# CITY OF PHILADELPHIA
# MUNICIPAL PENSION FUND
**Philadelphia, Pennsylvania**

# FINANCIAL STATEMENTS
**June 30, 2017**

## TABLE OF CONTENTS

CliftonLarsonAllen LLP
CLAconnect.com

# INDEPENDENT AUDITORS' REPORT

The Board of Pensions and Retirement
City of Philadelphia Municipal Pension Fund
Philadelphia, Pennsylvania

## Report on the Financial Statements

We have audited the accompanying financial statements of the City of Philadelphia Municipal Pension Fund (the Fund), which comprise the statement of fiduciary net position as of June 30, 2017 and the statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, as listed in the table of contents.

### *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.

### *Auditors' Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit 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 audit 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 auditors' 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.

***Opinion***

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Fund as of June 30, 2017, and the respective changes in fiduciary net position for the year 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 and Schedules of Investment Returns, Changes in Net Pension Liability and Related Ratios and Collective Employer Contributions and Related Notes, 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 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 financial statements, and other knowledge we obtained during our audit of the 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 Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated December 20, 2017 on our consideration of the Fund's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Fund's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Fund's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

**CliftonLarsonAllen LLP**

Baltimore, Maryland
December 20, 2017

Our discussion and analysis of the City of Philadelphia Municipal Pension Fund's (the Fund) financial performance provides an overview of the Fund's financial activities for the year ended June 30, 2017 and 2016. Please read it in conjunction with the Fund's financial statements, which begin on page 8.

## USING THIS ANNUAL REPORT

The discussion and analyses herein are intended to serve as an introduction to the Fund's financial statements. In addition to management's discussion and analysis, the annual report includes:

The Statement of Fiduciary Net Position, which reports the Fund's assets, liabilities, and resultant net position where Assets – Liabilities = Net Position available at the end of the plan year.

The Statement of Changes in Fiduciary Net Position, which reports Fund transactions that occurred during the fiscal year, where Additions – Deductions = Change in Net Position.

The Notes to the Financial Statements are an integral part of the financial statements and include additional information not readily evident in the statements themselves. The required supplementary information following the notes to the financial statements provides information on (a) the annual money-weighted rate of returns, net of investment expenses, (b) changes in net pension liability and related ratios, and (c) employer contributions in relation to the actuarially determined contribution.

## BRIEF DESCRIPTION

The City of Philadelphia (the City) maintains two defined benefit plans for its employees and employees of its component units. The two plans maintained by the City are the Municipal Pension Fund and the Gas Works Plan, both are single employer plans. Each plan issues separate stand-alone financial statements. The financial statements presented here are only for the Municipal Pension Fund.

The City is required by the Philadelphia Home Rule Charter to maintain an actuarially sound pension and retirement system. The Fund covers all officers and employees of the City and the officers and employees of certain other governmental and quasi-governmental organizations. In addition to the City, the three other quasi-governmental units that participate in the Fund are the Philadelphia Parking Authority, the Philadelphia Municipal Authority, and the Philadelphia Housing Development Corporation.

The Fund has four basic plans, the 1967 Plan, the 1987 Plan, Plan 10, and Plan 16.

### 1967 Plan

Participation is limited to employees hired before January 8, 1987. District Council 33 and 47 union members hired between January 8, 1987 and October 1, 1992 were switched from the 1987 Plan to the 1967 Plan effective on their hire dates, provided such employees contributed the difference between the two plans.

**1987 Plan**

Participation is limited to municipal employees hired on or after January 8, 1987. For uniformed employees, participation is the same as municipal employees. Any elected employee elected on or after January 8, 1987 participates in this plan.

Except for elected officials, the 1987 Plan provides for less costly benefits and reduced employee contributions than the 1967 Plan. For elected officials, the 1987 Plan provides for enhanced benefits, with participating elected officials required to pay for the additional normal cost.

**Plan 10**

Municipal employees of the Register of Wills, and employees of the Sheriff's Office represented by Lodge 5 of the FOP hired on or after January 1, 2012 are members in Plan 10. Employees of the Sheriff's office have the option within 30 days to elect to participate in Plan Y. For uniformed employees, Police hired on or after January 1, 2010 and Fire hired on or after October 15, 2010 are members in Plan 10, and have the option within 30 days to elect to participate in the 1987 Plan. Represented employees of AFSCME District Council 47 hired on or after March 5, 2014. Municipal employees in civil service not represented by a union hired on or after May 14, 2014. Represented employees of AFSCME District Council 33, other than guards represented by District Council 33 or OHCD employees, hired on or after September 9, 2014. Guards represented by District Council 33, Municipal employees not in civil service and not represented by a union, elected officials and OHCD employees hired on or after November 14, 2014.

Plan 10 combines both a defined contribution plan with the traditional defined benefit plan. All employees except those of the Register of Wills have the ability to opt out of Plan 10 within 30 days and elect to participate in the applicable traditional defined benefit plan.

**Plan 16**

All employees represented by the AFSCME District Council 33 hired or rehired on or after August 20, 2016 will be required to participate in the new Stacked Hybrid Plan – Plan 16. Plan 16 benefits are similar to Plan 87 except that compensation used in calculating benefits is capped at $50,000 annually on calendar year basis. Member contributions for new hires will also be based on the capped pay.

Member contributions for current and future DC #33 members will increase based on the level of pay (limited to the capped for new entrants) and will be paid in addition to base member contributions rates as shown on the next page. The table below shows the tiers used in determining the additional member tier contributions.

| **Annual salary** | **Base member rate plus** |
|---|---:|
| $45,000 or less | 0.00% |
| $45,000 - $55,000 | 0.50% |
| $55,000 - $75,000 | 1.50% |
| $75,000 - $100,000 | 2.75% |
| More than $100,000 | 3.00% |

The City, under the Home Rule Charter requirement, must make contributions to the pension system sufficient to fund the accrued normal costs, the amortization in level installments (which include interest) over a period of 40 years of certain unfunded prior service costs, and interest on the remaining unfunded accrued liability of the Fund.

Employee contributions are required by City ordinance, and the City is required to contribute the remaining amounts necessary to fund the Fund using an acceptable actuarial basis as specified by the Home Rule Charter, City Ordinance, and State Statutes. For Fund members, employee contribution rates are fixed on a per-employee basis by Council ordinance.

## FINANCIAL HIGHLIGHTS

- The net position of the Fund increased by $516.1 million, and benefit payments and refunds exceeded employee and employer contributions by $41.7 million.
- The plan fiduciary net position as a percentage of the total pension liability increased by 3.48% from 40.07% at June 30, 2016 to 43.55% at June 30, 2017, mainly due to the higher investment rate of return. While this ratio may appear to reflect lack of progress in funding, the decrease in the assumed rate of return from 7.75% to 7.70% represents improvement of the Fund's risk profile improving the likelihood of achieving this assumption in the future.
- The Fund's money weighted rate of return on investments was 13.68%.
- The total Fund's policy benchmark was 12.1%

The following are summary comparative statements of the Fund:

***Summary Comparative Statements of Fiduciary Net Position***
***(in thousands)***

| | June 30, 2017 | Increase/ (Decrease) | June 30, 2016 |
|---|---|---|---|
| **ASSETS** | | | |
| Cash and cash equivalents | $ 164,144 | $ (7,220) | $ 171,364 |
| Receivable | 202,314 | 62,348 | 139,966 |
| Investments | 4,663,700 | 465,842 | 4,197,858 |
| Securities lending | 369,224 | 38,556 | 330,668 |
| Total Assets | 5,399,382 | 559,526 | 4,839,856 |
| **LIABILITIES** | | | |
| Accrued expenses and other liabilities | 156,126 | 5,228 | 150,898 |
| Securities lending | 369,181 | 38,198 | 330,983 |
| Total Liabilities | 525,307 | 43,426 | 481,881 |
| **NET POSITION** | $ 4,874,075 | $ 516,100 | $ 4,357,975 |

***Summary Statements of Changes in Fiduciary Net Position***
***(in thousands)***

| | June 30, 2017 | Increase/ (Decrease) | June 30, 2016 |
|---|---|---|---|
| **ADDITIONS** | | | |
| Employers' contributions | $ 706,237 | $ 45,990 | $ 660,247 |
| Members' contributions | 73,607 | 6,552 | 67,055 |
| Interest and dividends | 108,463 | 6,958 | 101,505 |
| Net appr/(depr) in FV of investments | 462,934 | 702,774 | (239,840) |
| Net securities lending income | 1,498 | (110) | 1,608 |
| Less: investment expenses | (8,025) | 1,064 | (9,089) |
| Miscellaneous operating revenue | 1,755 | 1,621 | 134 |
| Total Additions | 1,346,469 | 764,849 | 581,620 |
| **DEDUCTIONS** | | | |
| Benefit payments | 813,293 | (68,699) | 881,992 |
| Refund of members' contributions | 8,202 | 851 | 7,351 |
| Administrative expenses | 8,874 | 320 | 8,554 |
| Total Deductions | 830,369 | (67,528) | 897,897 |
| **CHANGE IN NET POSITION** | $ 516,100 | $ 832,377 | $ (316,277) |

Net position for the fiscal year ended June 30, 2017, increased by $516.1 million. The increase in the net position is mainly due to the higher investment returns. There was a decrease in benefit payments due to the variable nature of the distributions. In addition, there was an increase in contributions due to additional revenue received from the General fund at the year end.

**Securities Lending**

At June 30, 2017, the Fund had a cumulative unrealized gain of approximately $42,656 on securities purchased with the cash collateral received through the security lending program.

**Contacting the City of Philadelphia Municipal Pension Fund**

If you have any questions about this report or need additional information, please contact us by telephone at 215-496-7400 or you may mail your questions to:

Philadelphia Municipal Pension Fund
2 Penn Plaza
Philadelphia, PA 19102

**FINANCIAL STATEMENTS**

**CITY OF PHILADELPHIA MUNICIPAL PENSION FUND**
**STATEMENT OF FIDUCIARY NET POSITION**
**JUNE 30, 2017**
**(In Thousands)**

| | | |
|---|---|---|
| **ASSETS** | | |
| Cash and cash equivalents | | $ 164,144 |
| Contributions receivable from plan members | | 60,635 |
| Accrued interest and other receivables | | 141,679 |
| Investments, at fair value | | |
| Equity | $ 2,872,063 | |
| Fixed income | 1,040,782 | |
| Private market | 442,257 | |
| Real estate | 258,321 | |
| Hedge funds | 50,277 | |
| Total investments | | 4,663,700 |
| Collateral on loaned securities | 369,181 | |
| Add: Allowance on loaned securities | 43 | |
| Total collateral on loaned securities | | 369,224 |
| Total assets | | 5,399,382 |
| **LIABILITIES** | | |
| Accrued expenses and other liabilities | | 156,126 |
| Due on return of securities loaned | | 369,181 |
| Total liabilities | | 525,307 |
| **FIDUCIARY NET POSITION RESTRICTED FOR PENSIONS** | | $ 4,874,075 |

*See accompanying notes to financial statements*

**CITY OF PHILADELPHIA MUNICIPAL PENSION FUND**
**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION**
**JUNE 30, 2017**
**(In Thousands)**

| | | |
|---|---|---|
| **ADDITIONS** | | |
| Contributions: | | |
| Employer | $ 706,237 | |
| Plan members | 73,607 | |
| Total contributions | | 779,844 |
| Investment Income: | | |
| Interest and dividends income | 108,463 | |
| Net appreciation in FV of investments | 462,934 | |
| Less: Investment expenses | (8,025) | |
| Net investment income | | 563,372 |
| Securities lending income | 1,798 | |
| Less: securities lending expense | (300) | |
| Net income from securities lending activities | | 1,498 |
| Miscellaneous operating revenue | | 1,755 |
| Total additions | | 1,346,469 |
| **DEDUCTIONS** | | |
| Benefit payments | 813,293 | |
| Refund of contributions | 8,202 | |
| Administrative expenses | 8,874 | |
| Total deductions | | 830,369 |
| **INCREASE IN FIDUCIARY NET POSITION** | | 516,100 |
| **FIDUCIARY NET POSITION HELD IN TRUST FOR PENSION BENEFITS BEGINNING OF YEAR** | | 4,357,975 |
| **FIDUCIARY NET POSITION HELD IN TRUST FOR PENSION BENEFITS END OF YEAR** | | $ 4,874,075 |

*See accompanying notes to financial statements*

## NOTE 1 – PENSION FUND DESCRIPTION

### General Description

**Plan Administration**. The Philadelphia Board of Pensions (the Pension Board) administers the City of Philadelphia Municipal Pension Fund (the Fund) - a single-employer defined benefit pension plan with a small but increasing defined contribution component, which provides pensions for all officers and employees of the City of Philadelphia (the City), as well as those of three quasi-governmental agencies (per applicable enabling legislation and contractual agreements). The Board was established by section 2-308 of the 1952 Philadelphia Home Rule Charter. Its actions in administering the Retirement System are governed by Title 22 of the Philadelphia Code.

The Board consists of nine voting members - four elected by the active members within the civil service, and the City's Controller, Solicitor, Managing Director, Personnel Director, and Director of Finance, who serves as the Chair.

**Plan Membership**. At July 1, 2016, the date of the most recent actuarial valuation, pension plan membership consisted of the following:

| | |
|---|---|
| Actives | 28,308 |
| Terminated Vested | 1,248 |
| Disabled | 4,005 |
| Retirees | 22,412 |
| Beneficiaries | 8,567 |
| DROP | 1,614 |
| Total City Members | 66,154 |
| | |
| Annual Salaries | $ 1,676,548,962 |
| Average Salary per Active Member | $ 59,225 |
| | |
| Annual Retirement Allowances | $ 741,828,339 |
| Average Retirement Allowance | $ 21,205 |

### Contributions

Per Title 22 of the Philadelphia Code, members contribute to the Fund at various rates based on bargaining unit, uniform/non-uniform/elected/exempt status, and entry date into the Fund. Beginning July 1, 2016, members contributed at one of the following rates:

| Employee Contribution Rates For the Period of July 1, 2016 to June 30, 2017 | | | | |
|---|---|---|---|---|
| | **Municipal** (1) | **Elected** | **Police** | **Fire** |
| Plan 67 | 6.00% | N/A | 6.00% | 6.00% |
| Plan 67 - 50% of Aggregate Normal Cost (2) | 5.95% | N/A | N/A | N/A |
| Plan 87 | 3.02% | 8.21% | 5.00% | 5.00% |
| Plan 87 - 50% of Aggregate Normal Cost (3) | 3.37% | N/A | N/A | N/A |
| Plan 87 - Accelerated Vesting (4) | 3.63% | 10.60% | N/A | N/A |
| Plan 87 Prime (5) | 4.02% | 9.21% | 6.00% | 6.00% |
| Plan 87 Prime - Accelerated Vesting | 4.63% | 11.60% | N/A | N/A |
| Plan 10 | 3.14% | N/A | 5.50% | 5.50% |
| Plan 16 | 4.14% | N/A | N/A | N/A |

1- For the Municipal Plan 67 members who participate in the Social Security System, employee contributions are 3.75% of compensation up to the social security wage base and 6% above it.

2- Effective November 2014 guards represented by DC 33 contributions at 50% of the aggregate Normal Cost of all members in Plan J.

3- This represents 50% of aggregate Normal Cost for all members in Plan Y.

4- Member rates for Municipal Plan 87 (Y5) members eligible to vest in 5 years and Elected Officials (L8) eligible to be vested in 8 years instead of 10.

5- Plan 87 Prime refers to new hires who have the option to elect Plan 10 but have elected to stay in Plan 87.

Employer contributions are made by the City throughout each fiscal year (which ends June 30) and by three (3) quasi-governmental agencies on a quarterly basis. These contributions, determined by an annual actuarial valuation report (AVR), when combined with plan member contributions, are expected to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability.

Within the AVR, two contribution amounts are determined based upon two different sets of rules for determining the way the unfunded actuarial liability is funded.

The first method is defined in accordance with Act 205 and defines the Minimum Municipal Obligation (MMO), which is the City's minimum required contribution under Pennsylvania state law.

The second method is in accordance with the City's Funding Policy, which predates the Act 205 rules and calls for contributions that are greater than the MMO until the initial unfunded liability determined in 1984 is fully funded.

Under both funding methods there are two components: the normal cost and the amortized unfunded actuarial liability. The actuarial unfunded liability is the amount of the unfunded actuarial liability that is paid each year based upon the given or defined amortization periods. The amortization periods are different under the MMO and City's Funding Policy.

**City's Funding Policy:**

The initial July 1, 1985 unfunded actuarial liability (UAL) is amortized over 34 years ending June 30, 2019 with payments increasing at 3.3% per year, the assumed payroll growth. Other changes in the actuarial liability are amortized in level-dollar payments as follows:

* Actuarial gains and losses – 20 years beginning July 1, 2009. Prior gains and losses were amortized over 15 years.
* Assumptions changes – 15 years beginning July 1, 2010. Prior to July 1, 2010, assumption changes were amortized over 20 years.
* Plan changes for active members – 10 years.
* Plan changes for inactive members – 1 year.
* Plan changes mandated by the State – 20 years.

In fiscal year 2017, the City and other employers' contributions of $706.2 million was less than the actuarially determined employer contribution (ADEC) of $881.4 million. In the event that the City contributes less than the funding policy, an experience loss will be created that will be amortized in accordance with funding policy over a closed 20-year period.

The Schedule of Employer Contributions (based on the City's Funding Policy) is included as Required Supplementary Information (page 32) and provides a 10-year presentation of the employer contributions.

**Minimum Municipal Obligation (MMO):**
For the purposes of the MMO under Act 205 reflecting the fresh start amortization schedule, the July 1, 2009 UAL was "fresh started" to be amortized over 30 years ending June 30, 2039. This is a level dollar amortization of the UAL. All future amortization periods will follow the City's Funding Policies as outlined above.

In the fiscal year 2017, the City and other employers' contributions of $706.2 million exceeded the Minimum Municipal Obligation of $629.6 million.

The Schedule of Employer Contributions (based on the MMO Funding Policy) is included as Required Supplementary Information (page 32) and provides a 10-year presentation of the employer contributions.

**Benefits**

The Fund provides retirement, disability, and death benefits according to the provisions of Title 22 of the Philadelphia Code. These provisions prescribe retirement benefit calculations, vesting thresholds, and minimum retirement ages that vary based on bargaining unit, uniform/non-uniform status, and entry date into the System.

Non-uniform employees may retire at either age 55 with up to 80% of average final compensation (AFC) or age 60 with up to either 100% or 25% of AFC, depending on entry date into the Fund. Uniformed employees may retire at either age 45 with up to 100% of AFC or age 50 with up to either 100% or 35% of AFC, depending on entry date into the Fund. Survivorship selections may result in an actuarial reduction to the calculated benefit.

Members may qualify for service-connected disability benefits regardless of length of service. Service connected disability benefits are equal to 70% of a member's final rate of pay, and are payable immediately without an actuarial reduction. These applications require approval by the Board.

Eligibility to apply for non-service-connected disability benefits varies by bargaining unit and uniform/nonuniform status. Non-service-connected disability benefits are determined in the same manner as retirement benefits, and are payable immediately.

Service-connected death benefits are payable to:

1) surviving spouse/life partner at 60% of final rate of pay plus up to 2 children under age 18 at 10% each of final rate of pay (maximum payout: 80%);
2) if no surviving spouse/life partner, up to 3 children under age 18 at 25% each of final rate of pay (maximum payout 75%); or
3) if no surviving spouse/life partner or children under age 18, up to 2 surviving parents at 15% each of final rate of pay (maximum payout 30%).

Non-service-connected deaths are payable as a lump sum payment, unless the deceased was either vested or had reached minimum retirement age for their plan, in which case the beneficiary(ies) may instead select a lifetime monthly benefit, payable immediately with an actuarial reduction.

A Pension Adjustment Fund (PAF) is funded with 50% of the excess earnings that are between 1% and 6% above the actuarial assumed earnings rate. Each year within sixty days of the end of the fiscal year, by majority vote of its members, the Board of Directors of the Fund (the Board) shall consider whether sufficient funds have accumulated in the PAF to support an enhanced benefit distribution (which may include, but is not limited to, a lump sum bonus payment, monthly pension payment increases, ad-hoc cost of living adjustments, continuous cost-of-living adjustments, or some other form of increase in benefits as determined by the Board) to retirees, their beneficiaries and their survivors. As of July 1, 2016, the date of the most recent actuarial valuation, there was $7,222,828 in the PAF and the Board voted to make PAF distributions of $6,855,987 during the fiscal year ended June 30, 2017.

The Fund includes a Deferred Retirement Option Plan (DROP Plan). The DROP Plan allows a participant to declare that they will retire within 4 years. During the 4-year period, the City will make no further contributions for the participant. The participant would continue to work and to receive their salary; however, any increases would not be counted towards their pension benefit. During the 4-year period the individual participates in the DROP Plan, their pension benefits will be paid into an escrow account in the participant's name. After the 4-year period, the participant would begin to receive their pension benefits and the amount that has been accumulated in the escrow account in a lump sum payment. The balance in the DROP Plan as of June 30, 2017 is $122.3 million.

**Investments**

The Pension Board’s Investment Policy Statement provides, in part:

The overall investment objectives and goals should be achieved by use of a diversified portfolio, with safety of principal a primary emphasis. The portfolio policy should employ flexibility by prudent diversification into various asset classes based upon the relative expected risk-reward relationship of the asset classes and the expected correlation of their returns.

The Fund seeks an annual total rate of return of not less than 7.70% over a full market cycle. It is anticipated that this return standard should enable the Fund to meet its actuarially assumed earnings projection (currently 7.70%) over a market cycle. The investment return assumption was reduced by the Board from 7.75% to 7.70%. The Fund's investment program will pursue its aforestated total rate of return by a combination of income and appreciation, relying upon neither exclusively in evaluating a prospective investment for the Fund.

All investments are made only upon recommendation of the Fund's Investment Committee and approval by a majority of the Pension Board. In order to document and communicate the objectives, restrictions, and guidelines for the Fund's investment staff and investments, a continuously updated Investment Policy Statement is maintained. The Investment Policy Statement is updated (and re-affirmed) each year at the January Board meeting. The following was the Board's approved asset allocation policy as of June 30, 2017:

| Asset Class | Target Allocation |
|---|---|
| Broad Fixed Income | 10.0% |
| Global Fixed Income | 2.0% |
| Emerging Market Debt | 2.0% |
| U.S. Large - Cap Core | 22.0% |
| U.S. Mid-Cap Core | 3.0% |
| U.S. Small - Cap Core | 5.0% |
| ACWI ex-U.S | 15.0% |
| Non-U.S Small Cap | 6.0% |
| Emerging Markets | 4.0% |
| Public REITs | 1.0% |
| Real Estate Core | 11.0% |
| Real Estate – Mezzanine | 1.0% |
| Real Estate – Opportunistic | 1.0% |
| Infrastructure | 5.0% |
| Private Equity | 10.0% |
| Private Debt | 2.0% |
| Total | 100.0% |

**Money-Weighted Rate of Return:** For the year ended June 30, 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 13.68%. The money weighted rate of return expresses investment performance, net of investment expense, adjusted for changing amounts actually invested.

**NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Basis of Presentation**

Financial statements of the Fund are prepared using the accrual basis of accounting. Member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds of contributions are recognized when due and payable in accordance with the terms of the Fund.

**Method Used to Value Investments**

The Fund's investments are reported at fair value. Fair value is the amount that the Fund can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller, that is, other than in a forced or liquidation sale. Fixed income securities and common and preferred stocks are generally valued based on published market prices and quotations from national security exchanges or securities pricing services. Securities which are not traded on a national security exchange are valued by the respective fund manager or other third parties based on similar sales.

Directly-owned real estate investments are primarily valued based on appraisals performed by independent appraisers and for properties not appraised, the present value of the projected future net income stream is used.

For private market investments which include private equity, private debt, venture capital, hedge funds and equity real estate investments where no readily ascertainable market value exists, management, in consultation with the general partner and investment advisors, has determined the fair values for the individual investments based upon the partnership's most recent available financial information. Futures contracts, foreign exchange contracts, and options are marked-to-market daily with changes in market value recognized as part of net appreciation/depreciation in the fair value of investments. Initial margin requirements for such financial instruments are provided by investment securities pledged as collateral or by cash.

Investment expenses consist of investment manager fees and investment consultant fees related to the traditional investments only, and not those fees related to the alternative investments. Unsettled investment sales are reported as Accrued Interest and Other Receivable, and unsettled investment purchases are included in Accrued Expenses and Other Liabilities.

Dividend income is recorded on the ex-dividend date. Interest income is recorded as earned on an accrual basis.

**Income Taxes**

The Fund qualifies under Section 401(a) of the Internal Revenue Code (IRC) and is exempt from income taxation as allowed by Section 501(a) of the IRC.

**Related Parties**

The City's Department of Finance provides cash receipt and cash disbursement services to the Fund. The City's Solicitor's office provides legal services to the Fund. Other administrative services are also provided by the City.

**Use of Estimates in Preparing Financial Statements**

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

**Risks and Uncertainties**

The Fund invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the Statement of Fiduciary Net Position.

Contributions are calculated based on certain assumptions pertaining to interest rates, inflation rates, and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimation and assumption process, it is at least reasonably possible that changes in these statements and assumptions in the near term would be material to the financial statements.

**Administrative Expenses**

Administrative expenses of the Fund are paid for by the Fund.

## NOTE 3 – CASH DEPOSITS, INVESTMENTS AND SECURITIES LENDING

**Legal Provisions**

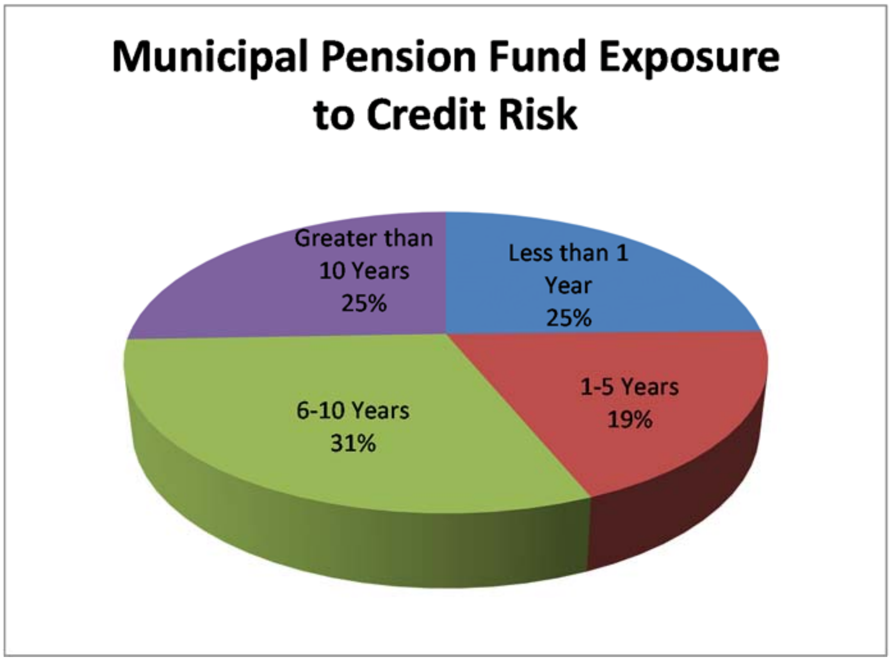
The Fund is authorized to invest in "prudent investments," including obligations of the U.S. Treasury, agencies and instrumentalities of the United States, investment grade corporate bonds, common stock, real estate, private market, etc. City ordinances contain provisions which preclude the Fund from investing in organizations that conduct business in certain countries and impose limitations on the amounts invested in certain types of securities.

**Interest Rate Risk**

Interest rate risk is the largest risk faced by an investor in the fixed income market. The price of a fixed income security generally moves in the opposite direction of the change in interest rates. Securities with long maturities are highly sensitive to interest rate changes.

Duration is a measure of the approximate sensitivity of a bond's value to interest rate changes. The higher the duration, the greater the changes in fair value when interest rates change. The Fund measures interest rate risk using option-adjusted duration, which recognizes the fact that yield changes may change the expected cash flows due to embedded options.

The chart below details the exposure to interest rate changes based upon maturity dates of the fixed income securities at June 30, 2017:




**Custodial Credit Risk**

In the event of counter-party failure, the Fund may 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 held by the counterparty or counterparty's trust department are uninsured and are not registered in the name of the Fund. The Fund requires that all investments be clearly marked as to ownership, and to the extent possible, be registered in the name of the Fund. Certain investments may be held by the managers in the Fund's name.

**Concentration of Credit Risk**

Concentration of credit risk is the risk of substantial loss if investments are concentrated in one issuer. As of June 30, 2017, the Fund has no single issuer that exceeds 5% of total investments. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments are excluded.

**Credit Risk**

Credit Risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. The fund is subject to credit risk on $852.3 million of directly owned fixed income. The Fund's directly owned rated debt investments as of June 30, 2017 were rated by Standard & Poor's, a nationally recognized statistical rating agency and are presented below using Standard and Poor's rating scale:

| | | Credit Rating | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2017 (in thousands) | Total Fair Value | AAA | AA | A | BBB | BB | B | CCC | CC | C | D | NR |
| Asset Backed | $ 20,970 | $ 6,890 | $ 2,162 | $ 3,163 | $ 4,458 | $ - | $ - | $ - | $- | $ - | $- | $ 4,297 |
| CMO/REMIC | 4,271 | - | 2,663 | 812 | 278 | 188 | - | - | - | - | - | 331 |
| Commercial Mortgage Backed Securities | 21,853 | 6,095 | 11,893 | 1,512 | 255 | 96 | 63 | - | - | - | - | 1,940 |
| Corporate Bonds | 300,807 | 1,466 | 15,620 | 62,238 | 79,782 | 43,259 | 60,995 | 27,206 | - | 454 | 95 | 9,694 |
| Government Bonds | 403,240 | 10,905 | 272,918 | 47,460 | 25,397 | 22,836 | 11,710 | 3,311 | - | - | - | 8,701 |
| Mortgage Backed Securities | 87,593 | - | 87,593 | - | - | - | - | - | - | - | - | - |
| Municipal Bonds | 13,574 | - | 9,329 | 3,591 | 654 | - | - | - | - | - | - | - |
| Total Credit Risk of Debt Securities | $ 852,308 | $25,356 | $402,178 | $118,776 | $110,824 | $66,379 | $72,768 | $30,517 | $- | $454 | $ 95 | $24,963 |

**Foreign Currency Risk**

The Fund's exposure to foreign currency risk derives from its position in foreign currency-denominated cash and investments in fixed income, equities, and derivatives. The foreign currency investment in equity securities is 39% of the total investment in equities.

The Fund's exposure to foreign currency risk at June 30, 2017 was as follows (expressed in thousands):

| Currency | Cash | Fixed Income | Equities | Derivatives | Total |
|---|---|---|---|---|---|
| Euro (EUR) | $ 2,015 | $ 6,123 | $ 262,079 | $ (110) | $ 270,107 |
| Pound Sterling (GBP) | 640 | 11,302 | 177,421 | 99 | 189,462 |
| Japanese Yen (JPY) | 343 | 0 | 186,820 | (7) | 187,156 |
| Hong Kong Dollar (HKD) | 381 | - | 95,179 | - | 95,560 |
| Canadian Dollar (CAD) | 336 | 75 | 93,138 | 88 | 93,637 |
| Swiss Franc (CHF) | 185 | - | 80,098 | - | 80,283 |
| Australian Dollar (AUD) | 80 | 8,899 | 52,388 | 147 | 61,514 |
| South Korean Won (KRW) | - | - | 52,661 | (14) | 52,647 |
| Mexican Peso (MXN) | - | 25,631 | 9,826 | 4 | 35,461 |
| Brazilian Real (BRL) | 492 | 9,563 | 16,679 | - | 26,734 |
| South African Rand (ZAR) | (1) | 8,510 | 16,226 | 5 | 24,740 |
| Swedish Krona (SEK) | 445 | - | 21,250 | 344 | 22,039 |
| Malaysian Ringgit (MYR) | 7 | 10,268 | 7,700 | - | 17,975.00 |
| Indonesian Rupiah (IDR) | 26 | 9,025 | 8,390 | - | 17,441.00 |
| Polish Zloty (PLN) | 2 | 10,851 | 3,741 | 45 | 14,639 |
| Danish Krone (DKK) | 122 | - | 10,551 | - | 10,673 |
| Singapore Dollar (SGD) | 45 | - | 8,560 | - | 8,605 |
| Thai Baht (THB) | 2 | - | 7,128 | - | 7,130 |
| New Turkish Lira (TRY) | - | 2,739 | 3,285 | - | 6,024 |
| Philippine Peso (PHP) | - | 393 | 5,126 | - | 5,519 |
| Norwegian Krone (NOK) | 125 | - | 4,389 | 281 | 4,795 |
| Chilean Peso (CLP) | - | - | 4,008 | (86) | 3,922 |
| All Others | 2,631 | 7,688 | 6,420 | 39 | 16,778 |
| | $ 7,876 | $ 111,067 | $ 1,133,063 | $ 835 | $1,252,841 |

**Derivatives**

The Fund may invest in derivatives as permitted by guidelines established by the Pension Board. Pursuant to such authority, the Fund may invest in foreign currency forward contracts, options, futures (S&P Fund) and swaps. No derivatives were purchased with borrowed funds.

Derivatives are generally used to provide market exposure in the equity portfolio and to hedge against foreign currency risk and changes in interest rates, improve yield and adjust the duration of the Fund's fixed income portfolio. These securities are subject to changes in value due to changes in interest rates or currency valuations. Credit risk for derivatives results from the same considerations as other counterparty risk assumed by the Fund, which is the risk that the counterparty might be unable to meet its obligations.

Derivative instruments such as swaps, options, futures and forwards are often complex financial arrangements used by governments to manage specific risks or to make investments. By entering into these arrangements, governments receive and make payments based on market prices without actually entering into the related financial or commodity transactions. Derivative instruments associated with changing financial and commodity prices result in changing cash flows and fair values that can be used as effective risk management or investment tools. Derivative instruments also can expose governments to significant risks and liabilities.

The Fund enters into a variety of financial contracts, which include options, futures, forwards and swap agreements to gain exposure to certain sectors of the equity and fixed income markets; collateralized mortgage obligations (CMOs); other forward contracts, and U.S. treasury strips. The contracts are used primarily to enhance performance and reduce the volatility of the portfolio. The Fund is exposed to credit risk in the event of non-performance by counterparties to financial instruments. The Fund generally enters into transactions only with high quality institutions. Legal risk is mitigated through selection of executing brokers and review of all documentation. The Fund is exposed to market risk, the risk that future changes in market conditions may make an instrument less valuable. Exposure to market risk is managed in accordance with risk limits set by senior management, through buying or selling instruments or entering into offsetting positions. The notional or contractual amounts of derivatives indicate the extent of the Fund's involvement in the various types and uses of derivative financial instruments and do not measure the Fund's exposure to credit or market risks and do not necessarily represent amounts exchanged by the parties. The amounts exchanged are determined by reference to the notional amounts and the other terms of the derivatives.

### Derivative Instruments

The following table summarizes aggregate notional or contractual amounts for the Fund's derivative financial instruments at June 30, 2017 in addition to the fair value and change in the fair value of derivatives.

List of Derivatives Aggregated by Investment Type

| | Change in Fair Value | | Fair Value at June 30, 2017 | | Notional |
|---|---|---|---|---|---|
| Classification | | | | | |
| Investment Derivatives | | | | | |
| Forwards Currency Contracts | Net appreciation/(depreciation) in Investments | $ 1,442,945 | Accrued interest and other receivables | $ 854,480 | $ 220,310,216 |
| Futures | Net appreciation/(depreciation) in Investments | 65,566 | Accrued expenses and other liabilities | (75,965) | 156 |
| Grand Totals | | $ 1,508,511 | | $ 778,515 | $ 220,310,372 |

A Derivatives Policy Statement identifies and allows common derivative investments and strategies, which are consistent with the Investment Policy Statement of the City of Philadelphia Municipal Pension Fund. The guidelines identify transaction-level and portfolio-level risk control procedures and documentation requirements. Managers are required to measure and monitor exposure to counterparty credit risk. All counterparties must have credit ratings available from nationally recognized rating institutions such as Moody, Fitch, and S&P. The details of other risks and financial instruments in which the Fund involves are described below:

***Credit risk.*** The Fund is exposed to credit risk on hedging derivative instruments that are in asset positions. To minimize its exposure to loss related to credit risk, it is the Fund's policy to require counterparty collateral posting provisions in its non-exchange-traded hedging derivative instruments. These terms require full collateralization of the fair value of hedging derivative instruments in asset positions (net of the effect of applicable netting arrangements) should the counterparty's credit rating fall below **AA** as issued by Fitch Ratings and Standard & Poor's or **Aa** as issued by Moody's Investors Service. Collateral posted is to be in the form of U.S. Treasury securities held by a third-party custodian. The city has never failed to access collateral when required.

It is the Fund's policy to enter into netting arrangements whenever it has entered into more than one derivative instrument transaction with counterparty. Under the terms of these arrangements, should one party become insolvent or otherwise default on its obligations, close-out netting provisions permit the non-defaulting party to accelerate and terminate all outstanding transactions and net the transactions' fair values so that a single sum will be owed by, or owed to, the non-defaulting party.

**Swap agreements.** These derivative instruments provide for periodic payments at predetermined future dates between parties based on the change in value of underlying securities, indexes or interest rates. Under fixed interest rate type swap arrangements, the Fund receives the fixed interest rate on certain equity or debt securities or indexes in exchange for a fixed charge. There was not any total receive fixed interest Swaps during 2017. On its pay-variable, received-fixed interest rate swap, as LIBOR increases, the Fund's net payment on the swap increases. Alternatively, on its pay-fixed, receive-variable interest rate swap, as LIBOR or the SIFMA swap index decreases, the Fund's net payment on the swap increases.

**Futures contracts.** These derivative instruments are types of contracts in which the buyer agrees to purchase and the seller agrees to make delivery of a specific financial instrument at a predetermined date and price. Gains and losses on futures contracts are settled daily based on a notional (underlying) principal value and do not involve an actual transfer of the specific instrument. Futures contracts are standardized and are traded on exchanges. The exchange assumes the risk that counterparty will not pay and generally requires margin payments to minimize such risk. In addition, the Fund enters into short sales, sales of securities it does not presently own, to neutralize the market risk of certain equity positions. Initial margin requirements on futures contracts and collateral for short sales are provided by investment securities pledged as collateral and by cash held by various brokers. Although the Fund has the right to access individual pledged securities, it must maintain the amount pledged by substituting other securities for those accessed. The realized gain from Futures contracts was $1,474,541.

**Forward contracts.** The Fund is exposed to basis risk on its forward contracts because the expected funds purchase being hedged is priced based on a pricing point different than the pricing point at which the forward contract is expected to settle. The realized gain from Forward contracts was $55,615.

***Termination risk***. The Fund or its counterparties may terminate a derivative instrument if the other party fails to perform under the terms of the contract. In addition, the Fund is exposed to termination risk on its receive-fixed interest rate swap. The Fund is exposed to termination risk on its rate cap because the counterparty has the option to terminate the contract if the SIFMA swap index exceeds 12 percent. If at the time of termination, a hedging derivative instrument is in a liability position, the City would be liable to the counterparty for a payment equal to the liability, subject to netting arrangements.

***Rollover risk.*** The Fund is exposed to rollover risk on hedging derivative instruments that are hedges of debt that mature or may be terminated prior to the maturity of the hedged debt. When these hedging derivative instruments terminate, or in the case of a termination option, if the counterparty exercises its option, the Fund will be re-exposed to the risks being hedged by the hedging derivative instrument.

### Fair Value Measurement

The Municipal Pension Fund has the following recurring fair value measurement as of June 30, 2017:

| | | Fair Value Measurements Using | | |
|---|---|---|---|---|
| | 6/30/2017 | Quoted Prices in Active Markets for Identical Assets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
| **Investments by fair value level** | | | | |
| U.S. Treasury Securities | $ 180,538,575 | $ - | $ 180,538,575 | $ - |
| Agency Bonds | 67,357,205 | - | 67,357,205 | - |
| Asset Backed Securities | 20,970,026 | - | 20,970,021 | 5 |
| Corporate Bonds | 300,807,297 | - | 300,806,001 | 1,296 |
| Government Bonds | 144,638,309 | - | 144,638,309 | - |
| Mortgage Backed Securities | 113,717,302 | - | 113,717,302 | - |
| Municipal Bonds | 13,574,040 | - | 13,574,040 | - |
| Sovereign Debt | 10,705,557 | - | 10,705,557 | - |
| Mutual Funds | 456,121 | 456,121 | - | - |
| Equity | 2,871,077,516 | 2,866,682,157 | 2,902,089 | 1,493,270 |
| **Total Investments by fair value level** | $ 3,723,841,948 | $ 2,867,138,278 | $ 855,209,099 | $ 1,494,571 |
| | | | | |
| **Investments measured at the net asset value (NAV)** | | | | |
| Credit Distressed Hedge Fund | $ 22,419,608 | | | |
| Equity Long/Short hedge funds | 27,857,614 | | | |
| Real Estate | 258,320,778 | | | |
| Private Equity | 442,257,227 | | | |
| Fixed Income Funds | 188,473,203 | | | |
| Equity Funds | 529,857 | | | |
| **Total Investments measured at the NAV** | 939,858,287 | | | |
| **Total Investments measured at fair value** | $ 4,663,700,235 | | | |
| | | | | |
| **Investment derivative instruments** | | | | |
| Equity index Futures (Assets) | $ 191 | $ 191 | | |
| Equity index Futures (Liabilities) | (76,156) | (76,156) | | |
| Forward Currency Contracts (Assets) | 1,541,922 | | 1,541,922 | |
| Forward Currency Contracts (Liabilities) | (687,442) | | (687,442) | |
| **Total Investment derivative instruments** | $ 778,515 | $ (75,965) | $ 854,480 | |

Equity securities classified in Level 1 of the fair value hierarchy are valued using quoted market prices. Debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Mortgage and Asset backed securities and Corporate bonds in Level 3 are valued using discounted cash flow techniques.

Derivative instruments classified in Level 1 of the fair value hierarchy are valued using quoted market prices. Derivative instruments classified in Level 2 are valued using a market approach that considers benchmark for foreign exchange rates.

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) is presented on the following table:

| | | Unfunded Commitments | Redemption Frequency (If Currently Eligible) | Redemption Notice Period |
|---|---|---|---|---|
| **Investment Measured at the net asset value (NAV)** | | | | |
| Credit Distressed Hedge Fund | $ 22,419,608 | $ - | Quarterly | 90 days |
| Equity Long/Short hedge funds | 27,857,614 | - | Quarterly | 90 days' notice |
| Real Estate | 258,320,778 | 31,048,304 | N/A | N/A |
| Private Equity | 442,257,227 | 232,073,081 | N/A | N/A |
| Fixed Income Funds | 188,473,203 | - | Quarterly | 90-120 days |
| Equity Funds | 529,857 | - | Quarterly | 90-120 days |
| **Total Investments measured at the NAV** | $ 939,858,287 | | | |

**1. Equity long/short hedge funds**. This Fund will typically hold 0-50 long positions and 10-15 short positions in U.S. common stocks. Management can shift investments from value to growth strategies, from small to large capitalization stocks, and from a net long position to a net short position. The Fund mitigates market risk by utilizing short positions. In periods of extreme volatility, the Fund may hold a significant portion of its assets in cash. The fair values of the investments in this type have been determined using the NAV per share of the investments. Investment can be redeemed with a 90 days' notice.

**2. Credit distressed hedge funds**. The Funds seek to identify and exploit event driven opportunities both on the long and short side in the stressed and distressed corporate debt markets. Investments are generally driven by fundamental, value-oriented analysis and specific credit events. The Funds maintain the flexibility to invest globally and across capital structures of stressed and distressed companies. Investments generally target secondary U.S. credit opportunities across all tranches of a company's debt capital structure. The Funds may also invest opportunistically in certain equities, long and short. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the investments. Investment can be redeemed with a 90 days' notice.

**3. Real estate funds**. This type includes funds that invest in U.S. and Non-U.S. commercial and residential real estate. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. These investments can never be redeemed with the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. However, the individual investments that will be sold have not yet been determined. Because it is not probable that any individual investment will be sold, the fair value of each individual investment has been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. Once it has been determined which investments will be sold and whether those investments will be sold individually or in a group, the investments will be sold in an auction process. The investee fund's management is required to approve of the buyer before the sale of the investments can be completed. It is expected that the underlying assets of the funds will be liquidated over the next seven to 10 years.

**4. Private equity funds**. The primary goal of these Funds is to generate returns for investors that exceed private equity industry benchmarks and are commensurate with asset class risk through the construction of a portfolio of opportunistic, highly performing private equity investments. Investments that fund may undertake include early-stage venture capital, later-stage growth financings, leveraged buyouts of medium and large-sized companies, mezzanine investments, PIPES and investments in companies that are being taken private. These investments can never be redeemed with the funds. Instead, the nature of the investments in this type is that distributions are received through the liquidation of the underlying assets of the fund. If these investments were held, it is expected that the underlying assets of the fund would be liquidated over five to 10 years. The fair values of the investments in this type have been determined using recent observable transaction information for similar investments and nonbinding bids received from potential buyers of the investments. Once a buyer has been identified, the investee fund's management is required to approve of the buyer before the sale of the investments can be completed.

**5. Fixed Income funds**. The primary goal of these Funds is to create alpha by sourcing proprietary opportunities, avoiding capital loss, buying securities below their intrinsic value and selling securities above their intrinsic value. Firms look for opportunities that are currently mispriced, based on fundamentals or potentially an event that may improve the price of the holding.

**6. Equity funds**. The primary goal of these Funds is employ a private equity approach to public market investing which seeks to deliver superior returns through a value-oriented investment strategy focusing on companies that are (or should be) implementing strategic change.

**Securities Lending Program**

The Fund, pursuant to a Securities Lending Authorization Agreement, has authorized J.P. Morgan Bank and Trust Company (J.P. Morgan) to act as the Fund's agent in lending the Fund's securities to approved borrowers. J.P. Morgan, as agent, enters into Securities Loan Agreements with borrowers.

During the fiscal year, J.P. Morgan lent, on behalf of the Fund, certain securities of the Fund held by J.P. Morgan Chase Bank, N.A. as custodian and received cash or other collateral including securities issued or guaranteed by the United States, U.K., and Eurozone governments. J.P. Morgan does not have the ability to pledge or sell collateral securities delivered absent a borrower default. Borrowers were required to deliver collateral for each loan equal to at least 102% or 105% of the market value of the loaned securities.

Pursuant to the Securities Lending Authorization Agreement, J.P. Morgan had an obligation to indemnify the Fund in the event of default by a borrower. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year that resulted in a declaration or notice of default of the borrower.

During the fiscal year, the Fund and the borrowers maintained the right to terminate securities lending transactions upon notice. The cash collateral received on each loan was invested in a separately managed account based upon the investment guidelines established by the Fund. As of June 30, 2017, the weighted average maturity was 48 days and the final maturity was 351 days. Because the securities lending transactions were terminable at will, their duration did not generally match the duration of the investments made with the cash collateral received from the borrower.

On June 30, 2017, the Fund had no credit risk exposure to borrowers.

As of June 30, 2017, the fair value of securities on loan was $360.6 million. Associated collateral totaling $369.2 million was comprised of cash which was invested in a separately managed account based upon the investment guidelines established by the Pension Fund. As of June 30, 2017, the invested cash collateral was $369.2 million and is valued at amortized cost.

## NOTE 4 – INVESTMENT ADVISORS

The Fund utilizes investment advisors to manage long-term debt, real estate, private market, and equity portfolios. To be eligible for consideration, investments must meet criteria set forth in governing laws and regulations.

## NOTE 5 – NET PENSION LIABILITY

The components of the net pension liability as of June 30, 2017 were as follows:

| | |
|---|---|
| Total Pension Liability | $11,192,601,311 |
| Plan Fiduciary Net Position | 4,874,074,826 |
| Net Pension Liability | $ 6,318,526,485 |

Plan Fiduciary Net Position as a Percentage of the Total Pension Liability: 43.5%

Actuarial assumptions:

The total pension liability was determined by an actuarial valuation as of June 30, 2016 and was rolled forward to June 30, 2017. The June 30, 2016 actuarial valuation used the following actuarial assumptions, applied to all periods including the measurement period:

| | |
|---|---|
| Actuarial Cost Method: | Entry Age Normal |
| Investment Rate of Return: | 7.70% compounded annually, net of expenses |
| Salary Increases: | Age based table |

* The investment return assumption was changed from 7.75% from the prior year valuation to 7.70% for the current year valuation.
* To recognize the expense of the benefits payable under the Pension Adjustment Fund, the actuarial liabilities have been increased by 0.54%. This estimate is based on the statistical average expected value of the benefits.
* The mortality rates were based on the RP 2000 Healthy Annuitant Mortality Table for males and females with adjustments for mortality improvements using Scale AA with a five-year setback for Municipal males and females and a 2-year setback for Police and Fire males and females.

The measurement date for the net pension liability (NPL) is June 30, 2017. Measurements are based on the fair value of assets as of June 30, 2017 and the total pension liability (TPL) as of the valuation date, July 1, 2016, updated to June 30, 2017. The roll-forward procedure included the addition of service cost and interest cost offset by actual benefit payments. During the measurement year, the collective NPL decreased by approximately $201 million. The service cost and interest cost increased the collective NPL by the approximately $982 million while contributions plus investment income offset by administrative expenses decreased the collective NPL by approximately $1,338 million.

There were no changes in benefits during the year. There were actuarial experience losses during the year of approximately $104 million which includes the loss due to the Pension Adjustment Fund payment of $30 million for the previous year.

The board adopted an assumption change to decrease the expected long-term return on assets from 7.75% to 7.70%, which increased the TPL by approximately $51 million.

**Long-term expected rate of return:** The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017 are summarized in the following table: (see pension plan's investment policy: http://www.phila.gov/pensions/PDF/ips.pdf)

| | Average 10 Year Annualized Return | Benchmark Index |
|---|---|---|
| **Fixed Income** | | |
| Broad Fixed Income | 2.80% | Bloomberg Barclays U.S. Aggregate TR |
| Int. Government | 2.20% | Bloomberg Barclays U.S. Govt TR |
| High Yield | 4.50% | Bloomberg Barclays U.S. High Yield TR |
| Global Aggregate | 1.70% | Bloomberg Barclays U.S. Global Aggregate TR |
| Bank Loans | 4.90% | Credit Suisse Leveraged Loans |
| Emerging Market Debt | 6.30% | JP Morgan EMBI Global TR |
| **Equities** | | |
| Broad U.S. Equity | 7.30% | Russell 3000 |
| Global Equity | 7.40% | MSCI ACWI |
| Broad Non-U.S. Equity | 7.60% | MSCI EAFE |
| Emerging Market | 8.60% | MSCI Emerging Markets |
| **Hedge Fund** | | |
| Hedge Funds | 5.00% | HFRI Fund of Funds Composite Index |
| **Real Estate** | | |
| Real Estate – Core | 7.60% | NCREIF Fund Index |
| Public REITs | 7.10% | NAREIT |
| Opportunistic Real Estat | 11.70% | NCREIF Property Index |
| **Real Asset** | | |
| MLPs | 7.60% | Alerian MLP Index |
| Global Infrastructure | 7.50% | Dow Jones Brookfield Global Infrastructure Index |
| **Private Equity** | | |
| Private Equity | 11.10% | Cambridge Associates |
| Private Debt | 10.00% | Cambridge Associates |
| **Cash** | | |
| TIPS | 3.80% | Bloomberg Barclays US TIPS TR |
| 91 Day T-Bills | 1.20% | |

The above table reflects the expected (10 year) real rate of return for each major asset class. The expected inflation rate is projected at 2.5% for the same period.

**Discount Rate**: The discount rate used to measure the total pension liability was 7.70 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and the participating governmental entity contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension 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 on projected benefit payment to determine the total pension liability.

**Sensitivity of the net pension liability**. The following presents the net pension liability of the Fund, calculated using the discount rate of 7.70%, as well as what the Fund's net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate:

| | 1% Decrease 6.70% | Discount Rate 7.70% | 1% Increase 8.70% |
|---|---|---|---|
| Total Pension Liability | $12,314,093,713 | $11,192,601,311 | $10,236,978,416 |
| Plan Fiduciary Net Position | 4,874,074,826 | 4,874,074,826 | 4,874,074,826 |
| Collective Net Pension Liability | $ 7,440,018,887 | $ 6,318,526,485 | $ 5,362,903,590 |
| Plan Fiduciary Net Position as a Percentage of the of the Total Pension Liability | 39.6% | 43.5% | 47.6% |

## NOTE 6 – GUARANTEE OF BENEFITS

Benefits under the Fund are guaranteed by statute. In the event that employee contributions do not equal required benefits, the City's General Fund must provide any shortfall.

## NOTE 7 – PARTICIPATION IN THE PENSION FUND

The trustees for the Fund are also members of the Fund and as such, are subject to the provisions of the Fund as described in the notes to these financial statements.

## NOTE 8 – SUBSEQUENT EVENTS

Management evaluated subsequent events through December 20, 2017 the date the financial statements were available to be issued. Events or transactions occurring after June 30, 2017, but prior to December 20, 2017 that provided additional evidence about conditions that existed at June 30, 2017, have been recognized in the financial statements for the year ended June 30, 2017. Events or transactions that provided evidence about conditions that did not exist at June 30, 2017, but arose before the financial statements were available to be issued have not been recognized in the financial statements for the year ended June 30, 2017.

**REQUIRED SUPPLEMENTARY INFORMATION**

## CITY OF PHILADELPHIA MUNICIPAL PENSION FUND
## REQUIRED SUPPLEMENTARY INFORMATION
## JUNE 30, 2017

**Schedule of Investment Returns**

| | FYE 2017 | FYE 2016 | FYE 2015 | FYE 2014 |
|---|---|---|---|---|
| Annual money-weighted rate of return , net investment expenses | 13.68% | -3.20% | 0.93% | 15.77% |

**Schedule of Changes in Net Pension Liability and Related Ratios**

| | FYE 2017 | FYE 2016 | FYE 2015 | FYE 2014 |
|---|---|---|---|---|
| **Total Pension Liability** | | | | |
| Service cost (MOY) | $ 157,607,110 | $ 148,370,075 | $ 143,556,347 | $ 136,986,515 |
| Interest (includes interest on service cost) | 823,959,345 | 802,450,569 | 791,298,503 | 774,518,750 |
| Changes of benefit terms | - | - | - | - |
| Differences between expected and actual experience | 103,878,650 | 151,918,733 | 34,909,464 | - |
| Changes of assumptions | 51,441,475 | 85,147,737 | 48,146,352 | 213,156,725 |
| Benefit payments, including refunds of member contributions | (821,495,227) | (889,343,124) | (881,464,964) | (808,597,357) |
| **Net change in total pension liability** | **$ 315,391,353** | **$ 298,543,990** | **$ 136,445,702** | **$ 316,064,633** |
| **Total pension liability - beginning** | **10,877,209,958** | **10,578,665,968** | **10,442,220,266** | **10,126,155,633** |
| **Total pension liability - ending** | **$ 11,192,601,311** | **$ 10,877,209,958** | **$ 10,578,665,968** | **$ 10,442,220,266** |
| **Plan fiduciary net position** | | | | |
| Contributions - employer | 706,236,698 | $ 660,246,511 | $ 577,195,412 | $ 553,178,927 |
| Contributions - member | 73,607,359 | 67,055,003 | 58,657,817 | 53,722,275 |
| Net investment income | 566,624,580 | (145,681,480) | 13,838,367 | 681,469,584 |
| Benefit payments, including refunds of member contributions | (821,495,227) | (889,343,124) | (881,666,036) | (808,597,357) |
| Administrative expense | (8,873,657) | (8,553,837) | (10,478,541) | (8,291,820) |
| **Net change in plan fiduciary net position** | **516,099,753** | **$ (316,276,927)** | **$ (242,452,981)** | **$ 471,481,608** |
| **Plan fiduciary net position - beginning** | **4,357,975,073** | **4,674,252,416** | **4,916,705,397** | **4,445,223,788** |
| **Plan fiduciary net position - ending** | **$ 4,874,074,826** | **$ 4,357,975,073** | **$ 4,674,252,416** | **$ 4,916,705,397** |
| **Net pension liability - ending** | **$ 6,318,526,485** | **$ 6,519,234,885** | **$ 5,904,413,552** | **$ 5,525,514,870** |
| **Plan fiduciary net position as a percentage of the total pension liability** | 43.55% | 40.07% | 44.19% | 47.08% |
| **Covered payroll** | $ 1,744,729,284 | $ 1,676,411,925 | $ 1,545,499,872 | $ 1,556,660,223 |
| **Net pension liability as a percentage of covered payroll** | 362.15% | 388.88% | 382.04% | 354.96% |

Note: The schedules of investment return and changes in net pension liability and related ratios are intended to show information for 10 years. Additional years will be displayed as they become available.

## CITY OF PHILADELPHIA MUNICIPAL PENSION FUND
## REQUIRED SUPPLEMENTARY INFORMATION
## JUNE 30, 2017

### Schedule of Employer Contributions (Based on Minimum Municipal Obligation)
Last 10 Fiscal Years
Amount in Thousands

| | FYE 2017 | FYE 2016 | FYE 2015 | FYE 2014 | FYE 2013 | FYE 2012 | FYE 2011 | FYE 2010 | FYE 2009 | FYE 2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| Actuarially Determined Contribution | $ 629,620 | $ 594,975 | $ 556,030 | $ 523,368 | $ 727,604 | $ 534,039 | $ 463,375 | $ 297,456 | $ 438,522 | $ 412,449 |
| Contributions in Relation to the Actuarially Determined Contribution | $ 706,237 | $ 660,247 | $ 577,195 | $ 553,179 | $ 781,823 | $ 555,690 | $ 470,155 | $ 312,556 | $ 455,389 | $ 426,934 |
| Contribution Deficiency/(Excess) | $ (76,617) | $ (65,271) | $ (21,166) | $ (29,811) | $ (54,218) | $ (21,651) | $ (6,780) | $ (15,110) | $ (16,867) | $ (14,485) |
| Covered Payroll | $ 1,744,729 | $ 1,676,412 | $ 1,597,849 | $ 1,495,421 | $ 1,429,723 | $ 1,372,174 | $ 1,371,274 | $ 1,421,151 | $ 1,463,260 | $ 1,456,520 |
| Contributions as a Percentage of Covered Payroll | 40.48% | 39.38% | 36.12% | 36.99% | 54.68% | 40.50% | 34.29% | 21.99% | 31.12% | 29.31% |

### Schedule of Employer Contributions (Based on Funding Policy)
Last 10 Fiscal Years
Amount in Thousands

| | FYE 2017 | FYE 2016 | FYE 2015 | FYE 2014 | FYE 2013 | FYE 2012 | FYE 2011 | FYE 2010 | FYE 2009 | FYE 2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| Actuarially Determined Contribution | $ 881,356 | $ 846,283 | $ 798,043 | $ 823,885 | $ 738,010 | $ 722,491 | $ 715,544 | $ 581,123 | $ 539,464 | $ 536,874 |
| Contributions in Relation to the Actuarially Determined Contribution | $ 706,237 | 660,247 | 577,195 | 553,179 | 781,823 | 555,690 | 470,155 | 312,556 | 455,389 | 426,934 |
| Contribution Deficiency/(Excess) | $ 175,119 | $ 186,036 | $ 220,847 | $ 270,706 | $ (43,813) | $ 166,801 | $ 245,389 | $ 268,567 | $ 84,075 | $ 109,940 |
| Covered Payroll | $ 1,744,729 | $ 1,676,412 | $ 1,597,849 | $ 1,495,421 | $ 1,429,723 | $ 1,372,174 | $ 1,371,274 | $ 1,421,151 | $ 1,463,260 | $ 1,456,520 |
| Contributions as a Percentage of Covered Payroll | 40.48% | 39.38% | 36.12% | 36.99% | 54.68% | 40.50% | 34.29% | 21.99% | 31.12% | 29.31% |

**Notes to Schedule**

| | |
|---|---|
| Valuation Date | 7/1/2015 |
| Timing | Actuarially determined contribution rates are calculated based on the actuarial valuation two years prior to the beginning of the plan year. |

Key Methods and Assumptions Used to Determine Contribution Rates:

| | |
|---|---|
| Actuarial cost method | Entry Age |
| Asset valuation method | 10-year smoothed market |
| Amortization method | Gain/Losses are amortized over closed 20-year periods, assumption changes over 15 years, benefit changes for actives over 10 year and benefit changes for inactive members over 1 year. Plan changes mandated by state over 20 years. Under the City's Funding Policy, the initial July 1, 1985 unfunded actuarial liability (UAL) is amortized over 34 years ending June 30, 2019 with payments increasing 3.3% per year, the assumed payroll growth. Under the MMO Funding Policy, the initial July 1, 2009 unfunded actuarial liability (UAL) was "fresh started" to be amortized over 30 years, ending June 30, 2039. This is a level dollar amortization of the UAL. |
| Discount rate | 7.75% |
| Amortization growth rate | 3.30% |
| Salary increases | Age based salary scale |
| Mortality | Sex distinct RP-2000 Combined Mortality with adjustments and improvements using Scale AA |

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2017 can be found in the July 1, 2015 actuarial valuation report.