

# **Police and Fire Retirement System of the City of Detroit**

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**Financial Report  
with Supplemental Information  
June 30, 2016**

# Police and Fire Retirement System of the City of Detroit

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## Independent Auditor's Report

To the Board of Trustees  
Police and Fire Retirement System  
of the City of Detroit

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the Police and Fire Retirement System of the City of Detroit (the "System") as of and for the year ended June 30, 2016 and the related notes to the financial statements, which collectively comprise the System's basic 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.

### ***Auditor's 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. 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.

To the Board of Trustees  
Police and Fire Retirement System  
of the City of Detroit

### ***Opinion***

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Police and Fire Retirement System of the City of Detroit as of June 30, 2016 and the changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

### ***Emphasis of Matter***

Effective June 30, 2016, the System adopted the provisions of GASB 72, *Fair Value Measurement and Application*, as discussed in Note 4. This new accounting standard provided guidance for determining fair value measurement and resulted in significant changes to the disclosures related to all fair value measurements. Our opinion is not modified with respect to this matter.

As explained in Note 1, the financial statements include investments valued at approximately \$482,000,000 (16 percent of net position) at June 30, 2016, whose fair values have been estimated by management in the absence of readily determinable market values. Management's estimates are based on information provided by investment managers, general partners, real estate advisors, and other means. Our opinion has not been modified with respect to this matter.

### ***Other Matters***

#### ***Required Supplemental Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and other required supplemental information, as identified 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, which 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 supplemental 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.

To the Board of Trustees  
Police and Fire Retirement System  
of the City of Detroit

*Report on Summarized Comparative Information*

We have previously audited the Police and Fire Retirement System of the City of Detroit's June 30, 2015 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated March 14, 2016. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2015 is consistent, in all material respects, with the audited financial statements from which it has been derived.

*Plante & Moran, PLLC*

December 19, 2016

# Police and Fire Retirement System of the City of Detroit

## Management's Discussion and Analysis

### Using this Annual Report

This annual report consists of three parts: (1) management's discussion and analysis (this section), (2) the basic financial statements, and (3) required supplemental information. The financial statements also include notes that explain some of the information in the financial statements and provide more detailed data. The financial statements are followed by a section of required supplemental information that further explains and supports the information in the financial statements.

### Condensed Financial Information

The table below compares key financial information in a condensed format between the current year and the prior year:

	Fiscal Year Ended	
	June 30, 2016	June 30, 2015
Total assets	\$ 3,293,804,594	\$ 3,624,690,233
Total liabilities	<u>299,940,928</u>	<u>408,007,132</u>
Fiduciary net position restricted for pensions	<b><u>\$ 2,993,863,666</u></b>	<b><u>\$ 3,216,683,101</u></b>
Net investment income	\$ 24,877,783	\$ 122,763,092
Contributions:		
Employee	7,998,531	7,997,997
Employer	16,396,044	15,229,511
State and Foundations	<u>37,787,744</u>	<u>114,300,000</u>
Total contributions	62,182,319	137,527,508
Other income	856,044	2,368,638
Benefits paid to members and retirees:		
Retirees' pension and annuity benefits	286,063,665	289,382,210
Member annuity refunds and withdrawals	<u>18,567,858</u>	<u>24,480,857</u>
Total benefits paid	<u>304,631,523</u>	<u>313,863,067</u>
Benefits paid in excess of contributions	(242,449,204)	(176,335,559)
Ratio of contributions to benefits paid	20.41%	43.82%
Other expenses	<u>6,104,058</u>	<u>8,316,369</u>
Net decrease in fiduciary net position restricted for pensions	<b><u>\$ (222,819,435)</u></b>	<b><u>\$ (59,520,198)</u></b>

# **Police and Fire Retirement System of the City of Detroit**

## **Management's Discussion and Analysis (Continued)**

### **Fund Overview, Membership, and Governance**

The Police and Fire Retirement System of the City of Detroit (DPFRS or the "System") is a defined benefit pension plan with a defined contribution element which, as discussed in greater detail below, was frozen by the City of Detroit, Michigan (the "City") at the conclusion of the 2014 fiscal year. This existing plan, the legacy plan (the "Legacy Plan"), is also referred to as "Component II." A new pension plan (the "Hybrid Plan," also referred to as "Component I") was created by the City for its uniformed employees on July 1, 2014. Both the Legacy Plan and Hybrid Plan are being reported in these financial statements.

DPFRS exists to pay benefits to its active members, retirees, and beneficiaries. Active members earn service credit that entitles them to receive benefits in the future. Both the employer and municipal plan sponsor for the System, the City, and active members have historically contributed to the System. Retirees, beneficiaries, and disabled members are those currently receiving benefits.

DPFRS is a relatively mature plan in that there are more retirees and beneficiaries receiving current benefits than active members. Membership of the System at June 30, 2015 consisted of 3,017 active members, with 8,279 inactive members receiving benefits and 325 terminated plan members entitled to but not yet receiving benefits. On June 30, 2014, the emergency manager of the City of Detroit, Michigan issued Order No. 29, which froze the existing pension plan, the Legacy Plan. As of June 30, 2014, no new employees were allowed to participate in the Legacy Plan and benefit accruals for members with respect to service rendered prior to July 1, 2014 were frozen based on the members' years of service, average final compensation, and the pension multiplier formula as of the freeze date. Employees working after July 1, 2014 are now earning service credit in the Hybrid Plan.

On July 1, 2014, the City first published a document entitled *The Combined Plan for The Police and Fire Retirement System of the City of Detroit, Michigan* (the "Combined Plan"). On October 19, 2014, the emergency manager issued Order No. 43, which amended and restated the Combined Plan. Before leaving office, the emergency manager, on December 8, 2014, issued Order No. 44, which again amended and restated the Combined Plan. According to Order No. 44, the latest amendments and restatements to the Combined Plan made changes related to collective bargaining agreements, conformed the Combined Plan terms to the requirements of the City of Detroit, Michigan's bankruptcy plan, and made clarifying modifications. The Combined Plan is available at DPFRS's website, [www.pfrsdetroit.org](http://www.pfrsdetroit.org).

DPFRS governance was modified in December 2014 as part of the City of Detroit, Michigan's bankruptcy plan. DPFRS is governed by a board of trustees comprised of 17 seats, though as of June 30, 2016, there were 16 seats occupied (the "Board"), and while DPFRS's investment management is now the ultimate responsibility of a nine-member investment committee (the "Investment Committee"), the Board maintains its role as the governing board vested with responsibility for the general administration, management and operation of the System, with which the Investment Committee assists, pursuant to Michigan law.

# **Police and Fire Retirement System of the City of Detroit**

## **Management's Discussion and Analysis (Continued)**

The Board is comprised of six members elected by the active membership to serve three-year terms. Expirations of terms of elected trustees are staggered. Two retired members are elected by the retired membership and serve three-year terms. Eight members serve ex-officio, these members being the mayor of the City of Detroit, Michigan (or designee), the city treasurer (or deputy treasurer), one representative from the Detroit City Council, the Corporation Counsel (or designee), the finance director (or designee), the budget director (or designee), and two ex-officio trustees to be appointed by the mayor. A 17<sup>th</sup> trustee, who is not a participant of the plan and is not employed by the City, may be selected to serve two years by the board of trustees.

The Investment Committee has five independent members appointed to initial terms with staggered expiration, whose terms will all eventually become six years. Four additional members, two active members and two retired members, serve on the Investment Committee based on appointment by the Board. The Investment Committee will be in place through at least December 2034.

### **The City of Detroit's Chapter 9 Bankruptcy Case, the Plan of Adjustment, and Implementation**

In March 2013, after the City had endured years of financial difficulty, the governor appointed an emergency manager for the City pursuant to Michigan Public Act 436 of 2012, which is a law that includes the ability for an emergency manager to file a bankruptcy proceeding. In anticipation of that possibility, DPFERS had assembled a restructuring team of professional legal, financial, actuarial, and other advisors to assist the System's on-staff professionals with meeting the challenges that could arise if the City filed for bankruptcy protection.

On July 18, 2013, the City filed a petition in the United States Bankruptcy Court for the Eastern District of Michigan (the "Bankruptcy Court") seeking protection from its creditors under Chapter 9 of the United States Bankruptcy Code (the "Chapter 9 Case"). DPFERS, one of the City's largest creditors because of its duty to collect employer contributions from the City, objected to the City's request for Chapter 9 relief on the basis that Article IX, Section 24 of the Michigan Constitution of 1963 prevented the City from cutting accrued pension benefits, even in bankruptcy. On December 5, 2013, after a hearing lasting several weeks, the Bankruptcy Court entered an order determining that the City was eligible for Chapter 9 relief, and holding that accrued pension benefits could be cut in bankruptcy despite the language of the Michigan constitution. DPFERS immediately filed an appeal with the United States Court of Appeals for the Sixth Circuit.

# **Police and Fire Retirement System of the City of Detroit**

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## **Management's Discussion and Analysis (Continued)**

The Bankruptcy Court also ordered DPFRS and other creditors to mediate their disputes with the City, a process which gained momentum in early 2014. As a result of Court-ordered mediation, DPFRS supported a proposed settlement of DPFRS member pension claims, which was initially memorialized in the Fourth Amended Plan for the Adjustment of Debts of the City of Detroit, filed on May 5, 2014, along with an accompanying Fourth Amended Disclosure Statement (the "Pension Settlement"). On May 12, 2014, the City issued ballots to all DPFRS members as claim holders in Class 10 under the City's classification system for its creditors, seeking their approval of the Pension Settlement. On June 19, 2014, the Board adopted a resolution supporting treatment of the DPFRS Class 10 claim holders as part of the Pension Settlement. DPFRS thereafter issued correspondence to its membership in support of the treatment of Class 10 claims. Also in June, the Michigan legislature adopted legislation, which the governor signed, conditionally approving the State's contribution of \$194.8 million, split between DPFRS and the General System of the City of Detroit, to the resolution of the Chapter 9 Case.

The Pension Settlement's terms were carried forward to the Eighth Amended Plan for Adjustment of Debts of the City of Detroit (the "Plan of Adjustment"), filed with the Bankruptcy Court on October 22, 2014. In November 2014, after a confirmation hearing lasting several weeks, the Bankruptcy Court confirmed the Plan of Adjustment, which became effective December 10, 2014.

The Pension Settlement, as part of the Plan of Adjustment, compromised pension claims and provided support for DPFRS legacy benefit obligations with funding support from the State of Michigan and certain charitable foundations in connection with the Detroit Institute of Arts, and included governance changes for DPFRS. Those governance changes included establishment of the Investment Committee effective December 10, 2014, which officially marked the beginning of implementation of the Plan of Adjustment, though DPFRS had for months already undertaken contingency planning for all of the pension adjustments.

For DPFRS, with respect to Chapter 9 Case benefit adjustments, the Pension Settlement (for which benefit levels were and are contingent on other factors, including receipt of outside contributions), did not reduce DPFRS Legacy Plan pension benefits, but provided for a 55 percent reduction in cost-of-living adjustments, or "escalators" (COLAs) paid after June 30, 2014. The Plan of Adjustment also includes the possibility of restoration of certain pension benefit cuts based on a program for the most financially vulnerable pensioners and beneficiaries through the State of Michigan Treasury Department as well as a new feature of the Legacy Plan allowing restoration depending on the System's funding level over time.

# **Police and Fire Retirement System of the City of Detroit**

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## **Management's Discussion and Analysis (Continued)**

Other components of implementation of the Plan of Adjustment proceeded between December 2014 and March 2015, and included dismissal of related litigation proceedings, including DPFRS's appeal of the Bankruptcy Court's eligibility determination in the United States Court of Appeals for the Sixth Circuit. The process of implementing the Plan of Adjustment is expected to continue through 2016 and beyond, with monitoring, compliance, and other activity by DPFRS, its board of trustees, and its Investment Committee. On December 1, 2014, DPFRS provided its retirees and beneficiary members with applications for the Income Stabilization Program (the "ISF Program") established as part of the State Contribution Agreement, another facet of the Pension Settlement. The ISF Program, supported by City funds arising from an unlimited tax general obligation bonds settlement, is intended to ensure that the most financially vulnerable retirees and beneficiaries do not fall below the poverty line as a result of bankruptcy-related pension changes. The ISF Program was implemented March 1, 2015, along with other bankruptcy-related pension benefit changes.

As of March 1, 2015, less than three months after the effective date of the Plan of Adjustment, DPFRS successfully implemented the vast majority of benefit changes required by the Plan. In fiscal year 2016, DPFRS continued to implement the Plan of Adjustment, which includes ongoing compliance and meeting additional periodic and interim reporting requirements by the Board and the Investment Committee to the City, the Foundation for Detroit's Future, and the State of Michigan, annual review of benefit levels, and essentially provides for a 40-year plan to close the DPFRS underfunded Legacy Plan liability. DPFRS met its obligations in fiscal year 2016 concerning implementation of the Plan of Adjustment.

### **Contributions to the System**

Historically, both the City and active employees have made regular contributions to the System. Basic pension and disability benefits have been funded through employer and employee contributions plus investment earnings on those contributions. The required employer contributions have been determined by the System's actuaries using the entry age normal cost method. Assumptions used by the actuaries are subject to experience testing every five years. Effective December 10, 2014, as part of the resolution of the Chapter 9 Case, the investment return assumption and discount rate used by the System's actuary for purposes of determining the System's assets and liabilities for funding purposes was fixed at 6.75 percent through the period ending June 30, 2023.

# **Police and Fire Retirement System of the City of Detroit**

## **Management's Discussion and Analysis (Continued)**

Prior to the filing of the Chapter 9 Case, the City stopped making payments related to unsecured funded debt and legacy liabilities, including payments to the System. When the City filed the Chapter 9 Case, obligations owed by the City became potentially subject to compromise in the bankruptcy process. The pension claims of DPFERS members were determined by the Bankruptcy Court to be included as unsecured obligations. The City's last employer contribution before the Chapter 9 Case was made on December 28, 2012. During fiscal year 2014, the City did not make any contributions to the System. In the Chapter 9 Case, DPFERS filed a claim against the City for \$72.6 million as of July 18, 2013, reflecting past due employer contributions with interest for fiscal years 2012 and 2013. This amount did not reflect the full unfunded actuarial accrued liability of the System.

Going forward, the obligations for contributions to the System through 2023 are determined as fixed amounts pursuant to the provisions in the Plan of Adjustment. Pursuant to the Plan of Adjustment, the System was expected to receive contributions totaling \$260.7 million, including \$96.0 million from the State of Michigan and at least the present value equivalent of \$164.7 million from the foundation donors, over a 10-year period covering fiscal year 2015 through fiscal year 2023, as well as at least the present value of \$50 million over a 10-year period ending in 2034. The City will retain responsibility for the full funding obligations of the System after 2023, consistent with Michigan law.

The Plan of Adjustment allows for certain of the funding obligations to DPFERS through 2034 to be met by pre-payment of the present value equivalent using a discount rate of 6.75 percent. In fiscal year ended June 30, 2016, a portion of the DIA obligation to make annual \$5 million contributions over 10 years ending in 2034 were prepaid. This present value prepayment resulted in DPFERS receiving \$19,487,744 on June 30, 2016 from the DIA, which represents the present value, using a 6.75 percent discount rate, of \$4,650,000 per year for 10 years ending in 2034. DPFERS still expects to receive the equivalent or actual remaining \$375,000 per year from the DIA for that 10-year period from 2025 to 2034.

### **Impact of City of Detroit Collective Bargaining and Bankruptcy Pension Adjustments**

As further noted below, depending on bargaining unit, the following changes became effective with EM Order No. 29:

- The Legacy Plan obligations, or the existing defined contribution plan and defined benefit plan, were frozen as of June 30, 2014, as referenced above.
- As of July 1, 2014, a new defined benefit plan commenced with mandatory contributions as part of the new Hybrid Plan. Members hired on June 30, 2014 or before contribute 6 percent of base compensation and all employees hired on or after July 1, 2014 will contribute 8 percent of base compensation.

# **Police and Fire Retirement System of the City of Detroit**

## **Management's Discussion and Analysis (Continued)**

- As of July 1, 2014, a new defined contribution plan became optional for the annuity savings fund in the new Hybrid Plan. Employees may make voluntary Annuity Savings Fund contributions up to 10 percent of total after-tax pay. Interest will be credited at the actual net investment rate of return of DPFRS, but will in no event be lower than 0 percent or higher than 5.25 percent.

In the Legacy Plan, active employees historically made a mandatory contribution of 5 percent of pay toward their defined contribution benefits (annuity savings fund) until the date at which they are eligible for retirement. These employee contributions are maintained in separate accounts in the defined contribution plan solely for the benefit of the contributing employee. Before the Legacy Plan was frozen, employee annuity savings fund accounts were credited with investment earnings equal to the rate of return earned by the System subject to minimum earnings of 0 percent. An active employee is allowed in the Legacy Plan to withdraw his or her accumulated contributions in the annuity savings fund plus investment earnings once he or she is eligible for retirement or upon completion of 25 years of service (DPOA and fire equivalents may do so at 20 years, consistent with new collective bargaining agreements entered in 2014).

Following the freeze of the Legacy Plan, no member was allowed to make contributions into the annuity savings fund of the Legacy Plan with respect to payroll dates occurring on or after August 1, 2014. Mandatory employee contributions of 6 percent of pay after that date support the defined benefits allowed as part of the new Hybrid Plan.

In the new Hybrid Plan, effective July 1, 2014, and beginning with payroll on or after August 1, 2014, active employees were allowed to make voluntary contributions to a new annuity savings fund account of up to 10 percent of total after-tax pay. Interest will be credited to those accounts at the actual net investment rate of return for DPFRS, but will not be lower than 0 percent or more than 5.25 percent. No in-service withdrawals are permitted from the Hybrid Plan annuity savings fund accounts.

In the Hybrid Plan, employer contributions by the City are allocated according to bargaining unit and the respective collective bargaining agreement (CBA). For Detroit Fire Fighter Association employees, the City will contribute 11.2 percent of base compensation prior to the effective date of the CBA and 12.25 percent after the effective date of the CBA. For Detroit Police Command Officers Association employees, the City will contribute 12.25 percent of base compensation. For Detroit Police Officers Association employees, the City will contribute 11.2 percent of base compensation prior to the effective date of the CBA and 12.25 percent after the effective date of the CBA. For Detroit Police Lieutenants and Sergeants Association employees, 12.25 percent of base compensation will be contributed by the City. For all of these employees, a portion of these contributions will be contributed to a rate stabilization fund, as determined by the City.

# **Police and Fire Retirement System of the City of Detroit**

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## **Management's Discussion and Analysis (Continued)**

Additionally, as noted above, as a result of the Chapter 9 Case, cost-of-living adjustments made to annual pension benefits to account for the effects of inflation (COLA) in the Legacy Plan from and after June 30, 2014 were reduced to 45 percent of the COLAs provided for in police and fire collective bargaining agreements, other contracts, or ordinances. These adjustments were implemented with pension payments made on and after March 1, 2015. Base benefits for DPFRS member benefits accrued through June 30, 2014 were not subject to any cuts in resolution of the Chapter 9 Case.

Beginning March 1, 2015, certain DPFRS members also received benefit pension cut restoration under the Income Stabilization Fund program administered by DPFRS pursuant to the State Contribution Agreement based on eligibility and benefit payments calculated by the State of Michigan.

Note 9 to the financial statements for the fiscal year ended June 30, 2014 discusses, in further detail, the changes resulting from the Plan of Adjustment.

### **Benefit Payments**

The System exists to pay the benefits which its members have earned pursuant to benefits promised by the City, subject to the Chapter 9 Case benefit adjustments going forward in the Legacy Plan and the new promises in the Hybrid Plan. Benefits are paid monthly. In fiscal year 2016, DPFRS paid out \$304.5 million in benefits, consisting of \$286 million in benefits to retirees and beneficiaries plus \$18.5 million in refunds of annuity savings fund balances. This represents approximately 10.0 percent of the net position of the System as of June 30, 2016. Employer and employee contributions were approximately \$62 million or 2.1 percent of the net position of the System. The excess of benefits over contributions is funded through investment income. The public capital markets represent the primary source of opportunities to earn investment income.

As of June 30, 2014, due to the freeze for the Legacy Plan, no additional benefit accruals are being earned in the Legacy Plan.

### **Asset Allocation**

The Board and Investment Committee believe that the principal determinant of total fund investment performance over long periods of time is asset allocation. The DPFRS asset allocation is built upon the foundation that the obligations of DPFRS to pay the benefits promised to its members are very-long-term obligations. Accordingly, the Board and Investment Committee must make investment decisions that it believes will be the most beneficial to the System over many years, not just one or two years.

# **Police and Fire Retirement System of the City of Detroit**

## **Management's Discussion and Analysis (Continued)**

DPFRS has established asset allocation policies which are expected to deliver more than enough investment income over a very long period of time to satisfy the obligations to pay the benefits promised to the members of the System. The following is a summary of the System's target asset allocation policy as of June 30, 2016:

<u>Asset Class</u>	<u>Target Allocation</u>
Global equity	38.00%
Fixed income	28.00
MLPs	5.00
Public real estate	3.00
Private real estate	10.00
Private equity	10.00
Hedge funds	5.00
Cash	1.00

DPFRS asset allocation policies comply with Michigan law.

### **Investment Results**

DPFRS calculates investment results on a time-weighted Global Investment Performance Standard (GIPS) basis, unless explicitly state otherwise. All returns for periods of one year or greater have been annualized.

# **Police and Fire Retirement System of the City of Detroit**

## **Management’s Discussion and Analysis (Continued)**

### **Total Fund Composite**

DPFRS total fund composite return for the year was 2.5 percent, net of fees and expenses using a time-weighted methodology. The three-year and five-year annualized total fund returns were 7.9 percent and 6.3 percent, respectively, net of fees and expenses.

Global financial markets faced a number of headwinds over the course of the fiscal year as a result of continued economic uncertainty: growth in U.S. was muted; commodity prices declined significantly; and uncertainty in the developed markets punctuated by Brexit and negative interest rates. While the total plan return did not keep pace with the long-term target, on a relative basis, the return compared favorably to the System’s peer group.

As part of the resolution of the City of Detroit’s Chapter 9 Bankruptcy Case, the discount rate assumption used to meet current and future benefit obligations was set at 6.75 percent through the period ending June 30, 2023. This discount rate assumption provided in the Chapter 9 Case does not purport to establish an investment return assumption or discount rate for purposes of, or in accordance with, generally accepted accounting principles. Although the Fund’s return for this year fell below this assumption, the Fund’s longer term return expectation, which this assumption is intended to characterize, still exceeds this assumption.

Total plan returns for the recent prior fiscal years ended June 30 are shown below:

2015	3.4%
2014	18.4
2013	9.7
2012	-1.5
2011	13.8

### **Money-weighted Rate of Return**

GASB Statement No. 67 requires the disclosure of the annual money-weighted rate of return. A money-weighted rate of return (as opposed to the time-weighted rate of return discussed in the previous section) considers both the size and timing of cash flows over the course of the year to determine an internal rate of return (sometimes referred to as an “IRR”). This return is calculated net of expenses and uses cash flows determined on a monthly basis. The DPFRS money-weighted rate of return for the year using end-of-the-month cash flows was 1.3 percent.

# **Police and Fire Retirement System of the City of Detroit**

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## **Management's Discussion and Analysis (Continued)**

### **Contacting the Police and Fire Retirement System of the City of Detroit**

This financial report is intended to provide a general overview of the System's finances and investment results in relation to actuarial projections. It shows the System's accountability for the money it receives from employer and employee contributions. If you have questions about this report or need additional information, we welcome you to contact the System's office or visit its website at [www.pfrsdetroit.org](http://www.pfrsdetroit.org) or [www.rscd.org](http://www.rscd.org).

# Police and Fire Retirement System of the City of Detroit

## Statement of Fiduciary Net Position

	June 30, 2016			
	Component II Plan (Legacy)		Component I	Total Combined
	Defined Benefit	Income	Plan (Hybrid)	Plan
	Fund	Stabilization Fund		
<b>Assets</b>				
Cash and cash equivalents (Note 3)	\$ 96,086,110	\$ 1,109,453	\$ 14,887,546	\$ 112,083,109
Investments - At fair value (Notes 3 and 4):				
Global equities	1,325,385,535	-	12,769,332	1,338,154,867
Global fixed income	688,747,375	-	6,635,620	695,382,995
Real assets	590,074,245	-	5,685,346	595,759,591
Private equity	85,531,635	-	823,074	86,354,709
Diversifying strategies	155,522,366	-	1,497,874	157,020,240
Receivables:				
Accrued investment income	9,790,020	-	72,954	9,862,974
Receivables from investment sales	67,358,480	-	648,954	68,007,434
Other accounts receivables	437,534	-	15,459	452,993
Notes receivable from participants	12,332,115	-	-	12,332,115
Cash and investments held as collateral for securities lending (Note 3):				
Asset-backed securities	74,368,173	-	1,319,395	75,687,568
Repurchase agreements	4,572,450	-	44,053	4,616,503
U.S. corporate floating rate	136,910,226	-	716,131	137,626,357
Capital assets (Note 1)	463,139	-	-	463,139
<b>Total assets</b>	<b>3,247,579,403</b>	<b>1,109,453</b>	<b>45,115,738</b>	<b>3,293,804,594</b>
<b>Liabilities</b>				
Claims payable to retirees and beneficiaries	429,736	-	19,554	449,290
Payables for investment purchases	76,570,332	-	737,707	77,308,039
Amounts due broker under securities lending arrangements (Note 3)	215,079,254	-	2,072,145	217,151,399
Other liabilities	5,029,631	-	2,569	5,032,200
<b>Total liabilities</b>	<b>297,108,953</b>	<b>-</b>	<b>2,831,975</b>	<b>299,940,928</b>
<b>Net Position - Restricted for pensions</b>	<b>\$ 2,950,470,450</b>	<b>\$ 1,109,453</b>	<b>\$ 42,283,763</b>	<b>\$ 2,993,863,666</b>

# Police and Fire Retirement System of the City of Detroit

## Statement of Changes in Fiduciary Net Position

	Year Ending				June 30, 2015
	June 30, 2016			Total	
	Component II Plan (Legacy)		Component I		
Defined Benefit Fund	Income Stabilization Fund	Plan (Hybrid)	Total	Total	
<b>Additions</b>					
Investment income:					
Interest and dividends	\$ 98,382,965	\$ 7,085	\$ 881,674	\$ 99,271,724	\$ 101,520,693
Net (decrease) increase in fair value of investments	(62,148,381)	-	(517,249)	(62,665,630)	32,851,015
Less investment expense	(13,165,657)	-	(127,229)	(13,292,886)	(14,083,396)
Net investment income	23,068,927	7,085	237,196	23,313,208	120,288,312
Securities lending income:					
Income	1,941,854	-	18,708	1,960,562	1,649,855
Net (loss) gain on collateral pool	(392,208)	-	(3,779)	(395,987)	824,925
Net securities lending income	1,549,646	-	14,929	1,564,575	2,474,780
Contributions:					
Employer	-	564,281	15,831,763	16,396,044	15,229,511
Employee	24,801	-	7,973,730	7,998,531	7,997,997
State and foundations (Note 2)	37,787,744	-	-	37,787,744	114,300,000
Total contributions	37,812,545	564,281	23,805,493	62,182,319	137,527,508
Other income	855,743	-	301	856,044	2,368,638
Total additions - Net	63,286,861	571,366	24,057,919	87,916,146	262,659,238
<b>Deductions</b>					
Retirees' pension and annuity benefits	285,936,674	63,109	63,882	286,063,665	289,382,210
Member refunds and withdrawals	18,530,489	-	37,369	18,567,858	24,480,857
General and administrative expenses	3,103,689	-	3,000,369	6,104,058	8,316,369
Total deductions	307,570,852	63,109	3,101,620	310,735,581	322,179,436
<b>Net (Decrease) Increase in Net Position Held in Trust</b>	(244,283,991)	508,257	20,956,299	(222,819,435)	(59,520,198)
<b>Net Position Restricted for Pensions - Beginning of year</b>	3,194,754,441	601,196	21,327,464	3,216,683,101	3,276,203,299
<b>Net Position Restricted for Pensions - End of year</b>	<u>\$ 2,950,470,450</u>	<u>\$ 1,109,453</u>	<u>\$ 42,283,763</u>	<u>\$ 2,993,863,666</u>	<u>\$ 3,216,683,101</u>

# Police and Fire Retirement System of the City of Detroit

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**Notes to Financial Statements  
June 30, 2016**

## **Note I - Summary of Significant Accounting Policies**

The following is a summary of the significant accounting policies used by the Police and Fire Retirement System of the City of Detroit:

### **Reporting Entity**

The City of Detroit, Michigan (the "City") sponsors the Combined Plan for the Police and Fire Retirement System of the City of Detroit (the "System"), which consists of two contributory single-employer retirement plans, as described below.

Component II - This is the legacy plan (the "Legacy Plan") which is the original defined benefit plan, which includes a defined benefit component and a defined contribution component. Component II generally applies to benefits accrued by members prior to July 1, 2014. On June 30, 2014, as a result of negotiations between the City and the public employee unions, the existing plan benefit formulas were frozen and no new employees were allowed to earn benefits under the existing plan. The emergency manager issued Order #29 (Police and Fire Retirement System of the City of Detroit) on June 30, 2014 which put these changes into effect. Except as specifically provided in Combined Plan, benefits provided under Component II are frozen effective June 30, 2014.

Component I - As of July 1, 2014, all current and future employees participate in the new hybrid pension plan (the "Hybrid Plan"), or Component I. This hybrid plan includes a defined benefit component and a defined contribution component. Component I of the plan document applies to benefits accrued by members on or after July 1, 2014.

Active City employees who participate in the current plan will receive the benefits they have earned under the System through June 30, 2014 plus an additional benefit under the new hybrid plan formula, assuming all vesting requirements are met.

The Combined Plan is a separate and independent trust qualified under applicable provisions of the Internal Revenue Code; it is an independent entity (separate and distinct from the employer/plan sponsor) as required by (1) state law and (2) Internal Revenue Code provisions setting forth qualified plan status. The trustees of the plan have a fiduciary obligation and legal liability for any violations of fiduciary duties as independent trustees. The Combined Plan provides retirement, disability, and survivor benefits to plan members and beneficiaries.

# Police and Fire Retirement System of the City of Detroit

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**Notes to Financial Statements  
June 30, 2016**

## **Note I - Summary of Significant Accounting Policies (Continued)**

The financial statements for fiscal year 2016 represent the legacy plan, or "Component II," as well as the new hybrid plan, or "Component I." Component II also includes the Income Stabilization Fund. The fund, which is part of Component II only and established as a special plan of adjustment provision, was established for the sole purpose of paying the Income Stabilization Benefits and Income Stabilization Benefits Plus to eligible pensioners. Any funds received by the System that are designated by the City as UTGO Bond Tax Proceeds or a contribution to the Income Stabilization Fund are credited to the Income Stabilization Fund as defined in the State Contribution Agreement which is an exhibit to the Plan of Adjustment. After 2022, the Investment Committee may recommend to the board of trustees (the "Board") that a portion or all of the assets that exceed income stabilization benefits (including Income Stabilization Benefits Plus) to be paid in the future be used to fund regular pension payments.

The financial statements for the System are also reported in the financial statements of the City of Detroit, Michigan as a pension trust fund. The assets of the pension trust funds include no securities of or loans to the City or other related parties.

These financial statements include comparative columns for 2015. Such information is not meant to be a complete presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the System's financial statements for the year ended June 30, 2015.

### **Plan Sponsor Financial Condition - Impact on System**

In the past, the City of Detroit, Michigan (the "plan sponsor") has experienced significant financial difficulty and liquidity concerns. As of June 2013, the City had defaulted on approximately \$71 million of pension contributions due to the System. During fiscal year 2014, the City did not pay any employer contributions into the System, despite the fact that there were actuarially required contributions.

In February 2013, the governor appointed a financial revenue team, which determined that a local government financial emergency existed in the City. This culminated in bankruptcy proceedings which the City initiated in July 2013. Part of the federal court's ruling in December 2013 indicated that the bankruptcy status usurped whatever protections may be offered to governmental pensions under the Michigan Constitution. On December 10, 2014, the City exited from bankruptcy through the Eighth Amended Plan for the Adjustment of Debts of the City of Detroit (the "POA"). The POA specifies certain provisions pertinent to the legacy and hybrid plans, including contributions and benefits.

# Police and Fire Retirement System of the City of Detroit

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**Notes to Financial Statements  
June 30, 2016**

## **Note 1 - Summary of Significant Accounting Policies (Continued)**

In fiscal year 2016, the contributions that were received by the System were made in accordance with the provisions of the POA. See Note 10 for significant changes that were implemented by the System under the POA.

### **Accounting and Reporting Principles**

The System follows accounting principles generally accepted in the United States of America (GAAP) as applicable to governmental units. Accounting and financial reporting pronouncements are promulgated by the Governmental Accounting Standards Board.

### **Basis of Accounting**

The System uses the economic resources measurement focus and the full accrual basis of accounting. Revenue is recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

### **Specific Balances and Transactions**

**Cash and Cash Equivalents** - Cash and cash equivalents include cash on hand, demand deposits, and short-term investments with a maturity of three months or less when acquired.

**Investments** - Investments are reported at fair value or estimated fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments. The fair value of real estate investments is based on periodic appraisals as well as the judgment of independent real estate advisors and management. Investments that do not have an established market value are reported at estimated fair value as determined by the System's management.

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 1 - Summary of Significant Accounting Policies (Continued)

Approximately \$482,000,000, or 16 percent, of the System's net position as of June 30, 2016 are not publicly traded and therefore, do not always have a readily determinable market value.

Investments for which market quotations are readily available are generally priced by the custodian using nationally recognized pricing services and practices. For investments that do not have readily observable market prices, including but not limited to private equity, public and private real estate, alternatives and direct loans, management's estimate of their fair value is based on information provided by investment managers, general partners, real estate advisors, and other means. These sources are held to a standard of reasonable care in verifying that the valuations presented reasonably reflect the underlying fair value of the investments. A variety of factors are considered in the valuation process, including the nature of the investment, local market conditions, trading values on public exchanges for comparable investments, and current and projected operating performance. However, due to the inherent uncertainty and the degree of judgment involved in determining fair value for such investments, the values reflected in the financial statements may differ significantly from values that would have been used had a readily determinable market value for the investments existed, and the difference could be material.

**Receivable/Payable from Investment Sales/Purchases** - The System liquidated investments prior to year end and reported a receivable from investment sales at June 30, 2016 in the amount of \$68,007,434. The proceeds from the sales were received subsequent to year end. In addition, the System purchased investments prior to year end and reported a payable from investment purchases at June 30, 2016 in the amount of \$77,308,039. This amount was paid subsequent to year end.

**Notes Receivable from Participants** - In Component II, any active, terminated, or retired police and fire employee who is or has been a participant in the 1973 defined contribution plan (annuity savings fund) may be eligible for the employee loan program. The minimum amount of the loan was established at \$1,000. The maximum loan is the lesser of 50 percent of the member's account balance in the annuity saving fund or \$15,000. Members can borrow as either a general purpose loan payable in one to five years or a residential loan payable in 1 to 15 years. A member can have only two outstanding loans. The balance of these loans for the year ended June 30, 2016 was \$12,332,115. The balance is measured at the unpaid principal balance plus any accrued but unpaid interest. Participant notes receivable are written off when deemed uncollectible.

Although Component I allows participant loans, there are none outstanding at June 30, 2016.

# Police and Fire Retirement System of the City of Detroit

**Notes to Financial Statements**  
**June 30, 2016**

## **Note 1 - Summary of Significant Accounting Policies (Continued)**

**Capital Assets** - Capital assets for the System include land, office equipment, and furniture. Depreciation expense is calculated by allocating the net cost of the assets over their estimated useful lives.

**Use of Estimates** - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

## **Note 2 - Pension Plan Description**

### **Component II (Legacy Plan) and Component I (Hybrid Plan)**

**Plan Administration** - The System's governance was modified in December 2014 as part of the City's bankruptcy plan. The System's board of trustees and Investment Committee administer the Combined Plan for the Police and Fire Retirement System of the City of Detroit Pension Plan - a single-employer defined benefit and defined contribution plan that provides retirement benefits, as well as survivor and disability benefits, for plan members and beneficiaries. Plan members include active employees, retirees, and beneficiaries from the police and fire departments of the City of Detroit, Michigan. Benefit terms have been established by contractual agreements between the City and the employees' collective bargaining unit, as modified by the POA. Future amendments are subject to the same process. The obligation to contribute to and maintain the System was established by the City Charter and negotiations with the employees' collective bargaining units.

The board of trustees is comprised of 17 seats, occupied by 16 members as of June 30, 2016. Six members of the Board are elected by the active membership to serve three-year terms. Expirations of terms of elected trustees are staggered. Two retired members are elected by the retired membership and serve three-year terms. Eight members serve ex-officio, these members being the mayor of the City of Detroit, Michigan (or designee), the city treasurer (or deputy treasurer), one representative from the Detroit City Council, the Corporation Counsel (or designee), the finance director (or designee), the budget director (or designee), and two ex-officio trustees to be appointed by the mayor.

The Investment Committee consists of nine members. Five are independent members appointed to initial terms with staggered expiration, whose terms will all eventually become six years. Four additional members, two active members and two retired members, serve on the Investment Committee based on appointment by the Board. The Investment Committee will be in place through at least December 2034.

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 2 - Pension Plan Description (Continued)

**Plan Membership** - At June 30, 2015, the membership consisted of the following:

	<u>Component II</u>	<u>Component I</u>
Inactive plan members or beneficiaries currently receiving benefits	8,279	67
Inactive plan members entitled to but not yet receiving benefits	325	63
Active plan members (includes DROP members of 631 for Component II and 118 for Component I)	<u>3,017</u>	<u>2,602</u>
Total	<u>11,621</u>	<u>2,732</u>

As of June 30, 2014, Component II has been frozen. As of that date, no new participants were allowed to enter the plan and no new benefit accruals were allowed for existing participants.

After July 1, 2014, active members will retain existing service credit in the Legacy Plan, but will only earn existing service credit in the new Hybrid Plan. Employees retiring during FY 2016 only earned approximately \$64,000 in benefits from the Hybrid Plan.

**Benefits Provided** - The System provides retirement, disability, and death benefits. Benefit terms had been established by negotiations between the City Council and the employees' collective bargaining unit and subject to amendment by the City Council. Further changes to benefits were provided for under the POA.

**Contributions** - Article 9, Section 24 of the State of Michigan constitution requires that financial benefits arising on account of employee service rendered in each year be funded during that year. Accordingly, in the past, the System had retained an independent actuary to determine the annual contribution. The actuarially determined rate was the estimated amount necessary to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. However, until 2024, contributions are based on specific provisions in accordance with the Plan of Adjustment.

The City filed for bankruptcy in 2013 and on November 12, 2014, the United States Bankruptcy Court for the Eastern District of Michigan entered an order confirming the Eighth Amended Plan for the Adjustment of Debts of the City of Detroit. Going forward, the obligation for the City to contribute to the System will be determined by the provisions in the Eighth Amended Plan for the Adjustment of Debts of the City of Detroit. Please read Note 10 for further information.

# Police and Fire Retirement System of the City of Detroit

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**Notes to Financial Statements  
June 30, 2016**

## **Note 2 - Pension Plan Description (Continued)**

### **Employer Contributions**

#### **Component II:**

For Component II, during fiscal year 2016, employer contributions are not actuarially determined but are detailed under Exhibit II.B.3.q.ii.A of the POA. Included within contributions for fiscal year 2016 in Component II are contributions from the Foundation for Detroit's Future (the "Foundation") in the amount of \$18,300,000 and contributions from the DIA. The POA allows for certain funding obligations to the System to be met by prepayment of the present value equivalent using a discount rate of 6.75 percent. In fiscal year 2016, a portion of the DIA obligation to make annual \$5,000,000 contributions were prepaid. The present value prepayment resulted in the System receiving \$19,487,744 in fiscal year 2016. Employer contributions were also made into the Income Stabilization fund during fiscal year 2016 for \$564,281 from the Unlimited Tax General Obligation bonds (UTGO) proceeds. Going forward, aside from the proceeds of the UTGO which will be allocated to the Income Stabilization Fund; no more employer contributions will be made towards Component II until 2024, other than those that will continue to be made from proceeds from the Foundation contributions as specified in the POA, assuming all requirements are met.

#### **Component I:**

For Component I, during fiscal year 2016, employer contributions are not actuarially determined but determined by the provisions of the Combined Plan. Contributions from the City into Component I range from 11.2 percent-12.25 percent of base compensation for eligible employees. These contribution rates are fixed by the POA through June 30, 2023 and may be increased if required according to the fiscal responsibility provision in the Plan.

Because there are no actuarially determined contributions for Component I, there is no required schedule of contributions for Component I included within these financial statements.

### **Employee Contributions**

#### **Component II:**

Contribution requirements of plan members were historically established and amended by the board of trustees in accordance with the City Charter, union contracts, and plan provisions. For the year ended June 30, 2016, there were minimal employee contributions into Component II related to purchase of military service credit, as the plan was frozen as of June 30, 2014.

# **Police and Fire Retirement System of the City of Detroit**

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**Notes to Financial Statements  
June 30, 2016**

## **Note 2 - Pension Plan Description (Continued)**

### **Component I:**

Contribution requirements of plan members are established by the Combined Plan. For the year ended June 30, 2016, the average active member contribution rate for employees hired before July 1, 2014 was 6.0 percent of annual pay and for employees hired after July 1, 2014 was 8.0 percent of annual pay.

### **Deferred Retirement Option Program (DROP)**

In lieu of terminating employment and accepting a retirement allowance under the plan, any member of the System who is eligible for the DROP program may defer the receipt of his or her retirement allowance, continue services, and be paid compensation. At the time of the DROP election, the member no longer accrues a benefit. The program credits the employee for benefit payments that would have been paid had he or she retired normally by depositing 75 percent of the monthly payment with a third-party administrator in the member's name. The remaining 25 percent of the monthly payments are retained by the System for general purposes. The DROP allocations continue if the member continues to be actively employed as a police officer or a firefighter with the City. The member is eligible to withdraw the amounts deposited with the third-party administrator upon retirement. In addition, upon retirement, the retiree receives 100 percent of his or her retirement benefits. There are no amounts held by the System at June 30, 2016, as all amounts due to the members pursuant to the DROP election are held by a third-party administrator.

## **Note 3 - Deposits and Investments**

The System is authorized by Michigan Public Act 314 of 1965, as amended, to invest in certain reverse repurchase agreements, stocks, diversified investment companies, annuity investment contracts, real estate leased to public entities, mortgages, real estate, debt or equity of certain small businesses, certain state and local government obligations, and certain other specified investment vehicles.

The investment policy adopted by the Board is in accordance with Public Act 196 of 1997 and has authorized investments according to Michigan Public Act 314 of 1965, as amended. The System's deposits and investment policies are in accordance with statutory authority.

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 3 - Deposits and Investments (Continued)

The System invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market, credit risks, and overall market volatility. 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 such changes could materially affect the amounts reported on the statement of changes in fiduciary net position.

The System's cash and investments are subject to several types of risk, which are examined in more detail below:

**Custodial Credit Risk of Bank Deposits** - Custodial credit risk is the risk that in the event of a bank failure, the System's deposits may not be returned to it. The System does not have a deposit policy for custodial credit risk. Approximately \$6.5 million of the System's checking account balances were uninsured and uncollateralized at June 30, 2016. The System believes that due to the dollar amounts of cash deposits and the limits of FDIC insurance, it is impractical to insure all deposits. As a result, the System evaluates each financial institution with which it deposits funds and assesses the level of risk of each institution; only those institutions with an acceptable estimated risk level are used as depositories.

**Interest Rate Risk** - Interest rate risk is the risk that the value of investments will decrease as a result of a rise in interest rates. The System's investment policy does not restrict investment maturities.

At June 30, 2016, the average maturities of debt investments are as follows:

Investment Type	Fair Value (in thousands)	Less than 1 Year	1-5 Years	6-10 Years	More than 10 Years
U.S. government	\$ 110,576	\$ 6,063	\$ 40,041	\$ 12,676	\$ 51,796
Government assets and mortgage backed	22,785	-	11,242	1,805	9,738
Corporate**	158,879	5,357	44,715	62,249	46,558
Private placement	140,429	7,618	39,989	38,784	54,038
Convertible bonds	26,796	1,608	12,495	6,736	5,957
State and local obligations	7,241	391	1,157	2,063	3,630
Convertible preferred stock	14,266	13,107	855	304	-
Total	\$ 480,972	\$ 34,144	\$ 150,494	\$ 124,617	\$ 171,717

\*\* Not all global fixed income is subject to interest rate risk

**Credit Risk** - State law limits investments in commercial paper to the top two ratings issued by nationally recognized statistical rating organizations. The System has no investment policy that would further limit its investment choices.

# Police and Fire Retirement System of the City of Detroit

**Notes to Financial Statements  
June 30, 2016**

## Note 3 - Deposits and Investments (Continued)

As of June 30, 2016, the credit quality ratings of debt securities (other than the U.S. government) as rated by Moody's are as follows:

Investment Type and Fair Value (in thousands)	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca	WR	NR
U.S. government	\$ 80,964	\$ 327	\$ 609	\$ 511	\$ -	\$ -	\$ 958	\$ 1,382	\$ 738	\$ 331	\$ 2,413	\$ 457	\$ 1,247	\$ 1,903	\$ 989	\$ 2,125	\$ 560	\$ 177	\$ 62	\$ -	\$ 190	\$ 14,634
Government assets and mortgage backed	8,818	-	605	85	800	-	1,694	3,068	526	82	538	140	1,030	361	135	1,269	-	-	187	70	-	3,378
Corporate	35,911	2,202	1,457	1,193	2,977	3,335	10,426	16,647	10,870	9,184	4,533	1,742	10,292	12,605	5,739	10,580	5,170	1,676	232	717	5	11,386
Private placement	43,839	712	1,807	-	1,534	4,395	6,062	6,619	8,815	6,768	5,413	3,810	6,519	7,145	3,029	7,452	2,819	1,838	247	99	58	21,448
Convertible bonds	6,529	-	-	160	-	260	854	2,810	-	671	58	517	319	1,154	755	974	-	-	-	-	-	11,734
State and local obligations	3,296	636	-	541	358	-	-	-	566	-	-	446	-	385	889	122	-	-	-	-	-	-
Convertible preferred stock	-	-	-	-	-	-	-	-	3,736	2,481	-	-	304	-	-	-	-	-	-	-	-	7,745
<b>Total</b>	<b>\$ 179,357</b>	<b>\$ 3,877</b>	<b>\$ 4,478</b>	<b>\$ 2,490</b>	<b>\$ 5,669</b>	<b>\$ 7,990</b>	<b>\$ 19,994</b>	<b>\$ 30,526</b>	<b>\$ 25,251</b>	<b>\$ 19,517</b>	<b>\$ 12,955</b>	<b>\$ 7,112</b>	<b>\$ 19,711</b>	<b>\$ 23,553</b>	<b>\$ 11,536</b>	<b>\$ 22,522</b>	<b>\$ 8,549</b>	<b>\$ 3,691</b>	<b>\$ 728</b>	<b>\$ 886</b>	<b>\$ 253</b>	<b>\$ 70,325</b>

**Foreign Currency Risk** - Foreign currency risk is the risk that an investment denominated in the currency of a foreign country could reduce its U.S. dollar value as a result of changes in foreign currency exchange rates. The System does not restrict the amount of investments in foreign currency.

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 3 - Deposits and Investments (Continued)

As of June 30, 2016, the following deposits and securities are subject to foreign currency risk (in thousands):

	Equity	Forward Contracts (Including Payable/ Receivable)	Cash	Net Investment Receivable/ (Payable)	Fixed Income
Australian dollar	\$ 6,052	\$ 3,614	\$ 193	\$ -	\$ -
Brazilian real	553	-	-	-	-
British pound sterling	43,452	(10,462)	805	343	-
Canadian dollar	6,300	8,044	144	(205)	-
Danish krone	5,611	-	43	-	-
Euro currency	54,381	(9,750)	3,533	(260)	183
Hong Kong dollar	20,853	(1,762)	450	(707)	-
Indian rupee	530	-	-	-	-
Israeli shekel	-	638	6	-	-
Japanese yen	58,128	(4,865)	182	258	-
Mexican peso	-	-	-	-	1,698
New Taiwan dollar	1,034	-	-	-	-
Norwegian krone	867	529	4	-	-
Philippines peso	-	-	-	-	346
Singapore dollar	275	1,095	9	-	-
South African rand	305	-	-	-	-
South Korean won	1,878	354	-	(354)	-
Swedish krona	1,888	2,300	10	-	-
Swiss franc	9,276	5,146	378	453	-
Turkish lira	230	-	-	-	-
<b>Total</b>	<b>\$ 211,613</b>	<b>\$ (5,119)</b>	<b>\$ 5,757</b>	<b>\$ (472)</b>	<b>\$ 2,227</b>

**Securities Lending** - As permitted by state statutes and under the provisions of a securities lending authorization agreement, the System lends securities to broker-dealers and banks for collateral that will be returned for the same securities in the future. The System's custodial bank manages the securities lending program and receives cash, government securities, or irrevocable bank letters of credit as collateral. The custodial bank does not have the ability to pledge or sell collateral securities unless the borrower defaults. Borrowers are required to deliver collateral for each loan equal to not less than 102 percent of the market value of the loaned securities.

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 3 - Deposits and Investments (Continued)

As of June 30, 2016, the collateral provided was 101.4 percent of the market value of the loaned securities which is less than the required 102 percent.

The System did not impose any restrictions during the fiscal year on the amount of loans made on its behalf by the custodial bank. There were no failures by any borrowers to return loaned securities or pay distributions thereon during the fiscal year. Moreover, there were no losses during the fiscal year resulting from a default of the borrowers or custodial bank.

The System and the borrower maintain the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested together with the cash collateral of other lenders in an investment pool. The average duration of this investment pool as of June 30, 2016 was 30 days. Because the loans are terminable on demand, their duration did not generally match the duration of the investments made with cash collateral. On June 30, 2016, the System had no credit risk exposure to borrowers. The collateral held (at cost) and the fair market value of underlying securities on loan for the System as of June 30, 2016 were \$217,094,849 and \$214,096,311, respectively.

The following represents the balances relating to the securities lending transactions as of June 30, 2016; investments are reported at fair value:

<u>Securities Lent</u>	<u>Underlying Securities</u>
U.S. government and agencies	\$ 24,474,959
U.S. corporate fixed income	44,546,166
U.S. equities	140,281,162
Non-U.S. equities	4,794,024
Total	<u>\$ 214,096,311</u>

The fair market value of the collateral pool related to securities lending at June 30, 2016 was \$217,930,428. The investments were in asset-backed securities, floating rate notes, and repurchase agreements. Approximately 73 percent of these securities had a duration of less than one year, 23 percent had a duration between one and three years, 1 percent had a duration between three and five years, and 3 percent had a duration over 15 years.

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 3 - Deposits and Investments (Continued)

The credit ratings of the securities lending collateral pool held at June 30, 2016 as rated by S&P are as follows:

<u>Ratings</u>	<u>Amount</u>
AAA	\$ 73,853,850
AA	76,735,806
A	55,179,572
CCC	7,507,309
NR	4,653,891
Total	<u>\$ 217,930,428</u>

### Note 4 - Fair Value Measurement

During the year, the System adopted GASB Statement No. 72, *Fair Value Measurement and Application*. As a result, the notes to the financial statements now include enhanced disclosures about fair value measurement, the level of fair value hierarchy, and valuation techniques.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy below.

In instances whereby inputs used to measure fair value fall into different levels in the above fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The System's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability.

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 4 - Fair Value Measurement (Continued)

The System has the following recurring fair value measurements as of June 30, 2016:

#### Assets Measured at Fair Value on a Recurring Basis

	Balance at June 30, 2016	Fair Value Measurement Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Debt securities				
Government securities (U.S. and other)	\$ 117,839,732	\$ 92,145,993	\$ 25,693,739	\$ -
U.S. government mortgage- backed securities	87,997,862	-	87,997,862	-
Privately negotiated debt	14,389,809	-	-	14,389,809
Corporate bonds	326,217,458	-	326,217,458	-
Total debt securities	546,444,861	92,145,993	439,909,059	14,389,809
Equity securities:				
Common stock	1,161,258,623	1,161,258,623	-	-
Preferred stock	13,708,606	10,811,624	2,896,982	-
Total equity securities	1,174,967,229	1,172,070,247	2,896,982	-
Private equity funds	82,701,378	-	-	82,701,378
Partnership investments	3,710,010	-	-	3,710,010
Real estate private equity funds	207,635,187	-	-	207,635,187
Real estate related investments	173,153,949	-	-	173,153,949
Collateral from securities lending	213,313,925	-	213,313,925	-
Total investments by fair value level	2,401,926,539	\$ 1,264,216,240	\$ 656,119,966	\$ 481,590,333
<b>Investments Measured at the Net Asset Value (NAV)</b>				
International equity funds	155,249,992			
Fixed-income funds	143,745,275			
Global equity funds	152,878,292			
Hedge funds	156,970,360			
Real estate funds	75,215,869			
Total investments measured at the NAV	684,059,788			
Total investments measured at fair value	\$3,085,986,327			

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 4 - Fair Value Measurement (Continued)

\$4,616,503 of repurchase agreements that are recorded at amortized cost are not included in the fair value table above.

Debt and equity securities classified in Level 1 are valued using prices quoted in active markets for those securities.

The fair value of preferred stock and debt securities at June 30, 2016 was determined primarily based on Level 2 inputs. The System estimates the fair value of these investments using other inputs such as interest rates and yield curves that are observable at commonly quoted intervals for identical or similar assets.

The fair value of the remaining investments at June 30, 2016 was determined primarily based on Level 3 inputs. The System estimates the fair value of these investments using the System's own pricing estimate methodology, pricing models, discounted cash flow methodologies, or similar techniques taking into account the characteristics of the asset.

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

#### Investments in Entities that Calculate Net Asset Value per Share

The System holds shares or interests in investment companies where the fair value of the investments are measured on a recurring basis using net asset value per share (or its equivalent) of the investment companies as a practical expedient.

At the year ended June 30, 2016, the fair value, unfunded commitments, and redemption rules of those investments are as follows:

	Fair Value	Unfunded Commitments	Redemption Frequency, if Eligible	Redemption Notice Period
International equity funds	\$ 155,249,992	\$ -	Monthly	Up to 30 days
Fixed-income funds	143,745,275	-	Monthly	Up to 30 days
Global equity funds	152,878,292	-	Monthly	Up to 30 days
Hedge funds	156,970,360	-	Annually	Up to 100 days
Real estate funds	<u>75,215,869</u>	<u>9,270,600</u>	Quarterly	Up to 90 days
Total investments measured at NAV	<u>\$ 684,059,788</u>	<u>\$ 9,270,600</u>		

Multiple funds are held in each category. For reporting purposes, the redemption frequency and redemption notice period provided are the most restrictive of any of the funds in the category.

# Police and Fire Retirement System of the City of Detroit

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**Notes to Financial Statements**  
**June 30, 2016**

## **Note 4 - Fair Value Measurement (Continued)**

The international equity funds class includes investments in funds that invest predominantly in equity securities of non-U.S. companies. The funds invest in developed and emerging market countries and utilize investments across the capitalization spectrum from large to small companies. The fair values of the investments in this class have been estimated using the net asset value per share of the investments.

The fixed-income funds class includes investments in funds that invest predominantly in fixed-income instruments in U.S. developed and emerging market countries. The funds invest across a diverse group of security types including government, corporate, and mortgage-backed debt and across the credit quality spectrum of investment grade and high yield. The fair values of the investments in this class have been estimated using the net asset value per share of the investments.

The global equity funds include investments in funds that are designed to achieve a return volatility considerably less than the global equity market while providing market-like or above market returns over a full market cycle. The fair values of the investments in this class have been estimated using the net asset value per share of the investments.

The hedge funds class includes investments in funds that achieve capital appreciation through multimanager and/or multistrategy investments. Within this group of funds, there is exposure to investment strategies including, but not limited to, credit, event-driven, equity, and relative value. The funds have the ability to invest across all markets and across all asset classes to implement their various strategies. The fair values of the investments in this class have been estimated using the net asset value per share of the investments. Approximately 1 percent of the value of the investments in the hedge fund class above are in the process of being liquidated by the fund manager. Distributions from each fund will be received as the underlying investments of the fund are liquidated. It is estimated that the underlying investments of the fund will be liquidated over the next 18-24 months.

The real estate funds class includes investments in funds whose objective is to operate a core portfolio of real estate investments predominantly located in the U.S. The funds acquire ownership in underlying investments either through direct real estate ownership or ownership in real estate companies or the equity of real estate investment trusts. The funds predominantly target purchases in office, industrial, retail, or multifamily real estate classes. The fair values of the investments in this class have been estimated using the net asset value per share of the investments.

# Police and Fire Retirement System of the City of Detroit

**Notes to Financial Statements**  
**June 30, 2016**

## **Note 5 - Pension Plan Investments - Policy and Rate of Return**

### **Component II (Legacy Plan) and Component I (Hybrid Plan)**

**Investment Policy** - The assets of Component II and Component I are commingled and invested together as allowed by the POA. The System's policy in regard to the allocation of invested assets is established and may be amended by governance by a majority vote of its members. It is the policy of the governance to pursue an investment strategy that manages risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The System's investment policy discourages the use of cash equivalents, except for liquidity purposes, and aims to refrain from dramatically shifting asset class allocations over short time spans. The following was the government's adopted asset allocation policy as of June 30, 2016.

<u>Asset Class</u>	<u>Target Allocation</u>
U.S. stocks	16.50%
Non-U.S. stocks	16.50
Global low volatility	5.0
Private equity	10.00
U.S. core fixed income	13.50
U.S. TIPS	1.00
U.S. high yield	6.50
Convertibles	2.00
Opportunistic debt	5.00
Cash	1.00
Private real estate	10.00
Global REITs	3.00
MLPs	5.00
Hedge funds	5.00

**Rate of Return** - For the year ended June 30, 2016, the annual money weighted rate of return on the System's investments, net of pension plan investment expense, was 1.3 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

# Police and Fire Retirement System of the City of Detroit

**Notes to Financial Statements  
June 30, 2016**

## **Note 6 - Pension Plan Reserves**

### **Component II (Legacy Plan)**

In accordance with the Combined Plan for the Police and Fire Retirement System of the City of Detroit and state law, the following reserves are required to be set aside within the Component II (Legacy) pension plan:

The annuity reserve fund is an accumulation of transfers that are made from the annuity savings fund when an employee retires, becomes disabled, or if a surviving spouse elects an annuity rather than a lump-sum payout of accumulated employee contributions.

The survivors benefit fund accumulates regular interest on funds contributed by members prior to July 1, 2014 and from which benefits will be paid, but only to the extent sufficient assets are credited to the fund at the time a claim for benefits is made. In the event there are insufficient assets credited to the survivor's benefit fund to pay the benefits, then the benefits will be payable from the pension reserve fund.

The employee reserve (annuity savings fund or "ASF") is credited as employee contributions are received throughout the year; the System maintains a record of the amount contributed by each employee and credits interest annually. Eligible active members may elect to withdraw their accumulated (annuity) contributions plus investment earnings. Upon retirement a member can elect to annuitize or receive a lump sum of their accumulated contribution and interest earnings. When an employee retires, becomes disabled, or if a surviving spouse elects an annuity rather than a lump-sum payout of accumulated employee contributions, the balance is transferred to the annuity reserve fund.

The pension accumulation fund is the fund that will accumulate reserves for the pensions and other benefits payable from the contributions made by the City, including various departments thereof, and certain third parties pursuant to the POA and from which pensions and other benefits will be paid on account of members with prior service credit. Contributions to the pension accumulation fund from the effective date of the POA through fiscal year 2023 shall be made only in the amounts and from the sources identified in the POA.

The pension reserve fund represents funded pension benefits available for retired members and is funded by actuarially determined transfers from the pension accumulation fund. The transfers from the pension accumulation fund to the pension reserve fund for fiscal year 2016 have not yet been determined. Approximately \$21,923,200 of the actuarially determined transfer from the pension accumulation fund for fiscal year 2015 has not been made, and this amount is reflected in the difference between the required reserve and amount funded for the pension reserve fund.

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 6 - Pension Plan Reserves (Continued)

The expense fund is the fund which will be credited with all money provided by the City to pay the administrative expenses of the System, and from which all the expenses necessary in connection with the administration and operation of the System will be paid. At year end, this reserve balance is zero as all employer contributions were credited to the pension accumulation fund.

The balances of the reserve accounts for Component II (excluding the income stabilization fund) as of June 30, 2016 are included in the table below. The reserve balances as of June 30, 2016 shown below do not include the current year transfer amount related to fiscal year 2016 retirements for which amounts are transferred from the pension accumulation fund to the pension reserve fund.

	<u>Required Reserve</u>	<u>Amount Funded</u>
Annuity savings fund	\$ 104,670,218	\$ 104,670,218
Pension reserve fund	2,811,129,159	2,789,205,952
Annuity reserve fund	50,666,639	50,666,639
Survivor benefit fund	N/A	5,927,641
Pension accumulation fund	N/A	-

#### Component I (Hybrid Plan)

In accordance with the Combined Plan for the Police and Fire Retirement System of the City of Detroit and state law, the following reserves are required to be set aside within the Component I (Hybrid) pension plan:

The accumulated mandatory employee contribution fund shall be the fund in which the contributions of members shall be accumulated to provide their retirement allowances. Upon the retirement, termination, or death of a member with a vested retirement allowance, the member's accumulated mandatory employee contributions shall be deemed to be part of the pension reserve which shall be used to pay the member's retirement allowance.

The accumulated voluntary employee contribution fund shall be the fund in which the voluntary after-tax contributions of members shall be accumulated together with earnings thereon.

# Police and Fire Retirement System of the City of Detroit

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**Notes to Financial Statements  
June 30, 2016**

## **Note 6 - Pension Plan Reserves (Continued)**

The pension accumulation fund shall be the fund in which reserves for the retirement allowances and other benefits payable from that portion of the employer's annual contribution that is not credited to the rate stabilization fund and amounts transferred to Component I shall be accumulated and from which retirement allowances and other benefits on account of members shall be paid. During fiscal year 2016, all employer contributions were directed by the City into the pension accumulation fund and no amounts were credited to the rate stabilization fund.

The rate stabilization fund shall be the fund which employer annual contributions in excess of the amount of the employer's contribution which is credited to the pension accumulation fund and amounts transferred to Component I as provided in Section G-2(f) of Component II shall be credited. See Note 9 for details on the transfer provisions related to transfers between Component II and Component I. During fiscal year 2016, no amounts were credited to the rate stabilization fund. Therefore, this reserve balance is zero.

The deferred retirement option plan fund shall accumulate the amounts credited to the DROP accounts of members who have elected to participate in the DROP Program pursuant to Article 12, together with earnings thereon, provided that the DROP accounts are held and invested within the System. At year end, the DROP reserve is zero because the System is not holding those assets.

The medical benefit fund shall be the fund which will be credited with contributions made for the purpose of funding medical benefits. During the year, no such contributions were made and therefore this reserve balance is zero.

The expense fund shall be the fund to which any money provided by the employers to pay the administrative expenses of the System will be credited, and from which certain expenses incurred in connection with the administration and operation of the System will be paid. At year end, this reserve balance is zero as all employer contributions were credited to the pension accumulation fund.

The income fund shall be the fund to which all interest, dividends, and other income derived from the investments of Component I of the System will be credited. Transfers from the income fund will be made to credit earnings and losses to various reserves of the System in accordance with the provisions of Component I of the Combined Plan document. Amounts credited to the income fund in excess of amounts needed to credit earnings and losses of the System as provided in Component I for any plan year shall be transferred to the pension accumulation fund. During fiscal year 2016, investment income was minimal and therefore this reserve balance at June 30, 2016 remains unfunded.

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 6 - Pension Plan Reserves (Continued)

The balances of the above reserves for Component I that were funded as of June 30, 2016 are as follows:

	Required Reserve	Amount Funded
Accumulated mandatory employee contribution fund	\$ 15,056,289	\$ 15,056,289
Accumulated voluntary employee contribution fund	30,902	30,902
Pension accumulation fund	N/A	27,196,572

### Note 7 - Net Pension Liability of the City for Component II (Legacy Plan)

The net pension liability of the City has been measured as of June 30, 2016 and is comprised of the following:

Total pension liability	\$ 3,809,685,846
Plan fiduciary net position	<u>2,950,470,450</u>
City's net pension liability	<u>\$ 859,215,396</u>

Plan fiduciary net position as a percentage of the total pension liability	77.45 %
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**Actuarial Assumptions** - The total pension liability was determined by an actuarial valuation as of June 30, 2015, which used updated procedures to roll forward the estimated liability to June 30, 2016. The valuation used the following actuarial assumptions:

Inflation	N/A
Salary increases	N/A No inflation assumption or salary increases due to plan freeze as of June 30, 2014
Investment rate of return	7.15% Net of pension plan investment expense, including inflation

Based on an experience study from 2008-2013 issued in February 2015, the mortality table assumption was based on the RP-2014 Blue Collar Annuitant Table for males and females. The tables are projected to be fully generational, based on the two-dimensional sex distinct mortality scale MP-2014.

# Police and Fire Retirement System of the City of Detroit

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## Notes to Financial Statements June 30, 2016

### **Note 7 - Net Pension Liability of the City for Component II (Legacy Plan) (Continued)**

The actuarial assumptions other than mortality and the investment rate of return used in the June 30, 2015 valuation to calculate the total pension liability as of June 30, 2016 were based on the results of an actuarial experience study for the period from 2002-2007.

Cost-of-living adjustments: For the calculation of the total pension liability, COLA has been limited in accordance with the Plan of Adjustment to 1.0125 percent.

Attribution period: As addressed more fully in Note 1, as of June 30, 2014, the plan was frozen such that no new benefit accruals were allowed and no new members could join. Starting July 1, 2014, the participants in this Legacy Plan (Component II) will now be earning benefits under a newly created defined benefit plan (Component I). GASB Statement No. 67 requires that the service costs of all pensions be attributed through all assumed exit ages, through retirement. Neither GASB Statement No. 67 nor any other GASB standard has set forth guidance specifically related to frozen plans with successor plans in place. Absent any guidance to the contrary, due to the status as a frozen plan combined with the fact that individuals are now earning service in a new defined benefit pension plan, the retirement date for purposes of attribution was assumed to be June 30, 2014 for all members. Therefore, the total pension liability at June 30, 2016 is equal to the present value of projected benefit payments.

Note that the long-term assumed rates of return used for purpose of the GASB 67 valuations were determined in accordance with generally accepted accounting principles. This should not be confused with the provisions in the Plan of Adjustment which established a 6.75 percent assumed rate of return for purposes of the various provisions within the plan; the Plan of Adjustment did not attempt to dictate the long-term rate of return to be used for accounting purposes.

**Discount Rate** - The discount rate used to measure the total pension liability as of June 30, 2016 was 7.15 percent; however, the single discount rate used at the beginning of the year was 7.47 percent. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that City contributions will be made at rates equal to the difference between actuarially determined contribution rates and the employee rate.

# Police and Fire Retirement System of the City of Detroit

**Notes to Financial Statements**  
**June 30, 2016**

## **Note 7 - Net Pension Liability of the City for Component II (Legacy Plan) (Continued)**

**Projected Cash Flows** - Based on the above assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees both at the beginning of the year as well as at the end of the year. 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 projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate. Contributions of the System are projected to be at the minimum amounts required by the Plan of Adjustment through 2023, followed by actuarially determined contributions beginning in 2024. While no funding policy has been adopted by the City of Detroit, Michigan the projection of cash flows assumes full funding of contributions such that the plan's net position will be sufficient to make all benefit payments. The System believes that the funding practice adopted by the City will be consistent with the underlying objective used in the projection to develop the single discount rate.

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 as of June 30, 2016 for each major asset class included in the pension plan's target asset allocation, as disclosed in the investment note, are summarized in the following table:

Asset Class	Long-term Expected Real Rate of Return
U.S. equity	5.27%
Non U.S. equity	5.47
Global low volatility	5.47
Private equity	8.11
U.S. core fixed-income	2.15
U.S. TIPs	2.25
U.S. high yield	4.69
Convertibles	4.79
Opportunistic debt	5.03
Cash	0.39
Private real estate	4.98
Global REITs	4.35
MLPs	8.30
Hedge funds	4.69

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 7 - Net Pension Liability of the City for Component II (Legacy Plan) (Continued)

**Sensitivity of the Net Pension Liability to Changes in the Discount Rate** - The following presents the net pension liability of the City, calculated using the discount rate of 7.15 percent, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.15 percent) or 1 percentage point higher (8.15 percent) than the current rate:

	1% Decrease (6.15%)	Current Discount Rate (7.15%)	1% Increase (8.15%)
Net pension liability of the City	\$1,262,658,184	\$ 859,215,396	\$ 521,560,546

### Note 8 - Net Pension Liability of the City for Component I (Hybrid Plan)

The net pension liability of the City has been measured as of June 30, 2016 based on benefits in force as of that date and is comprised of the following:

Total pension liability	\$ 49,799,331
Plan fiduciary net position	<u>42,283,763</u>
City's net pension liability	<u>\$ 7,515,568</u>

Plan fiduciary net position as a percentage of the total pension liability 84.9 %

**Actuarial Assumptions** - The total pension liability was determined by an actuarial valuation as of June 30, 2015, which used updated procedures to roll forward the estimated liability to June 30, 2016.

Wage inflation assumption was 2 percent for five years, 2.5 percent for the next five years, and 3 percent thereafter.

The investment rate of return (net of pension plan investment expense, including inflation) applied to the beginning of year total pension liability was 7.47 percent as compared to 7.15 percent which was the assumed long-term rate of return as of the end of year. Note that the long term assumed rates of return used for purpose of the GASB 67 valuations were determined in accordance with generally accepted accounting principles. This should not be confused with the provisions in the plan of adjustment which established a 6.75 percent assumed rate of return for purposes of the various provisions within the plan; the Plan of Adjustment did not attempt to dictate the long-term rate of return to be used for accounting purposes.

# Police and Fire Retirement System of the City of Detroit

**Notes to Financial Statements**  
**June 30, 2016**

## **Note 8 - Net Pension Liability of the City for Component I (Hybrid Plan) (Continued)**

Based on an experience study from 2008-2013 issued in February 2015, the mortality table assumption was based on RP-2014 Blue Collar Annuitant Table for males and females. The tables are projected to be fully generational, based on the two-dimensional sex distinct mortality scale MP-2014.

Cost-of-living adjustments: This plan has a postretirement COLA feature known as the Variable Pension Improvement Factor (VPIF) of a 1 percent compound COLA. It can be granted beginning July 1, 2015 only if the five-year projection shows the plan funded status above 90 percent based upon 6.75 percent future investment return. For purposes of the total pension liability, the actuary assumed a 0.50 percent compound COLA beginning July 1, 2016 to model the potential average COLA over time. Had no COLA been assumed, the net pension liability would have been \$5,020,015. Had the full 1 percent COLA been assumed, the net pension liability would have been \$10,235,786.

There were no changes in benefit provisions during the year affecting the total pension liability.

**Discount Rate** - The discount rate used to measure the total pension liability as of June 30, 2016 was 7.15 percent; however, the single discount rate used at the beginning of the year was 7.47 percent. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that City contributions will be made at rates equal to the difference between actuarially determined contribution rates and the employee rate.

**Projected Cash Flows** - 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 active and inactive employees. 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 projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate. Contributions of the System are projected to be at the minimum amounts required by the Plan of Adjustment through 2023, followed by actuarially determined contributions beginning in 2024. While no funding policy has been adopted by the City of Detroit, Michigan, the projection of cash flows assumes full funding of contributions such that the plan's net position will be sufficient to make all benefit payments. The System believes that the funding practice adopted by the City will be consistent with the underlying objective used in the projection to develop the single discount rate.

The long-term expected rate of return on future pension plan investments is the same as Component II given the assets are commingled (See Note 7).

# Police and Fire Retirement System of the City of Detroit

## Notes to Financial Statements June 30, 2016

### Note 8 - Net Pension Liability of the City for Component I (Hybrid Plan) (Continued)

**Sensitivity of the Net Pension Liability to Changes in the Discount Rate** - The following presents the net pension liability of the City, calculated using the discount rate of 7.15 percent, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.15 percent) or 1 percentage point higher (8.15 percent) than the current rate:

	1% Decrease (6.15%)	Current Discount Rate (7.15%)	1% Increase (8.15%)
Net pension liability of the City	\$ 16,292,305	\$ 7,515,568	\$ 543,207

### Note 9 - Commitments

When the System enters into various investments, it may not completely fund the entire investment at the beginning. Rather, it enters into commitments to fund remaining capital amounts at certain points in time. At June 30, 2016 the remaining capital funding commitment for the System is approximately \$87 million, inclusive of the amounts disclosed in Note 4 for entities that calculate investments at net asset value.

In addition, the Combined Plan setting for the Legacy Plan (Component II) contains a provision for the transfer of certain excess investment returns to the new Hybrid Plan (Component I). In any plan year during the period beginning on or after July 1, 2014 and ending June 30, 2023, if the annual rate of return credited to member annuity savings fund accounts is less than the actual rate of return net of expenses of the Plan's invested assets for the second plan year preceding the plan year in which the annual rate of return is credited, the excess earned shall be transferred to the pension accumulation fund maintained under Component I of the Combined Plan and will be used to fund transition costs related to Component I. The transition cost is a measure of the liability that Component I of the System has at its inception due to the fact that members in Component I receive vesting and eligibility credit under Component I for service that was earned prior to July 1, 2014 and is otherwise credited to members under Component II. Such transition costs will be calculated by the System's actuary. This transfer will be calculated and transferred in the second year following the year in which the return is earned based on a two-year "lookback"; therefore, for example, any transfers based on the plan year ended June 30, 2015 will be calculated and transferred during the plan year ended June 30, 2017.

# Police and Fire Retirement System of the City of Detroit

**Notes to Financial Statements**  
**June 30, 2016**

## **Note 10 - City of Detroit's Chapter 9 Bankruptcy Plan of Adjustment and Continuing Impact on the System**

In March 2013, after enduring years of financial difficulty, the City of Detroit, Michigan filed for bankruptcy protection. The Eighth Amended Plan for Adjustment of Debts of the City of Detroit (the "Plan of Adjustment"), was filed with the Bankruptcy Court on October 22, 2014. In November 2014, after a confirmation hearing lasting several weeks, the Bankruptcy Court confirmed the Plan of Adjustment (POA), which became effective December 10, 2014.

In fiscal year 2015, the System implemented the provisions of the POA, which included a 55 percent reduction in cost-of-living adjustments (or "escalators") and a program for income stabilization for certain of the most vulnerable retirees. Separately, at the start of the fiscal year, the City through the emergency manager adopted ordinances which resulted in the freeze of Legacy Plan (Component II) as of June 30, 2014, and the creation of a new Hybrid Plan (Component I) effective July 1, 2014.

The POA also required certain governance changes for DPFERS. Those governance changes included establishment of the Investment Committee effective December 10, 2014, which officially marked the beginning of implementation of the POA, though DPFERS had for months already undertaken contingency planning for all of the pension adjustments. In addition to governance changes, the POA requires of the System, through its board of trustees and Investment Committee, certain periodic and interim reporting obligations to the City, the Foundation for Detroit's Future, and the State of Michigan. Though there were some delays in fiscal year 2016 in meeting certain obligations because of new actuarial reporting requirements for governmental systems, which in turn impacted the preparation of the System's audited financial statements, the System believes it has ultimately met its special reporting obligations in fiscal year 2016.

### Legacy Plan (Component II)

The Fourth Amended Disclosure Statement (the "Pension Settlement"), as part of the POA, compromised pension claims and provided funding support for legacy pension benefit obligations under the Police and Fire retirement System of the City of Detroit (DPFRS) Component II from the State of Michigan and the Detroit Institute of Arts.

For DPFERS, with respect to Component II benefit adjustments, the Pension Settlement (for which benefit levels were and are contingent on other factors, including receipt of outside contributions), provided for:

- A 55 percent reduction in cost-of-living adjustments, or "escalators" (COLAs), paid after July 1, 2014

# Police and Fire Retirement System of the City of Detroit

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**Notes to Financial Statements  
June 30, 2016**

## **Note 10 - City of Detroit's Chapter 9 Bankruptcy Plan of Adjustment and Continuing Impact on the System (Continued)**

- The possibility of restoration of certain pension benefit cuts, based on a program for the most financially vulnerable pensioners and beneficiaries through the State of Michigan Treasury Department, as well as a new feature of Component II allowing restoration depending on the System's funding level over time
- An Income Stabilization Program (the "ISF Program") was established as part of the State Contribution Agreement as another facet of the Pension Settlement. The ISF Program, supported by City funds arising from an unlimited tax general obligation bonds settlement, is intended to ensure that the most financially vulnerable retirees and beneficiaries do not fall below the poverty line as a result of bankruptcy-related pension changes. Beginning March 1, 2015, certain DPFERS members also received benefit pension cut restoration under the Income Stabilization Program administered by DPFERS, pursuant to the State Contribution Agreement, based on eligibility and benefit payments calculated by the State of Michigan. Following the close of the fiscal year ended June 30, 2016, and pursuant to Component II of the Combined Plan and the State Contribution Agreement, the System implemented the first annual ISF Program benefit adjustments effective July 1, 2016.
- The POA also discusses a "restoration plan." Terms of the pension restoration are contained in Exhibit II.B.3q.ii.C of the POA and the terms govern how accrued pensions, including COLA benefits that were reduced as a part of the POA, may be restored over the 30-year period following the Confirmation Order. The Investment Committee will supervise the restoration process in accordance with the restoration plan. The restoration plan shall be deemed a part of Component II. The funding levels have not been attained yet as of June 30, 2016 for the restoration process to initiate.

Going forward, the obligations for contributions to support Component II of the System through 2023 are determined as fixed amounts by the provisions in the POA. Pursuant to the POA, the System is expected to receive contributions of a total of \$260.7 million through fiscal year 2023. The POA calls for the System to receive \$96 million from the State of Michigan and \$16.7 million from the DIA and its foundation donors over a 10-year period covering fiscal year 2014 through fiscal year 2023. After 2023, the City will retain responsibility for the full funding obligations of Component I of the System, consistent with Michigan law.

# Police and Fire Retirement System of the City of Detroit

**Notes to Financial Statements  
June 30, 2016**

## **Note 10 - City of Detroit's Chapter 9 Bankruptcy Plan of Adjustment and Continuing Impact on the System (Continued)**

In fiscal year 2016, DPFERS received all contributions required by the POA from the foundation donors. DPFERS also received prepayment of a portion of a \$50 million obligation of the DIA to contribute to DPFERS from 2025 to 2034. Those payment obligations were set forth in the POA as an annual \$5 million contribution in each of those 10 years. The POA provided the option for the DIA to meet its obligations with prepayment of the present value of that obligation using a 6.75 percent discount rate. On June 30, 2016, DPFERS received \$19,487,744 from the DIA, which represents the present value at a 6.75 percent discount rate of \$4,625,000 of that annual \$5,000,000 commitment over the period 2025 to 2034. The DIA's obligation to contribute \$375,000 per year to DPFERS from 2025 to 2034 has not been prepaid, so that obligation remains.

As of March 1, 2015, less than three months after the effective date of the POA, DPFERS successfully implemented the vast majority of benefit changes required by the POA, including the ISF Program coordinated in conjunction with the Michigan Department of Treasury.

### Hybrid Plan (Component I)

In the new Hybrid Plan, effective July 1, 2014, the following provisions were in place:

- Active employees are allowed to make voluntary contributions up to 10 percent of total after-tax pay. Interest will be credited to those accounts at the actual net investment rate of return for DPFERS, but will not be lower than 0 percent or more than 5.25 percent.
- Employer contributions by the City will be between 11.2 percent and 12.25 percent of base compensation.
- A variable pension improvement factor of 1.0 percent, which operates similar to an escalator (or COLA), is available, subject to certain Hybrid Plan (Component I) funding level requirements being maintained.

DPFERS continues to implement the POA, which includes ongoing compliance and additional reporting requirements by the Board and the Investment Committee, annual review of benefit levels, and essentially provides for a 40-year plan to close the DPFERS legacy Component II underfunded liability.

## **Required Supplemental Information**

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# Police and Fire Retirement System of the City of Detroit

## Required Supplemental Information Schedule of Changes in the City's Net Pension Liability and Related Ratios (Legacy Plan) Last Three Fiscal Years

(Schedule is built prospectively upon implementation of GASB Statement No. 67)

	2016	2015	2014
<b>Total Pension Liability</b>			
Service cost	\$ -	\$ -	\$ 34,967,708
Interest	264,233,822	306,063,330	304,737,369
Changes in benefit terms	-	(555,898,068)	(102,236,878)
Differences between expected and actual experience	45,955,553	(59,621,651)	-
Changes in assumptions	114,463,362	(95,014,469)	540,356,835
Benefit payments, including refunds	(304,467,162)	(313,816,916)	(323,540,473)
<b>Net Change in Total Pension Liability</b>	120,185,575	(718,287,774)	454,284,561
<b>Total Pension Liability - Beginning of year</b>	3,689,500,271	4,407,788,045	3,953,503,484
<b>Total Pension Liability - End of the year</b>	<b><u>\$3,809,685,846</u></b>	<b><u>\$3,689,500,271</u></b>	<b><u>\$4,407,788,045</u></b>
<b>Plan Fiduciary Net Position</b>			
Contributions - Employer, state, and foundation	\$ 37,787,744	\$ 114,300,000	\$ -
Contributions - Member	24,801	593,292	7,783,141
Net investment income	24,618,573	122,736,820	568,760,793
Administrative expenses	(3,103,689)	(7,630,692)	(11,373,226)
Benefit payments, including refunds	(304,467,163)	(313,816,916)	(323,540,473)
Other	855,743	2,368,638	-
<b>Net Change in Plan Fiduciary Net Position</b>	(244,283,991)	(81,448,858)	241,630,235
<b>Plan Fiduciary Net Position - Beginning of year</b>	3,194,754,441	3,276,203,299	3,034,573,064
<b>Plan Fiduciary Net Position - End of year</b>	<b><u>\$2,950,470,450</u></b>	<b><u>\$3,194,754,441</u></b>	<b><u>\$3,276,203,299</u></b>
<b>City's Net Pension Liability - Ending</b>	<b><u>\$ 859,215,396</u></b>	<b><u>\$ 494,745,830</u></b>	<b><u>\$ 1,131,584,746</u></b>
<b>Plan Fiduciary Net Position as a Percent of Total Pension Liability</b>	77.45 %	86.59 %	74.33 %
<b>Covered Payroll*</b>	\$ 130,510,339	\$ 131,220,124	\$ 165,552,280
<b>City's Net Pension Liability as a Percent of Covered Employee Payroll</b>	658.4 %	377.0 %	683.5 %

\* Covered payroll excludes overtime and longevity pay, which was included as compensation for purposes of determining employer contributions.

# Police and Fire Retirement System of the City of Detroit

## Required Supplemental Information Schedule of Investment Returns (Legacy and Hybrid Plan) Last Three Fiscal Years

	<u>2016*</u>	<u>2015 *</u>	<u>2014 *</u>
Annual money weighted rate of return, net of investment expense	1.3 %	3.8 %	19.8 %

\* GASB Statement No. 67 was implemented June 30, 2014 and does not require retroactive implementation. Data will be added as information is available until 10 years of such information is available.

Fiscal years 2014 and 2015 don't include information related to Hybrid Plan. The Hybrid Plan was effective July 1, 2014 and for the first year (fiscal year 2015) did not invest in anything other than cash and cash equivalents.

# Police and Fire Retirement System of the City of Detroit

## Required Supplemental Information Schedule of City Contributions (Legacy Plan) Last Ten Fiscal Years

	2016***	2015***	2014**	2013**	2012**	2011	2010*	2009*	2008*	2007
Actuarially determined contribution	N/A	N/A	\$ 50,642,443	\$ 42,005,173	\$ 49,760,229	\$ 81,642,112	\$ 57,808,485	\$ 61,151,057	\$ 58,934,636	\$ 57,423,366
Contributions in relation to the actuarially determined contribution	N/A	N/A	-	-	20,733,429	81,642,112	32,808,485	36,151,057	41,113,934	57,423,366
<b>Contribution Deficiency</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 50,642,443</b>	<b>\$ 42,005,173</b>	<b>\$ 29,026,800</b>	<b>\$ -</b>	<b>\$ 25,000,000</b>	<b>\$ 25,000,000</b>	<b>\$ 17,820,702</b>	<b>\$ -</b>
<b>Covered Payroll</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 165,552,280</b>	<b>\$ 186,694,166</b>	<b>\$ 205,800,278</b>	<b>\$ 220,461,691</b>	<b>\$ 228,829,999</b>	<b>\$ 231,795,528</b>	<b>\$ 232,812,606</b>	<b>\$ 230,173,964</b>
<b>Contributions as a Percentage of Covered Payroll</b>	<b>- %</b>	<b>- %</b>	<b>- %</b>	<b>- %</b>	<b>10.1 %</b>	<b>37.0 %</b>	<b>14.3 %</b>	<b>15.5 %</b>	<b>17.7 %</b>	<b>25.0 %</b>

\* For the years ended June 30, 2010, 2009, and 2008, the System gave various credits to the City that offset the required contributions.

\*\* As of June 30, 2016, a portion of the June 30, 2012 annual required contribution and the entire June 30, 2013 and June 30, 2014 annual required contribution has not been paid and has not been recognized as revenue.

\*\*\* The contributions starting with fiscal year 2015 were determined by the provisions of the POA; the contributions were not actuarially determined and therefore not subject to disclosure in accordance with GASB 67 within this schedule.

### Notes to Schedule of System Contributions (Legacy and Hybrid Plans)

Actuarial valuation information relative to the determination of contributions:

Valuation date N/A - Starting in FY 2015, contributions are not actuarially determined.

Methods and assumptions used to determine contribution rates:

Actuarial cost method

Schedule of Investment Returns

Remaining amortization period \

Asset valuation method

Inflation

Salary increases

Investment rate of return

Retirement age

Mortality

Other information

# Police and Fire Retirement System of the City of Detroit

## Required Supplemental Information Schedule of Changes in the City's Net Pension Liability and Related Ratios (Hybrid Plan) Last Two Fiscal Years

	2016	2015
<b>Total Pension Liability</b>		
Service cost	\$ 24,068,808	\$ 24,835,814
Interest	2,743,066	894,089
Changes in benefit terms	-	-
Differences between expected and actual experience	(4,086,963)	-
Changes in assumptions	2,424,058	(1,008,119)
Benefit payments, including refunds	(101,251)	-
Voluntary employee contributions	15,459	14,370
	<b>25,063,177</b>	<b>24,736,154</b>
<b>Net Change in Total Pension Liability</b>		
	25,063,177	24,736,154
<b>Total Pension Liability - Beginning of year</b>	<b>24,736,154</b>	<b>-</b>
<b>Total Pension Liability - End of year</b>	<b>\$ 49,799,331</b>	<b>\$ 24,736,154</b>
<b>Plan Fiduciary Net Position</b>		
Employer contributions	\$ 15,831,763	\$ 14,606,971
Mandatory employee contributions	7,958,271	7,390,335
Voluntary employee contributions	15,459	14,370
Net investment income	252,426	21,019
Benefit payments	(63,882)	(19,554)
Refunds	(37,369)	-
Administrative expenses	(3,000,369)	(685,677)
	<b>20,956,299</b>	<b>21,327,464</b>
<b>Net Change in Plan Fiduciary Net Position</b>		
	20,956,299	21,327,464
<b>Plan Fiduciary Net Position - Beginning of year</b>	<b>21,327,464</b>	<b>-</b>
<b>Plan Fiduciary Net Position - End of year</b>	<b>\$ 42,283,763</b>	<b>\$ 21,327,464</b>
<b>City's Net Pension Liability - Ending</b>	<b>\$ 7,515,568</b>	<b>\$ 3,408,690</b>
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	84.91 %	86.22 %
<b>Covered Payroll</b>	\$ 130,510,339	\$ 121,627,871
<b>City's Net Pension Liability as a Percentage of Covered Employee Payroll</b>	5.8 %	2.8 %

# **Police and Fire Retirement System of the City of Detroit**

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## **Note to Pension Required Supplemental Information Schedules Year Ended June 30, 2016**

### **Changes in Assumptions** (Legacy Plan and Hybrid Plan)

The discount rate used to calculate the June 30, 2016 total pension liability was 7.15 percent. The discount rate used to calculate the total pension liability as of June 30, 2015 was 7.47 percent.