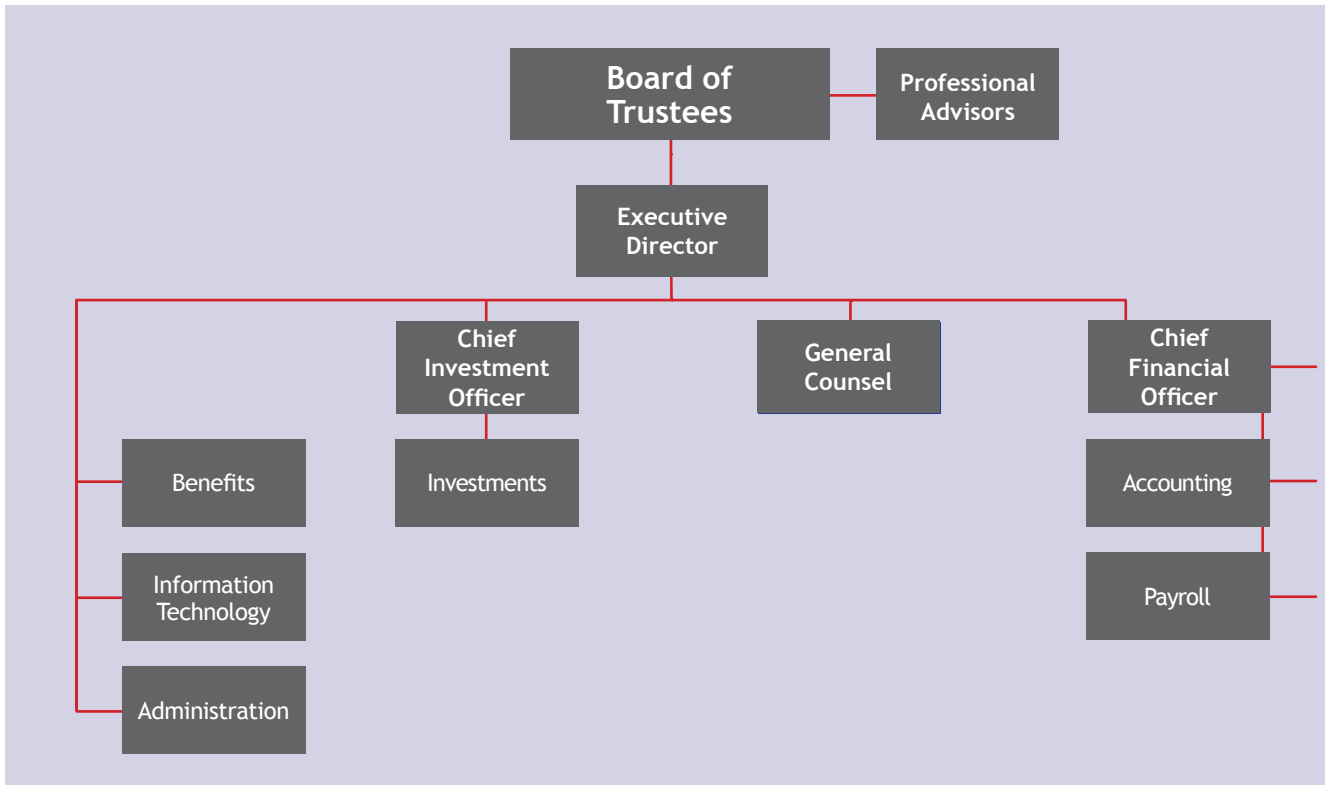


**Robert C. Walters**  
Mayoral Appointee  
Term Expires 8/2020



**Kneeland Youngblood**  
Mayoral Appointee  
Term Expires 8/2019

# Administrative Organization



## Professional Advisors as of December 31, 2017

**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 85)

**Legislative Consultants**  
HillCo Partners, LLC

## Executive Staff as of December 31, 2017

**Executive Director**  
Kelly Gottschalk, CPA

**General Counsel**  
Joshua Mond

**Chief Financial Officer**  
Vacant

**Chief Investment Officer**  
Vacant

## Updates After December 31, 2017

**Investment Consultant**  
Meketa Investment Group - April 2018

**Chief Financial Officer**  
Brenda Barnes - July 2018

**Chief Investment Officer**  
Kent F. Custer - July 2018

Note: A schedule of investment management fees is provided in the Investment section of this report at page 83.



*Financial  
Information*

# Independent Auditor's Reports



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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, 2017 and 2016, 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, 2017 and 2016, 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.

**Other Information**

Our audits were conducted for the purpose of forming an opinion on the basic financial statements as a whole. The accompanying supplementary schedule of Administrative, Investment and Professional Services Expenses is presented for the purpose of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of DPFP management and was derived from and related directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

**Other Reporting Required by Government Auditing Standards**

In accordance with Government Auditing Standards, we have also issued our report dated October 10, 2018 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.

Dallas, Texas

October 10, 2018

BDO USA, LLP





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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, 2017 and 2016, 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 October 10, 2018.

### ***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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***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

October 10, 2018

# 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, 2017 and 2016. 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:	2017	2016	2015
<b>Assets</b>			
Investments, at fair value	\$ 1,990,602	\$ 1,960,057	\$ 2,827,859
Invested securities lending collateral	12,153	21,671	94,246
Receivables	34,629	29,378	58,568
Cash and cash equivalents	118,587	326,785	77,072
Prepaid expenses	436	460	202
Capital assets, net	12,715	12,041	12,192
<b>Total assets</b>	<b>2,169,122</b>	<b>2,350,392</b>	<b>3,070,139</b>
<b>Liabilities</b>			
Notes payable	-	130,000	235,315
Securities purchased	31,411	24,353	37,341
Securities lending obligations	12,153	21,671	94,246
Accounts payable and accrued liabilities	4,407	6,036	3,656
<b>Total liabilities</b>	<b>47,971</b>	<b>182,060</b>	<b>370,558</b>
<b>Net position held in trust - restricted for pension benefits</b>	<b>\$ 2,121,151</b>	<b>\$ 2,168,332</b>	<b>\$ 2,699,581</b>

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 2017 was 5.1% net of fees, compared to a rate of return of 3.2% for 2016 and (12.6%) for 2015. The rate of return is provided by DFPF's investment consultant at December 31, 2017. 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 the investment consultant to calculate the rate of return incorporates a one quarter lag on market value adjustments for private equity, private debt, and real assets investments. This "lagged with cash flow adjustments" methodology is consistent with standard industry practice and allows for timely reporting to the Board of Trustees (Board). Gains and losses on lagged investments which occur in the fourth quarter of any year are recognized in the following year's rate of return.

The Plans' net position decreased by \$47 million in 2017 primarily the result of benefit payments exceeding total contribution payments. The net benefit outflow was partially offset by investment gains. The net position was relatively stable for the first time since 2013 due to passage of House Bill 3158 (HB 3158 or the bill) by the Texas legislature during the 85th legislative session. HB 3158 was passed unanimously by both the House of Representatives and the Senate and signed by Governor Abbott on May 31, 2017. HB 3158 was effective September 1, 2017 and made significant changes to governance, contributions and benefits, including the structure of the Deferred Retirement Option Plan (DROP). Additional information about HB 3158 is included in Notes 1, 5, 6, 12 and the Required Supplementary Information accompanying the financial statements.

The Plans' net position decreased by \$531 million in 2016 primarily as the result of payments of lump sum amounts from 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

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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. 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.

Securities lending collateral and obligations decreased in 2017 due to the decline in volume of lending activity resulting from asset sales to meet liquidity needs in 2016 and the delay in redeploying excess cash during the legislative process in 2017. 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 2017 and 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:	2017	2016	2015
<b>Additions / (Reductions)</b>			
Contributions			
City	\$ 128,395	\$ 122,409	\$ 117,328
Members	33,044	25,553	25,720
<b>Total contributions</b>	<b>161,439</b>	<b>147,962</b>	<b>143,048</b>
Net income (loss) from investing activities	97,456	165,326	(237,572)
Net income from securities lending activities	101	402	544
Other income	2,094	204	132
<b>Total additions (reductions)</b>	<b>261,090</b>	<b>313,894</b>	<b>(93,848)</b>
<b>Deductions</b>			
Benefits paid to members	295,245	827,649	285,857
Refunds to members	3,578	3,354	1,786
Interest expense	1,290	4,569	6,049
Professional and administrative expenses	8,158	9,571	8,479
<b>Total deductions</b>	<b>308,271</b>	<b>845,143</b>	<b>302,171</b>
<b>Net decrease in net position</b>	<b>(47,181)</b>	<b>(531,249)</b>	<b>(396,019)</b>
Net position held in trust - restricted for pension benefits			
Beginning of period	2,168,332	2,699,581	3,095,600
End of period	\$ 2,121,151	2,168,332	\$ 2,699,581

The passage of HB 3158 increased the contribution rates for active members and the City effective the first bi-weekly pay period beginning after September 1, 2017, which was September 6, 2017.

Contributions for active members not participating in DROP were 8.5% of base pay plus education and longevity pay (Computation Pay) while contributions for active members participating in DROP were 4% of Computation Pay prior to the effective date of HB 3158. As of September 6, 2017 the contribution rate for all active members is 13.5% of Computation Pay regardless of the member's DROP participation status. The 29% increase in employee contribution revenue is primarily a result of the higher employee contribution rate for the last four months of 2017 plus \$600 thousand of additional contributions received in 2017 for pension buy-backs related to DROP revocations and military service purchases. See Note 6 for information on DROP revocations. The City did not meet the Hiring Plan Computation Pay represented during the legislative process which resulted in lower employee contributions than expected for 2017. Compensation increases granted as a result of the 2016 Meet and Confer agreement were offset by total compensation declines due to high employee vacancies.

The City contribution rate for the Combined Pension Plan is statutorily defined and was 27.5% of total salary and wages, including overtime, for all members in active service prior to the effective date of HB 3158. HB 3158 required that effective September 6, 2017, the City contribute the greater of (i) 34.5% of Computation

Pay and (ii) or a bi-weekly minimum amount (floor) defined in the bill plus \$13 million annually until December 31, 2024. After 2024, the bi-weekly floor amount and the additional \$13 million annual contribution are eliminated. After 2024, the bill requires an independent analysis to be performed at that time to determine if the plan is adequately funded based on standards established by the Texas Pension Review Board (PRB) and changes are required if the funding level is below the amortization period requirements under Section 802 of the Texas Government Code. See Note 1 for additional information on City contributions rates.

Total City contribution revenue to the Plans increased 5% (\$6 million) over 2016 contributions. City contribution revenue in the Combined Pension increased by \$7 million while City Contribution revenue in the Supplemental Plan decreased by \$1 million.

In the Combined Pension Plan, 60% (\$4 million) of the increased City contribution revenue in 2017 was due to the HB 3158 required additional \$13 million annual contribution which is paid \$500 thousand with each bi-weekly payroll. The remainder of the increase in contributions is due to the contribution floor. Although the City contribution rate increased from 27.5% to 34.5%, the resulting contributions did not increase significantly, due to the change in the rate because overtime was eliminated from the City's contribution formula. The floor has been greater than the 34.5% of Computation Pay for all pay periods. The City's Computation Pay has not met the Hiring Plan Computation Pay represented by the City during the legislative process.

The City is required by ordinance to contribute amounts necessary to maintain the Supplemental Plan as determined by an actuary. The City contribution to the Supplemental Plan decreased by \$987 thousand or 32% because of the reduction in the Plan liability due to the passage of HB 3158.

The slight decrease in member contributions in 2016 was the result of a reduction in the number of active members compared to 2015 which was not fully offset by pay increases, while the increase in city contributions was the result of increased overtime pay which more than offset reductions from the decline in headcount.

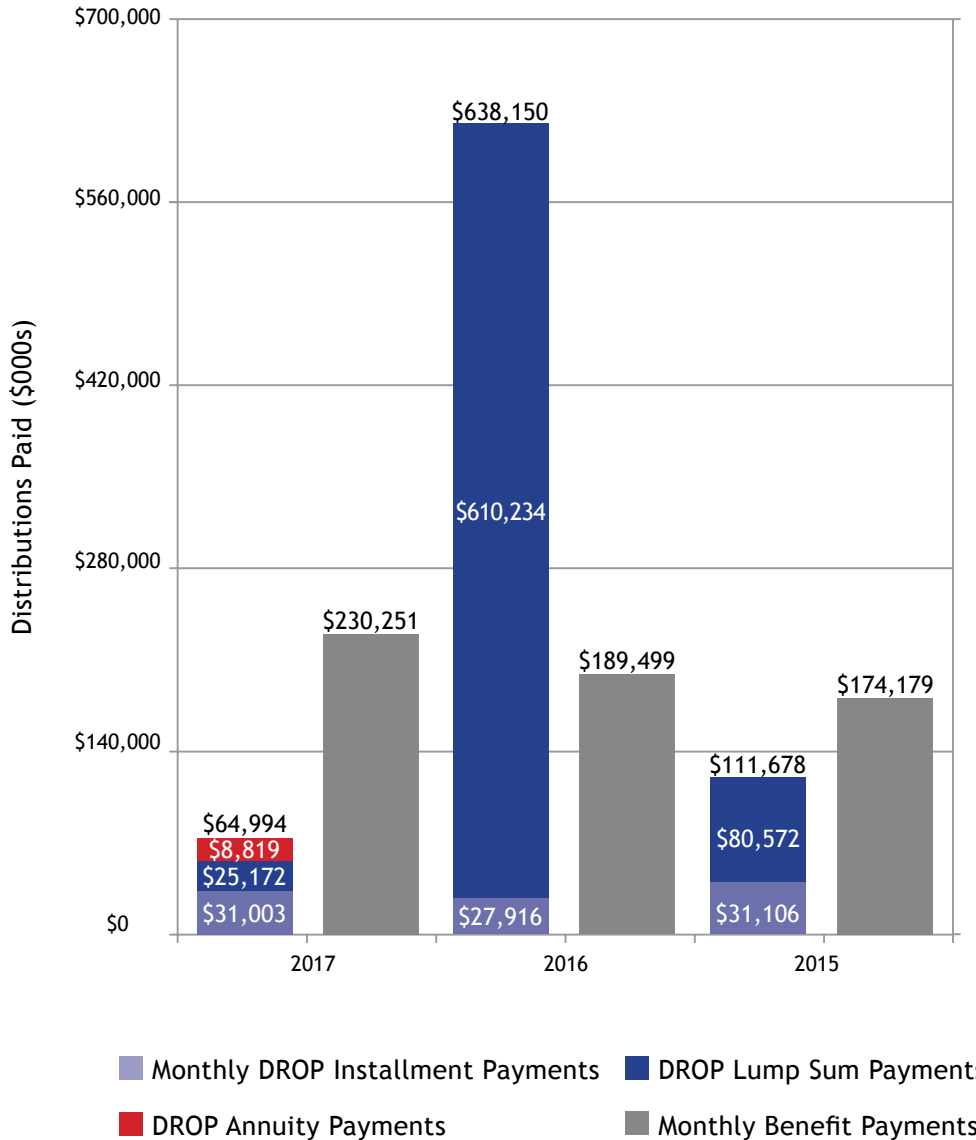
The increase in other revenue of \$1.9 million in 2017 is primarily due to the settlement of an investment related litigation matter and a property tax refund.

The Group Trust was over-allocated to cash for the majority of 2017 due to the uncertainty about what type of legislation would ultimately be passed and pending litigation as well as the transition to a new board which would then be tasked with deciding how to allocate excess cash. After the bill was signed, cash was redeployed into assets. The overallocation to cash resulted in lower income from investing activities in 2017. Also, the income from investing activities in 2016 included a \$92 million gain from the sale of two infrastructure assets which were under contract for sale at December 31, 2016 and closed in 2017. This gain was partially offset by losses on private equity sales that were sold or under contract at December 31, 2016.

Distributions to members consist of monthly payments of retirement, disability, and survivor benefits, as well as monthly installment payments and lump sum payments of DROP balances and monthly DROP annuity payments. The chart below compares the components of distributions paid to members for the years ended December 31, 2017, 2016, and 2015.

## Distributions Paid To Members

Twelve Months Ended December 31



Benefits paid in 2017 decreased \$532 million or 64% over 2016 as the result of the significant decrease (\$573 million) in DROP payments partially offset by a \$41 million increase in monthly benefit payments. DROP payments declined as a result of the Board’s action in December 2016 to stop honoring DROP lump sum payment requests due to liquidity constraints. DROP distributions remained constrained in 2017 to comply with debt agreements, litigation matters and the provisions of HB 3158. Distributions from DROP balances in 2017 totaled \$65 million including monthly installments for two months for certain members, a \$6.6 million pro-rata lump sum distribution for those members with DROP lump sum requests submitted prior to the December 2016 DROP policy change, the Internal Revenue Code Required Minimum Distributions for certain members and distributions in accordance with the January 2017 amended DROP policy which allowed each DROP account holder to receive \$3,000 per month and the ability to request distributions for unforeseeable emergencies. The \$3,000 payment provision stopped once the DROP accounts were annuitized in November 2017 in accordance with HB 3158.



DROP annuity payments for November and December totaled \$8.8 million. See Note 6 for additional information on DROP. Monthly benefits increased by \$41 million due to the cost of living adjustment granted in October 2016 and 304 additional retirees and beneficiaries receiving monthly benefits in 2017.

Interest expense decreased by \$3.3 million in 2017 from the 2016 level which was \$1.5 million lower than the prior year. The reduced interest is a result of the reduction of the debt outstanding, the modification of the terms in 2016 and the pay-off of outstanding debt in 2017. See Note 7 for the discussion of Notes Payable.

Refund expense includes \$460 thousand of additional expense due to a change in the interpretation of the calculation of the liability accrual. The cost of administering the benefit programs of the Plans, including administrative costs and professional fees, decreased approximately \$1.4 million in 2017 compared to an increase of \$1.1 million in 2016. The decrease in 2017 is primarily related to a \$1.4 million reimbursement from insurance for legal expenses. Excluding the insurance reimbursement, legal expenses incurred in 2017 were \$2.4 million, approximately \$200 thousand lower than 2016. The increased legal costs in 2016 and continued high legal costs in 2017 are 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. Although remaining higher than normal due to the work related to HB 3158, actuarial expenses were \$89 thousand lower than 2016. Increased expenses of \$69 thousand and \$220 thousand in the legislative and communications categories, respectively, related to the pension crisis and legislative process. 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 three years, beginning as of January 1, 2015, due to 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. 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 Article 6243a-1, 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 HB 3158 which required extensive contribution and benefit changes.

DPPF's actuarial firm, Segal Consulting (Segal), conducts the annual actuarial valuations to determine if the assets and contributions are sufficient to provide the prescribed benefits (funding positions) of the Plans. Although the effective date of HB 3158 was September 1, 2017, the January 1, 2017 actuarial valuation considered the results of the changes due to the timing of the bill passage and the significance of the plan changes. The January 1, 2018 valuation considers the impact of the 183 members that elected to revoke their prior DROP election, 145 of the DROP revocations were completed in 2018.

The January 1, 2018 actuarial valuation reports a funded ratio of 47.7%, an unfunded actuarial accrued liability of \$2.4 billion and an expected fully funded date of 2063 for the Combined Pension Plan compared to a funded ratio of 49.4%, an unfunded actuarial accrued liability of \$2.2 billion and an expected fully funded date of 2061 for the Combined Pension Plan as reported in the January 1, 2017 actuarial valuation. The January 1, 2017 funding results reflected improvement over 2016 due to the passage of HB 3158. The January 1, 2016 actuarial valuation reported a funded ratio of 45.1%, an unfunded actuarial accrued liability of \$3.3 billion and the Combined Pension Plan was projected to be insolvent in 15 years.

The January 1, 2018 actuarial valuation reports a funded ratio of 51.5% and an unfunded actuarial accrued liability of \$16.7 million for the Supplemental Plan compared to a funded ratio of 52.9% and an unfunded actuarial accrued liability of \$15.7 million for the Supplemental Plan as reported in the January 1, 2017 actuarial valuation. The January 1, 2017 funding results reflect improvement due to the passage of HB 3158. The January 1, 2016 actuarial valuation reported a funded ratio of 45.8% and an unfunded actuarial accrued liability of \$23 million.

These projections may vary on an annual basis due to actual experience and demographics which may vary from the current actuarial assumptions. Beginning in 2025, once the City is contributing based solely on Computation Pay with no "floor" as discussed below, differences between actual payroll and the City's current projections may have a significant impact on the projected funding period.

The total Actuarially Determined Contribution (ADC) rate required to pay the normal cost and to amortize the unfunded actuarial accrued liability over a 30-year period is currently 58.9% of Computation Pay compared to 57% and 79% as of January 1, 2017 and 2016, respectively. The decrease in the ADC in the January 1, 2017 actuarial valuation from the January 1, 2016 actuarial valuation reflects the impact of the significant changes resulting from the passage of HB 3158. The ADC rate compares to the City's actual contribution rate of 34.5% of Computation Pay as of the first pay period that begins after September 1, 2017 which is subject to a minimum "floor" amounts per the bill for the next seven years, plus the member contribution of 13.5% beginning September 6, 2017, plus an additional \$13 million per year from the City until December 31, 2024.

Governmental Accounting Standards Board Statement No. 67, *Financial Reporting for Pension Plans - An Amendment of GASB Statement No. 25*, (GASB No. 67) requires disclosure of the Net Pension Liability (NPL). The GASB No. 67 valuation is prepared by Segal and is a calculation for accounting purposes as opposed to the actuarial valuation which is completed to determine the funding adequacy of the Plans. The NPL is the difference between the Total Pension Liability (TPL) and the market value of assets. GASB No. 67 requires the determination of the TPL using the individual entry age method, level percent of pay actuarial cost method, and a discount rate. The GASB No. 67 calculation is based on the benefit structure in place at year end, therefore the GASB No. 67 calculation completed for December 31, 2016 did not consider the impacts of HB 3158, while the actuarial valuation included the impacts.

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The GASB No. 67 for December 31, 2017 includes the impacts of HB 3158 and reports a NPL of \$2.4 billion which is a decrease of \$3.9 billion from the NPL reported at December 31, 2016 for the Combined Pension Plan. The Fiduciary Net Position as a Percentage of Total Pension Liabilities (FNP) is 46.8% at December 31, 2017 compared to 25.5% at December 31, 2016 for the Combined Pension Plan. The Supplemental Plan had a NPL of \$16 million and \$23 million at December 31, 2017 and 2016, respectively. The Supplemental Plan had a FNP of 52.9% and 43.5% at December 31, 2017 and 2016, respectively.

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

## Contacting DPFP's Financial Management

This financial report is designed to provide members and other users with a general overview of DPFP's finances and present the Plans' accountability for the funding received. If you have questions about this report, you may contact the Executive Director of the Dallas Police and Fire Pension System at 4100 Harry Hines Boulevard, Suite 100, Dallas, Texas 75219, by phone at 214.638.3863, or by email at [info@dpfp.org](mailto:info@dpfp.org).

# Combining Statements of Fiduciary Net Position

DECEMBER 31,	2017			2016		
	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
<b>Assets</b>						
<b>Investments, at fair value</b>						
Short-term investments	\$ 23,929,959	\$ 202,714	\$ 24,132,673	\$ 7,095,453	\$ 58,339	\$ 7,153,792
Fixed income securities	325,258,334	2,755,315	328,013,649	267,687,478	2,200,932	269,888,410
Equity securities	466,132,328	3,948,680	470,081,008	153,397,855	1,261,240	154,659,095
Real assets	794,476,173	6,730,133	801,206,306	1,119,758,392	9,206,677	1,128,965,069
Private equity	220,240,515	1,865,692	222,106,207	262,620,347	2,159,270	264,779,617
Alternative investments	143,709,605	1,217,387	144,926,992	133,798,219	1,100,092	134,898,311
Forward currency contracts	134,137	1,136	135,273	(284,449)	(2,339)	(286,788)
Total investments	1,973,881,051	16,721,057	1,990,602,108	1,944,073,295	15,984,211	1,960,057,506
Invested securities lending collateral	12,050,625	102,083	12,152,708	21,494,665	176,730	21,671,395
<b>Receivables</b>						
City	2,026,827	-	2,026,827	1,288,353	-	1,288,353
Members	641,998	1,147	643,145	279,043	427	279,470
Interest and dividends	2,924,484	24,774	2,949,258	2,920,613	24,013	2,944,626
Investment sales proceeds	28,155,275	238,508	28,393,783	24,509,363	201,516	24,710,879
Other receivables	610,876	5,175	616,051	153,268	1,260	154,528
Total receivables	34,359,460	269,604	34,629,064	29,150,640	227,216	29,377,856
Cash and cash equivalents	117,590,839	996,131	118,586,970	324,119,633	2,664,919	326,784,552
Prepaid expenses	431,773	3,658	435,431	456,034	3,750	459,784
Capital assets, net	12,608,396	106,808	12,715,204	11,943,266	98,198	12,041,464
<b>Total assets</b>	<b>2,150,922,144</b>	<b>18,199,341</b>	<b>2,169,121,485</b>	<b>2,331,237,533</b>	<b>19,155,024</b>	<b>2,350,392,557</b>
<b>Liabilities</b>						
Notes payable	-	-	-	128,939,854	1,060,146	130,000,000
<b>Other Payables</b>						
Other securities purchased	31,147,075	263,852	31,410,927	24,153,956	198,594	24,352,550
Securities lending obligations	12,050,625	102,083	12,152,708	21,494,665	176,730	21,671,395
Accounts payable and other accrued liabilities	4,378,973	28,253	4,407,226	5,987,255	49,227	6,036,482
<b>Total liabilities</b>	<b>47,576,673</b>	<b>394,188</b>	<b>47,970,861</b>	<b>180,575,730</b>	<b>1,484,697</b>	<b>182,060,427</b>
<b>Net position</b>						
Net investment in capital assets	12,608,396	106,808	12,715,204	11,943,266	98,198	12,041,464
Unrestricted	2,090,737,075	17,698,345	2,108,435,420	2,138,718,537	17,572,129	2,156,290,666
<b>Net position held in trust-restricted for pension benefits</b>	<b>\$ 2,103,345,471</b>	<b>\$ 17,805,153</b>	<b>\$ 2,121,150,624</b>	<b>\$ 2,150,661,803</b>	<b>\$ 17,670,327</b>	<b>\$ 2,168,332,130</b>

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

# Combining Statements of Changes in Fiduciary Net Position

YEARS ENDED DECEMBER 31,	2017			2016		
	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
<b>Additions (Reductions)</b>						
Contributions						
City	\$ 126,318,005	\$ 2,077,059	\$ 128,395,064	\$ 119,345,000	\$ 3,063,584	\$ 122,408,584
Members	32,977,425	66,095	33,043,520	25,518,317	34,612	25,552,929
<b>Total contributions</b>	<b>159,295,430</b>	<b>2,143,154</b>	<b>161,438,584</b>	<b>144,863,317</b>	<b>3,098,196</b>	<b>147,961,513</b>
Investment income (loss)						
Net appreciation (depreciation) in fair value of investments	74,836,102	535,674	75,371,776	121,518,053	786,478	122,304,531
Interest and dividends	30,923,115	261,955	31,185,070	54,354,246	446,902	54,801,148
<b>Total gross investment income (loss)</b>	<b>105,759,217</b>	<b>797,629</b>	<b>106,556,846</b>	<b>175,872,299</b>	<b>1,233,380</b>	<b>177,105,679</b>
Less: Investment expense	(9,024,584)	(76,449)	(9,101,033)	(11,683,217)	(96,060)	(11,779,277)
<b>Net investment income (loss)</b>	<b>96,734,633</b>	<b>721,180</b>	<b>97,455,813</b>	<b>164,189,082</b>	<b>1,137,320</b>	<b>165,326,402</b>
Securities lending income						
Securities lending income	185,159	1,569	186,725	656,928	5,401	662,329
Securities lending expense	(84,612)	(717)	(85,329)	(258,130)	(2,122)	(260,252)
<b>Net securities lending income</b>	<b>100,547</b>	<b>852</b>	<b>101,399</b>	<b>398,798</b>	<b>3,279</b>	<b>402,077</b>
Other income	2,075,970	17,586	2,093,556	203,076	1,670	204,746
<b>Total additions (reductions)</b>	<b>258,206,580</b>	<b>2,882,772</b>	<b>261,089,352</b>	<b>309,654,273</b>	<b>4,240,465</b>	<b>313,894,738</b>
<b>Deductions</b>						
Benefits paid to members	292,576,281	2,668,579	295,244,860	821,737,799	5,911,533	827,649,332
Refunds to members	3,577,530	-	3,577,530	3,354,333	-	3,354,333
Interest expense	1,279,517	10,839	1,290,356	4,532,196	37,264	4,569,460
Professional and administrative expenses	8,089,584	68,528	8,158,112	9,492,445	78,047	9,570,492
<b>Total deductions</b>	<b>305,522,912</b>	<b>2,747,946</b>	<b>308,270,858</b>	<b>839,116,773</b>	<b>6,026,844</b>	<b>845,143,617</b>
<b>Net increase/(decrease) in net position</b>	<b>(47,316,332)</b>	<b>134,826</b>	<b>(47,181,506)</b>	<b>(529,462,500)</b>	<b>(1,786,379)</b>	<b>(531,248,879)</b>
<b>Net position held in trust - restricted for pension benefits</b>						
Beginning of period	2,150,661,803	17,670,327	2,168,332,130	2,680,124,303	19,456,706	2,699,581,009
End of period	\$ 2,103,345,471	\$ 17,805,153	\$ 2,121,150,624	\$ 2,150,661,803	\$ 17,670,327	\$ 2,168,332,130

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, 2017 and 2016, the Combined Pension Plan’s membership consisted of:

	2017	2016
Retirees and beneficiaries	4,748	4,456
Non-active vested members not yet receiving benefits	226	215
Non-active non-vested members not yet refunded	399	295
<b>Total non-active members</b>	<b>5,373</b>	<b>4,966</b>
Vested active members	3,757	3,978
Non-vested active members	1,195	1,126
<b>Total active members</b>	<b>4,952</b>	<b>5,104</b>

As of December 31, 2017 and 2016, the Supplemental Plan’s membership consisted of:

	2017	2016
<b>Total non-active members</b>	<b>141</b>	<b>128</b>
Vested active members	42	47
Non-vested active members	2	-
<b>Total active members</b>	<b>44</b>	<b>47</b>

The benefit, contribution and administration plan provisions discussed below are as of December 31, 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, 2017:

- Members with 20 years or more of pension service are entitled to monthly pension benefits beginning at age 50 equal to 50% of base pay, defined as the maximum monthly civil service pay established by the City for a police officer or firefighter at the time of retirement, plus 50% of the longevity pay the member was receiving either at the time he or she left active service with the City or the effective date the member joined the Deferred Retirement Option Plan (DROP). Benefit payments are adjusted annually according to changes in active service base pay. Additionally, a member is eligible to receive 50% of the difference between any annualized City service incentive pay granted to the member less annual longevity pay.
- Members with 20 years or more of pension service are entitled to monthly pension benefits beginning at age 55 equal to 3% of their base pay, computed as noted in the prior paragraph, for each year of pension service with a maximum of 32 years. In addition, a member receives 50% of the longevity pay and 1/24th of any City service incentive pay the member was receiving either at the time he or she left active service with the City or the effective date the member joined DROP. Prior to September 1, 2017 pension benefit payments increased annually on October 1st by 4% of the initial benefit amount. After September 1, 2017 pension benefit payments are eligible for an ad hoc cost of living increase as approved by the Board, if certain funding requirements are met. It is not anticipated that the funding requirements necessary to grant an ad hoc cost of living increase will be met for several decades.

Group B members of the Combined Pension Plan receive one of two benefit structures as of December 31, 2017:

- Members who began membership before March 1, 2011 with 5 or more years of pension service are entitled to monthly pension benefits beginning at age 50 equal to 3% of the member's average base pay plus education and longevity pay (Computation Pay) determined over the highest 36 consecutive months of Computation Pay, multiplied by the number of years of pension service prior to September 1, 2017. The monthly pension benefit for service earned after September 1, 2017 is based on the highest 60 consecutive months of Computation Pay multiplied by a 2.5% multiplier at age 58. The multiplier is reduced to between 2.0% and 2.4% for retirement beginning at age 53 and prior to age 58. The member cannot accrue a monthly pension benefit that exceeds 90% of the member's average Computation Pay. Certain members may receive a 2.5% multiplier for pension service after September 1, 2017 prior to age 58 if the combination of their pre and post September 1, 2017 pension service calculations using the 2.5% multiplier for post September 1, 2017 meets or exceeds the 90% maximum benefit. Certain members who meet the service prerequisite or were 45 prior to September 1, 2017 may elect to take early retirement with reduced benefits starting at age 45, or earlier if the member has 20 years of pension service.
- Members who began membership after February 28, 2011 are entitled to monthly pension benefits after accruing 5 years of pension service and the attainment of age 58. Pension benefits are equal to the member's average Computation Pay determined over the highest 60 consecutive months of Computation Pay, multiplied by 2.5% for the number of years of pension service. The member cannot accrue a monthly pension benefit that exceeds 90% of the member's average Computation Pay. Certain members who meet the service prerequisite may elect to take early retirement with reduced benefits starting at age 53 or earlier if the member has 20 years of pension service.



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

After September 1, 2017, Group B benefits for all members are eligible for an ad hoc cost of living increase as approved by the Board, if certain funding requirements are met. It is not anticipated that the funding requirements necessary to grant an ad hoc cost of living increase will be met for several decades. Prior to September 1, 2017 Group B members hired prior to January 1, 2007 received an automatic annual increase of 4% of the initial benefit amount each October 1st. Group B members hired on or after January 1, 2007 were eligible for an ad hoc increase not to exceed 4% of the initial benefit amount.

Additional provisions under the Combined Pension Plan as of December 31, 2017 are as follows:

- Prior to September 1, 2017 members with over 20 years of pension service, upon attaining age 55, received a monthly supplement equal to the greater of \$75 or 3% of their total monthly benefits (excluding the benefit supplement amount). After September 1, 2017, no additional members will receive the monthly supplement and no increases will be made to the amount of the supplement received by those members receiving the supplement prior to September 1, 2017.
- Service-connected disability benefits are available for members in active service who began service prior to March 1, 2011 and have not entered DROP who become disabled during the performance of their duties from the first day of employment. Members receiving service-connected disability benefits are given credit for the greater of actual pension service or 20 years of pension service. A benefit of 3% times the average of the highest 36 consecutive months of Computation Pay times the number of years of pension service prior to September 1, 2017 and a multiplier based on their age at the time the disability is granted for pension service after September 1, 2017 plus additional time necessary to reach 20 years of pension service credit times the average of the highest 60 consecutive months of Computation pay. Members who began membership after February 28, 2011 and have not entered DROP are entitled to a disability benefit based on the average of the highest 60 consecutive months of Computation Pay times a 2.5% multiplier regardless of their age. If a member has more than 20 years of service, 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 prior to September 1, 2017, plus a multiplier based on their age at the time the disability is granted for pension service after September 1, 2017 times the average of the highest 60 consecutive months of Computation pay. Total service is rounded to the nearest whole year. Members who began membership after February 28, 2011 are entitled to a disability benefit based on the average of the highest 60 consecutive months of Computation Pay, times a 2.5% multiplier regardless of their age. All non-service connected disability benefits are subject to a minimum benefit of \$110 for every year of pension service. The minimum benefit cannot exceed \$2,200 per month. If the member has fewer than 36 or 60 months of service, based on hire date, the benefit is based on the average of Computation Pay during their entire pension service.



- Members who are eligible to retire are eligible to enter the DROP program which is an optional method of accruing monthly pension benefits prior to leaving active service. Members who are receiving disability benefits are not eligible to enter the DROP program. The amount of an active member's DROP balance is based on the accumulation of the member's monthly benefit each month while in active DROP, and interest accrued prior to September 1, 2017. DROP balances do not earn interest after September 1, 2017. DROP balances of retired members and other DROP account holders, excluding active member DROP account holders, were converted to annuities (a stream of payments) on November 30, 2017. DROP balances of active members are annuitized upon retirement. The life expectancy of a DROP account holder at the time of annuitization determines the term of the annuity. Interest is included in the annuity calculation for balances accrued prior to September 1, 2017. The interest rate is based on the provisions of HB 3158 and rules adopted by the Board. See Note 6 for information about the changes in the DROP program resulting from the passage of HB 3158. See below, under Contributions, for discussion of required DROP contributions. The total DROP account balance including the present values of the annuitized balances for the Combined Pension Plan was \$1.05 billion at December 31, 2017 and 2016. The total DROP balances include amounts that may be paid out of the Excess Benefit Plan and Trust.
- A minimum benefit is paid to vested retired members of 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 combined and qualified surviving spouses if qualified surviving children are receiving or had received benefits.

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

Members of the Supplemental Plan who enter the DROP program in the Combined Pension Plan also enter the DROP program in the Supplemental Plan. The total DROP account balance and the present value of the annuitized balances related to the Supplemental Plan was \$8.1 million and \$8.0 million at December 31, 2017 and 2016, respectively. The total DROP balances include amounts that may be paid out of the Excess Benefit Plan and Trust.

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

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

## Contributions

HB 3158 increased employee contribution rates effective the first pay period beginning after September 1, 2017, which was September 6, 2017, to 13.5% of Computation Pay for all active members regardless of their status. Prior to September 1, 2017, Group B members not in DROP were required to contribute to the Combined Pension Plan 8.5% of 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 paid contributions at the rate of 4% of Computation Pay.

Prior to September 1, 2017 the City contribution rates to the Combined Pension Plan were defined in Article 6243a-1 of the Revised Civil Statutes of Texas and required the City to make contributions of 27.5% of total wages, including overtime. HB 3158 required that effective the first bi-weekly pay period beginning after September 1, 2017, the City contribute the greater of (i) 34.5% of Computation Pay and (ii) a bi-weekly minimum (Floor) amount defined in the bill, plus \$13 million annually until 2024. The 2017 floor amount was \$5.173 million. After 2024 the Floor amount and the additional \$13 million annual amount are eliminated.

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

The City is required by ordinance to contribute amounts, as determined by an actuary, necessary to maintain the Supplemental Plan. Member contributions in the Supplemental Plan follow the same rules as the Combined Pension Plan on Computation Pay over the compensation of the highest civil service rank held as a result of competitive examinations.

City contributions can be changed by the legislature, by a majority vote of the voters of the city or in accordance with a written agreement entered into between the city and the pension system where at least eight trustees have approved the agreement, provided that the change does not increase the period required to amortize the unfunded accrued liability of the Combined Pension Plan. Employee contribution changes can be made by the legislature or by a vote of the Board where at least eight trustees have approved the change. Decreases in employee contributions can be approved by the Board only if certain funding conditions are met.

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

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

## Administration

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

Effective September 1, 2017, HB 3158 modified the structure of the Board. Prior to September 1, 2017 the Plans were 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 were 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 was elected by pensioners from their respective departments. Beginning September 1, 2017, the Plans are administered by an eleven-member Board consisting of six Trustees appointed by the mayor of the City of Dallas, in consultation with the City Council; one current or former police officer, nominated and elected by active members; one current or former firefighter, nominated and elected by active members; and three non-member Trustees (who may not be active members or retirees) elected by the active members and retirees from a slate of nominees vetted and nominated by the Nominations Committee. The Nominations Committee consists of representatives from 11 named police and fire associations and the Executive Director of DPFP. The Executive Director is a nonvoting member of the committee.

To serve as a Trustee, a person must have demonstrated financial, accounting, business, investment, budgeting, real estate or actuarial expertise and may not be an elected official or current employee of the City of Dallas, with the exception of a current police officer or firefighter. The new Board was fully seated on October 12, 2017.

## 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, 2017 and 2016 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. While the Board has authorized a filing with the Internal Revenue Service under the Voluntary Correction Program, 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, 2017 and 2016. The fair value of the Combined Pension Plan's interest and the Supplemental Plan's interest in the Group Trust is based on the unitized interest that each plan has in the Group Trust. The Combined Pension Plan's interest in the Group Trust's investments was approximately 99.2% at December 31, 2017 and 2016, 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. HB 3158 requires at least eight members of the Board to approve an investment in an alternative asset. The Board determined that alternative assets include all asset classes other than traditional assets. Traditional assets include publicly traded stocks, bonds and cash equivalents. The investment policy 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, 2017:

ASSET CLASS	TARGET ALLOCATION
<b>Equity</b>	<b>30%</b>
Global Equity	20%
Emerging Markets Equity	5%
Private Equity	5%
<b>Fixed Income</b>	<b>33%</b>
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%
<b>Global Asset Allocation</b>	<b>10%</b>
Risk Parity	5%
Global Tactical Asset Allocation	3%
Absolute Return	2%
<b>Real Assets</b>	<b>25%</b>
Liquid Real Assets	3%
Natural Resources	5%
Infrastructure	5%
Real Estate	12%
<b>Cash</b>	<b>2%</b>

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.

See Note 12 for Board action taken on May 8, 2018 to suspend a portion of the target allocation to asset classes.

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### ***Investment Transactions***

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

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

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

### ***Valuation of Investments***

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

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

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

Real assets consist of privately held real estate, infrastructure, timberland, and farmland investments. Real estate is held in separate accounts, limited partnerships, joint ventures, and commingled funds, and as debt investments in the form of notes receivable. Infrastructure, timberland, and farmland are held in separate accounts, limited partnerships, and joint ventures. Real estate, timberland and farmland are generally subject to independent third-party appraisals performed in accordance with the Uniform Standards of Professional Appraisal Practice on a periodic basis, every three years at minimum, as well as annual financial statement audits. Infrastructure funds are valued based on audited NAV reported by the manager which is based on internal manager valuation or independent appraisal at the discretion of the manager. Interests in joint ventures, limited partnerships and notes receivable are valued at the dollar value reported by the general partner or investment manager, as applicable. 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, investment manager or independent valuations obtained by DPFP, as applicable.

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

### Foreign Currency Transactions

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

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

Investments and broker accounts denominated in foreign currencies outstanding at December 31, 2017 and 2016 were converted to the US dollar at the applicable foreign exchange rates quoted as of December 31, 2017 and 2016, 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

In March 2016, GASB issued Statement No. 82, Pension Issues - an amendment of GASB Statements No. 67, No. 68, and No. 73. This Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. This Statement was adopted by DPFP for the 2017 annual financial statements. The implementation of this new standard did not significantly impact the financial statements.



In 2017 GASB adopted Statement No. 86, Certain Debt Extinguishment Issues and Exposure Draft, Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements, the effective dates of GASB Statement No. 86 and the Exposure Draft are in subsequent periods and the new standards are not anticipated to have an impact on the DPFP financial statements.

In 2017 GASB adopted Statement No. 87, Leases, this standard will require recognition of certain lease assets and liabilities for leases that are currently classified as operating leases. It is not anticipated that GASB Statement No. 87 will have a material effect on the financial statements. The statement is effective December 31, 2020.

### 3. Investments

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

The fair value of investments at December 31, 2017 and 2016 is as follows (in thousands):

	2017	2016
<b>Short-term investments</b>		
Short-term investment funds	\$ 24,133	\$ 7,154
<b>Fixed income securities</b>		
US Treasury bonds	41,686	6,854
US government agencies	871	-
Corporate bonds	104,434	88,307
Foreign-denominated bonds	37,209	28,896
Commingled funds	142,115	144,924
Municipal bonds	1,699	907
<b>Equity securities</b>		
Domestic	223,743	80,190
Foreign	196,092	74,469
Commingled funds	50,246	-
<b>Real assets</b>		
Real estate	532,079	589,364
Infrastructure	61,430	273,533
Timberland	52,171	95,734
Farmland	155,526	170,334
<b>Private equity</b>	222,106	264,780
<b>Alternative investments</b>	144,927	134,898
<b>Forward currency contracts</b>	135	(287)
<b>Total</b>	<b>\$ 1,990,602</b>	<b>\$ 1,960,057</b>

### Custodial Credit Risk

Portions of DPFPP'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. DPFPP mitigates this risk by having investments held at a custodian bank on behalf of DPFPP. At December 31, 2017 and 2016, all investment securities held by the custodian were registered in the name of DPFPP and are held by JPMorgan in the name of DPFPP.

DPFPP considers only demands on deposit as cash. As of December 31, 2017 and 2016, DPFPP had a balance of \$62.7 million and \$3.9 million, respectively, on deposit at two financial institutions. The Federal Depository Insurance Corporation (FDIC) insures any deposits of an employee benefit plan in an insured depository institution on a "pass-through" basis, in the amount of up to \$250,000 for the non-contingent interest of each plan participant at each financial institution. The pass-through insurance applies only to vested participants. DPFPP believes the custodial credit risk, if any, is not material.

DPFPP 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 issuer. DPFPP 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, 2017, 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. DPFPP 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 DFPF's investment policy.

At December 31, 2017, 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	\$ 9,199	\$ 30,800	\$ -	\$ 1,687	\$ 41,686
US Government agencies	-	-	-	871	871
Corporate bonds	11,316	52,243	21,948	18,927	104,434
Municipal bonds	-	399	-	1,300	1,699
Foreign-denominated bonds	4,671	13,412	4,419	14,707	37,209
<b>Total</b>	<b>\$ 25,186</b>	<b>\$ 96,854</b>	<b>\$ 26,367</b>	<b>\$ 37,492</b>	<b>\$ 185,899</b>

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
<b>Total</b>	<b>\$ 10,561</b>	<b>\$ 45,570</b>	<b>\$ 23,832</b>	<b>\$ 45,001</b>	<b>\$ 124,964</b>

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

### Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The books and records of the Plans are maintained in US dollars. Foreign currencies and non-US dollar denominated investments are translated into US dollars at the bid prices of such currencies against US dollars at each balance sheet date. Realized and unrealized gains and losses on investments which result from changes in foreign currency exchange rates have been included in net appreciation (depreciation) in fair value of investments in the accompanying financial statements. Net realized foreign currency gains and losses resulting from changes in exchange rates include foreign currency gains and losses between trade date and settlement date of investment securities transactions, foreign currency transactions, and the difference between the amounts of interest and dividends are recorded on the books of the Plans and the amount actually received. International and global managers have permission to use currency forward and futures contracts to hedge currency against the US dollar. DFPF 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, 2017 was as follows (in thousands):

CURRENCY	FIXED INCOME	EQUITY	REAL ASSETS	TOTAL
Australian Dollar	\$ 3,818	\$ 6,116	\$ 9,067	\$ 19,001
Brazilian Real	3,060	-	7,965	11,025
British Pound Sterling	4,671	27,120	-	31,791
Danish Krone	-	4,283	-	4,283
Euro	688	65,982	-	66,670
Hong Kong Dollar	-	13,831	-	13,831
Indonesian Rupiah	2,958	686	-	3,644
Japanese Yen	-	46,158	-	46,158
Malaysian Ringgit	4,213	-	-	4,213
Mexican Peso	9,085	-	-	9,085
Polish Zloty	5,178	-	-	5,178
Singaporean Dollar	-	157	-	157
South African Rand	3,538	-	28,940	32,478
South Korean Won	-	3,164	-	3,164
Swedish Krona	-	2,235	-	2,235
Swiss Franc	-	25,800	-	25,800
Taiwanese Dollar	-	560	-	560
<b>Total</b>	<b>\$ 37,209</b>	<b>\$ 196,092</b>	<b>\$ 45,972</b>	<b>\$ 279,273</b>

The Group Trust's exposure to foreign currency risk in US dollars as of December 31, 2016 was 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
<b>Total</b>	<b>\$ 28,896</b>	<b>\$ 74,469</b>	<b>\$ 68,722</b>	<b>\$ 172,087</b>

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 \$295.0 million and \$277.6 million at December 31, 2017 and 2016, 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, 2017 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, 2017 and 2016 using the Standard & Poor's rating scale, at fair value, is as follows (in thousands):

#### DECEMBER 31, 2017

RATING	CORPORATE BONDS	MUNICIPAL BONDS	FOREIGN-DENOMINATED BONDS	COMMINGLED FUNDS	SHORT-TERM INVESTMENT FUNDS <sup>(1)</sup>	US GOVERNMENT SECURITIES	TOTAL
AAA	\$ 10,092	\$ -	\$ 1,936	\$ -	\$ -	\$ 41,686	\$ 53,714
AA+	2,587	-	974	-	-	-	3,561
AA	-	-	5,579	-	-	-	5,579
AA-	5,297	730	-	-	-	-	6,027
A+	1,933	-	-	-	-	-	1,933
A	4,603	969	1,344	-	-	-	6,916
A-	3,839	-	17,132	-	-	-	20,971
BBB+	9,491	-	-	-	-	-	9,491
BBB	3,141	-	-	-	-	-	3,141
BBB-	2,594	-	6,496	-	-	-	9,090
BB+	941	-	-	-	-	-	941
BB	4,276	-	3,060	-	-	-	7,336
BB-	7,392	-	-	-	-	-	7,392
B+	3,807	-	-	-	-	-	3,807
B	3,170	-	-	-	-	-	3,170
B-	13,482	-	688	-	-	-	14,170
CCC+	6,317	-	-	-	-	-	6,317
CCC	2,954	-	-	-	-	-	2,954
CCC-	736	-	-	-	-	-	736
CC	4,031	-	-	-	-	-	4,031
C	4,419	-	-	-	-	-	4,419
D	2	-	-	-	-	-	2
NR <sup>(2)</sup>	9,330	-	-	142,115	80,245	871	232,561
<b>Total</b>	<b>\$ 104,434</b>	<b>\$ 1,699</b>	<b>\$ 37,209</b>	<b>\$ 142,115</b>	<b>\$ 80,245</b>	<b>\$ 42,557</b>	<b>\$ 408,259</b>

(1) Includes short-term money market funds classified as cash equivalents.

(2) NR represents those securities that are not rated.

DECEMBER 31, 2016

RATING	CORPORATE BONDS	MUNICIPAL BONDS	FOREIGN-DENOMINATED BONDS	COMMINGLED FUNDS	SHORT-TERM INVESTMENT FUNDS <sup>(1)</sup>	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 <sup>(2)</sup>	6,588	-	2,136	144,924	330,768	-	484,416
<b>Total</b>	<b>\$ 88,307</b>	<b>\$ 907</b>	<b>\$ 28,895</b>	<b>\$ 144,924</b>	<b>\$ 330,768</b>	<b>\$ 6,854</b>	<b>\$ 600,655</b>

(1) Includes short-term money market funds classified as cash equivalents.

(2) NR represents those securities that are not rated.

## 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 2017 or 2016 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 2017 or 2016. Moreover, there were no losses during 2017 or 2016 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 2017 and 2016, 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 \$17.9 million and \$26.1 million at December 31, 2017 and 2016, respectively. Cash collateral held for the Group Trust was \$12.2 million and \$21.7 million at December 31, 2017 and 2016, respectively. Non-cash collateral held for the Group Trust was \$6.2 million and \$5.2 million at December 31, 2017 and 2016, 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 \$101 thousand and \$402 thousand during 2017 and 2016, respectively.

### Forward Contracts

During fiscal years 2017 and 2016, certain investment managers, on behalf of the Group Trust, entered into forward foreign exchange contracts as permitted by guidelines established by the Board. DFPF'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, 2017 and 2016, 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, 2017

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	\$ 422	\$ 135	\$ 56,015

#### DECEMBER 31, 2016

	CHANGE IN FAIR VALUE	FAIR VALUE	NOTIONAL VALUE
Currency Forwards	\$ (102)	\$ (287)	\$ 48,108



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## 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 prices included within Level 1) that are observable for an asset or liability, either directly or indirectly. These inputs can include quoted prices for similar assets or liabilities in active or inactive markets, or market-corroborated inputs.
- Level 3 - significant unobservable inputs for an asset or liability

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

The following table presents a summary of the Group Trust's investments by type as of December 31, 2017, at fair value (in thousands):

	FAIR VALUE DECEMBER 31, 2017	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL 1)	SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)
<b>Investments by Fair Value Level</b>				
Short-term investment funds	\$ 24,133	\$ 24,133	\$ -	\$ -
<b>Fixed income securities</b>				
US Treasury bonds	41,686	-	41,686	-
US Government Agencies	871	-	871	-
Corporate bonds	104,434	-	104,434	-
Foreign-denominated bonds	37,209	-	37,209	-
Municipal bonds	1,699	-	1,699	-
<b>Equity securities</b>				
Domestic	223,743	223,743	-	-
Foreign	196,092	196,092	-	-
<b>Real assets</b>				
Real estate <sup>1</sup>	352,960	-	310	352,650
Timberland	14,637	-	-	14,637
Farmland	155,526	-	-	155,526
Private equity	79,381	-	79,381	-
Forward currency contracts	135	-	135	-
<b>Total Investments by Fair Value Level</b>	<b>\$ 1,232,506</b>	<b>\$ 443,968</b>	<b>\$ 265,725</b>	<b>\$ 522,813</b>

<b>Investments Measured at NAV</b>	
Equity - commingled funds	\$ 50,246
Fixed income - commingled funds	142,115
Real assets <sup>(1)</sup>	278,083
Private equity	142,725
Alternative investments	144,927
<b>Total Investments Measured at NAV</b>	<b>\$ 758,096</b>
<b>Total Investments Measured at Fair Value</b>	
	<b>\$ 1,990,602</b>

(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.

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)
<b>Investments by Fair Value Level</b>				
Short-term investment funds	\$ 7,154	\$ 7,154	\$ -	\$ -
<b>Fixed income securities</b>				
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	-
<b>Equity securities</b>				
Domestic	80,190	80,190	-	-
Foreign	74,469	74,469	-	-
<b>Real assets</b>				
Real estate <sup>1</sup>	444,609	-	66,483	378,126
Infrastructure	179,100	-	-	179,100
Timberland	43,536	-	-	43,536
Farmland	170,334	-	-	170,334
Private equity	149,822	-	40,023	109,799
Alternative investments	927	-	927	-
Forward currency contracts	(287)	-	(287)	-
<b>Total Investments by Fair Value Level</b>	<b>\$ 1,316,710</b>	<b>\$ 161,813</b>	<b>\$ 267,786</b>	<b>\$ 887,111</b>

<b>Investments Measured at NAV</b>	
Fixed income - commingled funds	\$103,032
Real assets <sup>(1)</sup>	291,386
Private equity	114,958
Alternative investments	133,971
<b>Total Investments Measured at NAV</b>	<b>\$ 643,347</b>

<b>Total Investments Measured at Fair Value</b>	<b>\$ 1,960,057</b>
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(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 on 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, 2017 (in thousands):

ASSET CATEGORY/CLASS	FAIR VALUE	UNFUNDED COMMITMENTS
Equity - commingled funds	\$ 50,246	\$ -
Fixed Income - commingled funds	142,115	823
Real assets	278,083	7,154
Private equity	142,725	38,316
Alternative investments	144,927	-
<b>Total</b>	<b>\$ 758,096</b>	<b>\$ 46,293</b>

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	-
<b>Total</b>	<b>\$ 643,347</b>	<b>\$ 259,206</b>

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

Equity commingled funds are fund structure investments reported by the fund manager at NAV. The commingled investment has a redemption notice period of 5 days.

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, 2017 and 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, 2017 and 2016 are as follows (in thousands):

### Combined Pension Plan

	2017	2016
Total pension liability	\$ 4,497,347	\$ 8,450,281
Less: Plan fiduciary net position	(2,103,345)	(2,150,662)
Net pension liability	\$ 2,394,002	\$ 6,299,619

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2017 and 2016 is 46.8% and 25.5%, respectively.

### Supplemental Plan

	2017	2016
Total pension liability	\$ 33,671	\$ 40,648
Less: Plan fiduciary net position	(17,805)	(17,670)
Net pension liability	\$ 15,866	\$ 22,978

Plan fiduciary net position as a percentage of the total pension liability at December 31, 2017 and 2016 is 52.9% and 43.5%, respectively.

### Actuarial Assumptions as of December 31, 2017 and 2016

The total pension liability was determined by an actuarial valuation as of January 1, 2018, using the below significant assumptions, applied to all periods included in the measurement, except as noted below. 2016 and 2017 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. In addition, assumptions related to Plan changes which were effective September 1, 2017 as a result of the passage of HB 3158 are reflected in the 2017 assumptions below as the net pension liability is based on the plan provisions which are in effect on December 31, 2017.

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

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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	Ad hoc COLA after the Combined Plan is 70% funded after accounting for the impact of the COLA. 2% of original benefit, beginning October 1, 2053.
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 Pension Plan - Market value of assets
Amortization method	Level percent-of-pay
Remaining amortization period	Combined Pension Plan - 30 years; Supplemental Pension Plan - 10 years
DROP interest, compounded annually, net of expenses	3.00% on active balances as of September 1, 2017, payable upon retirement, 0% on balance accruals after September 1, 2017.
Retirement age	Experience-based table of rates based on age, extending to age 62, 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	0% elect to enter DROP. Current DROP members with at least eight years in DROP are assumed to retire. DROP members with less than eight years are assumed to retire when they have eight years in DROP.
Assumptions used to develop the 2016 Net Pension Liability did not include the changes related to HB 3158. The following assumptions used in the developing the 2016 Net Pension Liability differ from the 2017 assumptions.	
Assumption Category	Prior Assumption (1-1-17 Valuation)
Administration Expenses	The greater of \$10 million per year or 1% of Computation Pay for the Combined Plan. \$60,000 for the Supplemental Pension Plan.



Post-retirement benefit increases for participants hired prior to January 1, 2007	4% of original pension, annually
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
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, 2017 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	6.54%	20%
Emerging Markets Equity	9.41%	5%
Private Equity	10.28%	5%
Short-term Core Bonds	1.25%	2%
Global Bonds	1.63%	3%
High Yield	4.13%	5%
Bank Loans	3.46%	6%
Emerging Markets Debt	4.42%	6%
Structured Credit and Absolute Return	5.38%	6%
Private Debt	7.30%	5%
Global Asset Allocation	4.90%	10%
Liquid Real Assets	4.71%	3%
Natural Resources	7.62%	5%
Infrastructure	6.25%	5%
Real Estate	4.90%	12%
Cash	1.06%	2%

## Discount rate

The discount rate used to measure the Combined Pension Plan liability was 7.25%. The projection of cash flows used to determine the discount rate assumed City contributions will be made in accordance with the provisions of HB 3158, including statutory minimums through 2024 and 34.50% of Computation Pay thereafter. Members are expected to contribute 13.50% of Computation Pay. For cash flow purposes, projected payroll is based on 90% of the City's Hiring Plan payroll projections through 2037, increasing by 2.75% per year thereafter. This payroll projection is used for cash flow purposes only and does not impact the Total Pension Liability. The normal cost rate for future members is assumed to be 14.60% for all years. Based on these assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The increase in the discount rate from the prior year and the HB 3158 benefit changes resulted in a decrease in the total pension liability of approximately \$3.953 billion.

For the December 31, 2016 measurement date, the cash flow projections were not expected to be sufficient to pay benefits, therefore a blended discount rate of 4.12% was used to measure the pension liability at December 31, 2016. 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, 2016 measurement date, the blended discount rate used to measure total pension liability was 4.12%.

The discount rate used to measure the total pension liability for the Supplemental Plan was 7.25%. The projection of cash flows used to determine the discount rate assume that City contributions will equal the employer's normal cost plus a ten-year amortization payment on the unfunded actuarial accrued liability and member contributions will equal 13.50% of supplemental Computation Pay. Based on those assumptions, the Supplemental Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The increase in the discount rate from the prior year and the HB 3158 benefit changes resulted in a decrease in the total pension liability of approximately \$6.98 million.

For the December 31, 2016 measurement date, the cash flow projections were not expected to be sufficient to pay benefits of the Supplemental Plan, therefore a blended discount rate of 7.10% was used to measure the pension liability at December 31, 2016. 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).

## 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, 2017

**Combined Pension Plan**

	1% DECREASE (6.25%)	CURRENT DISCOUNT RATE (7.25%)	1% INCREASE (8.25%)
Net pension liability	\$ 2,886,444	\$ 2,394,002	\$ 1,980,920

**Supplemental Plan**

	1% DECREASE (6.25%)	CURRENT DISCOUNT RATE (7.25%)	1% INCREASE (8.25%)
Net pension liability	\$ 18,826	\$ 15,865	\$ 13,316

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

**6. Deferred Retirement Option Plan**

HB 3158 changed the terms of the Deferred Retirement Option Plan. DROP interest for active DROP members was eliminated after September 1, 2017; only the balance as of September 1, 2017 is eligible for interest once active DROP members retire. Active DROP participation is limited to 10 years. Retirees are not allowed to defer payments into their DROP accounts. Retirees and other DROP account holders, excluding active DROP members, had their DROP balance converted to an annuity (stream of payments) on November 30, 2017. The term of the annuity was based on the DROP account holders expected lifetime at November 30, 2017. The annuity included Interest on balances accrued prior to September 1, 2017 at a rate that is correlated to the United States Treasury Note or Bond rates based on the term of the annuity and rules adopted by the Board.

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

HB 3158 allowed active members an opportunity to revoke their DROP election prior to February 28, 2018 under rules adopted by the Board. 183 members revoked their prior DROP participation election.

Prior to the passage of HB 3158, DROP accounts earned interest based on the 2014 plan amendments, which instituted a gradual step-down in the interest rate paid on DROP accounts. The interest paid on DROP accounts beginning October 1, 2016 until September 1, 2017 was 6%. See Note 10 for discussion of the status of litigation related to the 2014 plan amendments.

The following tables reflect the change in DROP balances and the change in the present value of DROP annuities and the number of participants and annuitants during the year ended December 31, 2017:

### Combined Pension Plan

	DROP ACCOUNT BALANCE (000'S)		DROP PARTICIPANTS
Balance at December 31, 2016	\$ 1,053,151	Participants at December 31, 2015	2,978
Accumulations	85,650		
Balances Annuitized	(812,414)		
Other Distributions/Deductions <sup>1</sup>	(83,266)		
<b>Balance at December 31, 2017</b>	<b>\$ 243,121</b>	<b>Participants at December 31, 2016</b>	<b>642</b>
	ANNUITY BALANCE (000'S)		ANNUITANTS
Present Value of Annuities at December 31, 2016	\$ -	Annuitants at December 31, 2016	-
Accumulations	812,414		
Other Distributions/Deductions <sup>1</sup>	(2,828)		
<b>Present Value of Annuities at December 31, 2017</b>	<b>\$ 809,586</b>	<b>Annuitants at December 31, 2017</b>	<b>1,978</b>

### Supplemental Plan

	DROP ACCOUNT BALANCE (000'S)		DROP PARTICIPANTS
Balance at December 31, 2015	\$ 8,016	Participants at December 31, 2016	70
Accumulations	379		
Balances Annuitized	(7,530)		
Distributions	(275)		7
<b>Balance at December 31, 2016</b>	<b>\$ 590</b>	<b>Participants at December 31, 2017</b>	
	ANNUITY BALANCE (000'S)		ANNUITANTS
Present Value of Annuities at December 31, 2016	\$ -	Annuitants at December 31, 2016	-
Accumulations	7,530		
Other Distributions/Deductions <sup>1</sup>	(10)		
<b>Present Value of Annuities at December 31, 2017</b>	<b>\$ 7,520</b>	<b>Annuitants at December 31, 2017</b>	<b>55</b>

## 7. Notes Payable

As of December 31, 2015, DPFP had a credit agreement with Bank of America, N.A. (BoA) which provided for a maximum borrowing of \$200 million. 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.

At December 31, 2016, DPFP had outstanding \$40,000,000 and \$90,000,000 on the revolving line of credit and the term loan, respectively. At 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. The line of credit and term loan were paid in full on July 7, 2017.

## 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 required to contribute 6.5% of their regular pay. Employees are allowed to make after-tax contributions, not to exceed IRS Code limitations. In accordance with the MPP, DPFP is obligated to contribute 12% of permanent employees' regular rate of pay and 8% of part-time and temporary employees' regular rate of pay each year. During 2017 and 2016, DPFP contributed approximately \$305 thousand and \$354 thousand, respectively, and participants contributed approximately \$165 thousand and \$192 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 \$226 thousand and \$212 thousand is included in professional and administrative expenses in the accompanying financial statements for the years ended December 31, 2017 and 2016, 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, 2017 and 2016 are as follows (in thousands):

ASSET CLASS	BALANCE DECEMBER 31, 2015	INCREASES	DECREASES	BALANCE DECEMBER 31, 2016	INCREASES	DECREASES	BALANCE DECEMBER 31, 2017
Land	\$ 3,321	\$ -	\$ -	\$ 3,321	\$ 241	\$ -	\$ 3,562
Building	8,628	-	176	8,452	659	190	8,921
Building improvements	243	61	36	268	-	36	232
<b>Total</b>	<b>\$ 12,192</b>	<b>\$ 61</b>	<b>\$ 212</b>	<b>\$ 12,041</b>	<b>\$ 900</b>	<b>\$ 226</b>	<b>\$ 12,715</b>

## 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 only entitled to a refund of their accumulated employee contributions, without interest, as they vest at five years. Prior to September 1, 2017, members who began service after February 28, 2011 were only entitled to a refund, without interest, if they terminate with less than ten years of pension service as they vested at ten years. After the passage of HB 3158 and the September 1, 2017 effective date the vesting period was reduced from ten to five years for employees hired after March 1, 2011, and such members are only entitled to a refund of their accumulated contributions, without interest, if they have less than five years of pension service. As of December 31, 2017 and 2016, aggregate contributions from non-vested members for the Combined Pension Plan were \$11.9 million and \$14.0 million, respectively. The portion of these contributions that might be refunded to members who terminate prior to pension eligibility and request a refund has not been determined. Refunds due to terminated non-vested members in the amount of \$1 million and \$537 thousand were included in accounts payable and other accrued liabilities of the Combined Pension Plan as of December 31, 2017 and 2016, respectively. The increase in refunds due to terminated non-vested members reflects a change in the interpretation of the liability. As of December 31, 2017 the aggregate contributions from active non-vested members of the Supplemental Plan was \$36 thousand. There are no contributions eligible for refund for terminated members in the Supplemental Plan.

At December 31, 2017 the total accumulated DROP balance and the present value of the DROP annuities was \$1.05 billion for the Combined Plan and \$8.1 million for the Supplemental Plan. The total accumulated DROP balance at December 31, 2016 was \$1.05 billion for the Combined Plan and \$8 million for the Supplemental Plan.

## Investments

The following table depicts the total commitments and unfunded commitments to various limited partnerships and investment advisors at December 31, 2017, by asset class (in thousands).

ASSET CLASS	TOTAL COMMITMENT	TOTAL UNFUNDED COMMITMENT
Real assets	\$ 117,000	\$ 7,154
Private equity	201,283	38,316
Fixed income	10,000	823
<b>Total</b>	<b>\$ 328,283</b>	<b>\$ 46,293</b>

Capital calls related to private equity and real estate assets were received after December 31, 2017 which reduced the unfunded commitments to \$5,806 and \$6,927, respectively. A distribution was received subsequent to December 31, 2017 in fixed income which increased the unfunded capital commitments in fixed income to \$2.077 million. See Note 12.

## Legal

DPPF 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 DPPF, holding these amendments and changes are constitutional. As a result of this court decision, the Board voted on April 16, 2015 to implement the changes approved by the members. Plaintiffs appealed and on December 13, 2016, the Fifth District Court of Appeals rendered a decision affirming the district court's ruling. On January 24, 2017, plaintiffs filed a petition for review with the Texas Supreme Court. On June 1, 2018 the Texas Supreme Court granted review of the appeal. DPPF will continue to vigorously defend this lawsuit. The ultimate outcome 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, 2017 and 2016.

A lawsuit was filed in 2016 in state 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 sought 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. This lawsuit was dismissed in 2017.

In 2017 a group of retirees filed a lawsuit in federal court which seeks to require the Board to distribute lump sum payments from DROP upon the retirees' request. This lawsuit is pending. DPPF will continue to vigorously defend this lawsuit. The ultimate outcome of this lawsuit cannot be determined at this time and, accordingly, no amounts related to these claims have been recorded in the accompanying financial statements as of December 31, 2017.

## 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. DPFP previously 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. HB 3158, passed by the Texas Legislature in 2017, provided that any award of back pay arising out of litigation would not be included in Computation Pay, thereby eliminating any liability of DPFP for increased benefits regardless of the outcome of these suits. Additionally, a settlement agreement was signed by all parties in September 2018 which eliminates any liability for DPFP. Accordingly, no amounts related to these claims have been recorded in the accompanying financial statements as of December 31, 2017 and 2016.

## 12. Subsequent Events

### DROP Revocation

HB 3158 allowed certain members who had previously elected to participate in DROP to revoke the election until February 28, 2018. In total 183 members elected to revoke their DROP election, 38 members completed the revocation prior to December 31, 2017 and 145 members completed the revocation after January 1, 2018 and before February 28, 2018. Contributions paid by members as part of the revocation process were recorded as revenue in the year the contributions were received. The actuarial valuation dated January 1, 2018 accounts for the liability associated with all the DROP revocations, including the revocations made after December 31, 2017.

### Investment Policy Statement - Target Allocation to Asset Classes

On May 8, 2018 the Board voted to temporarily suspend portions of the Investment Policy Statement specifically (i) to allow for GAA to be fully liquidated, (ii) to allow for a 15% allocation to be invested in a combination of approximately 12% allocation to Short-Term Core Bonds and approximately 3% allocation to Cash. The temporary suspension is effective until the Board adopts a revised asset allocation.

### Capital Calls Resulting in the Reduction of Unfunded Commitments

Subsequent to December 31, 2017 DPFP received and paid the following material capital calls: Lone Star Opportunities Fund V \$18.75 million and Lone Star Growth Capital Fund \$13.76 million. In addition, a distribution was received which increases the unfunded commitments to Riverstone from \$823 thousand at December 31, 2017 to \$2.077 million.

Management has evaluated subsequent events through October 10, 2018, 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 Four Fiscal Years (Dollars in Thousands)

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

(Continued)

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

## SUPPLEMENTAL PENSION PLAN

FOR FISCAL YEAR ENDING DECEMBER 31,	2017	2016	2015	2014
<b>Total pension liability</b>				
Service cost	\$ 111	\$ 70	\$ 36	\$ 28
Interest	2,799	2,911	2,953	2,969
Changes of benefit terms	(5,305)	-	-	(526)
Differences between expected and actual experience	(1,435)	1,106	928	336
Changes of assumptions	(479)	(916)	(600)	-
Benefit payments, including refunds of employee contributions	(2,668)	(5,912)	(2,640)	(3,414)
Net change in total pension liability	(6,977)	(2,741)	677	(607)
Total pension liability - beginning	40,648	43,389	42,712	43,319
<b>Total pension liability - ending (a)</b>	<b>\$ 33,671</b>	<b>\$ 40,648</b>	<b>\$ 43,389</b>	<b>\$ 42,712</b>

**Plan fiduciary net position**

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

Net pension liability - ending (a) - (b)	\$ 15,866	\$ 22,978	\$ 23,932	\$ 21,307
Plan fiduciary net position as a percentage of total pension liability	52.9%	43.5%	44.8%	50.1%
Covered employee payroll	\$ 916	\$ 525	\$ 725	\$ 557
Net pension liability as a percentage of covered employee payroll	1,731.6%	4,376.2%	3,303.3%	3,827.3%

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

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**Notes to Schedule:**
**Changes of benefit terms:*****As of December 31, 2017***

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

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

***As of December 31, 2016 and 2015 - None***

***As of December 31, 2014***

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

**Changes of methods and assumptions:*****As of December 31, 2017***

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

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

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

***As of December 31, 2016***

The blended discount rate used to measure the total pension liability changed from 3.95% to 4.12% for the Combined Pension Plan and from 7.19% to 7.10% for the Supplemental Plan.

The remaining amortization period was adjusted from 40 years to 30 years for the Combined Pension Plan based on Section 802.101(a) of the Texas Government Code.

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

### ***As of December 31, 2015***

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

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

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

### ***As of December 31, 2014***

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

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

## Schedule of Employer Contributions - Combined Pension Plan

(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
2017	\$ 168,865	\$ 126,318	\$ 42,547	\$ 357,414	35.3%
2016	\$ 261,859	\$ 119,345	\$ 142,514	\$ 365,210	32.7%

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

The City's contribution rate for the Combined Pension Plan is set by State statutes. The difference between the actuarial determined contribution and the City contribution set by State statutes results in the contribution deficiency. Prior to January 1, 2016, the actuarial determined contribution for the Combined Plan was not determined by the actuary.

See Notes below related to this schedule.

### Notes to Schedule:

The following methods and assumptions used to calculate the actuarial determined contribution for the year ended December 31, 2017 related to both the Combined Pension Plan and the Supplement Plan unless specially noted:

Actuarial cost method	Entry age normal cost method
Amortization method	
Combined Plan	30-year level percent of pay
Supplemental Plan	10 years level percent of pay
Remaining amortization period	
Combined Plan	Infinite as of January 1, 2017
Supplemental Plan	10 years, open
Asset valuation method	
Combined 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
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	COLA assumed to be a 2.00% COLA beginning October 1, 2049 and payable every October 1st thereafter



Retirement age	Experienced-based table of rates, based on age
Mortality	Pre-retirement: Sex-distinct RP-2014 Employee Mortality Table, set back two years for males, projected generationally using Scale MP-2015  Post-retirement: Sex-distinct RP-2014 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	6% per year until September 1, 2017. Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest.
DROP election	The DROP utilization factor is 0% for new entrants. Current DROP members with at least eight years in the DROP as of January 1, 2017 are assumed to retire in 2018. Current DROP members with less than eight years in DROP as of January 1, 2017 are assumed to retire once they have been in the DROP for eight years
Methods and assumptions used to determine the actuarially determined contribution for the year ended December 31, 2016 differed from the above as follows:	
Post-retirement benefit increases	4.00% simple COLA, October 1st
DROP balance returns	7% at October 1, 2015 6% at October 1, 2016 5% at October 1, 2017 and thereafter
DROP entry	Age 50 with 5 years of service. Any active member who satisfy these criteria and have not entered DROP are assumed never to join DROP. Active members who retire with a DROP account are assumed to receive the balance of their account over a 10-year time period.
Methods and assumptions used to determine the actuarially determined contribution for the years ended December 31, 2015 and 2014 for the Supplemental Plan 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 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
2017	\$ 2,087	\$ 2,077	\$ 10	\$ 525	395.6%
2016	3,063	3,063	-	725	422.9%
2015	2,443	2,443	-	557	438.8%
2014	1,817	1,817	-	521	348.5%

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

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 the contribution is reported. The deficiency shown on the table is due to Supplemental Plan contributions paid directly to the Excess Benefit Plan in compliance with Internal Revenue Code Section 415.

See Notes below related to this schedule.

Actuarial cost method	Entry age normal cost method 10 years level percent of pay
Remaining amortization period	10 years
Asset valuation method	Market Value of Assets
Investment rate of return	7.25% per annum, compounded annually, net of all expense, including administrative expenses. This rate is based on an average inflation rate of 2.75% and a real rate of return of 4.50%
Inflation rate	2.75%
Projected salary increases	Inflation plus merit increases, varying by group and service, ranging from 0.25% to 2.45%
Post-retirement benefit increases	COLA assumed to be a 2.00% COLA beginning October 1, 2049 and payable every October 1st thereafter
Retirement age	Experienced-based table of rates, based on age

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Mortality	<p>Pre-retirement: Sex-distinct RP-2014 Employee Mortality Table, set back two years for males, projected generationally using Scale MP-2015</p> <p>Post-retirement: Sex-distinct RP-2014 Blue Collar Healthy Annuitant Mortality Table, set forward two years for females, projected generationally using Scale MP-2015</p> <p>Disabled: Sex-distinct RP-2014 Disabled Retiree Mortality Table, set back three years for males and females, projected generationally using Scale MP-2015</p>
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DROP balance returns	6% per year until September 1, 2017. Beginning September 1, 2017, DROP account balances for annuitants are assumed to earn 2.75% interest; DROP account balances as of September 1, 2017 for active members are assumed to earn 2.75% interest upon retirement; DROP account balances accrued after September 1, 2017 for active members do not earn interest.
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DROP election	The DROP utilization factor is 0% for new entrants. Current DROP members with at least eight years in the DROP as of January 1, 2017 are assumed to retire in 2018. Current DROP members with less than eight years in DROP as of January 1, 2017 are assumed to retire once they have been in the DROP for eight years
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Methods and assumptions used to determine the actuarially determined contribution for the year ended December 31, 2016 differed from the above as follows:

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

Methods and assumptions used to determine the actuarially determined contribution for the years ended December 31, 2015 and 2014 for the Supplemental Plan 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
2017	5.07%
2016	3.09%
2015	(12.70%)
2014	3.98%

### Notes to Schedule:

The annual money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense, and expresses investment performance, adjusted for the changing amounts actually invested. Pension plan investment expense consists of manager fees. The return is calculated using a methodology which incorporates a one quarter lag for market value adjustments on private equity, private 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, 2017

ADMINISTRATIVE EXPENSES		
Information technology	\$	339,534
Education		50,316
Insurance		440,706
Personnel		3,977,797
Office equipment		149,114
Dues and subscriptions		103,504
Board meetings		8,317
Office supplies		25,148
Utilities		52,087
Postage		30,564
Printing		3,659
Election		19,060
Facilities (includes depreciation expense)		588,974
Other		8,323
<b>Total administrative expenses</b>	<b>\$</b>	<b>5,797,103</b>
INVESTMENT EXPENSES		
Investment management	\$	5,534,243
Custodial		252,705
Valuation		645,469
Research		19,303
Consulting and reporting		487,712
Legal		81,216
Transaction advisory		1,450,522
Tax		11,746
Other		618,117
<b>Total investment expenses</b>	<b>\$</b>	<b>9,101,033</b>
PROFESSIONAL SERVICES EXPENSES		
Consulting	\$	12,967
Actuarial		524,097
Auditing		149,500
Accounting		61,616
Medical review		7,360
Legal		1,020,957
Mortality records		2,800
Legislative		319,085
Communications		247,104
Other		15,523
<b>Total professional services expenses</b>	<b>\$</b>	<b>2,361,009</b>

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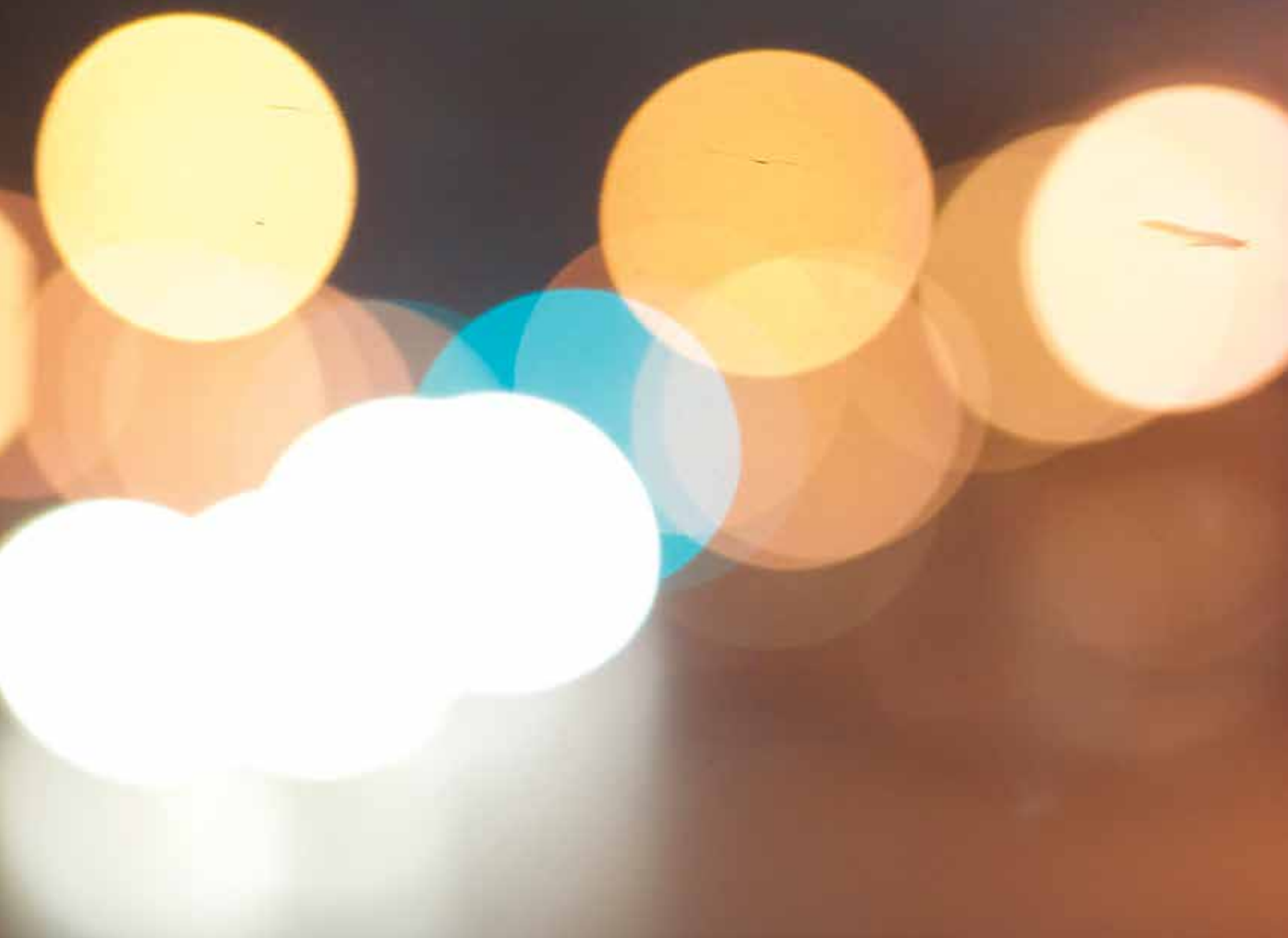
**Notes to Schedule:**

Supplementary information on investment expenses does not include investment management fees and performance fees embedded in the structure of private equity and other limited partnership investments. Rather, these fees are a component of the net appreciation (depreciation) in fair value of investments in the accompanying Statements of Changes in Fiduciary Net Position. In addition, management fees paid directly by DPFP are included net of rebates received.

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

*See accompanying independent auditor's report.*

# *Investment Information*



# Investment Consultant's Report



September 24, 2018

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

RE: 2017 CAFR – Summary of Investment Activities & Performance

Dear Trustees:

This letter summarizes global market outcomes, DFPF's investment structure and performance, and chronicles investment changes during the year.

## **GLOBAL MARKET COMMENTARY**

It was a banner year for global equities amid optimism around US corporate tax cuts and the continued acceleration of economic growth the world over. Global stocks saw earnings per share rise nearly 19% in 2017, according to FactSet, the fastest growth since 2011. 2017 marked the ninth consecutive year of economic expansion in the United States following the financial crisis. Measured gains in GDP and robust job growth provided strong underpinnings for domestic equities, with the S&P 500 Index returning 21.8% for the year. The Fed's measured pace of incremental interest rate increases continued to bolster easy financial conditions. Outside of the United States, gradualism was also the policy of choice for major central banks, and China's move toward an economy emphasizing services and innovation over manufacturing continued to evolve with minimal disruptions. For 2017, non-US stock prices moved in tandem with the US, with the MSCI EAFE Index up 25% and the MSCI EME Index up 37.3% for the year.

DFPF's global investment structure was broadly supported by gains in the publicly-traded asset classes, specifically within the emerging markets. Global equities posted a 24% gain for the year, as measured by the MSCI ACWI, and most public fixed income asset categories saw continued gains in 2017. While the broad market global fixed income area was up 7.5% for the year, as measured by the Citi WGBI, emerging market debt local currency was up significantly at 15.2% (JPM GBI-EM Index) while hard currency emerging market debt was up 10.3% (JPM EMBI).

## **PORTFOLIO ASSET GROWTH**

Irrespective of the broad market index gains, the 2017 fiscal year ended with a reduction in total assets for DFPF. The portfolio began the year with \$2.29 billion in total investment assets and ended slightly lower at \$2.11 billion. While the investments earned 5.1% for the year on a time-weighted, net-of-fee basis, withdrawals from the plan resulted in a lower ending asset value.



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**ASSET ALLOCATION & INVESTMENT STRUCTURE**

The 2017 fiscal year ended with no revisions to the prescribed asset allocation targets; however, several new funds were added to the portfolio. Within global public equity, Boston Partners and Manulife were added as value-equity managers to complement the existing growth managers. The RBC emerging markets equity strategy was also added during the year. Under public fixed income, Pacific Asset Management's bank loan strategy was retained as a compliment to the existing mandate with Loomis Sayles' bank loan service. Within emerging market debt, the legacy investments with Ashmore were transitioned from the Local Currency strategy to the Ashmore Blended Currency strategy. Finally, a short-term core bond portfolio was funded with IR&M.

**INVESTMENT RETURNS**

DPPFP earned 5.1% for the fiscal year ending December 31, 2017 on a time-weighted, net of fee basis. To calculate this return, NEPC systemically inputs investment valuations and cash flows, as provided by JP Morgan, the DPPFP 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, on the upside, by large gains in the infrastructure and global equity investments, which earned 72.5% and 27.3%, respectively. On the downside, private equity and private debt detracted with returns of -27.3% and -22.9%, respectively. These losses were largely due to a secondary sale of the assets. Similarly, the infrastructure assets showed a gain of 72.5%, again, in part due to the secondary sale of assets.

As required by DPPFP policy, NEPC evaluated the traditional managers at the end of each calendar quarter for quantitative and qualitative compliance. 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 course of the year, the size of the investment portfolio decreased by approximately \$178 million to \$2.11 billion in investment assets primarily due to the repayment of debt and benefit payments which were partially offset by contributions and investment returns.

During 2017 DPFP made progress towards reducing an overallocation to private assets primarily through sales of Real Assets and Private Equity interests. Despite the sales progress, due in large part to the reduction in liquid assets caused by the DROP outflows of 2016, illiquid investments still comprised approximately 49% of the portfolio as of December 31, 2017.

In December 2016, the Board approved a sale of 26 fund investments across the Private Equity, Private Debt and Real Estate portfolios for approximately 88% of the net asset value, which resulted in proceeds of approximately \$246 million and reduced unfunded commitments by approximately \$108 million. Separately, DPFP sold its direct investment in two North Texas managed lanes projects for \$180 million in September 2017. DPFP had a combined \$87 million invested in these projects.

Over the course of 2017, the cash proceeds from the asset sales were utilized to reinvest across several new equity and debt managers. DPFP funded three new investment managers that 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. In 2017, the Board also approved new investments with Pacific Asset Management in the Bank Loans asset class, Ashmore in their Emerging Markets Blended Debt strategy, and RBC to manage an Emerging Markets Equity portfolio. DPFP also fully paid-off its plan-level debt in July 2017, which had an outstanding balance of \$130 million at year-end 2016.

In the Real Estate portfolio, DPFP continued to work towards the target allocation by completing the sale of two wholly-owned assets as well as continuing condominium and land parcel sales, resulting in proceeds of \$75.5 million. Implementing the hold-sell strategy outlined by the Board in 2016, Natural Resources managers sold nine timber and agriculture properties in 2017 which resulted in \$43.9 million of proceeds back to DPFP.

With the passage of HB 3158 in May 2017, the new governing Board of Trustees was fully seated in October 2017. As one of their first investment related actions, the Board directed staff to conduct an Investment Consultant Search in November 2017. The Meketa Investment Group was selected as DPFP's new investment consultant in April 2018. Meketa provided an initial fund review in August 2018 and it is expected that the Board will adopt a revised asset allocation and revised Investment Policy Statement in late 2018 or early 2019.

## Performance Reporting and Results

### Performance Reporting Methodology

The rate of return calculation is prepared by the investment consultant at December 31, 2017, 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 DPFP's investment consultant, is consistent with standard industry practice, and allows for timelier reporting to the Board. Though the investment return information provided in the Investment section is based on the "lagged with cash flow adjustments" methodology, all the net asset value and allocation information is based on the final audited December 31, 2017 values (unlagged) which are reported in the Financial section.

### Investment Performance

DPFP's investment performance is reported to the Board, on a quarterly basis, by the investment consultant. The overall investment performance is measured against the median return of public defined benefit plans included in the InvestorForce universe by comparison to the InvestorForce Public DB Net Median Index. DPFP's overall performance is also compared to the Policy Benchmark. The Policy Benchmark is calculated as the weighted return based on the asset class target allocations and their corresponding benchmarks. 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	2017 RETURN	3 YRS	5 YRS	10 YRS
Total Investment Assets	\$ 2,106,996	100.0%	5.1%	(1.8%)	1.2%	0.9%
Policy Benchmark <sup>(1)</sup>			15.2%	9.8%	10.0%	6.2%
InvestorForce DB Median			14.7%	7.1%	8.4%	5.6%
<b>EQUITY</b>	<b>703,565</b>	<b>33.4%</b>	<b>(5.0%)</b>	<b>1.3%</b>	<b>4.6%</b>	<b>-</b>
Total Equity Policy Index <sup>(2)</sup>			26.8%	-	-	-
<b>Global Equity</b>	<b>431,212</b>	<b>20.5%</b>	<b>27.3%</b>	<b>10.6%</b>	<b>11.9%</b>	<b>5.5%</b>
MSCI ACWI			24.6%	9.9%	11.4%	4.2%
Boston Partners	108,842	5.2%	-	-	-	-
Manulife	105,126	5.0%	-	-	-	-
OFI Global Institutional	108,235	5.1%	35.3%	12.6%	13.3%	7.3%
Walter Scott	108,782	5.2%	24.2%	10.2%	10.6%	-
MSCI ACWI			24.6%	9.9%	11.4%	5.2%
RREEF Global REIT	51	0.0%	-	-	-	-
Transition	176	0.0%	-	-	-	-
<b>Emerging Markets Equity</b>	<b>50,246</b>	<b>2.4%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
MSCI Emerging Markets Gross			37.8%	9.5%	4.7%	2.0%
RBC	50,246	2.4%	-	-	-	-
MSCI Emerging Markets Gross			37.8%	9.5%	4.7%	2.0%
<b>Private Equity</b>	<b>222,106</b>	<b>10.5%</b>	<b>(27.3%)</b>	<b>(16.9%)</b>	<b>(8.5%)</b>	<b>(4.2%)</b>
Russell 3000 + 3%			24.7%	14.4%	19.0%	11.8%
<b>FIXED INCOME</b>	<b>340,714</b>	<b>16.2%</b>	<b>3.7%</b>	<b>2.6%</b>	<b>3.1%</b>	<b>5.1%</b>
Total Fixed Income Policy Index <sup>(2)</sup>			8.5%	-	-	-
<b>Short Term Core Bonds</b>	<b>50,106</b>	<b>2.4%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
IR&M	50,106	2.4%	-	-	-	-
BBgBarc US Treasury 1-3 Yr TR			0.4%	0.6%	0.6%	1.4%
<b>Global Bonds</b>	<b>66,192</b>	<b>3.1%</b>	<b>11.6%</b>	<b>2.8%</b>	<b>1.5%</b>	<b>-</b>
Barclays Global Aggregate Index			7.4%	2.0%	0.8%	3.1%
Brandywine	66,192	3.1%	11.6%	2.3%	1.7%	5.4%
Barclays Global Aggregate Index			7.4%	(2.0%)	0.8%	3.1%
<b>High Yield</b>	<b>82,290</b>	<b>3.9%</b>	<b>11.4%</b>	<b>5.8%</b>	<b>5.3%</b>	<b>-</b>
Barclays Global High Yield			10.4%	7.1%	5.7%	8.1%
Loomis Sayles	82,290	3.9%	11.5%	6.3%	6.6%	8.5%
70% ML High Yield Cash Pay, 30% JPM EMBI GL Comp			10.4%	7.1%	5.7%	8.1%

	NET ASSET VALUE	% OF PORTFOLIO	2017 RETURN	3 YRS	5 YRS	10 YRS
<b>FIXED INCOME (continued)</b>						
<b>Bank Loans</b>	\$ 110,221	5.2%	5.4%	4.9%	-	-
S&P/LSTA Leveraged Loan (All Loans Index Levels)			4.1%	4.4%	4.0%	4.9%
<b>Loomis Sayles Sr Floating Rate and Fixed Income</b>	59,314	2.8%	5.6%	5.0%	-	-
S&P/LSTA Leveraged Loan (All Loans Index Levels)			4.1%	4.4%	4.0%	4.9%
<b>Pacific Asset Management</b>	50,906	2.4%	-	-	-	-
Credit Suisse leveraged Loan			4.2%	4.5%	4.3%	4.6%
<b>Emerging Markets Debt</b>	20,321	1.0%	14.8%	7.2%	1.9%	-
50% JPM EMBI/50% JPM GBI-EM			12.7%	4.9%	1.2%	-
<b>Ashmore Emerging Markets Debt Fund</b>	20,320	1.0%	-	-	-	-
50% JPM EMBI/25% JPM GBI-EM/25% JPM ELMI+			11.8%	-	-	-
<b>Ashmore EM Local Currency</b>	1	0.0%	-	-	-	-
<b>Private Debt</b>	11,584	0.6%	(22.9%)	-	-	-
Barclays Global High Yield + 2%			12.6%	9.2%	-	-
<b>GLOBAL ASSET ALLOCATION</b>	144,927	6.9%	8.4%	5.3%	4.8%	4.1%
Total GAA Policy Index <sup>(2,3)</sup>			14.2%	8.1%	7.3%	7.1%
<b>Risk Parity</b>	85,115	4.1%	13.4%	5.6%	4.4%	-
60% MSCI ACWI / 40% BC Global Agg			17.1%	6.5%	6.8%	4.3%
<b>Bridgewater All Weather</b>	44,861	2.2%	13.1%	5.0%	3.6%	5.5%
91 Day T-Bill + 7%			8.0%	7.4%	7.3%	7.3%
<b>Putnam</b>	40,253	1.9%	13.7%	5.6%	4.7%	-
60% MSCI World (Net) / 40% CITI WGBI			16.2%	6.4%	7.0%	4.4%
<b>Global Tactical Asset Allocation</b>	23,494	1.1%	14.8%	5.2%	5.7%	-
60% MSCI ACWI / 40% BC Global Agg			17.1%	6.5%	6.8%	4.3%
<b>GMO</b>	23,494	1.1%	14.8%	5.2%	5.7%	4.9%
CPI + 5% (Seasonally Adjusted)			7.2%	6.7%	6.5%	6.7%
<b>Absolute Return</b>	36,318	1.7%	(5.0%)	5.8%	5.8%	-
HFRX Absolute Return			3.4%	2.2%	2.2%	(1.0%)
<b>Bridgewater Pure Alpha</b>	36,318	1.7%	(5.0%)	5.8%	5.8%	-
HFRX Absolute Return			3.4%	2.2%	2.2%	(1.0%)
<b>REAL ASSETS</b>	801,207	38.0%	11.2%	(5.7%)	(2.9%)	-
Total Real Assets Policy Index <sup>(2)</sup>			12.6%	-	-	-
<b>Natural Resources</b>	207,697	9.9%	(2.8%)	3.6%	5.4%	-
S&P Global Natural Resources			22.0%	6.6%	1.9%	(0.9%)
<b>Infrastructure</b>	61,430	2.9%	72.5%	16.1%	11.4%	-
S&P Global Infrastructure Index			20.1%	6.1%	9.2%	3.4%
<b>Real Estate</b>	532,080	25.2%	2.4%	(12.1%)	(7.2%)	(4.7%)
NCRIEF			7.0%	9.4%	10.2%	6.1%
<b>CASH AND EQUIVALENTS</b>	\$ 116,583	5.5%	0.9%	-	-	-
91 Day T-Bills			0.9%	0.4%	0.3%	0.3%

(1) The Policy Benchmark is calculated as the weighted return based on the asset class target allocations and their corresponding benchmarks. The Policy Benchmark was changed on April 1, 2016 to match the new asset allocation and asset class benchmarks in the Investment Policy Statement. The current benchmark has been linked with the Policy Benchmark for the prior asset allocation policy.

(2) Custom weighted asset class benchmarks are calculated based on the weighted average 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.

## 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 Investment Policy Statement (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, 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.

In May 2018, the Board temporarily suspended portions of the IPS to allow for the full liquidation of Global Asset Allocation (GAA) and allow for the creation of a 15% Safety Reserve allocation. The Safety Reserve allocation is to be invested in a combination of Short Term Core Bonds managed by IR+M (approximately 12%) and cash (approximately 3%). The Board also temporarily removed the authority and requirement for staff to rebalance under the IPS and required staff and the Investment Consultant, seek the Board's approval on any rebalancing needs, including if the Safety Reserve allocation is in excess of 15% of the portfolio. The proceeds from the liquidation of the GAA asset managers were redeployed to the Safety Reserve allocation in May and June 2018.

DPFP hired a new Chief Investment Officer, Kent Custer, in July 2018 and appointed the members of the Investment Advisory Committee in September 2018. It is anticipated that the Board will make changes to the asset allocation and the IPS in late 2018 or early 2019.

To review the IPS in full, visit DPFP's website at [www.dpfp.org](http://www.dpfp.org).

## Asset Allocation

The IPS includes five broad asset categories: Equity, Fixed Income, Global Asset Allocation, Real Assets and Cash. The broad asset categories are further categorized into 18 separate asset classes. The asset allocation as of December 31, 2017, along with targets and ranges, is as follows:

ASSET CATEGORY/CLASS	CURRENT ALLOCATION	TARGET ALLOCATION	MINIMUM ALLOCATION	MAXIMUM ALLOCATION
<b>Equity</b>	<b>33.4%</b>	<b>30%</b>	<b>20%</b>	<b>40%</b>
Global Equity	20.5%	20%	10%	23%
Emerging Markets Equity	2.4%	5%	-	8%
Private Equity	10.5%	5%	4%	15%
<b>Fixed Income</b>	<b>16.2%</b>	<b>33%</b>	<b>15%</b>	<b>38%</b>
Short-Term Core Bonds	2.4%	2%	-	5%
Global Bonds	3.1%	3%	-	6%
High Yield	3.9%	5%	2%	8%
Bank Loans	5.2%	6%	3%	9%
Emerging Markets Debt	1.0%	6%	-	9%
Structured Credit and Absolute Return	-	6%	-	9%
Private Debt	0.6%	5%	2%	7%
<b>Global Asset Allocation (GAA)</b>	<b>6.9%</b>	<b>10%</b>	<b>5%</b>	<b>15%</b>
Risk Parity	4.1%	5%	2%	8%
Global Tactical Asset Allocation (GTAA)	1.1%	3%	-	6%
Absolute Return	1.7%	2%	-	5%
<b>Real Assets</b>	<b>38.0%</b>	<b>25%</b>	<b>20%</b>	<b>45%</b>
Liquid Real Assets	-	3%	-	6%
Natural Resources	9.9%	5%	3%	10%
Infrastructure	2.9%	5%	3%	10%
Real Estate	25.2%	12%	10%	25%
<b>Cash</b>	<b>5.5%</b>	<b>2%</b>	<b>0%</b>	<b>5%</b>

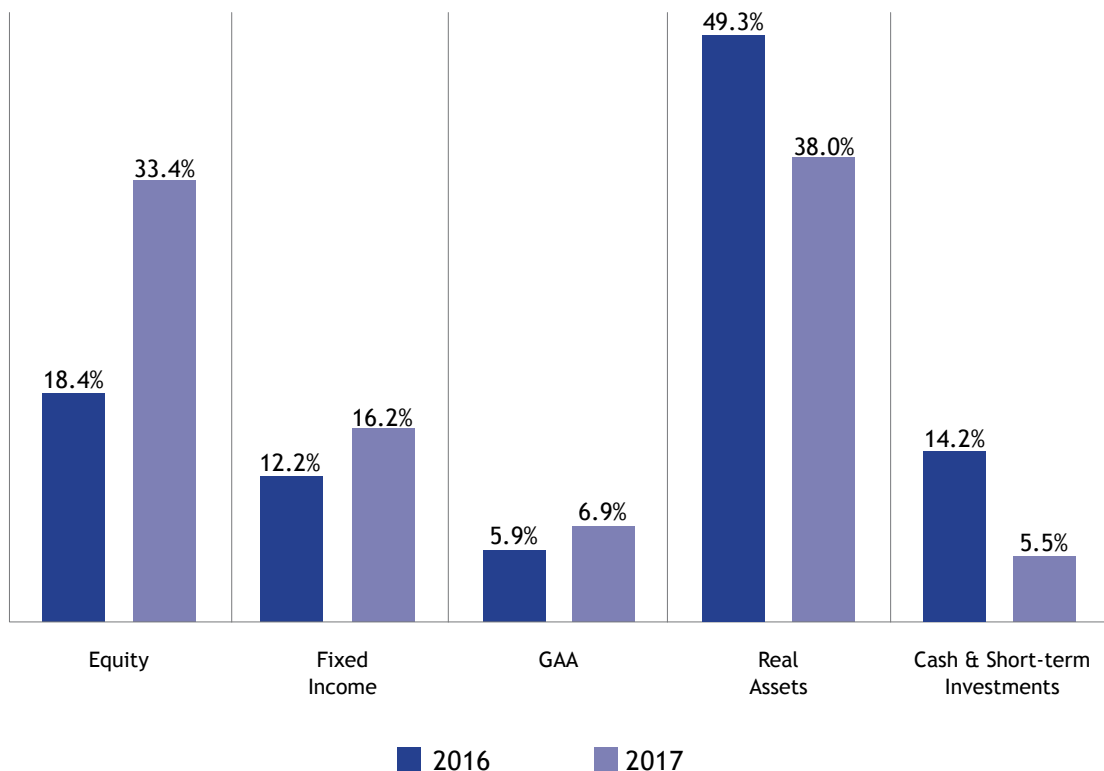
In addition, the IPS outlines a 0% target to Plan level leverage, with a range of 0% to 15% for Plan level debt, as of December 31, 2017 Plan level leverage was 0%.

At the time the IPS was adopted in 2016 the minimum and/or maximum allocation range point reflected the actual asset allocation at the time the IPS was adopted. It was anticipated that over time, as the actual allocation approached the target, the ranges would be adjusted to a more typical range with the target allocation generally at the mid-point of the range. The target minimum and maximum ranges were not amended in 2017 due to the passage of HB 3158 and the transition of the Board. It is now anticipated that the asset allocation as a whole will be amended during 2018.

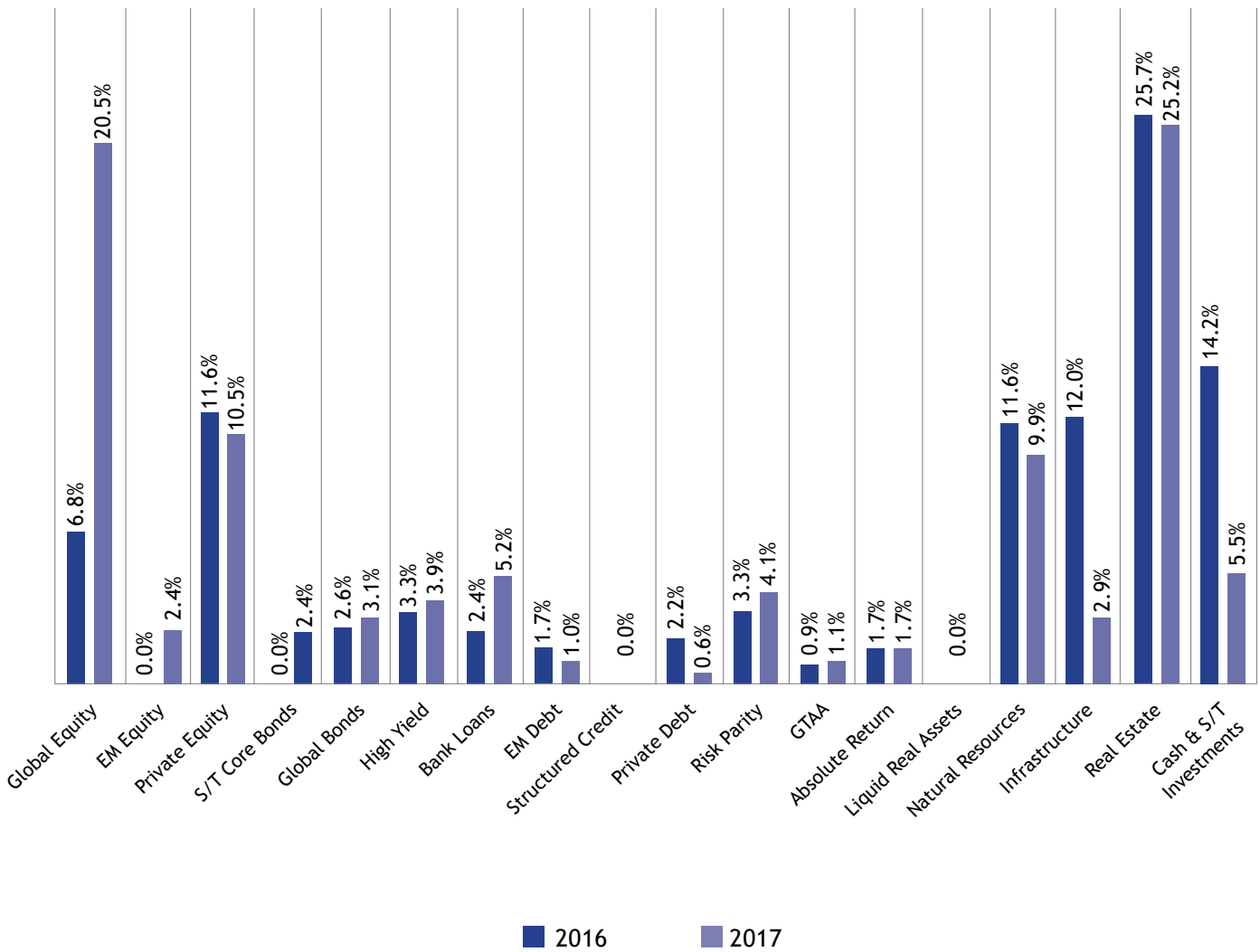
Cash was the only asset category that ended the year with actual allocations above the maximum range outlined in the asset allocation in the IPS. Equity, Real Assets and Cash ended the year above the target allocations, while Fixed Income and Global Asset Allocation were below the target allocation. At the asset class level, Private Debt and Infrastructure ended the year below the minimum allocation range. The under-allocation to Infrastructure was caused by sale of DFPF's direct managed lanes investments and the redemption from an open-ended infrastructure fund. The under allocation to Private Debt reflects the goal of reducing the illiquid percentage of the portfolio. At December 31, 2017, the Cash and Real Estate asset classes exceeded their respective maximum asset allocation ranges. The excess Cash allocation was based on Board direction. The overallocation to Real Estate is a continuation of the overallocation from prior years as DFPF continues to reduce this allocation in a timely but prudent manner.

The following graphs reflect the portfolio allocation at December 31, 2016 and 2017 by broad asset category and asset class.

### Asset Allocation by Broad Asset Category



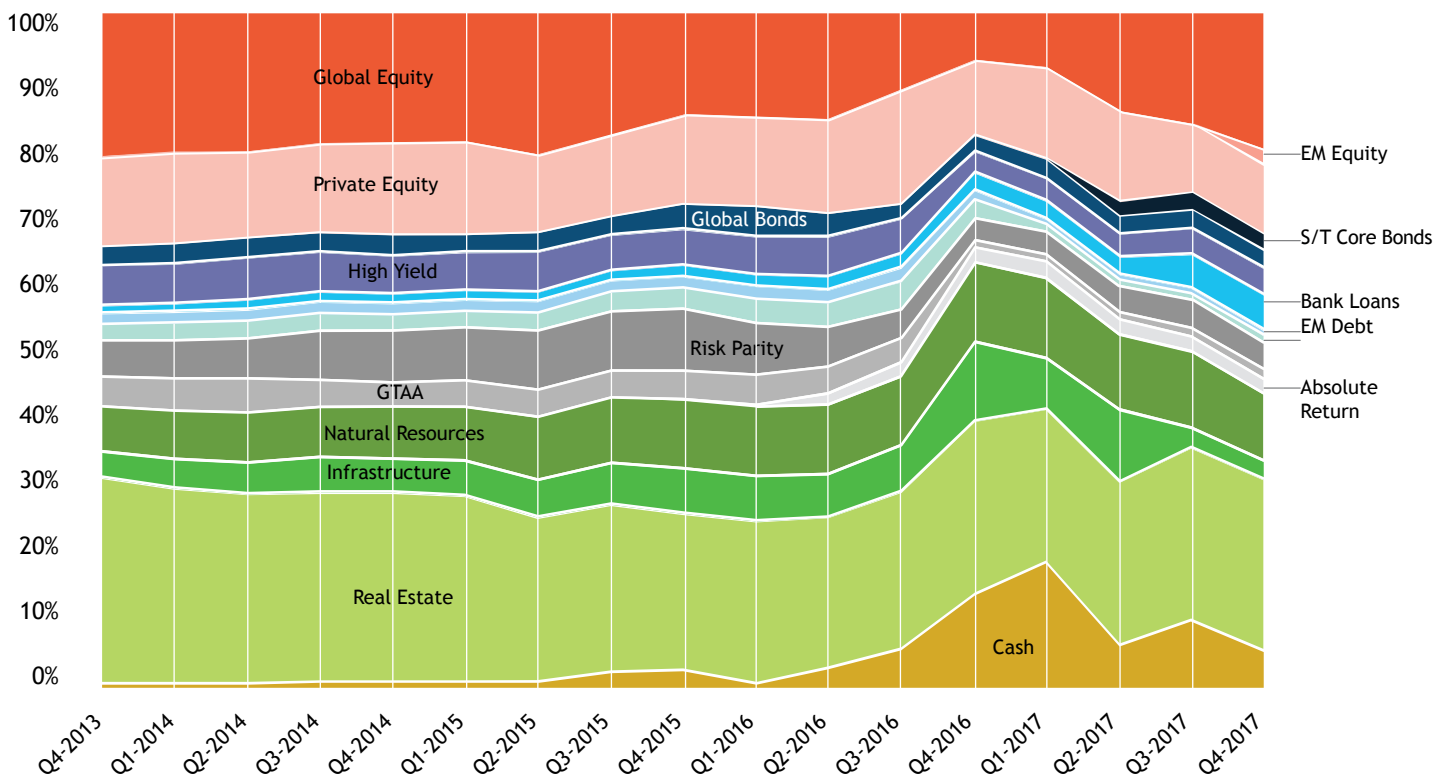
## Asset Allocation by Asset Class





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 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 2017, 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	2017 AVERAGE MARKET VALUE	TOTAL MANAGEMENT FEES PAID AS A % OF AVERAGE MARKET VALUE
Equity	\$ 1,709	\$ 3,698	\$ 5,407	\$ 558,523	0.97%
Fixed Income	848	386	1,234	301,177	0.41%
Global Asset Allocation	-	2,329	2,329	138,645	1.68%
Real Assets	2,977	3,103	6,080	935,349	0.65%
<b>TOTAL<sup>1</sup></b>	<b>\$ 5,534</b>	<b>\$ 9,516</b>	<b>\$ 15,050</b>	<b>\$2,160,830*</b>	<b>0.70%*</b>

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

<sup>1</sup> Total does not foot due to rounding.

During 2017, DPFP incurred approximately \$343 thousand in brokerage fees and commissions paid through managers to trade a total of approximately 16 million shares across 130 firms. This represents an average cost of \$0.021 per share traded.

BROKERAGE FIRM	NUMBER OF SHARES TRADED (000'S)	TOTAL FEES AND COMMISSIONS (000's)	FEES AND COMMISSIONS PER SHARE
Citigroup Global Markets, Ltd.	3,800	60	0.016
J.P. Morgan Securities, Ltd.	2,184	39	0.018
Sanford C. Bernstein Ltd London	555	32	0.059
Morgan Stanley and Co., Inc.	676	23	0.033
Merrill Lynch International, Ldn	367	19	0.052
Citigroup Global Markets Inc., NY	1,941	14	0.007
Goldman Sachs New York	541	13	0.024
Sanford C. Bernstein & Co. Inc.	593	12	0.020
Sanford C. Bernstein and Co., LLC	433	11	0.026
UBS Securities LLC (Warburg)	470	8	0.018
All other firms	4,877	111	0.023
<b>TOTAL</b>	<b>16,436</b>	<b>\$ 343</b>	<b>\$ 0.021</b>

## Largest Public Equity and Fixed Income Holdings

The below tables contain the ten largest public equity and fixed income securities owned at December 31, 2017.

A full list of securities owned is available upon written request.

PUBLIC EQUITY HOLDING	MARKET VALUE (000's)
Alphabet Inc.	\$ 10,482
Roche Holdings AG	8,429
Microsoft Corp.	8,073
Oracle Corp.	7,222
Nestle SA	6,015
Wells Fargo & Co.	5,678
LVMH Moet Hennessy Louis Vuitton	5,673
Cisco Systems Inc.	5,554
Adobe Systems Inc.	5,382
Keyence Corp.	5,379

PUBLIC FIXED INCOME HOLDING	MATURITY DATE	INTEREST RATE	MARKET VALUE (000's)
United States of America FRN Quarterly	7/31/2019	variable	\$ 9,746
United States of America Notes	9/15/2020	1.38%	7,088
United States of America Notes	6/15/2020	1.50%	5,062
United States of America Bill	1/2/2018	0.00%	5,000
United Kingdom of Great Britain	7/22/2018	1.25%	4,670
United States of America Notes	3/15/2020	1.63%	4,596
United States of America Notes	12/15/2018	1.25%	3,795
United States of America Notes	12/31/2018	1.25%	3,779
APL Ltd. Bond	1/15/2024	8.00%	3,739
United States of America Bond	11/13/2042	7.75%	2,977

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## Investment Managers

### Assets under management during 2017

AEW Capital Management

Alvarez & Marsal

Ashmore Investment Management Limited

BankCap Partners

Barings Real Estate Advisors

Bentall Kennedy

Boston Partners

Brandywine Global Investment Management

Bridgewater Associates

BTG Pactual Asset Management

CDK Realty Advisors

Cintra US

Clarion Partners

Forest Investment Associates

Grantham, Mayo, Van Otterloo & Co. (GMO)

Hancock Agricultural Investment Group

Hearthstone, Inc.

Highland Capital Management

Hudson Clean Energy Partners

Income Research and Management

Industry Ventures

JPMorgan Asset Management

L&B Realty Advisors

Lone Star Funds

Lone Star Investment Advisors

Loomis, Sayles & Company

M&G Real Estate

Manulife Asset Management

OFI Institutional Asset Management

Oaktree Capital Management

Pacific Asset Management

Pharos Capital Group

Putnam Fiduciary Trust Company

RBC Global Asset Management

Riverstone Credit Partners

Walter Scott & Partners Limited

W.R. Huff Asset Management

Yellowstone Capital Partners

The background of the slide is a dark blue gradient with a bokeh effect of out-of-focus light circles in various colors including red, yellow, white, and cyan. The text is positioned in the upper left quadrant.

*Actuarial  
Information*

# Actuary's Report



2018 Powers Ferry Road SE Suite 850 Atlanta, GA 30339-7200  
T 678.306.3100 www.segalco.com

September 21, 2018

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

**Re: Actuarial Valuations as of January 1, 2018**

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, 2018.

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. Mr. Williams and Ms. Brigham are Fellows of the Conference of Consulting Actuaries, Associates of the Society of Actuaries, Enrolled Actuaries, and Members of the American Academy of Actuaries, and both are experienced in performing valuations for large public retirement systems. They 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 that were adopted as of September 1, 2017 are anticipated to significantly improve plan funding over the long-term.

## PLAN CHANGES

On May 31, 2017, the Governor of Texas signed HB3158 into law. HB3158 amends Article 6243a-1 of the Texas Statutes 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, were first reflected in the January 1, 2017 actuarial valuation.

The only plan change included in the January 1, 2018 actuarial valuations is that active members who elected DROP prior to June 1, 2017 were allowed to revoke their election between September 1, 2017 and February 28, 2018. Those revocations are reflected in the System's liabilities for funding purposes, even if they occurred after the valuation date. For financial reporting, all revocations elected during the window will be recognized as of December 31, 2018.

## PROGRESS TOWARD REALIZATION OF FINANCING OBJECTIVES

### *Combined Pension Plan*

As of January 1, 2018, the City's actuarially determined contribution for the Combined Pension Plan is 45.40% of computation pay. Effective September 1, 2017, the City's contribution increased 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, 2063. 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 decreased from 49.41% and 47.74% between January 1, 2017 and January 1, 2018. This decrease was primarily due to a loss on the actuarial value of assets and retirement experience greater than anticipated.

#### *Supplemental Plan*

The Supplemental Plan funded ratio decreased from 52.91% to 51.53% between January 1, 2017 and January 1, 2018. This decrease primarily resulted from a 95% increase in the average supplemental computation pay. 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 DFPF'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. The majority of the assumptions used in the January 1, 2018 actuarial valuation were adopted by the Board following a five-year experience review for the period ended December 31, 2014. Some assumptions were adjusted in the January 1, 2017 valuation related to the 2016 Meet and Confer agreement, Section 6.14(c) of the Plan Document, and plan changes effective September 1, 2017. Additional assumption changes included in the January 1, 2018 valuations include: (1) increasing the interest rate assumption on September 30, 2017 DROP balances for new retirements from 2.75% to 3.00%, (2) changing the ad-hoc COLA assumed starting date from October 1, 2049 to October 1, 2053, and (3) decreasing the administrative expense assumption from the greater of \$10.0 million or 1% of computation pay to the greater of \$8.5 million or 1% of computation pay.

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 not enough 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.



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## BENEFIT PROVISIONS

The actuarial valuations reflect the benefit provisions effective September 1, 2017, as well as the DROP revocations through February 28, 2018.

## DATA

Member data for retired, active and inactive participants was supplied as of December 31, 2017 by the staff of DFPF. 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, 2017.

## COMPREHENSIVE ANNUAL FINANCIAL REPORT SCHEDULES

DFPF 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 DFPF's staff for their assistance and input necessary to complete the actuarial valuations.

Respectfully submitted,  
**Segal Consulting, a Member of The Segal Group, Inc.**



Jeffrey S. Williams, FCA, ASA, MAAA, EA  
Vice President and Associate Actuary



Deborah K. Brigham, FCA, ASA, MAAA, EA  
Senior Vice President and Actuary

# Actuarial Information

## Introduction

DPPF's Combined Pension Plan and Supplemental Plan are single-employer defined benefit plans. The Plans provide retirement, death and disability benefits. The Combined Pension Plan requires an annual actuarial valuation to determine the adequacy of the current contribution rate of the City, to describe the current financial condition of DPPF, and to analyze changes in DPPF's financial condition. The Supplemental Plan requires an annual actuarial valuation to determine the amount of the City's annual contribution as required by City ordinance.

## Funding

Defined benefit plans represent a commitment to pay specific benefits to employees and their survivors. Refer to Note 1 in the Financial Section for a description of benefits. The benefit to employees and their survivors is usually much more than the combined contributions of the employee and the employer. Determining adequate funding requires making a variety of assumptions to assure full payments can be made from the plan.

There are a number of actuarial assumptions necessary in order to estimate the amount of funding required to provide future benefits. Once the assumptions have been determined, the actuary must select a cost method to determine the amount of funding required in order for the committed benefits to be provided.

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.

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 was September 1, 2017, contribution and benefit changes required under the Bill significantly impacted the future funding of the Plans and therefore were 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 funding level as of January 1, 2017 would have been 40.2% and it was projected to be insolvent without the Plan changes. The Combined Pension Plan was expected to become fully funded by 2061 as of January 1, 2017 based on the Plan changes and the City's payroll projections.

As of January 1, 2018, the funding period of the Combined Pension Plan increased from 2061 to 2063 and the actuarial funding level declined from 49.4% to 47.7%. It is expected that the funding level will decline for many years even if all assumptions are realized.

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, 2018. 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 87 is a summary from Segal regarding the January 1, 2018 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 approved in 2016. 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 following assumptions were changed for the January 1, 2018 valuation:

- The DROP annuity interest rate applied to the DROP balance accrued prior to September 1, 2017 for future retirees was increased from 2.75% to 3.00% to reflect the rising interest rates.
- The cost of living adjustment is assumed to begin in 2053.
- The administrative expense assumption is decreased from \$10 million to \$8.5 million.

The Combined Pension Plan's contribution rate is set by State statute. See the Required Supplementary Information in the Financial Section for a ten-year schedule of actuarial determined contribution and actual contributions. As of September 6, 2017 the contribution rate for all employees is 13.5%. As of September 6, 2017 the City contribution rate is 34.5% of Computation Pay, with certain minimum floor amounts as specified in the Bill through 2024, plus \$13 million per year through 2024. There is no direct policy to fund the unfunded liability in a certain number of years. The PRB requires that municipal plans develop a Funding Soundness Restoration Plan if their effective amortization period exceeds 40 years for three consecutive annual valuations. The January 1, 2018 valuation is the fourth 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, 2018 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%. 7.25% is the rate used to discount the liabilities.

**Administrative Expenses:** An explicit assumption of annual administrative expenses, including investment-related personnel costs has been added to the normal cost in the amount of the greater of \$8.5 million per year or 1% of Computation Pay for the Combined Pension Plan and \$65 thousand for the Supplemental Plan.

**DROP Interest:** DROP balances for active participants are assumed to earn 3.00% 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:

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 2018 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%

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 members assumed to retire at various ages is as follows:

Age	MEMBERS HIRED PRIOR TO MARCH 1, 2011 WITH LESS THAN 20 YEARS OF SERVICE AS OF SEPTEMBER 1, 2017	MEMBERS HIRED PRIOR TO MARCH 1, 2011 WITH AT LEAST 20 YEARS OF SERVICE AS OF SEPTEMBER 1, 2017	MEMBERS HIRED ON OR AFTER MARCH 1, 2011
	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	0.010%
25	0.015%
30	0.020%
35	0.025%
40	0.030%
45	0.035%
50	0.040%

**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%.

**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:** 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, 2053 and payable every October 1<sup>st</sup> 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. Combined Pension Plan amortizes the liability over a 30-year period. The Supplemental Pension Plan amortizes the unfunded liability over a 10-year period.

**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
2008	(6.14%)	(24.80%)
2009	12.29%	13.78%
2010	2.69%	10.72%
2011	0.43%	(1.78%)
2012	14.79%*	9.92%
2013	4.52%	7.70%
2014	(1.98%)	(5.35%)
2015	(24.03%)*	(8.47%)
2016	7.16%	6.82%
2017	6.63%	4.74%
5-year average return	(6.70%)	0.50%
10-year average return	(0.79%)	0.42%

*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):

<b>COMBINED PENSION PLAN</b>	
Unfunded actuarial accrued liability as of January 1, 2017	\$ 2,209,381
Normal cost at beginning of year	68,423
Total contributions	(159,295)
Total interest	159,433
Expected unfunded actuarial accrued liability as of January 1, 2018 (a)	2,277,942
Changes due to:	
Net experience loss	64,704
Plan provisions	20,585
Assumptions	(8,833)
Total changes (b)	76,456
Unfunded actuarial accrued liability at year end (a+b)	2,354,398
Actuarial accrued liability at beginning of year	4,367,180
Net (gain)/loss as a percentage of actuarial accrued liability at beginning of year	3.2%

<b>SUPPLEMENTAL PLAN</b>	
Unfunded actuarial accrued liability as of January 1, 2017	\$ 15,720
Normal cost at beginning of year	167
Total contributions	(2,143)
Total interest	1,076
Expected unfunded actuarial accrued liability as of January 1, 2018 (a)	14,820
Changes due to:	
Net experience loss	1,045
Plan provisions	897
Assumptions	(17)
Total changes (b)	1,925
Unfunded actuarial accrued liability at year end (a+b)	16,745
Actuarial accrued liability at beginning of year	33,384
Net (gain)/loss as a percentage of actuarial accrued liability at beginning of year	3.5%

Refer to the Financial Section and the Actuarial Section for additional information on Plan changes and changes in actuarial methods and assumptions.

## Short-Term Solvency Test

A short-term solvency test is one means of checking a plan's progress under its funding program. In a short-term solvency test, the plan's valuation assets are compared with: 1) active member contributions on deposit; 2) the liabilities for future benefits to present retired lives; and 3) the liabilities for service already rendered by active members. In a plan that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (liability 1) and the liabilities for future benefits to present retired lives (liability 2) will typically be fully covered by present assets. In addition, the liabilities for service already rendered by active members (liability 3) will be partially covered by the remainder of present assets. Liability 3 being fully funded is very rare. As a result of the decline in the actuarial value of assets as of January 1, 2016, the liabilities for future benefits to present retired lives is no longer fully covered by present assets. Solvency test results for the Plans for the last 10 years are as follows (dollars in thousands):

### Combined Pension Plan

AGGREGATE ACCRUED LIABILITIES FOR								
(1) (2) (3)								
Jan. 1 Valuation Date	Active Member 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)*
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%	69.2%	0.0%
2018	280,965	3,018,210	1,206,262	4,505,437	2,151,039	100.0%	62.6%	0.0%

\* 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)*
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%
2018	170	30,680	3,700	34,550	17,805	100.0%	57.5%	0.0%

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

## 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
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%
2018	4,952	346,037	70	(0.2%)

### Supplemental Plan (Dollars in Thousands)

JAN. 1 VALUATION DATE	ACTIVE MEMBERS	ANNUAL COVERED PAYROLL	ANNUAL AVERAGE PAY	% CHANGE IN ANNUAL AVERAGE PAY
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%)
2018	44	961	22	95.5%

Refer to the Financial Section and the Actuarial Section for additional information on Plan changes and changes in actuarial methods and assumptions.

## Retirees and Beneficiaries Added to and Removed from Rolls

### Consolidated Plans\* (Dollars in Thousands)

Jan. 1 Valuation Date	ADDED TO PAYROLL		REMOVED FROM PAYROLL		TOTAL (INCLUDES NON-ACTIVE VESTED)		Average Annual Benefits	% Change in Average Annual Benefits
	Number	Annual Benefits	Number	Annual Benefits	Number**	Annual Benefits		
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%
2018	443	24,229	152	6,314	4,706	238,014	51	1.6%

\* Due to confidentiality issues arising from the small number of members in the Supplemental Plan, data from the Combined Pension Plan and Supplemental Plan is presented on a consolidated basis.

\*\* Excludes beneficiaries who are annuity account holders but do not receive a monthly benefit.

## Funding Progress

### Combined Pension Plan (Dollars in Thousands)

JAN. 1 VALUATION DATE	ACTUARIAL VALUE OF ASSETS (AVA)	ACTUARIAL ACCRUED LIABILITY (AAL)	AVA AS A PERCENTAGE OF AAL	UNFUNDED AAL (UAAL)	ANNUAL COVERED PAYROLL	UAAL AS A PERCENTAGE OF ANNUAL COVERED PAYROLL	FUNDING PERIOD (YEARS)
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
2018	2,151,039	4,505,437	47.7%	2,354,398	346,037	680%	45

### 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
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%
2018	17,805	34,550	51.5%	16,745	961	1,743%

Refer to the Financial Section and the Actuarial Section for additional information on Plan changes and changes in actuarial methods and assumptions.



*Statistical  
Information*

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# Statistical Information

## Introduction

The Statistical section provides additional historical perspective, context, and detail to assist the reader in using the information in the financial statements, notes to the financial statements, and required supplementary information to understand and assess the economic condition of DPFP. The schedules within the Statistical section reflect financial trends and operating information. All information was derived from the audited annual financial statements, actuarial valuation reports, and/or DPFP's pension administration database. Refer to Note 1 in the Financial Section for additional information about the benefits.

## Financial Trends

Financial trend information is intended to assist users in understanding and assessing the changes in the financial position of DPFP over time.

The Changes in Fiduciary Net Position schedule presents member and employer contributions and the net investment income/loss and administrative expenses to arrive at the net increase/decrease to changes in plan net assets for the 10 years ending December 31, 2017.

The Distributions by Type schedules present the amount of monthly benefit payments and DROP distributions by type for the 10 years ending December 31, 2017.

The DROP Growth schedule presents the changes in interest rate credited to DROP balances, the amounts deferred into and interest credited to DROP balances, DROP withdrawals, the DROP balances annuitized in accordance with HB 3158 and the change in DROP balances year over year. In addition, the annual annuity payments as well as the present value of the annuity balances are presented.

## Operating Information

Operating information is intended to provide contextual information about the operations and resources of DPFP to assist readers in understanding and assessing the economic condition of DPFP.

The schedule of Benefit Recipients by Type presents, for given benefit ranges, the total number of benefit recipients by retirement type as of December 31, 2017.

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, 2017.



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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, 2017.

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, 2017.

The Membership Count schedules reflect the number of members by status type for the 10 years ending December 31, 2017.

The DROP Participation schedule reflects a roll forward of the number of DROP participants and DROP balance and present value of the annuity balance for the 10 years ending December 31, 2017.

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

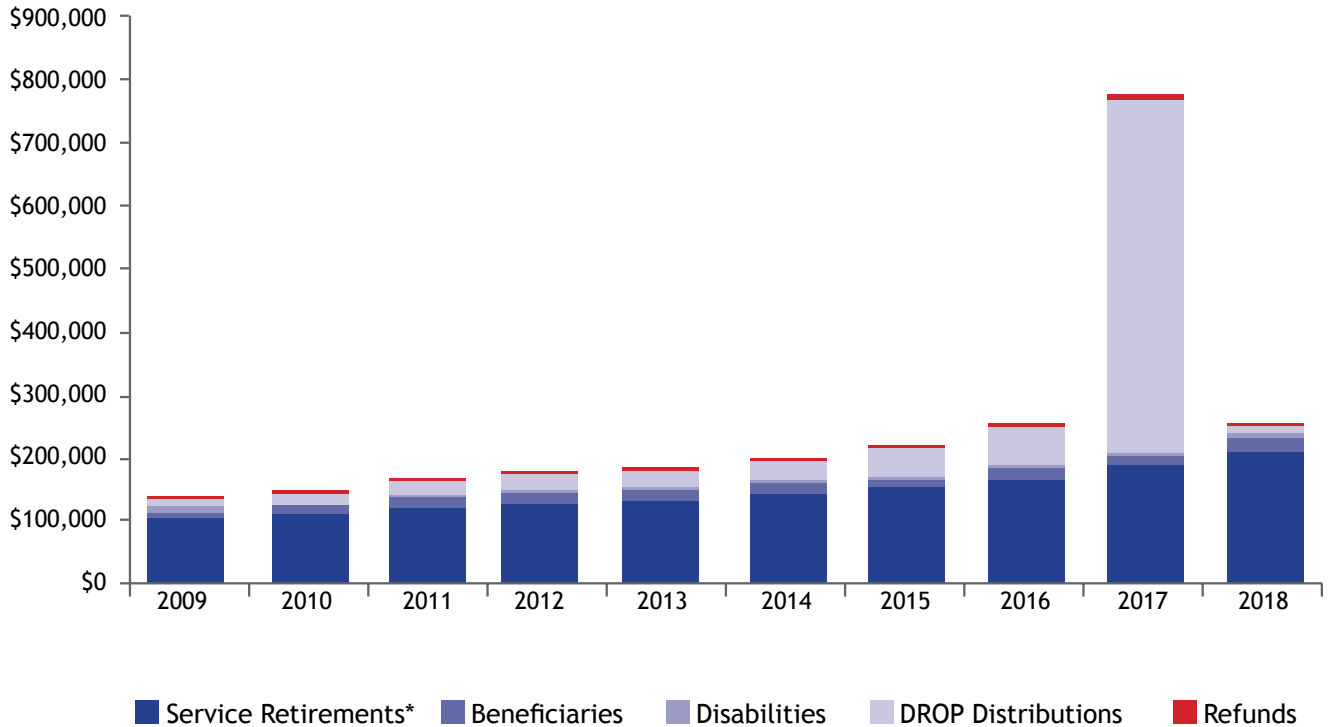
### Consolidated Plans\* (In Millions)

YEARS ENDED DECEMBER 31,	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>Additions (Reductions)</b>										
Contributions										
City	\$ 128.4	\$ 122.4	\$ 117.3	\$ 111.6	\$ 108.0	\$ 105.9	\$ 104.0	\$ 109.7	\$ 109.0	\$ 105.6
Members	33.0	25.6	25.7	29.4	26.3	22.8	19.5	19.8	19.6	18.7
Total contributions	161.4	148.0	143.0	141.0	134.3	128.7	123.5	129.5	128.6	124.3
Investment income (loss)										
Net appreciation (depreciation) in fair value of investments	75.4	122.3	(300.9)	(223.2)	94.2	301.5	(44.8)	248.7	318.7	(865.2)
Interest and dividends	31.2	54.8	73.4	94.5	86.5	67.2	59.4	65.8	89.3	92.2
Total gross investment income (loss)	106.6	177.1	(227.5)	(128.7)	180.7	368.7	14.6	314.5	408.0	(773.0)
Less: Investment expense	(9.1)	(11.8)	(10.1)	(11.3)	(10.1)	(28.8)	(32.3)	(18.4)	(23.9)	(20.7)
Net investment income (loss)	97.5	165.3	(237.6)	(140.0)	170.6	339.9	(17.7)	296.1	384.1	(793.7)
Securities lending income	0.2	0.7	0.7	0.8	1.1	0.9	0.8	1.0	1.8	6.3
Securities lending expense	(0.1)	(0.3)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.4)	(0.6)	(5.0)
Net securities lending income	0.1	0.4	0.5	0.6	0.8	0.7	0.6	0.6	1.2	1.3
Other income	2.1	0.2	0.3	-	-	-	-	-	-	-
<b>Total additions (reductions)</b>	<b>261.1</b>	<b>313.9</b>	<b>(93.8)</b>	<b>1.6</b>	<b>305.7</b>	<b>469.3</b>	<b>106.4</b>	<b>426.2</b>	<b>513.9</b>	<b>(668.1)</b>
<b>Deductions</b>										
Benefits paid to members	295.2	827.6	285.9	247.6	220.2	203.4	190.2	171.4	156.8	143.4
Refunds paid to members	3.6	3.4	1.8	1.7	0.9	1.5	0.7	0.8	0.8	0.4
Interest expense	1.3	4.6	6.0	7.4	5.9	6.3	6.7	7.3	3.8	9.5
Professional and administrative expenses	8.2	9.6	8.5	8.1	7.5	6.1	7.0	6.5	6.5	8.0
<b>Total deductions</b>	<b>308.3</b>	<b>845.2</b>	<b>302.2</b>	<b>264.8</b>	<b>234.5</b>	<b>217.3</b>	<b>204.6</b>	<b>186.0</b>	<b>167.9</b>	<b>161.3</b>
Net increase (decrease) in net position	(47.2)	(531.3)	(396.0)	(263.2)	71.2	252.0	(98.2)	240.2	346.0	(829.4)
<b>Net position held in trust - restricted for pension benefits</b>										
Beginning of period	2,168.3	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
End of period	\$2,121.1	\$2,168.3	\$2,699.6	\$3,095.6	\$3,358.8	\$3,287.6	\$3,035.6	\$3,133.8	\$2,893.6	\$2,547.6

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

## Distributions by Type

Combined Pension Plan (In Thousands)

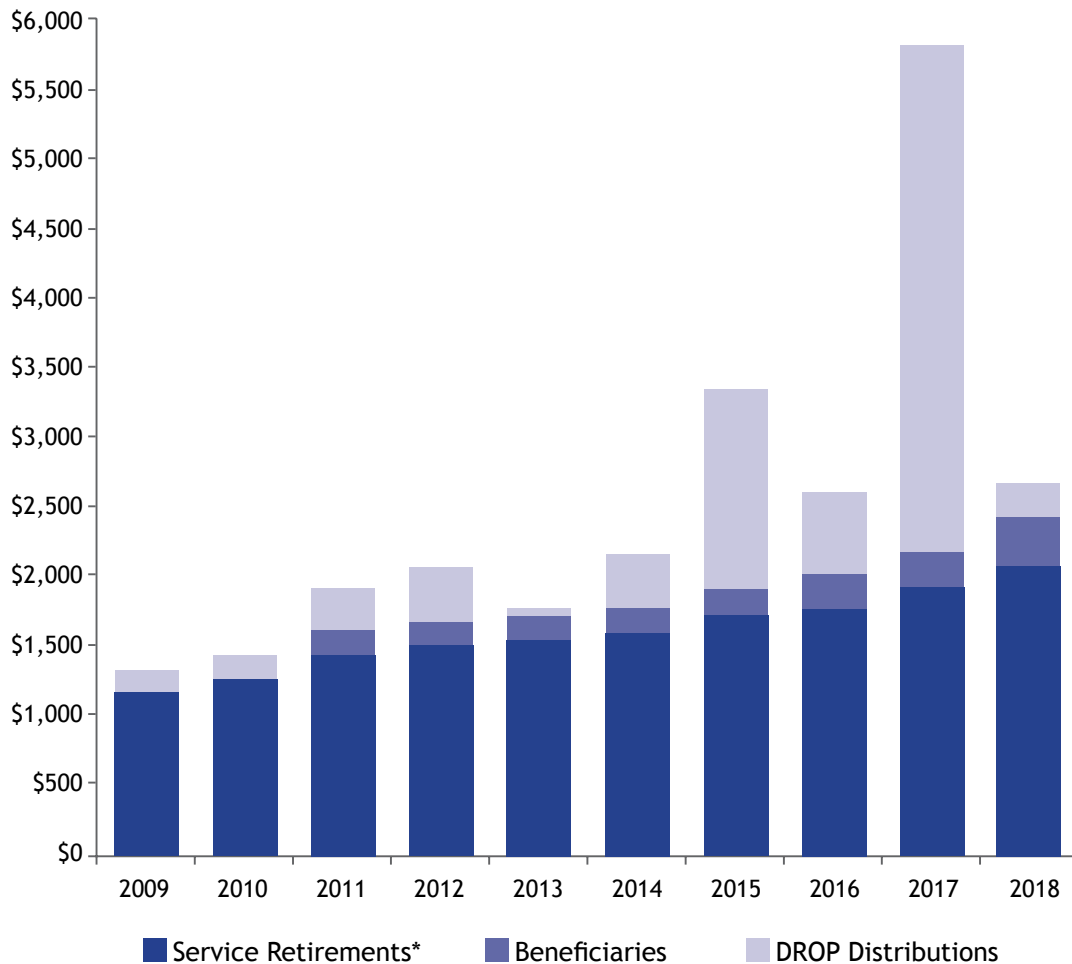


JAN. 1 VALUATION DATE	SERVICE RETIREMENTS*	BENEFICIARIES	DISABILITIES	DROP LUMP SUM DISTRIBUTIONS	REFUNDS	TOTAL
2009	\$ 100,666	\$ 17,795	\$ 6,825	\$ 16,789	\$ 358	\$ 142,433
2010	108,383	19,163	6,933	20,864	771	156,114
2011	117,350	20,369	6,842	24,898	814	170,273
2012	127,048	20,860	6,860	33,325	736	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
2018	230,774	30,706	6,154	24,942	3,578	296,154

\* 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
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
2018	2,143	295	230	2,668

\* 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	ANNUITY PAYMENTS	ANNUITY BALANCE
2009	9.75%	\$ 71,317	\$ 61,642	\$ (29,538)	\$ 103,422	\$ 706,585	\$ -	\$ -
2010	9.50%	77,495	69,975	(35,745)	111,725	818,310	-	-
2011	9.25%	82,306	78,780	(42,721)	118,364	936,674	-	-
2012	8.00%	86,880	84,846	(53,815)	117,911	1,054,586	-	-
2013	8.00%	90,154	85,373	(58,441)	117,085	1,171,671	-	-
2014	8.78%	96,062	97,066	(66,190)	126,938	1,298,609	-	-
2015	8.00%	96,071	111,856	(83,940)	123,988	1,422,597	-	-
2016	7.00%	96,510	110,060	(112,552)	94,018	1,516,615	-	-
2017	6.00%	89,533	92,986	(637,993)	(455,473)	1,061,168	-	-
2018 <sup>1</sup>	6.00%/0.00% <sup>2</sup>	18,293 <sup>3</sup>	40,616 <sup>2</sup>	(876,365) <sup>4</sup>	(817,456)	243,712	(8,819)	817,106

\* 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.

<sup>1</sup> 2018 reflects the changes to the DROP program as a result of HB 3158.

<sup>2</sup> Interest was credited at 6% until August 31, 2017. Interest does not accrue beginning September 1, 2017. DROP balances accrued prior to September 1, 2017 are annuitized with interest upon retirement or at the initial annuitization date of November 30, 2017 for those already retired. Balances accrued after September 1, 2017 are annuitized upon retirement with no interest.

<sup>3</sup> Includes \$45,413 in Deferrals and \$27,120 in DROP Revocations.

<sup>4</sup> Includes withdrawals of \$56,421 and DROP balance annuitization of \$819,944.

## Benefit Recipients by Type

Consolidated Plans\* (As of December 31, 2017)

MONTHLY BENEFIT RANGE	TOTAL NUMBER OF BENEFITS	SERVICE RETIREMENTS	DISABILITIES	BENEFICIARIES	NON-ACTIVE VESTED	ACTIVE DROP
\$0 - \$500	64	12	1	36	7	1
\$501 - \$1,000	259	53	-	81	122	3
\$1,001 - \$1,500	271	79	1	140	47	4
\$1,501 - \$2,000	566	75	1	450	31	9
\$2,001 - \$2,500	252	79	12	139	7	15
\$2,501 - \$3,000	286	149	22	79	9	27
\$3,001 - \$3,500	450	347	42	29	-	32
\$3,501 - \$4,000	316	231	27	15	2	41
\$4,001 - \$4,500	504	370	15	32	-	87
\$4,501 - \$5,000	537	408	10	29	-	90
\$5,001 - \$5,500	521	392	2	19	-	108
\$5,501 - \$6,000	479	374	5	21	-	79
\$6,001 - \$6,500	323	257	1	12	1	52
\$6,501 - \$7,000	286	243	1	15	-	27
\$7,001 - \$7,500	206	172	2	2	-	30
\$7,501 - \$8,000	117	101	-	4	-	12
\$8,001 - \$8,500	56	51	-	2	-	3
Over \$8,500	72	63	-	3	-	6
<b>Total</b>	<b>5,558</b>	<b>3,456</b>	<b>142</b>	<b>1,108</b>	<b>226</b>	<b>626</b>

\* 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 31<sup>st</sup>)

	YEARS OF SERVICE							TOTAL
	0-5	6-10	11-15	16-20	21-25	26-30	30+	
<b>2008</b>								
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
<b>2009</b>								
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
<b>2010</b>								
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
<b>2011</b>								
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
<b>2012</b>								
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
<b>2013</b>								
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
<b>2014</b>								
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
<b>2015</b>								
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
<b>2016</b>								
Retirements	2	8	15	66	125	69	4	289
Avg. FAS	\$ 6,566	\$ 1,455	\$ 2,954	\$ 1,454	\$ 4,622	\$ 6,208	\$ 5,553	\$ 4,129
Avg. benefit	\$ 1,220	\$ 586	\$ 1,270	\$ 1,024	\$ 3,851	\$ 6,841	\$ 5,882	\$ 3,705
<b>2017</b>								
Retirements	1	11	15	77	171	83	3	361
Avg. FAS	\$ 6,403	\$ 2,873	\$ 2,741	\$ 2,121	\$ 4,572	\$ 6,628	\$ 5,938	\$ 4,410
Avg. benefit	\$ 2,041	\$ 882	\$ 1,349	\$ 1,350	\$ 3,736	\$ 6,677	\$ 7,488	\$ 3,743

\* 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, 2017		NUMBER	ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
<b>Retired members</b>				
	Service pensions	3,456	\$ 200,707	\$ 58
	Disabilities	142	6,084	43
	<b>Total</b>	<b>3,598</b>	<b>\$ 206,791</b>	<b>\$ 57</b>
<b>Beneficiaries*</b>				
	<b>Total</b>	<b>1,108</b>	<b>\$ 29,133</b>	<b>\$ 26</b>
<b>Total</b>		<b>4,706</b>	<b>\$ 235,924</b>	<b>\$ 50</b>

### Supplemental Plan (Dollars in Thousands)

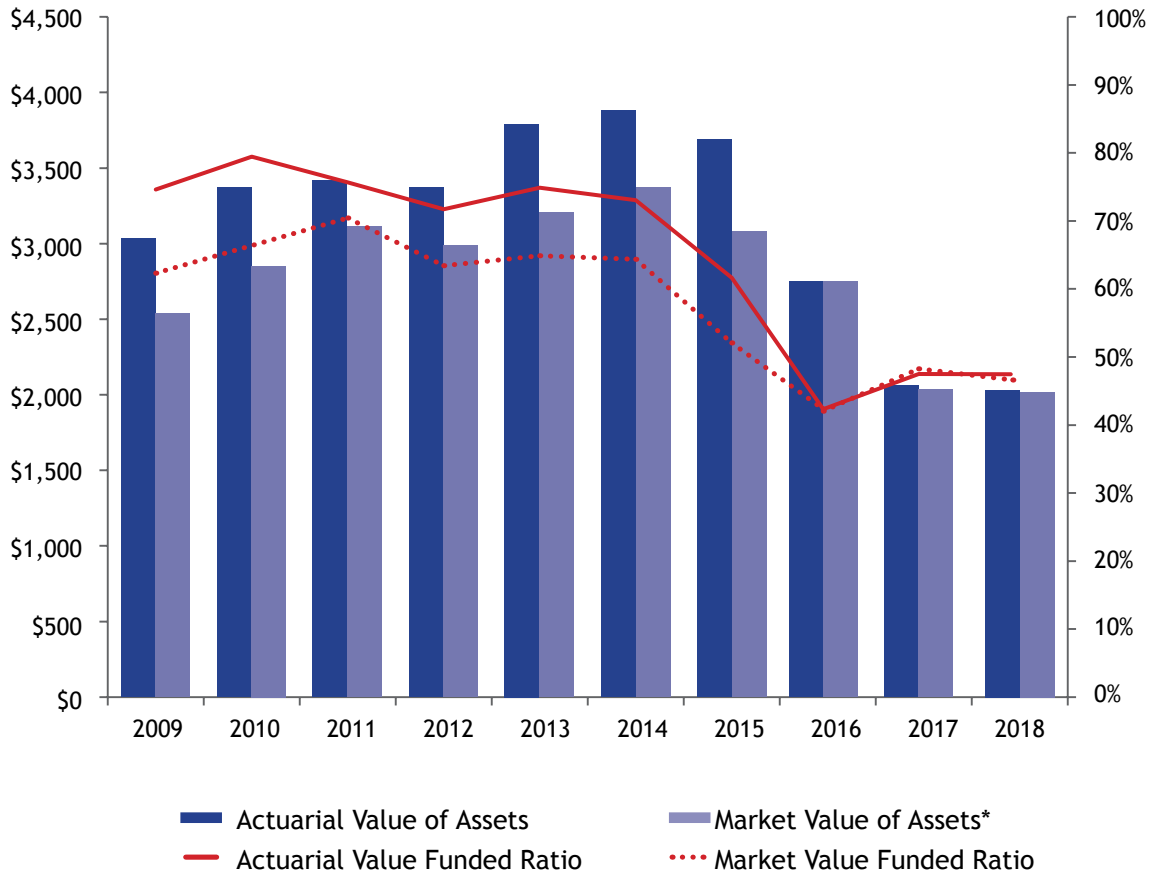
DECEMBER 31, 2017		NUMBER	ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
<b>Retired members</b>				
	Service pensions	110	\$ 2,154	\$ 20
	Disabilities	-	-	-
	<b>Total</b>	<b>110</b>	<b>\$ 2,154</b>	<b>\$ 20</b>
<b>Beneficiaries*</b>				
	<b>Total</b>	<b>30</b>	<b>\$ 299</b>	<b>\$ 10</b>
<b>Total</b>		<b>140</b>	<b>\$ 2,454</b>	<b>\$ 18</b>

\* 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)

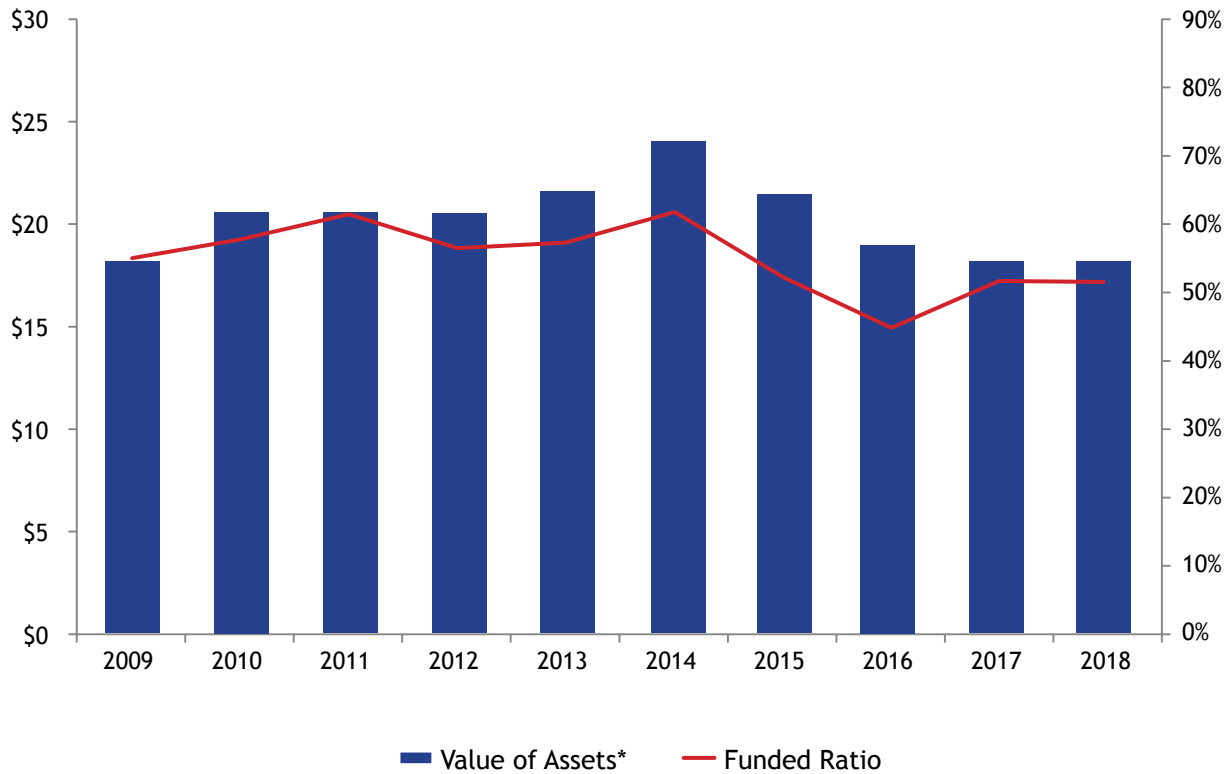


JAN. 1 VALUATION DATE	ACTUARIAL VALUE OF ASSETS	MARKET VALUE OF ASSETS*	ACTUARIAL VALUE FUNDED RATIO	MARKET VALUE FUNDED RATIO
2009	\$ 3,040	\$ 2,533	78.4%	65.3%
2010	3,383	2,852	81.8%	69.0%
2011	3,431	3,113	79.5%	72.1%
2012	3,378	2,991	73.9%	65.5%
2013	3,795	3,206	78.1%	66.0%
2014	3,877	3,363	75.6%	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%
2018	2,151	2,103	47.7%	46.7%

\* 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
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%
2018	18	51.5%

\* 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	RETIREEES	BENEFICIARIES	NON-ACTIVE VESTED	NON-ACTIVE NON-VESTED	TOTAL
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
2018	4,326	626	3,598	1,150	226	399	10,325

### Supplemental Plan

JAN. 1 VALUATION DATE	ACTIVE (EXCLUDING DROP)	ACTIVE DROP	RETIREEES	BENEFICIARIES	NON-ACTIVE VESTED	TOTAL
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
2018	37	7	110	30	1	185

## DROP Participation

### Consolidated Plans\* (Dollars in Millions)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>Active - DROP Participants</b>										
Beginning of year	1,102	1,338	1,399	1,434	1,446	1,409	1,425	1,333	1,278	1,207
Entrants	17	36	121	107	155	190	176	208	168	191
Withdrawals	(493)	(272)	(182)	(142)	(167)	(153)	(192)	(116)	(113)	(120)
End of year	626	1,102	1,338	1,399	1,434	1,446	1,409	1,425	1,333	1,278
DROP balance at December 31	\$ 242	\$ 358	\$ 479	\$ 461	\$ 441	\$ 434	\$ 425	\$ 406	\$ 374	\$ 339

<b>Retirees and Beneficiaries - DROP Participants</b>										
Beginning of year	1,876	2,085	1,971	1,855	1,718	1,525	1,414	1,265	1,138	1,028
Additions	-	204	168	170	190	215	173	164	151	126
Closures	(1,860)	(413)	(54)	(54)	(53)	(22)	(62)	(15)	(24)	(16)
End of year	16	1,876	2,085	1,971	1,855	1,718	1,525	1,414	1,265	1,138
DROP balance at December 31	\$ 2	\$ 703	\$ 1,038	\$ 962	\$ 858	\$ 738	\$ 630	\$ 531	\$ 444	\$ 368

<b>Total DROP participants</b>	<b>642</b>	<b>2,978</b>	<b>3,423</b>	<b>3,370</b>	<b>3,289</b>	<b>3,164</b>	<b>2,934</b>	<b>2,839</b>	<b>2,598</b>	<b>2,416</b>
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\* 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.

<b>Retirees and Beneficiaries - DROP Annuitants</b>										
Beginning of year	-	-	-	-	-	-	-	-	-	-
Additions	2,033	-	-	-	-	-	-	-	-	-
Closures	-	-	-	-	-	-	-	-	-	-
End of year	2,033	-	-	-	-	-	-	-	-	-
Present Value of Annuities at December 31	\$ 817	-	-	-	-	-	-	-	-	-



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