



# CITY OF MIAMI

FIRE FIGHTERS' AND POLICE OFFICERS' RETIREMENT TRUST



## 2017 ANNUAL REPORT



**ADMINISTRATOR**  
Dania L. Orta

**TRUSTEES**  
Ornel Cotera  
Nelson Enriquez  
Monica Fernandez  
Thomas Gabriel  
Sean MacDonald  
Thomas Roell  
Robert Suarez  
Annette Valdivia

June 1, 2018

We hereby provide the Comprehensive Annual Financial Report for the City of Miami Fire Fighters' and Police Officers' Retirement Trust (FIPO) for fiscal year ended September 30, 2017.

Administration assumes full responsibility for the accuracy and reliability of the information including the completeness and fairness of the presentation. To provide a reasonable basis for these representations, Administration has established a comprehensive internal control framework that is designed to provide reasonable assurance of the safeguarding of assets against loss from unauthorized use or disposition and the adequate reliability of accounting records. Monitoring and evaluation of internal controls is a function that is maintained on an ongoing basis.

FIPO's financial statements have been audited by a firm of licensed certified public accountants in the State of Florida as required by State Statute. The goal of the Financial Audit was to provide reasonable assurance that the financial statements are free of material misstatement. The audit was conducted in accordance with US generally accepted auditing standards and the standards applicable to financial audits in Government Auditing Standards issued by the Comptroller of the United States. Our independent accounting firm, Goldstein Schechter Koch, concluded that there was a reasonable basis for rendering an unqualified opinion that the financial statements for the fiscal year ended September 30, 2017, were fairly stated in conformity with US generally accepted accounting principles.

Sincerely,

Dania L. Orta  
Administrator

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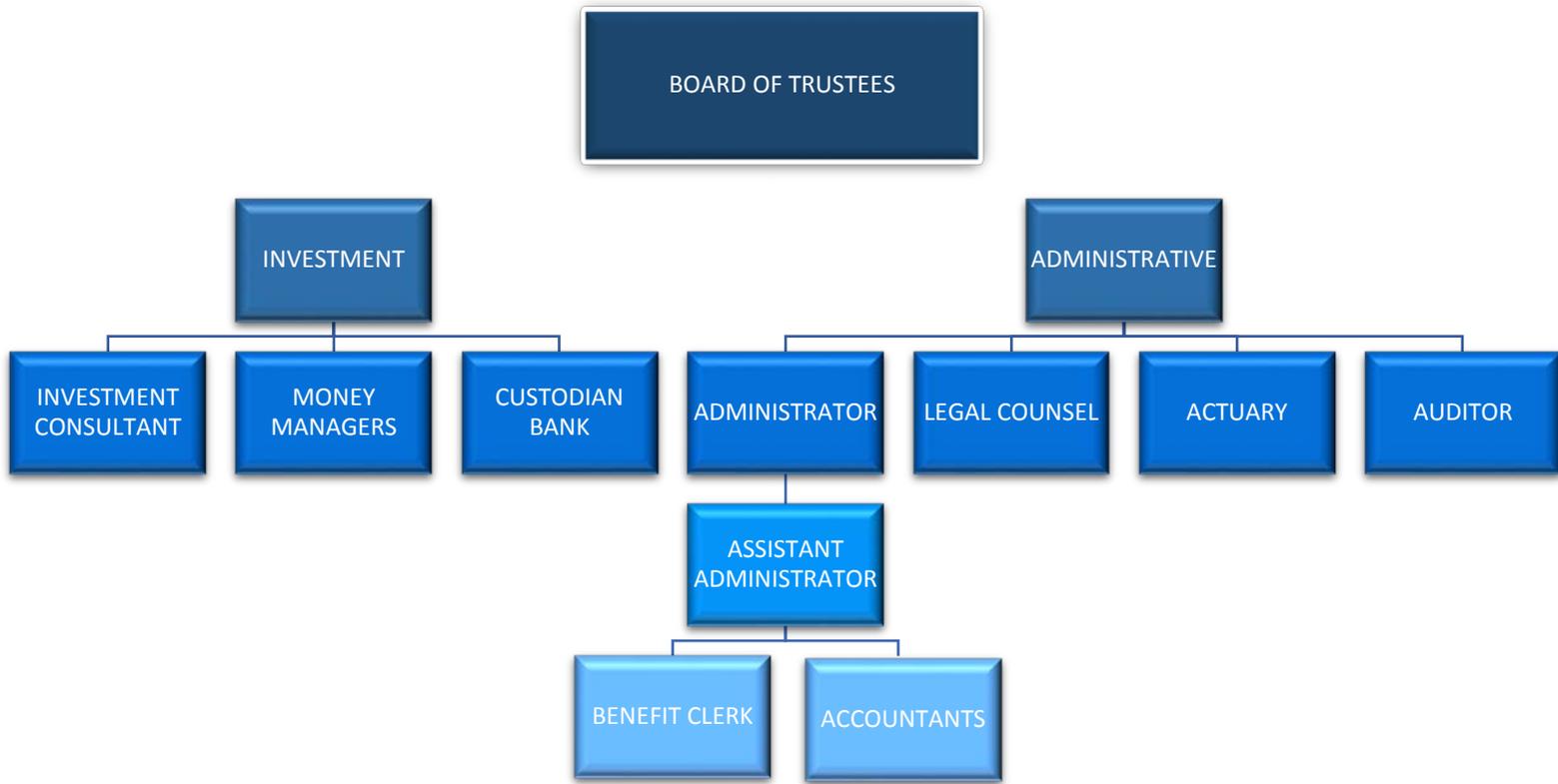
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# I Introductory Section



# Organizational Chart



BOARD OF TRUSTEES  
AND  
PERSONNEL OF THE RETIREMENT TRUST

AS OF SEPTEMBER 30, 2017

Chairman

Ornel Cotera – Police Retiree  
Appointed by City Commission

Thomas Gabriel  
Appointed by the City  
Commission

Thomas Roell  
Appointed by the City  
Commission

Nelson Enriquez  
Fire Captain  
Elected by the Fire Fighters

Monica Fernandez  
Appointed by the City  
Commission

Robert Suarez  
Fire Lieutenant  
Elected by the Fire Fighters

Annette Valdivia  
Police Sergeant  
Elected by the Police Officers

Sean Mac Donald  
Police Captain  
Elected by the Police Officers

Vacant Position  
Appointed by City Manager

Administrator  
Dania L. Orta

Legal Advisor  
Klausner, Kaufman, Jensen & Levinson

Medical Advisor  
Cornell Lupu, MD

Consulting Actuary  
Nyhart

Certified Public Accountants  
BDO

Investment Managers

Adams Street  
AXA Investments  
Black Rock Invest. Managers  
Barrow, Hanley, et al  
Boston Partners  
Catalyst Investment  
Center Square  
Champlain Asset Management  
Coller Capital  
Dodge & Cox  
Copper Rock Capital

Eagle Asset Management  
First Eagle  
J. P. Morgan  
Lexington Partners  
Pacific Asset  
Pantheon  
S. L. Capital  
Victory Capital  
Wellington Management  
BNP Pribas  
Standard Life

Consultant  
William Cottle, CFA, Milliman, Inc.

Custodian  
Northern Trust Company



**CITY OF MIAMI  
FIRE FIGHTERS' AND POLICE OFFICERS' RETIREMENT TRUST**

On September 30, 2017, the City of Miami Fire Fighters' and Police Officers' Retirement Trust completed its seventy seventh year of operation.

Retirement benefits granted during the year represent annual benefits of \$1,781,997 and are as follows:

4	Service Retirements with annual benefits of	268,069
18	DROP Service Retirements with annual benefits of	1,306,171
20	Benefit Adjustments with annual benefits of	77,949
2	Vested Right Retirements With annual benefits of	129,809

In addition, one beneficiary received an Ordinary Death benefit of one half of a year's salary totaling \$38,155.

During the year, 49 pensioners of the Retirement Trust died. Of these, 41 had selected a pension which terminated at their death and 8 had selected an option that will continue to a beneficiary representing yearly benefits of \$95,627.

During the year ending September 30, 2017, the pension payroll totaled \$125,720,923. which is a decrease of 0.063% when compared to the previous year's total payroll, and is broken down as follows:

ANNUAL BENEFITS

1620	Service Retirements	109,827,861
129	DROP Service Retirements	8,651,071
44	Early Service Retirements	556,196
7	Ordinary Disability Retirements	95,876
129	Service/Accidental Disability Retirements	3,039,585
7	Accidental Death Retirements	184,133
8	Ordinary Death Early	266,988
242	Continuances	<u>3,099,214</u>
		125,720,923

Securities' gains and losses, Miscellaneous Income	93,803,958
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The various statements and schedules, which follow, reflect the activities of the system from the beginning as well as for the current year. An outline showing benefits and working procedures is also included.



# II

## Financial Section





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Fax: 305-374-1135  
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100 SE 2<sup>nd</sup> Street  
Miami Tower - 17<sup>th</sup> Floor  
Miami, FL 33131

## Independent Auditor's Report

Board of Trustees  
City of Miami Fire Fighters' and Police Officers' Retirement Trust  
Miami, Florida

### Report on the Financial Statements

We have audited the accompanying financial statements of the City of Miami Fire Fighters' and Police Officers' Retirement Trust (the "Trust"), which comprise the statements of fiduciary net position as of September 30, 2017 and 2016, respectively, the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements.

#### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

#### *Auditor's Responsibility*

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Governmental Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

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### *Opinion*

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the City of Miami Fire Fighters' and Police Officers' Retirement Trust as of September 30, 2017 and 2016, respectively, and the related 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*

#### *Adoption of New Accounting Pronouncement*

The Trust has adopted the disclosure requirements of Governmental Accounting Standards Board Statement No. 72, *Fair Value Measurement and Application* in 2016. The provisions of the additional disclosure requirements are discussed in Note 3 to the financial statements. Our opinion is not modified with respect to this matter.

### *Other Matters*

#### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that "Management's Discussion and Analysis" and the "Required Supplementary Information" listed in the Table of Contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### *Other Supplementary Information*

Our audits were conducted for the purpose of forming an opinion on the basic financial statements as a whole. The accompanying supplemental schedules of investment expenses and administrative expenses as listed in the accompanying table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. The information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with

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auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated February 27, 2018 on our consideration of the Trust's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Trust's internal control over financial reporting and compliance.

Miami, Florida  
February 27, 2018

BDO USA, LLP

Certified Public Accountants

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**ADMINISTRATOR**  
Dania L. Orta

**TRUSTEES**  
Ornel Cotera  
Nelson Enriquez  
Monica Fernandez  
Thomas Gabriel  
Daniel Iturrey  
Sean MacDonald  
Thomas Roell  
Robert Suarez  
Annette Valdivia  
Mark Wisner

## Management's Discussion and Analysis (Required Supplementary Information - Unaudited)

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Our discussion and analysis of the City of Miami Fire Fighters' and Police Officers' Retirement Trust (the "Trust") financial performance provides an overview of the Trust's financial activities for the fiscal years ended September 30, 2017 and 2016. Please read it in conjunction with the Trust's financial statements which follow this discussion.

### *Financial Highlights*

- The Trust assets exceeded its liabilities at the close of fiscal years ended 2017 and 2016 by \$1,732.5 million and \$1,700.1 million, respectively (reported as net position restricted for pensions). The Trust's net position is held in trust to meet future benefit payments. The increase of \$32.4 million and decrease of \$25.4 million in fiduciary net position, of the respective years, has resulted primarily from the changes in the fair value of the Trust's investments, respectively, due to volatile financial markets.

- For the fiscal year ended September 30, 2017 the Trust's total additions were \$217.2 million which were comprised of contributions of \$66.5 million and net investment income of \$150.8 million.

For the fiscal year ended September 30, 2016 the Trust's total additions were \$193.7 million which were comprised of contributions of \$60.8 million and net investment income of \$132.9 million.

- For the fiscal year ended September 30, 2017 the Trust's deductions increased over the prior year from \$168.3 million to \$184.8 or 10%. Most of this increase is attributable to increased pension benefits paid and distributions to retirees.

For the fiscal year ended September 30, 2016 the Trust's deductions increased over the prior year from \$167.8 million to \$168.3 or 0.3%. Most of this increase is attributable to increased pension benefits paid and distributions to retirees.

### *Plan Highlights*

For the year ending September 30, 2017, the total return of the portfolio was 9.6%. Actual net investment income was \$150.8 million in 2017 compared with \$132.9 million in 2016.

For the year ending September 30, 2016, the total return of the portfolio was 9.3%. Actual net investment income was \$132.9 million in 2016 compared with \$35.8 million in 2015.



## Management's Discussion and Analysis (Required Supplementary Information - Unaudited)

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### *Overview of the Financial Statements*

The basic financial statements include the Statements of Fiduciary Net Position and Statements of Changes in Fiduciary Net Position and Notes to the Financial Statements. The Trust also includes in this report additional information to supplement the financial statements.

The Trust presents required supplementary information, which provide historical trend information about the Trust.

The Trust prepares its financial statements on the accrual basis of accounting and in accordance with generally accepted accounting principles in the United States of America. These statements provide information about the Trust's overall financial status.

### *Description of the Financial Statements*

The *Statements of Fiduciary Net Position* present information that includes all of the Trust's assets and liabilities, with the balance representing the net position restricted for pensions. It is a snapshot of the financial position of the Trust at that specific point in time and reflects the resources available to pay members, retirees and beneficiaries at that point in time.

The *Statements of Changes in Fiduciary Net Position* report how the Trust's net position changed during the fiscal year. The additions and deductions to net position are summarized in these statements. The additions include contributions to the retirement plan from employers (City) and members and net investment income, which include interest, dividends, investment expenses, and the net appreciation or depreciation in the fair value of investments. The deductions include benefit payments, refunds of member contributions, and administrative expenses.

The *Notes to the Financial Statements* are presented to provide the information necessary for a full understanding of the financial statements. They include additional information not readily evident in the statements themselves such as a description of the Trust, contributions, significant accounting policies, funding policy, and investment risk disclosure.

There is also *Required Supplementary Information* included in this report as required by the Governmental Accounting Standards Board. These schedules consist of the Plan's actuarial methods and assumptions and provide data on changes in the City's net pension liability, the City's contributions, and the Trust's investment returns.

Additional information is presented as part of *Other Supplemental Schedules*. This section is not required but management has chosen to include it. It includes *Schedules of Investment Expenses and Administrative Expenses*. The *Schedule of Investment Expenses* presents the expenses incurred in managing and monitoring the investments of the Trust and include financial management, consultant, and custodial fees. The *Schedule of Administrative Expenses* presents the expenses incurred in the administration of the Trust.



**Management's Discussion and Analysis**  
**(Required Supplementary Information - Unaudited)**

**Financial Analysis**

- Trust's total assets as of September 30, 2017, were \$1,865.3 million and were mostly comprised of cash and cash equivalents, investments and security lending collateral. Total assets increased \$4.8 million or 0.3%.

Trust's total assets as of September 30, 2016, were \$1,860.5 million and were mostly comprised of cash and cash equivalents, investments, security lending collateral, and receivables related to investments. Total assets decreased \$67.7 million or 3.5%.

- Total liabilities as of September 30, 2017 were \$132.8 million and were mostly comprised of obligations under securities lending and payable for securities purchased. Total liabilities decreased \$27.6 million or 17.2% from the prior year primarily due to a decrease in obligations under securities lending.

Total liabilities as of September 30, 2016 were \$160.4 million and were mostly comprised of obligations under securities lending and payable for securities purchased. Total liabilities decreased \$93.1 million or 36.7% from the prior year primarily due to a decrease in obligations under securities lending.

- Trust assets exceeded its liabilities at the close of fiscal year ended September 30, 2017 by \$1,732.5 million. Total fiduciary net position restricted for pensions increased \$32.4 million or 1.9% from the previous year.

Trust assets exceeded its liabilities at the close of fiscal year ended September 30, 2016 by \$1,700.1 million. Total fiduciary net position restricted for pensions increased \$25.4 million or 1.5% from the previous year.

**Table 1 - Condensed Statements of Fiduciary Net Position**  
September 30,  
(Dollar Amounts in Thousands)

	2017	2016	Increase (Decrease) Amount	Total Percentage Change
<b>Assets:</b>				
Cash and cash equivalents	\$ 43,120	\$ 61,262	\$(18,142)	(29.6)%
Receivables	3,841	15,604	(11,763)	(75.4)
Investments	1,686,664	1,635,172	51,492	3.1
Security lending collateral - invested	129,909	146,627	(16,718)	(11.4)
Property and equipment, net	1,786	1,829	(43)	(2.4)
<b>Total assets</b>	<b>1,865,320</b>	<b>1,860,494</b>	<b>4,826</b>	<b>0.3</b>
<b>Liabilities:</b>				
Payables for securities purchased	2,132	13,329	(11,197)	(84.0)
Accounts payable and other liabilities	746	439	307	69.9
Obligations under securities lending	129,909	146,627	(16,718)	(11.4)
<b>Total liabilities</b>	<b>132,787</b>	<b>160,395</b>	<b>(27,608)</b>	<b>(17.2)</b>
<b>Net position restricted for pensions</b>	<b>\$ 1,732,533</b>	<b>\$ 1,700,099</b>	<b>\$ 32,434</b>	<b>1.9%</b>



**Management's Discussion and Analysis**  
**(Required Supplementary Information - Unaudited)**

Table 1 - Condensed Statements of Fiduciary Net Position  
September 30,  
(Dollar Amounts in Thousands)

	2016	2015	Increase (Decrease) Amount	Total Percentage Change
<b>Assets:</b>				
Cash and cash equivalents	\$ 61,262	\$ 44,751	\$ 16,511	36.9%
Receivables	15,604	12,622	2,982	23.6
Investments	1,635,172	1,627,169	8,003	0.5
Security lending collateral - invested	146,627	241,803	(95,176)	(39.4)
Property and equipment, net	1,829	1,872	(43)	(2.3)
<b>Total assets</b>	<b>1,860,494</b>	<b>1,928,217</b>	<b>(67,723)</b>	<b>(3.5)</b>
<b>Liabilities:</b>				
Payables for securities purchased	13,329	11,365	1,964	17.3
Accounts payable and other liabilities	439	377	62	16.4
Obligations under securities lending	146,627	241,803	(95,176)	(39.4)
<b>Total liabilities</b>	<b>160,395</b>	<b>253,545</b>	<b>(93,150)</b>	<b>(36.7)</b>
Net position restricted for pensions	\$ 1,700,099	\$ 1,674,672	\$ 25,427	1.5%

*Additions to Fiduciary Net Position*

The reserves needed to finance retirement benefits are accumulated through the collection of contributions from members and the City and through earnings on investments. Contributions and net investment income for fiscal years 2017 and 2016 totaled \$217.2 million and \$193.7 million, respectively.

For the fiscal year ended September 30, 2017 total additions to plan fiduciary net position increased by \$23.5 million or 12.1% from those of the prior year, due primarily to an increase in net appreciation in fair value of investments.

Actual results were:

- City contributions increased from the previous year by approximately \$4.5 million or 9.4% based on the actuarial valuation.
- Member contributions increased from the previous year by approximately \$1.1 million or 9.3%. This increase is primarily due to an increase in the number of active members.
- Net investment income increased from the previous year by \$17.8 million or 13.4%.



**Management's Discussion and Analysis**  
**(Required Supplementary Information - Unaudited)**

For the fiscal year ended September 30, 2016 total additions to plan fiduciary net position increased by \$99.9 million or 106.6% from those of the prior year, due primarily to an increase in net appreciation in fair value of investments.

Actual results were:

- City contributions increased from the previous year by approximately \$56,000 or 0.1% based on the actuarial valuation.
- Member contributions increased from the previous year by approximately \$2.8 million or 29.7%. This increase is primarily due to an increase in the number of active members.
- Net investment income increased from the previous year by \$97.1 million or 270.9%.

**Additions in Fiduciary Net Position**  
**Years Ended September 30,**  
**(Dollar Amounts in Thousands)**

	2017	2016	Increase Amount	Total Percentage Change
City contribution	\$ 53,264	\$ 48,673	\$ 4,591	9.4%
Member contributions	13,206	12,082	1,124	9.3
Net investment income	150,757	132,947	17,810	13.4
<b>Total additions</b>	<b>\$ 217,227</b>	<b>\$ 193,702</b>	<b>\$ 23,525</b>	<b>12.1%</b>

**Additions in Fiduciary Net Position**  
**Years Ended September 30,**  
**(Dollar Amounts in Thousands)**

	2016	2015	Increase Amount	Total Percentage Change
City contribution	\$ 48,673	\$ 48,617	\$ 56	0.1%
Member contributions	12,082	9,317	2,765	29.7
Net investment income	132,947	35,844	97,103	270.9
<b>Total additions</b>	<b>\$ 193,702</b>	<b>\$ 93,778</b>	<b>\$ 99,924</b>	<b>106.6%</b>

**Deductions from Fiduciary Net Position**

The primary expenses of the Trust include the payment of pension benefits to members and beneficiaries, refund of contributions to former members, distributions to retirees, and administrative expenses and depreciation. Total deductions for fiscal years ended 2017 and 2016 were \$184.9 million and \$168.3 million, an increase of 9.9% and 0.3%, over years 2016 and 2015 deductions, respectively.

For the fiscal years ended September 30, 2017 and 2016, the payment of pension benefits to retirees increased by \$15.8 million and \$0.6 million or 11.2% and 0.4%, respectively, from the previous year. For the 2017 year, pension benefits paid increased \$15.8 million or 11.2% over 2016 compared to a \$0.6 million or 0.4% increase in 2016 over 2015 due to increased payments of DROP benefits during the year.



**Management's Discussion and Analysis**  
**(Required Supplementary Information - Unaudited)**

For the fiscal years ended September 30, 2017 and 2016, administrative expenses and depreciation increased by approximately \$30,000 and decreased by approximately \$193,000 or 9.8% and 8.6%, respectively, from the previous year.

**Deductions from Fiduciary Net Position**  
**Years Ended September 30,**  
**(In Thousands)**

	2017	2016	Increase (Decrease) Amount	Total Percentage Change
Pension benefits paid	\$ 157,038	\$ 141,475	\$ 15,563	11.0%
Refund of contributions	772	384	388	101.0
Distributions to retirees	24,882	24,344	538	2.2
Administrative expenses and depreciation	2,102	2,072	30	1.4
<b>Total deductions</b>	<b>\$ 184,794</b>	<b>\$ 168,275</b>	<b>\$ 16,519</b>	<b>9.8%</b>

**Deductions from Fiduciary Net Position**  
**Years Ended September 30,**  
**(In Thousands)**

	2016	2015	Increase (Decrease) Amount	Total Percentage Change
Pension benefits paid	\$ 141,475	\$ 140,863	\$ 612	0.4%
Refund of contributions	384	1,111	(727)	(65.3)
Distributions to retirees	24,344	23,564	780	3.3
Administrative expenses and depreciation	2,072	2,265	(193)	(8.6)
<b>Total deductions</b>	<b>\$ 168,275</b>	<b>\$ 167,803</b>	<b>\$ 472</b>	<b>0.3%</b>

*Capital Assets*

As of September 30, 2017 and 2016, the Trust's investment in capital assets totaled \$1.79 million and \$1.83 million, respectively (net of accumulated depreciation). This investment in capital assets includes land and building for administrative use. The appraised value is \$3,150,000 and \$2,640,000 at September 30, 2017 and 2016, respectively.

*Retirement System as a Whole*

The Trust's fiduciary net position has increased from that of fiscal year ended 2016 and increased from that of fiscal year ended 2015. Management believes, and actuarial studies concur, that the Trust is in a financial position to meet its current obligations.

*Contacting the Trust's Financial Management*

This financial report is designed to provide the Retirement Board, our membership, taxpayers, investors, and creditors with a general overview of the Trust's finances and to demonstrate the Trust's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the City of Miami Fire Fighters' and Police Officers' Retirement Trust Fund, located at 1895 SW 3 Avenue, Miami FL, 33129.





**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Statements of Fiduciary Net Position**  
**September 30, 2017 and 2016**

	2017				2016			
	Membership and Benefit Account	Cost-of-Living Adjustment I Account	Cost-of-Living Adjustment II Account	Total	Membership and Benefit Account	Cost-of-Living Adjustment I Account	Cost-of-Living Adjustment II Account	Total
<b>Assets:</b>								
Cash and cash equivalents	\$ 31,430,673	\$ 1,853,152	\$ 9,835,882	\$ 43,119,707	\$ 44,657,418	\$ 2,521,628	\$ 14,082,648	\$ 61,261,694
Investments, at fair value:								
Debt securities, domestic	331,471,997	19,543,588	103,730,496	454,746,081	320,960,346	18,123,357	101,214,352	440,298,055
Debt securities, international	21,844,156	1,287,931	6,835,887	29,967,974	20,044,441	1,131,830	6,320,984	27,497,255
Equity investments, domestic	260,421,368	15,146,175	80,390,572	355,958,115	267,490,876	15,104,148	84,352,838	366,947,862
Equity investments, international	185,710,489	11,157,758	59,221,459	256,089,706	148,856,173	8,405,318	46,941,566	204,203,057
Private equity	101,490,755	5,983,895	31,760,409	139,235,059	100,949,668	5,700,227	31,834,323	138,484,218
Real estate	123,742,880	7,295,880	38,723,965	169,762,725	119,219,370	6,731,845	37,595,645	163,546,860
Absolute return	72,689,463	4,285,770	22,747,365	99,722,598	70,054,906	3,955,722	22,091,707	96,102,335
Mutual funds - Deferred Retirement Option Plan	181,181,304	-	-	181,181,304	198,092,739	-	-	198,092,739
Total investments	1,278,552,412	64,700,997	343,410,153	1,686,663,562	1,245,668,519	59,152,447	330,351,415	1,635,172,381
Security lending cash collateral - invested	94,692,508	5,583,070	29,632,973	129,908,551	106,885,510	6,035,401	33,706,181	146,627,092
Receivables:								
Proceeds from securities sold	620,106	-	-	620,106	12,299,282	-	-	12,299,282
Accrued interest	3,220,395	-	-	3,220,395	3,304,949	-	-	3,304,949
Total receivables	3,840,501	-	-	3,840,501	15,604,231	-	-	15,604,231
Property and equipment, net	1,302,052	76,769	407,463	1,786,284	1,333,278	75,285	420,447	1,829,010
Total assets	1,409,818,146	72,213,988	383,286,471	1,865,318,605	1,414,148,956	67,784,761	378,560,691	1,860,494,408
Liabilities:								
Payable for securities purchased	2,132,306	-	-	2,132,306	13,329,386	-	-	13,329,386
Accounts payable and other liabilities	745,983	-	-	745,983	439,430	-	-	439,430
Obligations under securities lending	94,692,508	5,583,070	29,632,973	129,908,551	106,885,510	6,035,401	33,706,181	146,627,092
Total liabilities	97,570,797	5,583,070	29,632,973	132,786,840	120,654,326	6,035,401	33,706,181	160,395,908
Net position restricted for pensions	\$ 1,312,247,349	\$ 66,630,918	\$ 353,653,498	\$ 1,732,531,765	\$ 1,293,494,630	\$ 61,749,360	\$ 344,854,510	\$ 1,700,098,500

See accompanying independent auditor's report and notes to required supplementary information.



**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Statements of Changes in Fiduciary Net Position**  
**For the Years Ended September 30, 2017 and 2016**

	2017			2016		
	Membership and Benefit Account	Cost-of-Living Adjustment I Account	Cost-of-Living Adjustment II Account	Membership and Benefit Account	Cost-of-Living Adjustment I Account	Cost-of-Living Adjustment II Account
<b>Additions:</b>						
Contributions:						
City	\$ 47,102,220	\$ -	\$ 6,161,789	\$ 42,747,818	\$ -	\$ 5,924,797
Members	13,206,378	-	-	12,082,805	-	-
Total contributions	60,308,598	-	6,161,789	54,830,623	-	5,924,797
Investment income:						
Net appreciation in fair value of investments	100,420,695	4,154,464	22,673,181	86,965,940	3,637,312	20,855,015
Interest	13,497,122	648,748	3,557,102	11,046,128	501,525	2,893,396
Dividends	7,619,782	366,505	2,008,280	9,117,690	414,886	2,389,915
Other	255,372	12,325	67,411	252,476	11,654	66,481
Less investment expenses	(3,850,715)	(184,631)	(1,017,295)	(4,357,437)	(197,717)	(1,141,933)
Net investment income from investing activities	117,942,256	4,997,411	27,288,679	103,024,797	4,367,660	25,062,874
Security lending activities:						
Security lending income	537,277	25,730	141,388	501,027	22,764	131,361
Security lending fees	(134,229)	(6,428)	(35,323)	(125,156)	(5,686)	(32,814)
Net income from security lending activities	403,048	19,302	106,065	375,871	17,078	98,547
Total net investment income	118,345,304	5,016,713	27,394,744	103,400,668	4,384,738	25,161,421
Total additions	178,653,902	5,016,713	33,556,533	158,231,291	4,384,738	31,086,218
Deductions:						
Pension benefits paid	157,037,907	-	-	141,474,741	-	-
Refund of contributions	772,000	-	-	384,403	-	-
Distributions to retirees	-	133,538	24,748,915	-	148,648	24,195,678
Depreciation expense	32,479	1,617	8,630	32,575	1,534	8,617
Administrative expenses	2,058,797	-	-	2,029,168	-	-
Total deductions	159,901,183	135,155	24,757,545	143,920,887	150,182	24,204,295
Net increase	18,752,719	4,881,558	8,798,988	14,310,404	4,234,556	6,881,923
Net position restricted for pensions						
Beginning of year	1,293,494,630	61,749,360	344,854,510	1,279,184,226	57,514,804	337,972,587
End of year	\$ 1,312,247,349	\$ 66,630,918	\$ 353,653,498	\$ 1,293,494,630	\$ 61,749,360	\$ 344,854,510
						\$ 1,700,098,500

See accompanying independent auditor's report and notes to required supplementary information.

# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

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### 1. Description of the Plan

#### *Organization*

The City of Miami Fire Fighters' and Police Officers' Retirement Trust (the "Trust") is a single employer defined benefit pension plan established by the City of Miami, Florida (the "City") pursuant to the provisions and requirements of Ordinance No. 10002 as amended. Since the Trust is sponsored by the City, the Trust is included as a pension trust fund in the City's comprehensive financial report as part of the City's financial reporting entity.

The Trust's governing board is made up of a Board of Trustees consisting of nine members:

- Four are elected by the City's commission of which 2 are retired members
- Four are elected by the Trust's members of which one is a retired member and three are active participants
- One is appointed by the City manager

The following brief description of the Trust is provided for general information purposes only. Participants should refer to the Trust document for more detailed and comprehensive information.

#### *Membership*

Participants are contributing police officers and firefighters with full-time status in the Police and Fire Department of the City of Miami, Florida.

Membership in the Trust consisted of the following as of October 1:

	2017	2016
Retirees and beneficiaries currently receiving benefits and terminated members entitled to benefits but not yet receiving them	2,220	2,250
Current members:		
Vested	722	650
Nonvested	1,147	1,000
	<u>1,869</u>	<u>1,650</u>

#### *Member Contributions*

Members contribute a percentage of their base salaries on a bi-weekly basis. Police Officers' member contribution is 7% (10% for members hired after October 1, 2012) and Firefighters' member contribution is 10%, of compensation. Prior to the agreement dated January 9, 1994, members contributed 10.5%, of which 2% was designated as a contribution to the Cost-of-Living Adjustment I Account (COLA I account). Effective January 9, 1994, the Gates Agreement was resettled whereby this contribution percentage was decreased to 10% and a new Cost-of-Living Adjustment II Account (COLA II account) was created and funded by an actuarially determined percentage of the excess investment return (from other than COLA I account assets).



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

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During the years ended September 30, 2017 and 2016, approximately \$302,000 and \$141,000 respectively, is included as member contributions for the purchase of additional service years by members as provided for by the Trust.

Effective the first full pay period following October 1, 2012, the member contributions for police officer's hired prior to October 1, 2012 is 10% of earnable compensation. Effective September 30, 2014, the member contribution for police officers hired prior to October 1, 2012 shall be 7% of earnable compensation. The member contribution for police officers hired on or after October 1, 2012 is 3% of earnable compensation greater than the member contribution for police officer members hired prior to October 1, 2012.

Effective the first full pay period following October 1, 2012, the member contribution for firefighters shall be 10% of earnable compensation. On September 30, 2014, the member contribution for firefighters shall be 7% of earnable compensation. The member contribution for firefighters hired on or after October 1, 2014, shall be 10% of earnable compensation.

### *Funding Requirements*

The City is to contribute such amounts as are necessary to maintain the actuarial soundness of the Trust and to provide the Trust with assets sufficient to meet the benefits to be paid to the participants. Contributions to the Trust are authorized, pursuant to City of Miami Code Section 40.196 (a) and (b). Contributions to the COLA accounts are authorized pursuant to Section 40.204 of the City of Miami Code. The City's contributions to the Trust provide for non-investment expenses and normal costs of the Trust. The yield (interest, dividends, and net realized gains and losses) on investments of the Trust serves to reduce/increase future contributions that would otherwise be required to provide for the defined level of benefits under the Trust.

### *Pension Benefits*

Members may elect to retire after 10 or more years of creditable service upon attainment of normal retirement age. Normal retirement pursuant to Section 40-203 of the City code shall be determined as follows:

#### Plan A

"For members employed on September 30, 2010, who as of that date have attained age 50 with ten or more years of creditable service or eligibility for rule of 64 retirement for police officer members, or eligibility for rule of 68 retirement for firefighter members, the normal retirement age shall be 50 years of age with ten or more years of creditable service, or rule of 64 retirement for police officer members, or rule of 68 for firefighter members."

#### Plan B

"For members employed on September 30, 2010, who as of that date have not attained age 50 with ten or more years of creditable service, or rule of 64 retirement for police officer members, or rule of 68 retirement for firefighter members, and member hired on or after October 1, 2010 shall be rule of 70 retirement with a minimum age of 50 and ten or more years of creditable service."

Rule of 64, 68 and 70 shall mean a computation consisting of the sum of a member's age and length of creditable service, which sum shall permit normal service retirement upon the member's combined age and creditable service equaling at least 64, 68 and 70, respectively.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

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A member entitled to a normal retirement benefit shall receive a retirement allowance equal to 3% of the member's average final compensation (as defined in the city code section 40-191), multiplied by years of creditable service for the first 15 years of such creditable service, plus a retirement allowance equal to 3% (3½% for members who retired prior to October 1, 2010) of member's average final compensation multiplied by the years of creditable service in excess of 15 years, paid in monthly installments.

Effective September 30, 2010, for members who retire or terminate employment with ten or more years of creditable service on or after October 1, 2010, member retirement allowances shall not exceed the lesser of 100% of the member's average final compensation or an annual retirement allowance of \$100,000 as of retirement or DROP entry based on the normal form of benefit in effect on the date of retirement: provided, in no event shall the benefit limitation be less than the lesser of 100% of the member's average final compensation or the member's accrued benefit as of September 30, 2010, determined in accordance with the provisions in effect on September 29, 2010, and based on the normal form of benefit in effect on that date.

Early retirement, disability, death and other benefits are also provided.

The Trust's investment policy is determined by the Board of Trustees and is implemented by investment managers. In addition, the Trust utilizes an investment advisor who monitors the investing activities. The investment policy of the Trust stipulates that the trustees shall, in acquiring, investing, reinvesting, exchanging, retaining, selling and maintaining property for the benefit of the Trust, exercise the judgment and care under the circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not in regard to speculation but in regard to the permanent disposition of their funds, considering the probable income as well as the probable safety of their capital. The trustees are authorized to acquire and retain various kinds of property, real, personal or mixed, and various types of investments specifically including, but not by way of limitation, bonds, debentures and other corporate obligations, and stocks, preferred or common, which persons of prudence, discretion and intelligence acquire or retain for their own account. The investment of funds shall be in a manner that is consistent with the applicable sections of the City Code as well as State and Federal laws within the allocation percentages established in the Trust's investment policy guidelines.

The investments are considered held by the Membership and Benefit Account and a share of the value of this account is allocated to each account based on a weighted average calculation performed each month to reflect each account's membership and benefit, COLA I and COLA II activity.

### *COLA Accounts*

Effective January 9, 1994, the Trust entered into an agreement with the City of Miami with regards to the funding methods, member benefits, member contributions and retiree COLA. As of January 9, 1994, members no longer contribute to the original COLA account (COLA I), and a new COLA account (COLA II) was established.

The agreement included the following provisions:

- The funding method was changed to an aggregate.
- Combining all accounts for investment purposes (membership and benefit, COLA I and COLA II).
- Retirees receive additional COLA benefits.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

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- Active members no longer contribute 2% of pretax earnings to fund the original retiree COLA account (COLA I account).

The COLA II account is funded annually by a percentage of the excess investment returns from other than COLA I account assets. The excess earnings contributed to the COLA II account will be used to fund a minimum annual payment of \$2.5 million, increasing by 4% compounded annually. To the extent necessary, the City will fund the portion of the minimum annual payment not funded by annual excess earnings no later than January 1 of the following year. During the years ended September 30, 2017 and 2016, approximately \$6,162,000 and \$5,925,000, respectively, was funded by the City. Benefits payable from the COLA accounts are computed in accordance with an actuarially based formula as defined in Section 40.204 of the City of Miami Code.

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

Members who are eligible for service retirement or Rule of 64 or Rule 68 after September 1998 may elect to enter the Deferred Retirement Option Plan ("DROP"). Maximum participation in the DROP for firefighters shall be 54 full months and for police officers shall be 84 full months. A member's creditable service, accrued benefit and compensation calculation shall be frozen.

Upon commencement of participation in the DROP, the participant's contribution and the City's contribution to the Trust for that participant cease as the participant will not earn further creditable service for pension purposes.

Effective July 24, 2008, firefighter DROP participants may continue City employment for up to a maximum of 54 full months and police officers who elect DROP on May 8, 2008, or thereafter, may continue City employment for up to a maximum of 84 full months. No payment is made to or for the benefit of a DROP participant beyond that period. For persons electing participation in the DROP, an individual DROP account shall be created. Payment shall be made by the retirement trust into the member's DROP account in an amount equal to the regular monthly retirement benefit which the participant would have received had the participant separated from service and commenced receipt of pension benefits. Payments received by the participant in the DROP account are tax deferred. A series of investment vehicles which are established by the board of trustees are made available to DROP participants to choose from. Any losses, charges, or expenses incurred by the participant in their DROP account are not made up by the City or the Trust, but shall be borne by the participant.

Upon termination of employment, a member may receive distribution from the DROP account in the following manner:

- Lump sum distribution
- Periodic payments
- Annuity
- Roll over of the balance to another qualified retirement plan

Any member may defer distribution until the latest date authorized by Section 401(a)(9) of the Internal Revenue Code.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

A DROP participant shall not be entitled to receive an ordinary or service disability retirement and in the event of death of a DROP participant, there shall be no accidental death benefit for pension purposes. DROP participation does not affect any other death or disability benefit provided to a member under federal law, state law, City ordinance, or any rights or benefits under any applicable collective bargaining agreement. At September 30, 2017 and 2016, there were 209 and 274 DROP participants, respectively.

The DROP of the Trust also consists of a Benefit Actuarially Calculated DROP ("BACDROP"). A member may elect to BACDROP to a date no further back than the date of their retirement eligibility date. Effective October 1, 2001, the BACDROP period must be in 12 month increments, beginning at the start of a pay period, not to exceed 48 full months for firefighters and 12 full months for police officers who elect DROP by October 1, 2003. Participation in the BACDROP does not preclude participation in the Forward DROP.

Any participant who is employed and not participating in the DROP on September 30, 2010 shall be eligible to elect the DROP for benefits accrued prior to that date.

A BACDROP benefit option shall be implemented on January 1, 2013 to replace the existing DROP program. Employees who have not attained normal retirement eligibility as of January 1, 2013 or were not vested by October 1, 2010, and all employees hired on or after January 1, 2013, will be eligible for the Backdrop option, but will not be eligible for the DROP. Anyone eligible for the DROP as of January 1, 2013 remains eligible for the DROP as it presently exists and anyone eligible for the DROP as of January 1, 2013, who chooses not to enter the DROP remains eligible for the BACDROP.

- An eligible employee who elects the Backdrop option shall receive a monthly benefit payable on the employee's actual retirement date based on the benefit the employee would have received if he/she had left City employment and retired on an earlier date after attaining normal retirement eligibility. In addition, an eligible employee who elects the Backdrop option will receive a lump sum payment equal to the accumulation of monthly retirement benefit payments he/she would have received during the period following the Backdrop date through the actual retirement date plus interest at the rate of 3% per year, compounded annually.
- Employees are eligible to elect the Backdrop option after completing one year of creditable service following the normal retirement date. The maximum Backdrop period is seven years.
- Employees will be able to revoke their Backdrop election one time, but within one month of their election.

A summary of the changes in the DROP balance as of September 30 is as follows:

	2017	2016
Beginning balance	\$ 198,092,738	\$ 202,286,695
Additions	12,656,442	17,443,641
Distributions	(43,973,426)	(33,988,991)
Interest and earnings	14,405,550	12,351,394
<b>Ending balance</b>	<b>\$ 181,181,304</b>	<b>\$ 198,092,739</b>



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

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### 2. Summary of Significant Accounting Policies

#### *Basis of Accounting*

The Trust's financial statements are prepared using the accrual basis of accounting. Member contributions are recognized as revenues in the period in which contributions are due. City contributions are recognized as revenues when due pursuant to actuarial valuations. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Investment purchases and sales are recorded on a trade-date basis. Interest and other income are recorded as earned and dividend income is recorded as of the ex-dividend date.

#### *Cash equivalents*

The Trust considers all highly liquid investments with short maturities, typically less than three months, to be cash equivalents.

#### *Investments*

Investments are recorded at fair value in the statement of fiduciary net position. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Refer to Note 3 to the financial statements for more detail regarding the methods used to measure the fair value of investments.

Unrealized gains and losses are presented as net appreciation in fair value of investments on the statement of changes in fiduciary net position along with gains and losses realized on sales of investments. Purchases and sales of securities are reflected on a trade-date basis. Interest income is recognized as earned and dividend income is recorded as of the ex-dividend date. Realized gains and losses on the sale of investments are based on average cost identification method.

Given the inherent nature of investments it is reasonably possible that changes in the value of those investments will occur in the near term and that such changes could materially affect the amounts reported in the statements of fiduciary net position.

#### *Use of Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

#### *Property and Equipment, Net*

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated lives of the assets.

#### *Income Tax Status*

The Trust is tax-exempt under the Internal Revenue Code and, therefore, has recorded no income tax liability or expense.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

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### *Risk and Uncertainties*

Contributions to the Trust and the actuarial information included in the required supplementary information ("RSI") are reported based on certain assumptions pertaining to the interest rates, inflation rates and member compensation and demographics. Due to the changing nature of these assumptions, it is at least reasonably possible that changes in these assumptions may occur in the near term and, due to the uncertainties inherent in settling assumptions, that the effect of such changes could be material to the financial statements.

### *Adoption of Accounting Pronouncements*

In 2016, the Trust adopted Governmental Accounting Standards Board ("GASB") Statement No. 72, *Fair Value Measurement and Application* ("GASB 72"). GASB 72 addresses accounting and financial reporting issues related to fair value measurement of assets and liabilities. The statement also provides guidance for applying fair value to certain investments and disclosures related to all fair value measurements. The adoption of GASB 72 resulted in increased disclosures related to the fair value measurement of investments.

### *Subsequent Events*

Management has evaluated subsequent events through February 27, 2018, the date which the financial statements were available for issue.

## **3. Deposit and Investment Risk Disclosures**

### *Cash and Cash Equivalents*

Deposits are carried at cost and are included in cash and cash equivalents in the statement of fiduciary net position. Cash and cash equivalents include demand accounts and short-term investment funds ("STIF"). The cash is invested through daily sweeps of excess cash by the Trust's custodial bank into the custodial short-term (money market) commingled fund or invested in certificates of deposit, commercial paper, U.S. Treasury bills and repurchase agreements.

Cash and cash equivalents at September 30 consists of the following:

	2017	2016
(Managed overdraft) deposits	\$ (323,604)	\$ (173,711)
Invested cash and currency	23,847,159	17,974,631
Short-term investment	19,596,152	43,460,774
<b>Total</b>	<b>\$ 43,119,707</b>	<b>\$ 61,261,694</b>

### *Investment Authorization*

The Board of Trustees holds the fiduciary responsibility for the Trust, and has adopted a policy to invest in several institutionally acceptable asset classes. Thus, the Trustees have set a reasonably diversified asset allocation in accordance with state statutes (including minimum and maximum allocations), which is expected to appropriately fund the Trust's liabilities and meet its basic investment objectives. The basis for such a target asset allocation is a study of the Trust's pension liabilities and reasonable, alternative investment portfolios.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

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These asset classes are domestic equity (large, mid and small capitalization), international equity (developed and emerging markets), domestic real estate (institutional quality properties either individually or in open-ended commingled funds, or in REIT securities portfolios), private equity funds, domestic fixed income, and short-term investments. Other asset classes may be added by the Trustees to its investment policy.

Investment in domestic equity securities shall be limited to those listed on a major U.S. stock exchange and limited to no more than 31.9% (at market) of the Trust's total asset value. Investments in stocks of foreign companies shall be limited to 21.8% of the value of the Trust's portfolio.

Investments in domestic fixed income securities shall be limited to 57.2% (at maturity) of the Trusts' total portfolio. The domestic fixed income portfolio shall be comprised of securities rated "BBB" or higher by nationally recognized rating agencies, preferably by Moodys' or Standard & Poors rating services. Investment in bank loans has also been authorized by the Trust. The goal of the bank loan allocation is to generate reasonable returns, while providing diversification relative to core and high yield fixed income managers. Proper portfolio diversification of bank loan portfolios is required, such that reasonable risk/reward expectations are maintained. Performance attribution is required, as is the case of domestic core and high yield fixed income managers. Additionally, investment in absolute return has been authorized by the Trust. The goal of the absolute return allocation is to protect against volatility. Proper diversification of absolute return portfolios is required, such that reasonable risk/reward expectations are maintained. Performance attribution is required, as is the case of domestic fixed income and equity managers.

The Trust invests in various funds and investment vehicles which employ specific strategies and co-investments often outside the traditional asset classes. The most common investment categories for these funds include domestic and international real estate and private equity funds. The structure of these investments is generally a limited partnership or limited liability company and tend to be long term and illiquid in nature. Global real estate investments and private equity allocation range is limited to 13.1% and 7%, respectively, of the value of the portfolio with a target mix of 11.1% and 4.0% respectively.

No single security can represent more than 5% of the market value of a portfolio at the time of purchase, and no single industry (based on Global Industry Classification System codes) can represent more than 15% of the market value of the account. These single security and single industry restrictions do not apply to U.S. Government and Agency bond holdings.

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## City of Miami Fire Fighters' and Police Officers' Retirement Trust

### Notes to Financial Statements

#### *Types of Investments*

Florida statutes and Trust investment policy authorize the Trustees to invest funds in various investments. The current target and actual allocation of these investments at market, per the performance analysis report, is as follows as of September 30:

Authorized Investments	2017		2016	
	Target % of Portfolio	Actual % of Portfolio	Target % of Portfolio	Actual of Portfolio
Cash and cash equivalents	0.0%	2.8%	0.0%	4.1%
Domestic equities	25.9	22.7	25.9	24.5
Core fixed income	29.2	31.5	29.2	31.2
International equities	16.8	16.5	16.8	13.7
Real estate	11.1	11.0	11.1	10.9
Absolute return	13.0	6.5	13.0	6.4
Private equity	4.0	9.0	4.0	9.2
	100.0%	100.0%	100.0%	100.0%

#### *Rate of Return*

For the years ended September 30, 2017 and 2016, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 9.22% and 9.70%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

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# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

### Investments

The table below shows the Trust's investments by type as of September 30:

	2017	2016
Debt securities, domestic:		
U.S. treasuries	\$ 40,797,723	\$ 34,510,050
U.S. agencies	57,565,368	54,738,391
Corporate bonds	342,337,269	333,985,649
Asset backed securities	7,015,590	5,077,046
Mortgage backed securities	2,587,558	5,270,343
Guaranteed fixed income	4,442,573	6,716,576
	454,746,081	440,298,055
Debt securities, international:		
International government bonds	3,007,151	2,618,055
Corporate bonds	26,960,823	24,879,200
	29,967,974	27,497,255
Equity securities, domestic	355,958,115	366,947,862
Equity securities, international	256,089,706	204,203,057
Private equity	139,235,059	138,484,218
Real estate equity	169,762,725	163,546,860
Absolute return funds	99,722,597	96,102,335
Mutual funds - DROP	181,181,304	198,092,739
<b>Total</b>	<b>\$ 1,686,663,561</b>	<b>\$ 1,635,172,381</b>

### Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment the greater the sensitivity of its fair value to changes in market interest rates. As a means of limiting its exposure to interest rate risk, the Trust diversifies its investments by security type and institution, and limits holdings in any one type of investment with any one issuer with various durations of maturities.

Information about the sensitivity of the fair values of the Trust's investments to market interest rate fluctuations is provided by the following tables that show the distribution of the Trust's investments by maturity at September 30:

	2017				
	Investment Maturities (in years)				
Investment Type	Fair Value	Less than 1	1 to 5	6 to 10	More than 10
U.S. treasuries	\$ 40,797,723	\$ 10,373,461	\$ 18,590,877	\$ 6,736,735	\$ 5,096,650
U.S. agencies	57,565,368	435,445	163,811	3,188,792	53,777,320
Domestic fixed income	356,381,934	6,160,558	63,861,838	260,889,248	25,470,290
International fixed income	29,969,030	2,863,487	11,512,580	11,908,585	3,684,378
	\$ 484,714,055	\$ 19,832,951	\$ 94,129,106	\$ 282,723,360	\$ 88,028,638
<b>% of fixed income portfolio</b>	<b>100.0%</b>	<b>4.09%</b>	<b>19.42%</b>	<b>58.33%</b>	<b>18.16%</b>



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

2016					
Investment Maturities (in years)					
Investment Type	Fair Value	Less than 1	1 to 5	6 to 10	More than 10
U.S. treasuries	\$ 34,510,050	\$ 2,039,512	\$ 17,940,612	\$ 7,479,853	\$ 7,050,073
U.S. agencies	54,738,391	104,042	775,727	3,390,488	50,468,134
Domestic fixed income	351,049,614	4,790,717	62,043,299	252,529,037	31,686,561
International fixed income	27,497,255	1,471,215	8,482,918	12,923,655	4,619,467
	<b>\$ 467,795,310</b>	<b>\$ 8,405,486</b>	<b>\$ 89,242,556</b>	<b>\$276,323,033</b>	<b>\$ 93,824,235</b>
<b>% of fixed income portfolio</b>	<b>100.0%</b>	<b>1.80%</b>	<b>19.08%</b>	<b>59.06%</b>	<b>20.06%</b>

### Credit Risk

Credit risk is the risk that a security or a portfolio will lose some or all of its value due to a real or perceived change in the ability of the issuer to repay its debt. This risk is generally measured by the assignment of a rating by a nationally recognized statistical rating organization. The Trust's investment policy utilizes portfolio diversification in order to control this risk.

The following tables disclose credit ratings by investment type, at September 30, as applicable:

2017		
	Fair Value	Percentage of Portfolio
U.S. government guaranteed*	\$ 98,363,093	20.29%
Credit risk debt securities:		
AAA	4,935,105	1.02
AA+	1,127,761	0.23
AA	1,836,738	0.38
AA-	3,431,913	0.71
A+	3,614,111	0.75
A	11,019,726	2.27
A-	144,959,014	29.91
BBB+	30,658,129	6.32
BBB	17,451,883	3.60
BBB-	14,060,034	2.90
BB+ and lower	70,754,219	14.60
Not rated	82,502,329	17.02
<b>Total credit risk debt securities</b>	<b>386,350,962</b>	<b>79.71</b>
<b>Total fixed income securities</b>	<b>\$ 484,714,055</b>	<b>100.00%</b>



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

	2016	
	Fair Value	Percentage of Portfolio
<b>U.S. government guaranteed*</b>	<b>\$ 89,248,442</b>	<b>19.08%</b>
<b>Credit risk debt securities:</b>		
AAA	8,411,614	1.80
AA+	1,983,290	0.42
AA	4,317,774	0.92
AA-	9,430,552	2.02
A+	8,664,401	1.85
A	21,900,231	4.68
A-	23,613,883	5.05
BBB+	47,962,906	10.25
BBB	40,305,419	8.62
BBB-	15,813,813	3.38
BB+ and lower	122,759,625	26.24
Not rated	73,383,360	15.69
<b>Total credit risk debt securities</b>	<b>378,546,868</b>	<b>80.92</b>
<b>Total fixed income securities</b>	<b>\$ 467,795,310</b>	<b>100.00%</b>

\*Obligations of the U.S. government or obligations explicitly or implicitly guaranteed by the U.S. government are not considered to have credit risk and do not have purchase limitations.

### *Concentration of Credit Risk*

The investment policy of the Trust contains limitations on the amount that can be invested in any one issuer as well as maximum portfolio allocation percentages. There were no individual investments that represent 5% or more of fiduciary net position at September 30, 2017 and 2016.

### *Custodial Credit Risk*

Deposits are exposed to custodial risk if they are uninsured and uncollateralized. Custodial risk for deposits is the risk that, in the event of the failure of a depository financial institution, the Trust will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The Trust's deposits are covered by depository insurance or are collateralized by securities held with a financial institution in the Trust's name. The Trust is only exposed to custodial credit risk for uncollateralized cash and cash equivalents that are not covered by federal depository insurance.

Custodial risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the Trust will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial risk if the securities are uninsured, are not registered in the name of the Trust, and are held either by the counterparty or the counterparty's trust department or agent but not in the Trust's name.

Consistent with the Trust's investment policy, the investments are held by Trust's custodial bank and registered in the Trust's name. All of the Trust's deposits are insured or collateralized by a financial institution separate from the Trust's depository financial institution.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

The Trust participates in securities lending transactions, as lender, and the securities loaned in those circumstances are exposed to some degree of custodial credit risk. The trust does require that its custodian maintain insurance to help protect against losses due to negligence, theft, and certain other events.

### *Foreign Currency Risk*

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of the investment or a deposit. The Trust may have exposure to foreign currency risk to the extent its investments contain non-U.S. dollar denominated holdings in foreign countries. All asset classes may hold non-U.S. securities, depending on portfolio guidelines. There is no requirement that this exposure to foreign currency be hedged through forward currency contracts, although the manager uses them in many cases.

The Trust has exposure to foreign currency fluctuation at September 30, as follows:

2017					
Currency	Cash and cash equivalents	Equity	Fixed Income	Real Estate	Total
Australian Dollar	\$ -	\$ 8,212,820	\$ -	\$ -	\$ 8,212,820
Brazilian Real	14,232	779,791	-	-	794,023
British Pound Sterling	-	19,051,816	-	-	19,051,816
Canadian Dollar	-	5,828,890	-	-	5,828,890
Danish Krone	-	4,008,561	-	-	4,008,561
Euro	-	45,136,051	-	7,518,422	52,654,473
Hong Kong Dollar	-	12,999,333	-	-	12,999,333
Indonesian Rupiah	-	3,676,000	101,183	-	3,777,183
Japanese Yen	-	34,649,617	-	-	34,649,617
Mexican Peso	-	459,627	982,977	-	1,442,604
Norwegian Krone	-	2,340,895	-	-	2,340,895
Singapore Dollar	26,513	3,911,133	825,881	-	4,763,527
South Korean Won	-	7,257,403	-	-	7,257,403
Swedish Krona	-	1,810,011	-	-	1,810,011
Swiss Franc	-	17,348,228	-	-	17,348,228
Taiwan Dollar	314,527	5,876,864	-	-	6,191,391
Other	-	1,476,880	351,010	-	1,827,890
<b>Total</b>	<b>\$ 355,272</b>	<b>\$ 174,823,920</b>	<b>\$ 2,261,051</b>	<b>\$ 7,518,422</b>	<b>\$184,958,665</b>

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# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

2016

Currency	Cash and cash equivalents	Equity	Fixed Income	Real Estate	Total
Australian Dollar	\$ 40,795	\$ 3,129,737	\$ -	\$ -	\$ 3,170,532
Brazilian Real	-	4,486,137	-	-	4,486,137
British Pound Sterling	25,085	29,844,521	243,039	-	30,112,645
Canadian Dollar	-	3,684,922	169,149	-	3,854,071
Danish Krone	-	4,153,527	-	-	4,153,527
Euro	-	32,731,448	-	6,217,568	38,949,016
Hong Kong Dollar	-	14,363,321	-	-	14,363,321
Indonesian Rupiah	-	3,363,112	103,007	-	3,466,119
Japanese Yen	-	33,076,959	-	-	33,076,959
Mexican Peso	-	444,398	939,782	-	1,384,180
Norwegian Krone	-	984,259	-	-	984,259
Singapore Dollar	-	2,273,397	1,083,048	-	3,356,445
South Korean Won	-	8,983,094	-	-	8,983,094
Swedish Krona	-	1,389,305	-	-	1,389,305
Swiss Franc	-	7,292,641	-	-	7,292,641
Taiwan Dollar	111,593	6,027,513	-	-	6,139,106
Other	-	1,299,162	80,030	-	1,379,192
<b>Total</b>	<b>\$ 177,473</b>	<b>\$157,527,453</b>	<b>\$ 2,618,055</b>	<b>\$ 6,217,568</b>	<b>\$ 166,540,549</b>

### *Securities Lending Transactions*

A retirement system is authorized by state statutes and board of trustees' policies to lend its investment securities. The lending is managed by the Trust's custodial bank. All loans can be terminated on demand by either the Trust or the borrowers, although the average term of loans is approximately 67 and 64 days, respectively, as of September 30, 2017 and 2016. The custodial bank and its affiliates are prohibited from borrowing the Trust's securities.

The agent lends the Trust's U.S. government and agency securities and domestic corporate fixed-income and equity securities for securities or cash collateral at least 102 percent of the market value of the securities plus any accrued interest and international securities at least 105 percent of the market value of the securities plus any accrued interest. The securities lending contracts do not allow the Trust to pledge or sell any collateral securities unless the borrower defaults. Cash collateral is invested in the agent's collateral investment pool, whose share values are based on the amortized cost of the pool's investments. Investments are restricted to issuers with a credit rating A3 or A- or higher by Moody's or Standard & Poor's. At September 30, 2017 and 2016, the pool had a weighted average term to maturity of 30 and 32 days, respectively.

The relationship between the maturities of the investment pool and the Trust's loans is affected by the maturities of the securities loans made by other entities that use the agent's pool, which the Trust cannot determine. There are policy restrictions by the custodial bank that limit the amount of securities that can be lent at one time or to one borrower.

Loaned securities continue to be classified as investment assets on the statement of fiduciary net position. Off balance sheet cash collateral is recorded as an asset with a corresponding liability. For lending agreements collateralized by securities, no accompanying asset or liability is recorded, since the Trust is not permitted to sell or re-pledge the associated collateral.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

The following represents the balances relating to securities lending transactions at September 30:

	2017		
Securities Lent:	Market Value of Securities on Loan for Cash	Fair Value of Cash Collateral Invested	Fair Value of Liabilities to Borrowers
Global Equities	\$ 1,727,180	\$ 1,762,909	\$ 1,762,909
U.S. government and agency obligations	31,055,510	31,707,036	31,707,036
Domestic corporate stocks	73,865,209	75,399,422	75,399,422
Domestic corporate bonds	20,585,436	21,039,184	21,039,184
<b>Total securities lent</b>	<b>\$ 127,233,335</b>	<b>\$ 129,908,551</b>	<b>\$ 129,908,551</b>

	2016		
Securities Lent:	Market Value of Securities on Loan for Cash	Fair Value of Cash Collateral Invested	Fair Value of Liabilities to Borrowers
Global Equities	\$ -	\$ -	\$ -
U.S. government and agency obligations	12,452,441	12,732,572	12,732,572
Domestic corporate stocks	115,636,583	117,982,739	117,982,739
Domestic corporate bonds	15,541,943	15,911,781	15,911,781
<b>Total securities lent</b>	<b>\$ 143,630,967</b>	<b>\$ 146,627,092</b>	<b>\$ 146,627,092</b>

The contract with the Trust's custodian requires the custodian to indemnify the Trust if the borrower fails to return the securities, due to the insolvency of a borrower, and the custodian has failed to live up to its contractual responsibilities relating to the lending of those securities. At year end, the Trust has no credit risk exposure to borrowers because the amounts of collateral held by the Trust exceed the amounts the borrowers owe the Trust. There are no significant violations of legal or contractual provisions, no borrowers or lending agent default losses, and no recoveries of prior period losses during the year. There is no income distributions owing on securities lent.

### *Investment Valuation*

GASB 72 establishes a hierarchal disclosure framework which prioritizes and ranks the level of market price observability used in measuring investments at fair value. Market price observability is impacted by a number of factors, including the type of investment and the specific characteristics of the investment. Fair value represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Investments with readily available actively quoted prices or for which fair value can be measured from actively quoted prices generally will have a higher degree of market price observability and lesser degree of judgment used in measuring fair value.

Investments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 - Investments traded in an active market with available quoted prices for identical assets as of the reporting date.

Level 2 - Investments not traded on an active market but for which observable market inputs are available for an asset, either directly or indirectly, as of the reporting date.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

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Level 3 - Investments not traded in an active market and for which no significant observable market inputs are available as of the reporting date.

The Trust has established a framework to consistently measure the fair value of the Trust's assets and liabilities in accordance with applicable accounting, legal, and regulatory guidance. This framework has been provided by establishing valuation policy and procedures that will provide reasonable assurance that assets and liabilities are carried at fair value. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, an investment's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. The Trust's assessment of the significance of a particular input to the fair value measurement requires judgment and considers factors specific to the investment.

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## City of Miami Fire Fighters' and Police Officers' Retirement Trust

### Notes to Financial Statements

The following table summarizes the valuation of the Trust's investments in accordance with the above mentioned fair value hierarchy levels as of September 30:

	Fair Value Measurements Using			
	9/30/2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments by fair value level</b>				
<b>Debt securities</b>				
Government and agency obligations	\$ 98,363,092	\$ -	\$ 98,363,092	\$ -
Municipal/provincial obligations	4,441,517	-	4,441,517	-
Asset backed securities	7,015,590	-	7,015,590	-
Mortgage backed securities	2,587,558	-	2,587,558	-
Corporate bonds	240,192,566	-	164,526,065	75,666,501
<b>Total debt securities</b>	<b>352,600,323</b>	<b>-</b>	<b>276,933,822</b>	<b>75,666,501</b>
<b>Equity securities</b>				
Domestic equities	255,185,642	255,185,642	-	-
International equities	234,288,747	234,288,747	-	-
<b>Total equity securities</b>	<b>489,474,389</b>	<b>489,474,389</b>	<b>-</b>	<b>-</b>
<b>Alternative investments</b>				
Private equity	139,235,059	-	-	139,235,059
Real estate equity	169,762,725	-	-	169,762,725
<b>Total alternative investments</b>	<b>308,997,784</b>	<b>-</b>	<b>-</b>	<b>308,997,784</b>
<b>Total Investments by fair value level</b>	<b>1,151,072,496</b>	<b>\$489,474,389</b>	<b>\$276,933,822</b>	<b>\$384,664,285</b>
<b>Investments measured at the net asset value ("NAV")</b>				
Commingled domestic fixed income funds	132,113,732			
Commingled international equity funds	28,865,695			
Commingled domestic equity funds	93,707,737			
Absolute return funds	99,722,597			
Mutual funds - drop account	181,181,304			
<b>Total investments measured at the NAV</b>	<b>535,591,065</b>			
<b>Total investments measured at fair value</b>	<b>\$1,686,663,561</b>			



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

	Fair Value Measurements Using			
	9/30/2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments by fair value level</b>				
<b>Debt securities</b>				
Government and agency obligations	\$ 91,866,496	\$ -	\$ 91,866,496	\$ -
Municipal/provincial obligations	6,716,576	-	6,716,576	-
Asset backed securities	5,077,046	-	5,077,046	-
Mortgage backed securities	5,270,343	-	5,270,343	-
Corporate bonds	237,725,466	-	164,342,105	73,383,361
<b>Total debt securities</b>	<b>346,655,927</b>	<b>-</b>	<b>273,272,566</b>	<b>73,383,361</b>
<b>Equity securities</b>				
Domestic equities	362,586,055	362,586,055	-	-
International equities	204,010,579	204,010,579	-	-
<b>Total equity securities</b>	<b>566,596,634</b>	<b>566,596,634</b>	<b>-</b>	<b>-</b>
<b>Alternative investments</b>				
Private equity	138,484,218	-	-	-
	138,484,218	-	-	-
Real estate equity	163,546,860	-	-	163,546,860
<b>Total alternative investments</b>	<b>302,031,078</b>	<b>-</b>	<b>-</b>	<b>302,031,078</b>
<b>Total Investments by fair value level</b>	<b>1,215,283,639</b>	<b>\$ 566,596,634</b>	<b>\$ 273,272,566</b>	<b>\$ 375,414,439</b>

### Investments measured at the net asset value ("NAV")

Commingled domestic fixed income funds	121,139,383
Commingled international equity funds	192,478
Commingled domestic equity funds	4,361,807
Absolute return funds	96,102,335
Mutual funds	198,092,739
<b>Total investments measured at the NAV</b>	<b>419,888,742</b>
<b>Total investments measured at fair value</b>	<b>\$ 1,635,172,381</b>

**Debt securities:** Debt securities consist primarily of negotiable obligations of the U.S. government and U.S. government-sponsored agencies, corporations, securitized offerings backed by residential and commercial mortgages and foreign debt securities. These securities can typically be valued using the close or last traded price on a specific date (quoted prices in active markets). When quoted prices are not available, fair value is determined based on valuation models that use inputs that include market observable inputs. These inputs included recent trades, yields, price quotes, cash flows, maturity, credit ratings, and other assumptions based upon the specifics of the investment's type.

**Equity securities:** These include domestic and international equities. Domestic securities traded on a national securities exchange are valued at the last reported sales price on the last business day of the fiscal year. Securities traded in the over-the-counter market and listed securities for which no sale was reported on that date are valued at the last reported bid price. International equities are valued based upon quoted foreign market prices and translated into U.S. dollars at the exchange



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

rate in effect at September 30, 2017 and 2016. Securities which are not traded on a national security exchange are valued by the respective fund manager or other third parties based on yields currently available on comparable securities of issuers with similar credit ratings.

Alternative investments: These investments include private equity and real estate equity investments where no readily ascertainable market value exists. To value these investments, management, in consultation with the general partner and investment advisors, determines the fair values for the individual investments based upon the partnership's or limited liability company's most recent available financial information adjusted for cash flow activities through September 30, 2017 and 2016. The estimated fair value of these investments may differ from values that would have been used had a ready market existed.

The Trust's valuation methods for investments measured at the net asset value ("NAV") per share (or its equivalent) as of September 30, 2017 and 2016, are as follows:

2017				
Investments Measured at the NAV				
	Unfunded		Redemption	Redemption
	Commitments		Frequency	Notice Period
Commingled domestic fixed income funds (1)	\$ 132,113,732	\$ -	Daily	Same Day
Absolute return funds (2)	99,722,597	-	Quarterly	30 Days
Commingled international equity funds (3)	28,865,695	-	Daily	Same Day
Commingled domestic equity funds (4)	93,707,737	-	Daily	Same Day
Mutual funds (5)	181,181,304	-	Daily	Same Day
<b>Total investments measured at the NAV</b>	<b>\$ 535,591,065</b>	<b>\$ -</b>		

2016				
Investments Measured at the NAV				
	Unfunded		Redemption	Redemption
	Commitments		Frequency	Notice Period
Commingled domestic fixed income funds (1)	\$ 121,139,383	\$ -	Daily	Same Day
Absolute return funds (2)	96,102,335	-	Quarterly	30 Days
Commingled international equity funds (3)	192,478	-	Daily	Same Day
Commingled domestic equity funds (4)	4,361,807	-	Daily	Same Day
Mutual funds (5)	198,092,739	-	Daily	Same Day
<b>Total investments measured at the NAV</b>	<b>\$ 419,888,742</b>	<b>\$ -</b>		

- (1) Commingled domestic fixed income funds consist of two commingled investment vehicle which primarily invests in publicly traded domestic commercial mortgage backed securities. The investment is valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.
- (2) Absolute return funds aim to provide positive investment returns in all market conditions over the medium to long term. The funds are actively managed, with a wide investment remit to target a level of return over rolling three-year periods equivalent to cash plus five percent a year, gross of fees. They exploit market inefficiencies through active allocation to a diverse range of market positions. The funds use a combination of traditional assets (such as equities and bonds) and investment strategies based on advanced derivative techniques, resulting in a highly diversified portfolio. The funds can take long and short positions in markets, securities and groups of securities through derivative contracts.
- (3) Commingled international equity funds consist of a commingled investment vehicles which invest primarily in publicly traded global equity securities. The funds are valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

- (4) Commingled domestic equity funds consist of three commingled investment vehicle which invests primarily in publicly traded equity securities. The funds are valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.
- (5) These mutual funds are open-end mutual funds that are registered with the Securities and Exchange Commission. These Funds are required to publish their daily NAV and to transact at that price. They are determined to be actively traded.

#### 4. Net Pension Liability of the City

The components of the net pension liability of the City at September 30 were as follows:

	2017	2016
Total pension liability	\$ 2,365,283,830	\$ 2,222,547,481
Plan fiduciary net position	(1,732,531,765)	(1,700,098,500)
<b>City net pension liability</b>	<b>\$ 632,752,065</b>	<b>\$ 522,448,981</b>

Plan fiduciary net position as a percentage of total pension liability	73.25%	76.49%
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#### *Actuarial Assumptions*

The total pension liability at September 30, 2017 was determined using an actuarial valuation as of October 1, 2016. The actuarial valuation used the following actuarial assumptions:

Inflation	3.25%
Projected salary increases	3.25%-9.75%, average, including inflation
Projected COLAs	Amount varies annually with the adjustment on January 1st
Investment rate of return	7.42% compounded annually, net of pension plan investment expense, including inflation.

Mortality rates are calculated with the Florida Retirement System projected using scale BB for all healthy retirees. Disabled Mortality rates are not projected.

The actuarial assumptions used in the October 1, 2016 valuation was based on the results of an actuarial experience study for the period October 1, 2011 to September 30, 2014.

The long-term expected rate of return on pension plan investments was determined in accordance with Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*. ASOP No. 27 provides guidance on the selection of an appropriate assumed investment rate of return. Consideration was given to expected future real rates of return (expected returns, net of pension Trust investment expense and inflation) for each major asset class as well as historical investment data and Trust performance.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

Best estimates of arithmetic real rates of return for each major asset class included in the Trust's target asset allocation as of September 30, (see the discussion of the Trust's investment policy) are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return*	
	2017	2016
Domestic Fixed Income	3.03%	2.95%
Foreign Fixed Income	0.00	0.00
Domestic Equities	3.13	3.90
International Equities	3.62	4.70
Real Estate	3.13	3.20
Private Equity	5.08	5.20
Cash	0.18	0.42

\* Real rates of return are net of the long-term inflation assumption of 3.25% for 2017 and 2016.

### *Discount Rate*

The discount rate used to measure the total pension liability was 7.42%, for 2017 and 2016. The projection of cash flows used to determine the discount rate assumed that Trust member contributions will be made at the current contribution rates and that contributions from the City will be made at statutorily required rates, actuarially determined. Based on those assumptions, the Trust's fiduciary net position was projected to be available to make all projected future benefit payments of current Trust members. Therefore, the long term expected rate of return on pension Trust investments was applied to all periods of projected benefit payments to determine the total pension liability.

### *Sensitivity of the Net Pension Liability to Changes in the Discount Rate*

The following presents the net pension liability of the City using the discount rate of 7.42% for 2017 and 2016 as well as what the employer net pension liability would if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	City Net Pension Liability - 2017		
	1% Decrease (6.42%)	Current Discount Rate (7.42%)	1% Increase (8.42%)
September 30, 2017	\$ 876,145,726	\$ 632,752,065	\$ 412,067,410

	City Net Pension Liability - 2016		
	1% Decrease (6.42%)	Current Discount Rate (7.42%)	1% Increase (8.42%)
September 30, 2016	\$ 730,131,214	\$ 522,448,981	\$ 332,514,826



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

### 5. Property and Equipment

Property and equipment consist of the following at September 30:

	Estimated Useful Life	2017	2016
Land	N/A	\$ 760,865	\$ 760,865
Building	39 years	1,666,306	1,666,306
Total cost		2,427,171	2,427,171
Less: accumulated depreciation		640,887	598,161
Net		\$ 1,786,284	\$ 1,829,010

Depreciation expense for both years ended September 30, 2017 and 2016 was \$42,726.

### 6. Administrative Expenses Reimbursement

For the fiscal years ended September 30, 2017 and 2016 administrative costs (in the amounts of \$2,058,797 and \$2,029,168, respectively) of the Trust are funded by the City of Miami and are accounted for as a part of the actuarially determined minimum required contributions from the City and are reflected in contributions from the City in the attached statement of changes in fiduciary net position.

### 7. Off-Balance-Sheet Financing

The Trust, in the normal course of business, enters into commitments with off-balance-sheet risk. The Trust adheres to the same credit policies, financial and administrative controls, and risk limiting and monitoring procedures for commitments as for on-balance-sheet investments.

The future financial commitments outstanding for private equity investments at September 30, 2017 and 2016 were, respectively, approximately \$51,253,338 and \$45,825,917.

### 8. Retirement Plan for Staff

The employees of the Trust participate in a separate plan sponsored by the City of Miami Fire Fighters' and Police Officers' Retirement Trust, which is a single employer defined benefit pension plan for the staff of the Trust. The quarterly contribution to the plan is based on a specified percentage of the eligible employees' compensation. The employees' contribution is 7% of compensation for all employees. The Trust is to contribute such amounts as necessary to provide the Plan with assets sufficient to meet the benefits to be paid to the participants. Retirement contributions for the fiscal years ended September 30, 2017 and 2016 were \$46,081 and \$87,183, respectively.

The Trust's contributions to the Plan were \$30,566 and \$29,017 for the fiscal years ending September 30, 2017 and 2016 respectively.



# City of Miami Fire Fighters' and Police Officers' Retirement Trust

## Notes to Financial Statements

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### 9. Legal Matters

The Trust may be party to legal proceedings, investigations, and claims in the ordinary course of operations. The Trust records accruals for outstanding legal matters when it believes it is probable that a loss will be incurred and the amount can be reasonably estimated. The Trust evaluates, along with legal counsel, developments in legal matters that could affect the amount of any accrual and developments that would make a loss contingency both probable and reasonably estimable. If a loss contingency is not both probable and estimable, the Trust does not establish an accrued liability. In the opinion of management, the ultimate outcome of the claim and litigation, if any, will not have a material effect on the Trust's financial position.

### 10. Subsequent Event

Following the end of the fiscal year, the Florida Public Employees Relations Commission (PERC) determined in an unfair labor practice proceeding between the City and the Fraternal Order of Police (FOP), the union representing police members of the System, that the 2010 pension ordinance was invalid as a result of the decision of the Florida Supreme Court in *Walter E. Headley Jr. Miami Lodge 20, FOP v. City of Miami*, 215 So.3d 1 (Fla. 2015). PERC also stated the amount of back wages owed could not be determined without an evidentiary hearing and set one for February 27, 2018. At its November 2, 2017 meeting, the Board unanimously directed its staff to calculate the effect of reinstating the benefit formulas in light of the effect of the Headley case on the 2010 ordinance. The Board deferred any action on the long term actuarial effect and also deferred action on the effect of back wages until the PERC proceedings were concluded. At its December meeting, the Board reiterated its instructions and directed any payments based on the recalculated formulas be made in January. The payments affected 131 retired police and fire retirees. On December 23, 2017 the City sued The Trust seeking an injunction. Following a trial on December 29, 2017, the Miami Dade Circuit Court issued an order finding the Board was acting lawfully and denied the City's request for an injunction. The recalculated payment was made on January 8th after receipt of the order and the payroll issued on January 15th. The recalculated benefit portion included a one-time retroactive payment of \$3.3 million and a forward looking addition of \$66,000 to the monthly payroll of approximately \$12.5 million. The City has appealed the January 8th order to the Third District Court of Appeal and has requested that court to order the additional benefit payments to cease. The System continues to vigorously defend its position. The action remains pending and the actuarial impact to the retirement plan is undetermined at this time.





**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Required Supplementary Information**  
**Schedule of Changes in the City's Net Pension Liability (Unaudited)**  
**Last Four Fiscal Years**

	2017	2016	2015	2014
<b>Total pension liability</b>				
Service cost	\$ 26,279,333	\$ 21,625,163	\$ 19,203,823	\$ 17,233,272
Interest	160,085,065	156,265,650	156,479,438	155,338,970
Changes of benefit terms	122,641,436	-	9,453,429	-
Differences between expected and actual experience	16,422,875	12,725,721	(16,970,540)	(6,638,755)
Changes of assumptions	-	30,651,781	14,895,466	-
Benefit payments, including refunds of member contributions	(182,692,360)	(166,203,470)	(165,535,327)	(139,860,276)
<b>Net change in total pension liability</b>	<b>142,736,349</b>	<b>55,064,845</b>	<b>17,526,289</b>	<b>26,073,211</b>
Total pension liability - beginning	2,222,547,481	2,167,482,636	2,149,956,347	2,123,883,136
<b>Total pension liability - ending</b>	<b>2,365,283,830</b>	<b>2,222,547,481</b>	<b>2,167,482,636</b>	<b>2,149,956,347</b>
<b>Plan fiduciary net position</b>				
Contributions - employer	53,264,009	48,672,615	48,616,677	47,535,499
Contributions - member	13,206,378	12,082,805	9,317,231	9,462,569
Net investment income	150,421,653	132,946,827	35,844,550	132,696,604
Benefit payments, including refunds of member contributions	(182,692,360)	(166,203,470)	(165,537,888)	(139,860,276)
Administrative expenses	(2,058,797)	(2,029,168)	(2,222,561)	(2,086,240)
Other	292,382	(42,726)	(42,726)	989,372
<b>Net change in plan fiduciary net position</b>	<b>32,433,265</b>	<b>25,426,883</b>	<b>(74,024,717)</b>	<b>48,737,528</b>
Plan fiduciary net position - beginning	1,700,098,500	1,674,671,617	1,748,696,334	1,699,958,806
<b>Plan fiduciary net position - ending</b>	<b>\$ 1,732,531,765</b>	<b>\$ 1,700,098,500</b>	<b>\$ 1,674,671,617</b>	<b>\$ 1,748,696,334</b>
<b>City's net pension liability</b>				
	<b>\$ 632,752,065</b>	<b>\$ 522,448,981</b>	<b>\$ 492,811,019</b>	<b>\$ 401,260,013</b>

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

See accompanying independent auditor's report and notes to required supplementary information.

**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
 Required Supplementary Information  
 Schedule of Changes in the City's Net Pension Liability (Unaudited) - continued  
 Last Four Fiscal Years

	2017	2016	2015	2014
Total pension liability	\$ 2,365,283,830	\$ 2,222,547,481	\$ 2,167,482,636	\$ 2,149,956,347
Plan fiduciary net position	(1,732,531,765)	(1,700,098,500)	(1,674,671,617)	(1,748,696,334)
<b>City's net pension liability</b>	<b>\$ 632,752,065</b>	<b>\$ 522,448,981</b>	<b>\$ 492,811,019</b>	<b>\$ 401,260,013</b>
Plan fiduciary net position as a percentage of the total pension liability	73.25%	76.49%	77.26%	81.34%
Covered - employee payroll	\$ 133,083,231	\$ 106,278,378	\$ 93,705,765	\$ 85,222,842
City's net pension liability as a percentage of covered - employee payroll	475.46%	491.59%	525.91%	470.84%
Total employee payroll including DROP	\$ 153,785,532	\$ 133,966,173	\$ 127,786,644	\$ 124,563,050

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

*See accompanying independent auditor's report and notes to required supplementary information.*





**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Required Supplementary Information**  
**Schedule of Contributions by Employer (Unaudited)**  
**Last Ten Fiscal Years**

	2017	2016	2015	2014	2013
Actuarially determined contribution	\$ 53,264,009	\$ 48,672,615	\$ 48,616,677	\$ 47,305,679	\$ 45,412,248
Contributions in relation to the actuarially determined contribution	53,264,009	48,672,615	48,616,677	47,305,679	45,412,248
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -
Covered-employee payroll	\$ 141,497,840	\$ 133,083,231	\$ 106,278,378	\$ 93,705,765	\$ 85,222,842
Contributions as a percentage of covered-employee payroll	37.64%	36.57%	45.74%	50.48%	53.29%
Actuarially determined contribution	\$ 47,418,316	\$ 47,156,797	\$ 59,025,379	\$ 36,993,395	\$ 36,040,251
Contributions in relation to the actuarially determined contribution	47,418,316	47,156,797	59,025,379	36,993,395	36,040,251
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -
Covered-employee payroll	\$ 82,205,838	\$ 82,164,617	\$ 80,152,355	\$ 122,212,346	\$ 129,369,531
Contributions as a percentage of covered-employee payroll	57.68%	54.68%	73.65%	30.27%	27.86%

*See accompanying independent auditor's report and notes to required supplementary information.*

**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Required Supplementary Information**  
**Schedule of Investment Returns (Unaudited)**

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<i>For the Years Ended September 30,</i>	2017	2016	2015
Annual money-weighted rate of return, net of investment expense	9.22%	9.70%	1.84%

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

*See accompanying independent auditor's report and notes to required supplementary information.*



**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Required Supplementary Information**  
**Notes to Required Supplementary Information (Unaudited)**  
**Last Ten Fiscal Years**

---

*Method and assumptions used in calculations of the City's actuarially determined contributions.* The actuarially determined contribution rates in the schedule of the City's contributions are calculated as of October 1, one year prior to the end of the fiscal year in which contributions are reported. Unless otherwise noted above, the following actuarial methods and assumptions were used to determine contribution rates reported in the Schedule of the City's contributions.

Actuarial cost method	Aggregate Cost Method
Asset valuation method	20% Write-Up Method: Expected actuarial value of assets, adjusted by 20% of the difference between expected actuarial value and actual market value (net of pending transfers to the COLA Fund).
Interest Rates	7.42% net of investment expenses
Inflation	3.25%
Projected salary increases	1.50% for promotions and other increase plus salary merit
Expense and or Contingency Loading	\$2,086,709
Mortality Rates:	
Healthy	Florida Retirement System special risk mortality projected generationally with scale BB
Disabled	Florida Retirement System disabled mortality not projected
	100% of the assumed deaths are expected to be ordinary deaths

*See accompanying independent auditor's report.*



**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Required Supplementary Information**  
**Notes to Required Supplementary Information (Unaudited) - continued**  
**Last Ten Fiscal Years**

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Retirement Rates: If eligible for retirement, the following decrements apply, based on service.

<u>Years of Service</u>	<u>Police %</u>	<u>Fire %</u>
<20	0	0
20	10	10
21-24	3	3
25-29	40	5
30-34	50	25
35	100	25
36		25
37		100

All Members are assumed to elect a 5-year BackDROP when they reach five years following first retirement eligibility.

Disability Rates: 100% of the disabilities are expected to be accidental with the following probabilities. No recovery is assumed.

<u>Age</u>	<u>Rates</u>
35	0.285%
40	0.390%
45	0.800%
50	1.210%

Withdrawal Rates:

<u>Age</u>	<u>&lt;5</u>	<u>5+</u>
30	2.40%	1.92%
35	2.40%	1.92%
40	1.80%	1.44%
45	1.20%	0.96%
50	0.00%	0.00%

Marital Status and Ages:

100% of members are assumed to be married.  
 Female spouses assumed to be 3 years younger than male spouses.

Compensated Absence Balance Transfers:

No liabilities or costs are included for the provision to transfer compensated absence balances into FIPO to purchase additional creditable service, based on our understanding that assets will be transferred immediately prior to retirement to cover 100% of the liability for the additional service.

Withdrawal of Employee Contributions:

It is assumed that employees do not withdraw their contribution balances upon employment termination or retirement.

*See accompanying independent auditor's report.*



**City of Miami Fire Fighters' and Police Officers'  
Retirement Trust  
Schedules of Investment Expenses**

<i>For the Years Ended September 30,</i>	2017	2016
<b>Financial management expenses</b>		
<b>Equities</b>		
Barrow Hanley	\$ 254,520	\$ 328,954
BGI/Black Rock	5,485	54,339
Boston Partners	236,218	361,318
Champlain Investments	422,517	347,322
Copper Rock	162,911	-
Jackson Square Partners	344,257	489,171
Eagle Asset Management	151,297	196,239
First Eagle	647,542	850,014
Center Square Partners	279,437	198,286
<b>Total</b>	<b>2,504,184</b>	<b>2,825,643</b>
<b>Fixed Income</b>		
AXA U.S. High Yield	370,468	228,905
Barrow Hanley	207,861	275,068
Dodge & Cox	218,509	167,579
Munder Capital	103,360	272,433
Wellington International	660,503	662,947
Wellington TIPS	-	34,355
<b>Total</b>	<b>1,560,701</b>	<b>1,641,287</b>
<b>Real Estate</b>		
Certified Appraisal Services of South Florida, Inc.	-	1,200
Proxy Voting	6,000	8,000
J.P. Morgan	975,512	1,214,618
<b>Total</b>	<b>981,512</b>	<b>1,223,818</b>
<b>Other</b>	<b>6,244</b>	<b>6,339</b>
<b>Total</b>	<b>6,244</b>	<b>6,339</b>
<b>Total investment expenses</b>	<b>\$ 5,052,641</b>	<b>\$ 5,697,087</b>



**City of Miami Fire Fighters' and Police Officers'  
Retirement Trust  
Schedules of Administrative Expenses**

<i>For the Years Ended September 30,</i>	2017	2016
<b>Personnel services</b>		
Salaries and payroll taxes	\$ 465,907	\$ 461,034
Fringe benefits	103,165	111,472
<b>Total personnel services</b>	<b>569,072</b>	<b>572,506</b>
<b>Professional services</b>		
Actuarial	105,577	122,786
Audit	44,847	40,500
Consultant and custodial	608,372	710,393
Legal	53,315	101,427
<b>Total professional services</b>	<b>812,111</b>	<b>975,106</b>
<b>Other</b>		
Education and travel	23,229	35,852
Insurance	114,590	98,589
Office expense	223,143	206,879
Repair and maintenance	234,648	64,923
Retirement contribution	58,542	52,273
Utilities	23,462	23,040
<b>Total other</b>	<b>677,614</b>	<b>481,556</b>
<b>Total administrative expenses</b>	<b>\$ 2,058,797</b>	<b>\$ 2,029,168</b>





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## Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards

Board of Trustees  
City of Miami Fire Fighters' and Police Officers' Retirement Trust  
Miami, Florida

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the City of Miami Fire Fighters' and Police Officers' Retirement Trust (the "Trust"), which comprise the statement of fiduciary net position as of September 30, 2017, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated February 27, 2018.

### Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Trust's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness the Trust's internal control. Accordingly, we do not express an opinion on the effectiveness of the Trust's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

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## Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Trust's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

## Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Trust's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Trust's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Miami, Florida  
February 27, 2018

BDO USA, LLP

Certified Public Accountants

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**III**

# **Investment Section**



INVESTMENT ANALYSIS  
YEAR ENDED SEPTEMBER 30, 2017

	GENERAL FUND	COLA I	COLA II
BALANCE AS OF 10/01/2016	1,228,572,563	61,749,360	344,854,509
Additions: Purchases			
Short Term Investment	65		
Other Money Market	3		
Other Liabilities	0.00		
Mutual Funds	15,459,732.45		
Private Equity	21,775,805.90		
Private Equity International	2,136,843.07		
Commercial Paper	78,353.07		
Commodity Ex Traded Fund International	3,113,774.87		
US Treasury Bills	0.00		
US Treasury Bonds	12,011,523.34		
US Treasury Bonds International	1,328,916.33		
US Treasury Notes	16,472,954.28		
Corporate Bonds	25,914,799.88		
Corporate Bonds International	6,253,606.49		
Domestic Equity	200,734,822.99		
International Equity	75,957,463.97		
Share of Assets Transferred	0	5,015,096	33,547,902
Share of Securities Transferred to COLA II	0		
	381,238,664	5,015,096	33,547,902
Deductions: Redemptions & Sale			
Short Term Investment	3,880.59		
Other Money Market	59,753.20		
Other Liabilities	0.00		
Mutual Funds	5,623,605.29		
Private Equity	22,325,818.90		
Private Equity International	835,988.89		
Commercial Paper	2,760,549.51		
Commodity Ex Traded Fund International	1,996,266.33		
US Treasury Bills	0.00		
US Treasury Bonds	12,113,608.23		
US Treasury Bonds International	937,660.64		
US Treasury Notes	9,532,382.35		
Corporate Bonds	15,625,224.52		
Corporate Bonds International	4,171,982.56		
Domestic Equity	215,190,348.16		
International Equity	21,662,795.68		
Drop Asset	16,911,434.50		
Share of Securities Tranferred To COLA I	4,881,559	133,538	
Share of Securities Tranferred To COLA II	8,798,987		24,748,915
	343,431,845	133,538	24,748,915
BALANCE AS OF 09/30/2017	<u>1,266,379,382</u>	<u>66,630,919</u>	<u>353,653,496</u>





# Miami Fire and Police Retirement Trust

## Asset Allocation by Manager

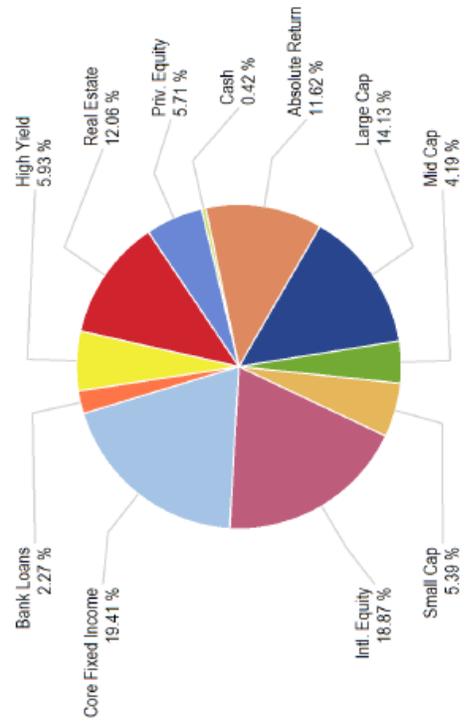
As Of September 30, 2017

	Total Market Value	% of Portfolio	US Equity	Non-US Equity	US Fixed Income	Alternatives	Real Estate	Cash
<b>Total Fund</b>								
Domestic Equity								
Large Cap Equity								
Barrow Hanley Large Value	\$121,295,574	8.0%	\$121,295,574					
BlackRock R1000 Growth Index	\$92,387,419	6.1%	\$92,387,419					
Mid Capitalization Equity								
Champlain Mid Cap	\$18,112,917	1.2%	\$18,112,917					
Boston Partners	\$45,320,687	3.0%	\$45,320,687					
Small Capitalization Equity								
Champlain Small Cap	\$52,480,403	3.5%	\$52,480,403					
Eagle Asset Management	\$29,022,842	1.9%	\$29,022,842					
International Equity								
BlackRock EAFE Index Fund	\$116,761	0.0%		\$116,761				
First Eagle	\$120,626,427	8.0%		\$120,626,427				
Wellington IQG	\$135,782,045	9.0%		\$135,782,045				
Copper Rock	\$28,865,695	1.9%		\$28,865,695				
Core Fixed Income								
Barrow Hanley Opportunistic Credit	\$98,151,815	6.5%			\$98,151,815			
Dodge & Cox	\$97,401,256	6.4%			\$97,401,256			
Victory Capital	\$98,076,475	6.5%			\$98,076,475			
Bank Loans								
Pacific Asset Management	\$34,411,660	2.3%			\$34,411,660			
High Yield								
AXA High Yield	\$89,680,374	5.9%			\$89,680,374			
Real Estate								
JP Morgan Real Estate								
JP Morgan SPF	\$91,322,496	6.0%					\$91,322,496	
JP Morgan SSPF	\$27,456,354	1.8%					\$27,456,354	
Centersquare	\$50,983,765	3.4%					\$50,983,765	
Centersquare Value Fund III	\$10,163,525	0.7%					\$10,163,525	
Retirement Office	\$2,500,000	0.2%					\$2,500,000	

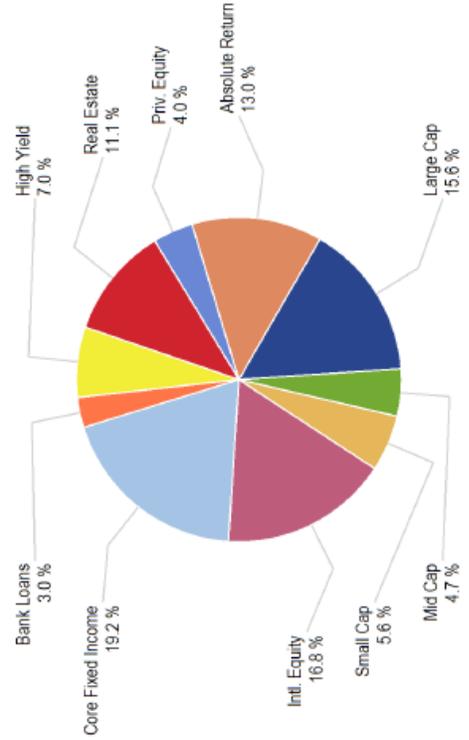


	Total Market Value	% of Portfolio	US Equity	Non-US Equity	US Fixed Income	Alternatives	Real Estate	Cash
<b>Private Equity</b>								
Adams Street	\$9,944,474	0.7%				\$9,944,474		
Catalyst III	\$5,158,880	0.3%				\$5,158,880		
Catalyst IV	\$3,001,488	0.2%				\$3,001,488		
Coller Fund V	\$2,654,469	0.2%				\$2,654,469		
Coller Fund VI	\$8,976,630	0.6%				\$8,976,630		
Coller Fund VII	\$755,917	0.0%				\$755,917		
JP Morgan Private Equity	\$7,110,106	0.5%				\$7,110,106		
JP Morgan Global Fund V	\$7,446,065	0.5%				\$7,446,065		
Lexington Capital Partners	\$3,397,412	0.2%				\$3,397,412		
Lexington VIII	\$3,354,184	0.2%				\$3,354,184		
Pantheon Global	\$8,640,736	0.6%				\$8,640,736		
SL Capital	\$4,738,667	0.3%				\$4,738,667		
BlackRock NTR	\$17,661,035	1.2%				\$17,661,035		
BlackRock GRPF II	\$3,535,841	0.2%				\$3,535,841		
<b>Absolute Return</b>								
Standard Life	\$99,722,608	6.6%				\$99,722,608		
FTW	\$75,984,782	5.0%				\$75,984,782		
<b>Cash &amp; Cash Alternatives</b>								
BlackRock Liquid Policy Portfolio	\$1,023,557	0.1%						\$1,023,557
Main Account	\$5,354,713	0.4%						\$5,354,713
<b>Total</b>	<b>\$1,512,620,055</b>	<b>100.0%</b>	<b>\$358,619,842</b>	<b>\$285,390,928</b>	<b>\$417,721,579</b>	<b>\$262,083,295</b>	<b>\$182,426,140</b>	<b>\$6,378,270</b>

**Current Allocation**



**Target Allocation**

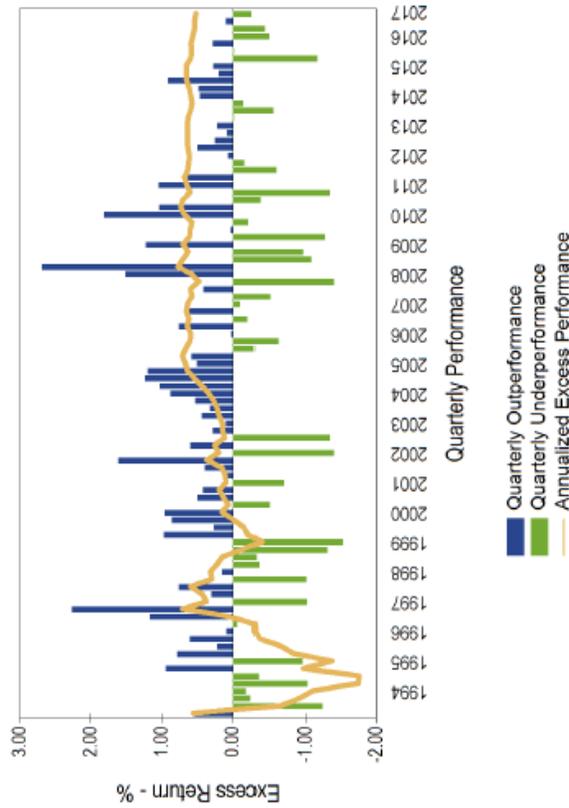




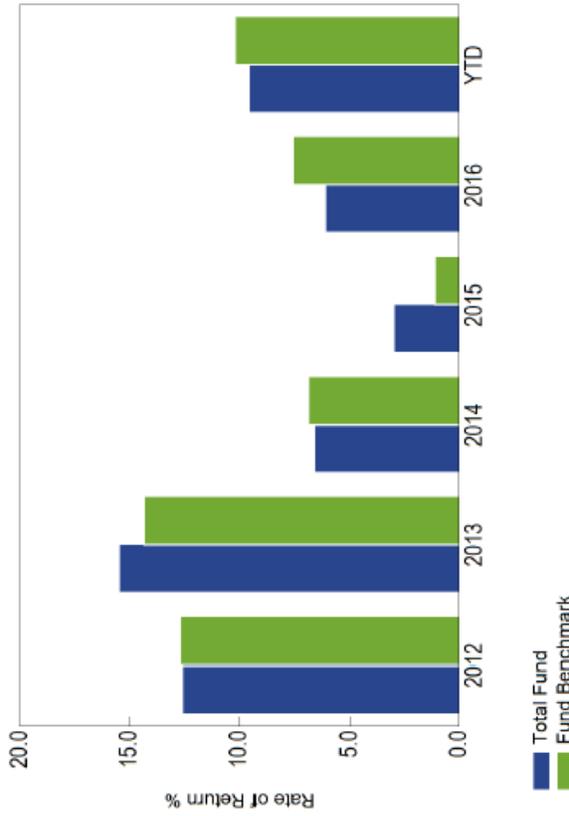
# Total Fund

## Performance Summary

Annualized Excess Performance



Return Summary  
Ending September 30, 2017



Ending September 30, 2017

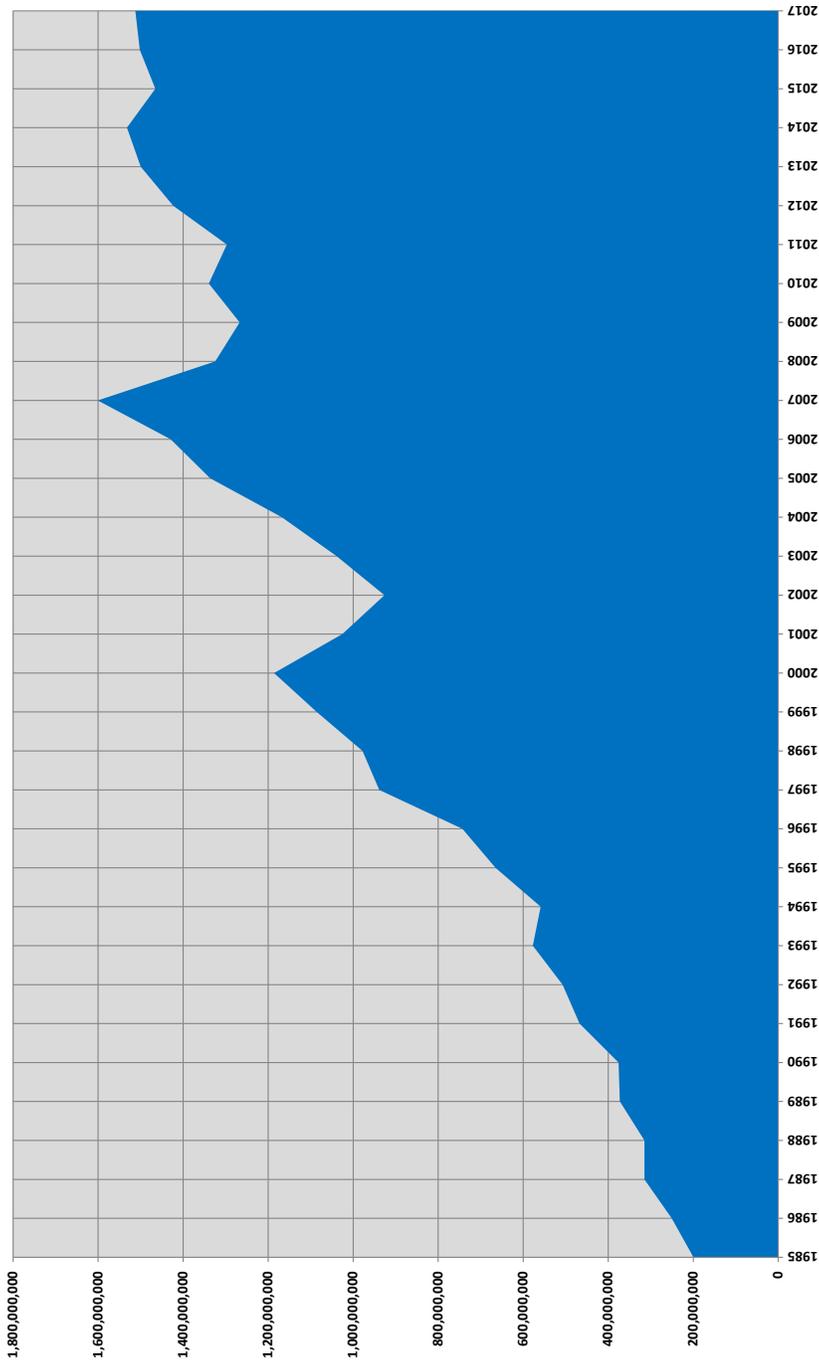
Inception

	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	4 Yrs Rank	5 Yrs Rank	7 Yrs Rank	10 Yrs Rank	Since Inception
<b>Total Fund</b>	<b>73</b>	<b>9.6%</b>	<b>77</b>	<b>9.4%</b>	<b>84</b>	<b>43</b>	<b>51</b>	<b>43</b>	<b>42</b>	<b>8.3%</b>
<i>Fund Benchmark</i>	54	10.8%	60	10.4%	64	46	49	50	58	7.7%
<b>Total Fund</b>	<b>6.1%</b>	<b>85</b>	<b>3.0%</b>	<b>49</b>	<b>15.5%</b>	<b>45</b>	<b>3.1%</b>	<b>29</b>	<b>20.4%</b>	<b>42</b>
<i>Fund Benchmark</i>	7.6%	53	1.1%	44	14.3%	55	3.0%	30	17.8%	57
										<b>-23.8%</b>
										<b>-23.9%</b>



## GROWTH OF THE FUND

FISCAL YEAR	MARKET VALUE
1985	199,345,728
1986	250,500,507
1987	314,887,130
1988	314,756,341
1989	372,898,432
1990	375,600,000
1991	467,717,640
1992	507,233,089
1993	577,531,203
1994	559,130,104
1995	665,309,481
1996	742,938,069
1997	938,525,274
1998	978,062,036
1999	1,086,034,187
2000	1,186,001,037
2001	1,025,439,757
2002	926,355,174
2003	1,038,797,014
2004	1,168,244,034
2005	1,336,399,433
2006	1,429,556,438
2007	1,600,810,429
2008	1,324,750,244
2009	1,267,128,720
2010	1,339,510,475
2011	1,297,169,271
2012	1,423,736,735
2013	1,499,777,038
2014	1,532,094,518
2015	1,465,540,603
2016	1,501,917,204
2017	1,512,620,055



# **IV**

## **Actuarial Section**





At the request of the plan sponsor, this report summarizes the City of Miami Fire Fighters' and Police Officers' Retirement Trust as of October 1, 2017. The purpose of this report is to communicate the following results of the valuation:

- Determine Funded Status; and
- Determine Recommended Contribution for the fiscal year October 1, 2018 through September 30, 2019.

This report has been prepared in accordance with the applicable Federal and State laws. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census information has been provided to us by the plan administrator. Asset information has been provided to us by the plan administrator. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report. A summary of the data used in the valuation is included in this report.

The actuarial assumptions and methods were chosen by the Board. In our opinion, all actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period);
- and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

This actuarial valuation and/or cost determination was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.





**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Actuarial Valuation as of October 1, 2017**  
**Actuarial Certification**

With respect to reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, meet the requirements of Section 112.664 (1), Florida Statutes, and Rule 60T-1.0035, Florida Administrative Code.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States and are available for any questions.

Nyhart

*Danielle Winegardner*

Danielle Winegardner, FSA, EA, MAAA  
 Enrolled Actuary No. 17-08260

*Heath W Merlak*

Heath W. Merlak, FSA, EA, MAAA  
 Enrolled Actuary No. 17-05967

June 20, 2018  
 Date

Copies of this Report are to be furnished to the Division of Retirement within 60 days of receipt from the actuary at the following addresses:

Mr. Steve Bardin  
 Benefits Administrator  
 Municipal Police Officers' &  
 Firefighters' Trust Funds  
 Division of Retirement  
 Post Office Box 3010  
 Tallahassee, FL 32315-3010

Mr. Keith Brinkman  
 Bureau Chief, Bureau of Local Retirement Systems  
 Florida Department of Management Services  
 Division of Retirement  
 Department of Management Services  
 P. O. Box 9000  
 Tallahassee, FL 32315-9000



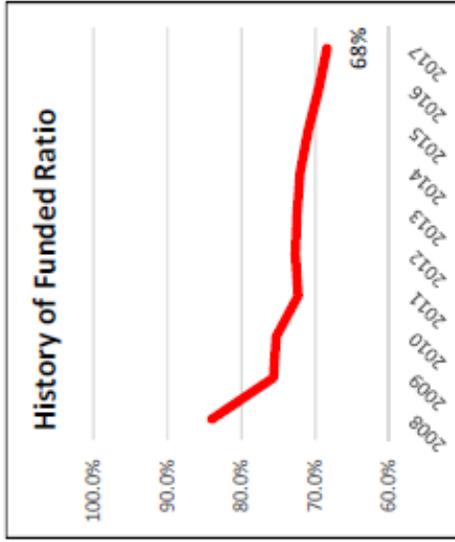


**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Actuarial Valuation as of October 1, 2017**  
**Executive Summary**

**Summary Results**

The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay.

	October 1, 2016	October 1, 2017
<b>Funded Status Measures</b>		
Accrued Liability	\$1,654,140,143	\$1,705,061,093
Actuarial Value of Assets	1,150,653,520	1,161,585,161
Unfunded Accrued Liability	\$503,486,623	\$543,475,932
Funded Percentage (AVA)	69.6%	68.1%
Funded percentage (MVA)	67.1%	66.3%
<b>Cost Measures</b>		
Recommended Contribution For Next Fiscal Year	\$50,591,604	\$56,030,260
Recommended Contribution (as a percentage of payroll)	38.0%	39.6%
<b>Asset Performance</b>		
Market Value of Assets (MVA)	\$1,109,146,744	\$1,131,066,046
Actuarial Value of Assets (AVA)	\$1,150,653,520	\$1,161,585,161
Actuarial Value/Market Value	103.70%	102.70%
<b>Participant Information</b>		
Active Members	1,869	1,943
Terminated Vested Members	15	16
Terminated Members, due a Refund of Employee Contributions	N/A	97
Retirees, Beneficiaries, and Disabled Members	2,014	2,059
DROP Participants	191	129
Total	4,089	4,244
Expected Payroll	\$133,083,231	\$141,497,840
Total Payroll	\$153,785,532	\$159,787,486





**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Actuarial Valuation as of October 1, 2017**  
**Assets and Liabilities**

	October 1, 2017
<b>Asset Information (continued)</b>	
Plan Assets are used to develop funded percentages and contribution requirements	
1. Expected actuarial value of assets	
(a) Actuarial value of assets – beginning of prior year	\$1,150,653,520
(b) City Contributions	47,102,220
(c) Member Contributions	13,206,378
(d) Benefits payments and refunds	126,492,923
(e) Expected return	84,745,745
(f) Expected actuarial value of assets – beginning of current year	\$1,169,214,940
2. Market value of assets – beginning of current year	\$1,131,066,046
3. Present value of COLA transfers	
(a) Current year	\$0
(b) Next year	0
(c) Total	\$0
4. Market value net COLA transfer [(2)-(3)]	\$1,131,066,046
5. Amount subject to phase in [(4)-(1f)]	(\$38,148,894)
6. Phase in of asset gain loss [(5)x20%]	(\$7,629,779)
7. Preliminary actuarial value of assets – beginning of current year [(1f)+(6)]	\$1,161,585,161
8. 80% of Market value of assets	\$904,852,837
9. 120% of Market value of assets	\$1,357,279,255
10. Adjusted actuarial value of assets	\$1,161,585,161
11. Contribution surplus account balance	\$0
12. Final actuarial value of assets – beginning of current year [(10)-(11)]	\$1,161,585,161
13. Return on actuarial value of assets	6.76%





City of Miami Fire Fighters' and Police Officers' Retirement Trust  
Actuarial Valuation as of October 1, 2015  
Assets and Liabilities

	October 1, 2017
<b>Reconciliation of Gain/Loss</b>	
<b>Liability (gain)/loss</b>	
Present value of future benefits	\$2,002,093,386
Present value of employee contributions	(169,544,933)
Expected employee contribution	11,192,036
Benefit payments	(126,492,923)
Interest	132,196,623
Expected liability	<u>\$1,849,444,189</u>
Assumption change	20,178,475
Expected after changes	<u>\$1,869,622,664</u>
Actual liability	\$1,898,125,168
Liability (gain)/loss	\$28,502,504
Asset (gain)/loss	
<b>Actuarial value of assets, beginning of prior year</b>	<b>\$1,150,653,520</b>
Contributions	60,308,598
Benefit payments and expenses	(126,492,923)
Expected Investment return	84,745,745
Expected actuarial value of assets, beginning of current year	<u>\$1,169,214,940</u>
Actual actuarial value of assets, beginning of current year	\$1,161,585,161
Asset (gain)/loss	\$7,629,779
Total (gain)/loss	\$36,132,283

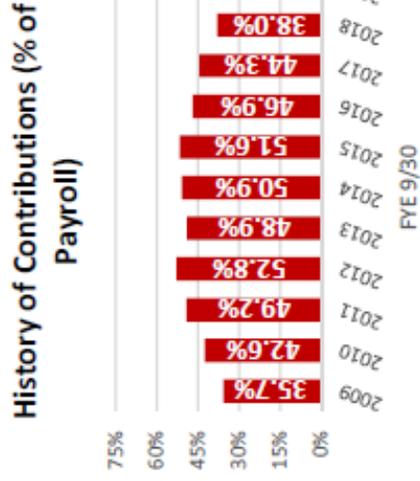




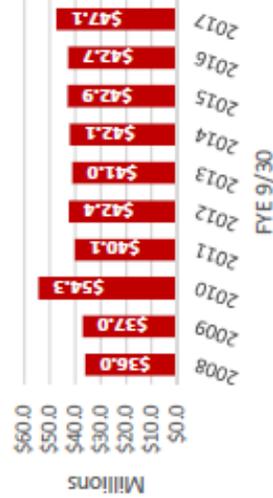
**Development of Recommended Contribution**

The actuarial determined contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

	October 1, 2017
1. Present value of future benefits	\$2,072,629,507
2. Actuarial value of assets	1,161,585,161
3. Present value of future member contributions	174,504,339
4. Present value of future normal Cost [(1)-(2)-(3)]	\$736,540,007
5. Present value of future payroll	\$2,081,445,994
6. Normal cost accrual rate [(4)/(5)]	35.39%
7. Administrative expenses	\$2,128,469
8. Expected payroll	\$141,497,840
9. Applicable interest	7.34%
10. Normal cost	\$52,198,863
11. Interest to estimated payment date	\$3,831,397
12. Total recommended contribution as of end of year [(10)+(11)]	\$56,030,260
13. As a percentage of expected payroll	39.60%
14. As a percentage of total payroll	35.07%



**History of Actual Contributions**





<b>Cost Method (CO)</b>	Aggregate Cost Method.																								
<b>Asset Valuation Method (CO)</b>	20% Write-Up Method: Expected actuarial value of assets, adjusted by 20% of the difference between expected actuarial value and actual market value (net of pending transfers to the COLA Fund).  The result cannot be greater than 120% of market value or less than 80% of market value (net of pending COLA transfers).  7.34% net of investment expenses																								
<b>Interest Rates (CO)</b>	Support for the discount rate assumption has been provided in the experience study report dated December 2014																								
<b>Annual Pay Increases (FE)</b>	3.25% inflation and 1.5% for promotions and other increases plus salary merit scale below. <table border="0" style="margin-left: 20px;"> <thead> <tr> <th style="text-align: left;"><u>Service</u></th> <th style="text-align: center;"><u>Police</u></th> <th style="text-align: center;"><u>Fire</u></th> </tr> </thead> <tbody> <tr> <td>0-6</td> <td style="text-align: center;">5.0%</td> <td style="text-align: center;">5.0%</td> </tr> <tr> <td>7</td> <td style="text-align: center;">2.5%</td> <td style="text-align: center;">5.0%</td> </tr> <tr> <td>8-9</td> <td style="text-align: center;">5.0%</td> <td style="text-align: center;">5.0%</td> </tr> <tr> <td>10-14</td> <td style="text-align: center;">1.0%</td> <td style="text-align: center;">0.0%</td> </tr> <tr> <td>15-16</td> <td style="text-align: center;">1.25%</td> <td style="text-align: center;">2.5%</td> </tr> <tr> <td>17-21</td> <td style="text-align: center;">1.0%</td> <td style="text-align: center;">1.0%</td> </tr> <tr> <td>22+</td> <td style="text-align: center;">0.0%</td> <td style="text-align: center;">0.0%</td> </tr> </tbody> </table> <p>There is no additional increase at retirement.</p>	<u>Service</u>	<u>Police</u>	<u>Fire</u>	0-6	5.0%	5.0%	7	2.5%	5.0%	8-9	5.0%	5.0%	10-14	1.0%	0.0%	15-16	1.25%	2.5%	17-21	1.0%	1.0%	22+	0.0%	0.0%
<u>Service</u>	<u>Police</u>	<u>Fire</u>																							
0-6	5.0%	5.0%																							
7	2.5%	5.0%																							
8-9	5.0%	5.0%																							
10-14	1.0%	0.0%																							
15-16	1.25%	2.5%																							
17-21	1.0%	1.0%																							
22+	0.0%	0.0%																							
<b>Expense and/or Contingency Loading (FE)</b>	The annual pay increases are based on a study of actual experience for the plan during 2011-2014. See the experience study report dated December 2014.  \$2,128,469																								





**Mortality Rates (CO)**

Healthy  
 Disabled

FRS Healthy Mortality Special Risk table projected generationally with Scale BB  
 FRS Disabled Mortality not projected

100% of the assumed deaths are expected to be ordinary deaths

The mortality table is prescribed by State law, following the assumptions used by the Florida Retirement System.

**Retirement Rates (FE)**

If eligible for Retirement, the following decrements apply, based on service.

<u>Years of Service</u>	<u>Police %</u>	<u>Fire %</u>
<20	0	0
20	10	10
21-24	3	3
25-29	40	5
30-34	50	25
35	100	25
36		25
37		100

All Members are assumed to elect a 5-year BackDROP when they reach five years following first retirement eligibility.

The assumed retirement rates are based on a study of actual experience for the plan during 2011-2014. See the experience study report dated December 2014.

**Disability Rates (FE)**

100% of the disabilities are expected to be accidental with the following probabilities.  
 No recovery is assumed.

<u>Age</u>	<u>Rates</u>
35	0.285%
40	0.390%
45	0.800%
50	1.210%

The disability rates are based on a study of actual experience for the plan during 2011-2014. See the experience study report dated December 2014.





**Withdrawal Rates (FE)**

Based on Years of Creditable Service using the rates below

Age	<5	5+
30	2.40%	1.92%
35	2.40%	1.92%
40	1.80%	1.44%
45	1.20%	0.96%
50	0.00%	0.00%

The withdrawal rates are based on a study of actual experience for the plan during 2011-2014. See the experience study report dated December 2014.

**Marital Status and Ages**

100% of Members are assumed to be married. Female spouses assumed to be 3 years younger than male spouses.

**Compensated Absence Balance Transfers**

No liabilities or costs are included for the provision to transfer compensated absence balances into FIPO to purchase additional creditable service, based on our understanding that assets will be transferred immediately prior to retirement to cover 100% of the liability for the additional service.

**Withdrawal of Employee Contributions**

It is assumed that employees do not withdraw their contribution balances upon employment termination or retirement.

**COLA**

COLA benefits are assumed to increase as indicated in the COLA table; these are documented in a separate COLA report. No increase to the table is assumed to occur.

**Changes Since Prior Report**

The interest rate assumption was reduced from 7.42% to 7.34%.

The administrative expense has increased to \$2,128,469 from the prior year.

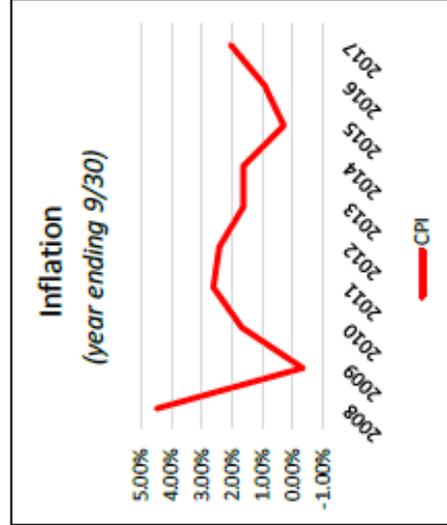
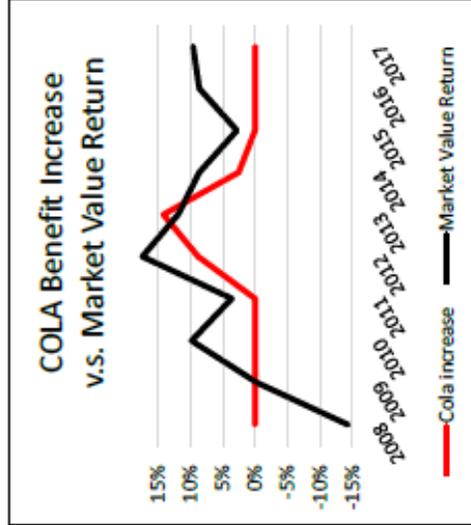
FE indicates an assumption representing an estimate of future experience.  
 MO indicates an assumption representing an observation of estimates inherent to market data.  
 CO indicates an assumption representing a combination of an estimate of future experience and observations of market data.





Summary Results

	October 1, 2016	October 1, 2017
<b>COLA Table Amount</b>	\$1,670	\$1,670 [Proposed]
<b>Asset Performance</b>		
Market Value of Assets	\$1,109,146,744	\$1,145,637,219
Actuarial Value of Assets	\$1,150,653,520	\$1,164,499,396
Actuarial Asset Value Return	6.50%	7.01%
<b>COLA Information</b>		
Current COLA Assets	\$392,859,018	\$405,713,241
Future Contributions (discounted)	\$88,371,217	\$91,906,070
Assets for COLA	\$481,230,235	\$497,619,311
COLA Liability	\$420,490,548	\$431,788,534
Net Reserve	12.6%	13.2%
Cumulative Experience Gain/(Loss)	(\$307,020,158)	(\$336,419,437)
<b>Participant Information</b>		
Active	1,869	1,943
Retirees and Beneficiaries	2,062	2,052
Disabled	143	136
Terminated Vested	15	16
<b>Total</b>	<b>4,089</b>	<b>4,147</b>



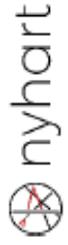
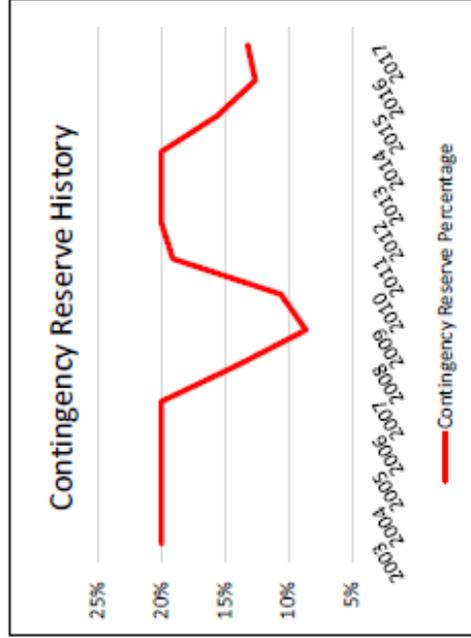
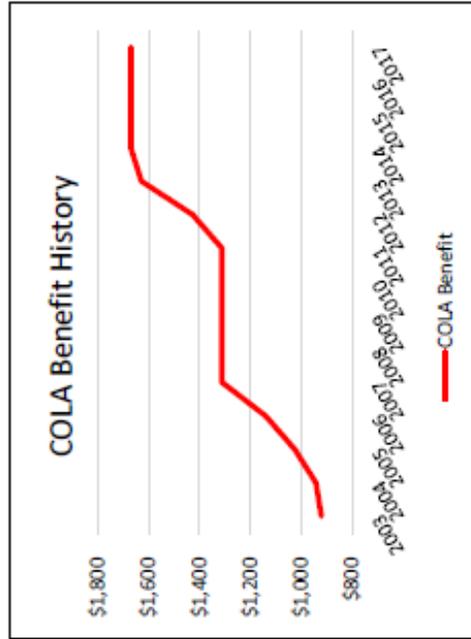


**Key Notes**

We recommend maintaining the COLA table at its current level (i.e. \$1,670) as of January 1, 2018. The contingency reserve is 13.2%, an increase from the prior year's 12.6%. A ten-year historical graph of the COLA table level and contingency reserve amount are below.

The recent Supreme Court Ruling has restored retirement eligibility to Rule of 64/68. This change has altered the incidence of assumed retirement and has increased the COLA liability for current/future active members \$4.6 million, reducing the reserve by 0.9%.

There have been no assumption changes.



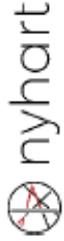


**COLA Fund Table as of January 1, 2018**  
Asset Information

**Market Value Reconciliation**

The amount of assets backing the pension promise is the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

	September 30, 2017	
	COLA I	COLA II
	Account	Account
	<b>Membership and Benefits Accounts</b>	
1. Market value – beginning of prior year	\$1,109,146,744	\$63,578,553
2. Book value – beginning of prior year	\$973,803,105	\$55,820,380
3. Income		
(a) City contributions	\$47,102,220	\$0
(b) Member contributions	13,206,378	0
(c) Other contributions	0	0
(d) Interest and dividends	21,450,450	1,030,076
(e) Net realized gains (losses)	70,207,198	3,388,576
(f) Securities lending income	545,753	26,094
(g) Rental and other income	259,410	12,510
(h) Income transfer	0	0
(i) Total	\$152,771,409	\$4,457,256
4. Disbursements		
(a) Benefit payments and refunds	\$126,492,923	\$133,538
(b) Custodial and investment expenses	3,952,233	189,209
(c) Administrative expense	2,058,798	0
(d) Other expense	0	0
(e) Securities lending fees	136,346	6,519
(f) Building depreciation	33,001	1,647
(g) Total	\$132,673,301	\$330,913
5. Book value – beginning of current year [(2)+(3i)-(4g)]	\$993,901,213	\$59,946,723
6. Net change in unrealized gains (losses)	\$16,392,367	\$1,393,719
7. Unrealized gains (losses)	\$151,736,006	\$9,151,892
8. Market value – beginning of current year [(1)+(3i)-(4g)+(6)]	\$1,145,637,219	\$69,098,615
9. Current year allocation to COLA II (discounted)	\$0	N/A
10. Net market value – beginning of current year	\$1,145,637,219	\$69,098,615
		\$336,614,626

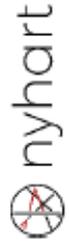




COLA Fund Table as of January 1, 2018  
Asset Information

Membership and Benefits Cost-Of-Living Adjustment Account Summary

	Market	Book
<b>1. Investments</b>		
(a) Bill, bonds, notes	\$482,129,116	\$460,946,955
(b) Domestic stocks	352,425,747	285,789,729
(c) International stocks	251,177,491	198,432,954
(d) Private equity	139,235,059	127,519,663
(e) Money market fund and time deposit	11,029,757	11,581,657
(f) Mutual fund	269,485,322	215,740,100
(g) Real estate	1,786,284	1,786,284
(h) Securities lending adjustment	0	0
(i) Total investment	<u>\$1,507,268,776</u>	<u>\$1,301,797,342</u>
<b>2. Cash</b>	<u>\$43,119,472</u>	<u>\$43,119,472</u>
<b>3. Receivables</b>		
(a) City contributions	\$0	\$0
(b) Member contributions	0	0
(c) Accounts receivable	5,952	5,952
(d) Accrued interest and dividend	3,214,442	3,214,442
(e) Securities sold	620,106	620,106
(f) Total receivables	<u>\$3,840,500</u>	<u>\$3,840,500</u>
<b>4. Payables:</b>		
(a) Budget advance	\$0	\$0
(b) Accrual expense	399,988	399,988
(c) Transfer	0	0
(d) Tax withheld	7,205	7,205
(e) Accounts payable	338,790	338,790
(f) Securities purchased	2,132,305	2,132,305
(g) Total payables	<u>\$2,878,288</u>	<u>\$2,878,288</u>
<b>5. Total [(1)+(2)+(3f)-(4g)]</b>	<u>\$1,551,350,459</u>	<u>\$1,345,879,023</u>
<b>6. COLA I account</b>	<u>\$69,098,615</u>	<u>\$59,946,723</u>
<b>7. COLA II account</b>	<u>\$336,614,626</u>	<u>\$292,031,090</u>
<b>8. Current year COLA II transfer</b>	<u>\$0</u>	<u>\$0</u>
<b>9. Membership &amp; benefits account [(5)-(6)-(7)-(8)]</b>	<u>\$1,145,637,219</u>	<u>\$993,901,213</u>





COLA Fund Table as of January 1, 2018  
Asset Information

Investment Results - Membership and Benefits Accounts

September 30, 2017

	<u>Dollar Return</u>	<u>Market Return</u>	<u>Book Return</u>
<u>Membership and Benefits Accounts</u>			
Interest	\$13,710,274	1.2%	1.5%
Dividends	7,740,176	0.7%	0.8%
Rental and Other Income, less Depreciation	226,409	0.0%	0.0%
Realized Gains	70,207,198	6.4%	7.5%
Securities Lending (Net)	409,407	0.0%	0.0%
Increase in Unrealized Gains	16,392,367	1.5%	1.7%
Custodial and Investment Expenses	(3,952,233)	-0.4%	(0.4%)
	<u>\$104,733,598</u>	<u>9.5%</u>	<u>11.1%</u>





COLA Fund Table as of January 1, 2018  
Assets

Investment Results – COLA I and II Accounts

September 30, 2017

	<u>Dollar Return</u>	<u>Market Return</u>	<u>Book Return</u>
COLA I Account			
Interest	\$658,201	1.0%	1.2%
Dividends	371,875	0.6%	0.7%
Rental and Other Income, less Depreciation	10,863	0.0%	0.0%
Realized Gains	3,388,576	5.3%	6.1%
Securities Lending (Net)	19,575	0.0%	0.0%
Increase in Unrealized Gains	1,393,719	2.2%	2.5%
Custodial and Investment Expenses	(189,209)	(0.3%)	(0.3%)
	\$5,653,600	8.9%	10.1%

	<u>Dollar Return</u>	<u>Market Return</u>	<u>Book Return</u>
COLA II Account			
Interest	\$3,334,498	1.0%	1.2%
Dividends	1,882,517	0.6%	0.7%
Rental and Other Income, less Depreciation	55,111	0.0%	0.0%
Realized Gains	17,110,773	5.3%	6.1%
Securities Lending (Net)	99,431	0.0%	0.0%
Increase in Unrealized Gains	4,403,085	1.4%	1.6%
Custodial and Investment Expenses	(964,128)	(0.3%)	(0.3%)
	\$25,921,287	8.1%	9.3%





**GASB 5 – COLA Fund**

**Contributions required and contributions made**

The funding policy provides for annual employer contributions from January 1, 1994. The amount of the contribution was \$2.5 million, beginning January 1, 1994, increasing 4% per year each year thereafter, and reduced (but not below zero) by any excess investment income transfer due on the same date.

The excess investment income transfer consists of a portion of gains due to investment return exceeding the 7.42 percent assumption

**Analysis of funding progress**

Fiscal Year	(1) Net Assets Available for Benefits <sup>(1)</sup>	(2) Pension Benefit Obligation <sup>(2)</sup>	(3) Percent Funded	(4) Unfunded PBO (2)-(1)	(5) Annual Covered Payroll	(4)/(5)
	(\$)	(\$)	(%)	(\$)	(\$)	(%)
2008	305.8	279.4	109	(26.4)	129.4	(20)
2009	296.3	290.0	102	(6.3)	122.2	(5)
2010	311.8	315.6	99	3.8	80.2	5
2011	310.0	303.6	102	(6.4)	82.2	(8)
2012	350.3	312.6	112	(37.7)	82.2	(46)
2013	378.7	320.0	118	(58.7)	85.2	(69)
2014	394.6	371.0	106	(23.6)	93.7	(25)
2015	381.4	393.5	97	12.1	106.3	11
2016	392.9	420.5	93	27.6	133.1	21
2017	405.7	431.8	94	26.1	141.5	18

<sup>(1)</sup> Excluding future City minimum contributions

<sup>(2)</sup> Excluding new increment and contingency reserves



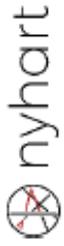
**COLA Fund Table as of January 1, 2018**  
**Other Measurements**

**GASB 5 – COLA Fund**

**Revenues and Expenses**

Fiscal Year	Revenues by Source			Total
	Employee Contributions (\$)	Employer Contributions (\$)	Investment Income (\$)	
2008	0	0	44,539,016	44,539,016
2009	0	0	44,696,486	44,696,486
2010	0	4,682,453	18,493,888	23,176,341
2011	0	4,869,751	25,484,227	30,353,978
2012	0	5,064,541	21,399,142	26,463,683
2013	0	5,267,123	27,293,996	32,561,119
2014	0	5,477,808	30,812,622	36,290,430
2015	0	5,696,920	26,665,405	32,362,325
2016	0	5,924,797	13,261,430	19,186,227
2017	0	6,161,789	26,980,778	33,142,567

Fiscal Year	Expenses by Type		Total
	Benefits (\$)	Administrative Expenses (\$)	
2008	15,666,175	1,053,599	16,733,928
2009	16,925,422	867,083	17,795,505
2010	17,236,918	1,164,379	18,401,297
2011	17,363,841	1,321,324	18,685,165
2012	17,747,481	1,456,098	19,204,000
2013	19,522,271	1,604,698	21,126,969
2014	22,188,409	1,483,762	23,672,171
2015	23,563,734	1,190,614	24,754,348
2016	24,344,325	1,286,086	25,630,411
2017	24,882,453	1,202,695	26,085,148



# V

## Statistical Section



STATISTICAL DATA OF VARIOUS ACCOUNTS  
THROUGH SEPTEMBER 30, 2017

	GENERAL FUND	COLA I	COLA II
<b>MEMBERSHIP ACCOUNT</b>			
<b>ADD:</b>			
Members' Contributions			
After Tax	67,212,688	0	0
Pre Tax	276,300,222	11,814,941	0
After Tax from G & S	17,210	0	0
Interest			
From Benefit Acct	117,106,718	0	0
From Withdrawals	385,365	0	0
Transfers from G & S	133,026	0	0
	461,155,230	11,814,941	0
<b>DEDUCT:</b>			
<b>Refunds -</b>			
Leaving Service	21,087,686	944,800	0
Additional Contributions	171,226	0	0
Accidental Death	546,075	22,039	0
Accidental Disability	1,982,443	0	0
Option 6A	571,614	0	0
Ordinary Death	2,083,210	62,320	0
<b>Transfers -</b>			
After Tax from G & S	4,412,189	0	0
Benefit Account	300,417,162	10,484,596	0
Transfers to Acct Payable	480,131	0	0
Interest withheld	362,258	0	0
Interest	2,343,429	0	0
	334,457,424	11,513,754	0
<b>BALANCE AS OF 9/30/17</b>	126,697,806	301,187	0
<b>BENEFIT ACCOUNT:</b>			
<b>ADD:</b>			
<b>Contributions -</b>			
City of Miami	946,165,183	2,042,899	56,341,690
Police Relief & Pension Fund	52,342	0	0
Fire Relief & Pension Fund	28,473	0	0
Members	697,822	0	0
Transfers from Membership Acct	300,428,086	10,484,596	0
Amortization of Discounts	10,319,476	249,134	0
Corrections to Control	168,232,895	0	0
Dividends Received	255,846,028	5,446,374	34,610,082
Securities Lending Income	10,032,576	347,420	2,124,144
Excess Interest Transfer	0	0	288,194,062
Interest Income	663,670,107	16,820,254	69,842,689
Other Income	2,592,616	38,037	200,943
Corporate Action	3,411,948	109,771	698,016
Commission Recapture	593,117	18,898	117,790
Profit on Sale of Investments	1,220,038,218	35,791,352	186,748,874
Unrealized Profit/Loss DROP	46,332,725	0	0
Unrealized Profit on Sales of Inv	229,933,792	12,234,893	60,909,705
Unrealized Profit on Sec Lending Collateral	1,960,433	71,299	525,304
Rental Income	1,821,004	57,406	373,867
Share of Earnings Income	0	1,170,581	0
	3,862,156,840	84,882,915	700,687,166
<b>DEDUCT:</b>			
<b>Pensions Paid</b>			
Fire	979,923,040	0	0
Police	869,202,737	0	0
DROP Benefit Expense	169,672,760	0	0
General	7,034,700	0	0
Former Gen assumed by Trust	276,624	0	0
Pension Payments Prior 1966	989,022	0	0
<b>Distributions</b>			
Lump Sum Payments to Beneficiaries	128,540	12,284,755	291,165,826
Death Benefits	1,272,666	0	0
Amortization of Premium	4,876,744	0	0
Corrections to Control	17,117,379	0	0
Income Expenses	87,020,616	2,537,635	15,132,229
Building Depreciation	507,632	18,788	117,467
Administrative Expense	14,924,610	0	0
Stiff Short Term Investment Fee	267,789	11,857	75,274
Securities Lending Fees	2,674,993	90,597	551,346
Other Expenses	0	45,256	0
Loss on Sale of Investments	41,652,910	1,068,210	7,163,861
Unrealized Profit on Sales of Inv	61,838,567	2,718,374	32,827,667
Vested Rights Withdrawals	954,289	0	0
<b>Transfers -</b>			
Excess Interest Earnings	288,194,062	0	0
G & S Benefit Account	5,378,420	0	0
G & S Share of Earnings	5,251,212	0	0
Interest to Membership Acct	117,171,706	0	0
Interest on VR Withdrawals	275,509	0	0
Overpayments (uncollectible)	769	0	0
	2,676,607,296	18,775,473	347,033,670
<b>BALANCE AS OF 9/30/17</b>	1,185,549,544	66,107,442	353,653,496





**Demographic Information**

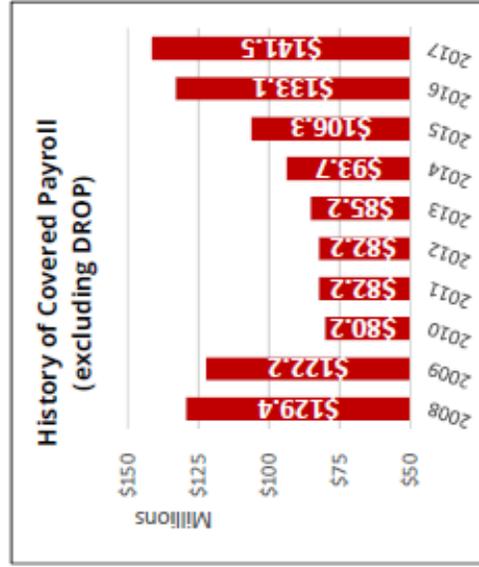
The foundation of a reliable actuarial report is the member information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

**October 1, 2017**

<b>Member Counts</b>	
Active Members	1,943
Retired Members	1,666
Beneficiaries	257
Disabled Members	136
Terminated Vested Members, due a Monthly Benefit	16
Terminated Members, due a Refund of Employee Contributions	97
DROP Members	<u>129</u>
<b>Total</b>	<b>4,244</b>

**Active Participant Demographics**

Average Age	36.12
Average Service	9.09
Average Compensation	\$72,824
Covered Payroll	\$141,497,840
<b>Total Payroll</b>	<b>\$159,787,486</b>





Demographic Information (continued)

October 1, 2017

**Retired Member Statistics**

Average Age 65.22  
Average Monthly Benefit \$5,499

**Beneficiary Statistics**

Average Age 76.91  
Average Monthly Benefit \$1,146

**Disabled Member Statistics**

Average Age 71.81  
Average Monthly Benefit \$1,912

**Terminated Member Statistics**

Average Age 38.24  
Average Monthly Benefit \$2,919  
Average Remaining Employee Contributions \$8,581

**DROP Member Statistics**

Average Age 52.17  
Average Monthly Benefit \$5,899  
Payroll \$18,289,646



**City of Miami Fire Fighters' and Police Officers' Retirement Trust**  
**Actuarial Valuation as of October 1, 2017**  
**Participant Reconciliation**

**Participant Reconciliation**

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Totals
<b>Prior Year</b>	1,869	15	143	1,798	264	4,089
<b>Active</b>						
To Terminated Vested	(1)	1				
To Retired	(21)			21		
To Refund	(20)					(20)
To Due Refund	(17)	17 <sup>1</sup>				
To Death	(3)					(3)
<b>Terminated Vested</b>						
To Retired	1					
To Active		(1)				
<b>Disabled</b>						
To Death			(7)			(7)
<b>Retired</b>						
To Death				(24)		(24)
<b>Survivor</b>						
To Death					(15)	(15)
<b>Additions</b>	135	82 <sup>1</sup>			8	225
<b>Removed</b>		(1)				(1)
<b>Current Year</b>	1,943	113	136	1,795	257	4,244

<sup>1</sup>The addition to the terminated vested count are terminated members who are due a refund of contributions.

# **VI**

## **Plan Provisions Section**



**OUTLINE OF PRINCIPAL BENEFIT PROVISIONS OF  
THE CITY OF MIAMI FIRE FIGHTERS' AND POLICE OFFICERS'  
RETIREMENT TRUST**

ORIGINAL ORDINANCE NO. 10002 ADOPTED JUNE 13, 1985

**EARNABLE COMPENSATION:**

Earnable compensation, shall mean an employee's base salary including pickup contributions, for all straight time hours worked, plus assignment pay and payments received for vacation and sick leave taken, jury duty, and death in the family leave taken. Earnable compensation shall not include overtime pay; payments for accrued sick leave, accrued vacation leave, or accrued compensatory leave; holiday pay; premium pay for holidays worked; the value of any employment benefits or non-monetary entitlements; or any other form of remuneration.

**COVERED GROUP:**

All fire fighters or police officers presently employed by the City as a fire fighter or police officer whether in the classified or unclassified service of the City.

**EMPLOYEE CONTRIBUTIONS:**

Effective the first full pay period following October 1, 1999, it shall be 7% of pre-tax earnable compensation. Effective the first full pay period following October 1, 2000, it shall be 7% of pre-tax earnable compensation or a percent equal to the City's contribution, whichever is less. Effective the first full pay period following October 1, 2008, for fire fighter members it will change from 7% to 8% of pre-tax earnable compensation. Effective the first full pay period following October 1, 2009, for fire fighter members it will change from 8% to 9% of pre-tax earnable compensation. Effective the first full pay period following October 1, 2010, for fire fighter members it will change from 9% to 10% of pre-tax earnable compensation. Effective the first full pay period following October 1, 2011, for police officer members who were hired prior to October 1, 2011, it will change from 7% to 10%. For police officer members who were hired on or after October 1, 2011 it will be 13%. Effective the full pay period following October 1, 2012, for police officer members who were hired prior to October 1, 2012, it will change from 10% to 7%. For police officer members who were hired on or after October 1, 2012, it will be 10%.

**EMPLOYER CONTRIBUTIONS:**

The City's annual fiscal contribution to the retirement system shall provide for the following (1) non-investment expenses of the retirement system, (2) normal costs of the retirement system.

**NORMAL RETIREMENT AGE:**

Age 50 for fire fighter members and Age 49 for police officer members.

**SERVICE RETIREMENT:**

The annual normal service retirement allowance, payable on a 40% Joint and Survivor basis will equal 3.0% of average final compensation per year of creditable service for the first 15 years of such creditable service and 3.5% of the average one-year compensation per year of creditable service after 15 years.

**RULE OF 64 RULE OF 68 RETIREMENT RULE OF 70 RETIREMENT:**

A member, in service, who has not withdrawn from active membership in the retirement system may elect service retirement on the basis of his or her combined age and creditable service equaling 64 or more. A fire fighter member, in service, who has not withdrawn from active membership in the retirement system and had not attained his/her 64 points as of October 1, 2009, may elect service retirement on the basis of his or her combined age and creditable service equaling 68 or more. As of October 1, 2010, a member in service who has not withdrawn from active membership in the retirement system may also elect service retirement on the basis of his or her combined age and creditable service equaling 70 or more. Election to retire under Rule of 64, Rule of 68 or Rule of 70 shall be made by written application to the board. Application shall be executed not less than 10 nor more than 90 days subsequent to the date the member desires to be retired.



#### EARLY SERVICE RETIREMENT:

After 20 years of creditable service, accrued benefit actuarially adjusted.

#### DEFERRED RETIREMENT OPTION PROGRAM: (DROP)

A member who is eligible to retire under either Rule of 64, Rule of 68, Rule of 70 or Service retirement can elect to participate in the Deferred Retirement Option Program (DROP). The program allows the member to defer receipt of his retirement benefit into a "DROP" account while he/she continues to be employed by the Department. A police officer member can be in the DROP for a maximum of 7 years (84 months). A fire fighter member can be in the DROP for a maximum of 4 ½ years (54 months). Employees who had not attained normal retirement eligibility as of 1/1/2013 or were not vested as of 10/01/2010, and all employees hired on or after 1/1/2013 will not be eligible for the DROP.

#### BACK DEFERRED RETIREMENT OPTION PROGRAM:

Employees who had not attained normal retirement eligibility as of 1/1/2013 or were not vested as of 10/01/2010, and all employees hired on or after 1/1/2013, will be eligible for the backdrop option. Members who elect the backdrop shall receive a monthly benefit payable on the employee's actual retirement date based on the benefit the employee would have received if he/she had left city employment and retired on an earlier date. An eligible employee who elects the backdrop option will receive a lump sum payment equal to the accumulation of monthly retirement benefit payments he/she would have received during the period plus interest at the rate of 3% per year, compounded annually. An eligible employee may elect a minimum backdrop period of one year and a maximum backdrop period of up to seven years.

#### AVERAGE FINAL COMPENSATION:

Shall mean the annual earnable compensation of a member during either the last one (1) year or the highest one (1) year of membership service, whichever is greater.

#### CREDITABLE SERVICE:

Membership credit upon which a member's eligibility to receive benefits under the retirement system is based or upon which the amount of such benefits is determined.

#### LIMITATIONS ON BENEFITS:

A member's retirement allowances shall not exceed one hundred percent (100%) of the member's final average compensation for members retiring under Service Retirement Rule of 64 Retirement or Rule of 68 Retirement. Exceptions are, (1) members whose retirement allowances, prior to October 1, 1998, had already earned one hundred percent or greater, these members may continue to accrue pension benefits; (2) members whose retirement allowance exceeds one hundred percent as of October 1, 1998 due to the multiplier change, these members shall be capped at the new percentage. Monthly retirement allowance for members not eligible for Rule of 64 or Rule of 68 Retirement as of October 1, 2010, shall not exceed \$100,000.00 per year.

#### OPTIONAL ALLOWANCES:

Normal form (Option 6C) is joint and 40% contingent survivor. Option 1 is cash refund annuity, based on present value at retirement. Option 2 is joint and 100% survivor. Option 3 is joint and 50% contingent survivor. Option 4 is open option. Option 5 is determined by Board due to incapacity of member. Option 6A is withdrawal of employee contributions with credited interest; monthly benefit is half of normal level. Option 6B is an additional 5% with no survivor benefit.

#### DISABILITY RETIREMENTS:

##### A. Ordinary Disability

After 10 years of creditable service, if not otherwise eligible for normal retirement, and incurred while not in line of duty, a benefit payable for life consisting of the benefit rate times 90% of average final compensation times years of creditable service, if such retirement allowance exceeds 30% of average final compensation. Otherwise, a benefit of 30% of the member's average final compensation.

##### B. Accidental Disability

Prior to age 60, incurred in line of duty. A benefit payable on a 40% joint and survivor basis of 66 2/3% of average or final compensation, whichever is larger.



#### DEATH BENEFIT:

A. Ordinary Death Benefit

After 3 years of service, provided death is not accidentally incurred in line of duty, a lump sum payment of 50% of annual compensation received in year prior to death plus an additional lump sum payment of member's accumulated contributions with interest to date of death. Or in lieu thereof; if eligible for Early or Service retirement, and with 3 years of membership, automatic Option 6C, payable to spouse, as through retirement had occurred on date of death (40% payable)

B. Accidental Death Benefit

Incurred in line of duty (or presumed to be in the line, i.e. heart), annual pension of 50% of average final compensation to spouse until death or remarriage or to children under 18, or to dependent parents for life. If none of such beneficiaries exist, the ordinary death benefit will be paid. Also, a lump sum payment of member's accumulated contributions with interest to date of death is paid in addition to the above payments.

#### VESTED RIGHTS BENEFIT:

After completion of 10 years of service, provided accumulated contributions are not withdrawn. A benefit based on service and average final compensation when employment is terminated. Benefit is deferred to minimum retirement age.

#### C.O.L.A. ACCOUNT:

The COLA I benefit was determined from available monies from an initial city contribution made from the trust funds excess interest earnings. These monies were allocated to the retiree population, according to unit values and distributed to each member according to his/her actuarial life expectancy, in level monthly lifetime payments. In addition to the above initial benefit, a yearly COLA I increase was financed by 2% of the active member's pension contributions.

This yearly increase was determined on the basis as the initial benefit and added to the monthly lifetime payments. As of January 9, 1994, the active employees ceased making the 2% pension contribution to the COLA I account, and the COLA I benefits were frozen as of that date. Beginning with 1994, in addition to the frozen COLA I benefit, a COLA II benefit was paid. The COLA II benefit is funded from the pension fund's annual excess investment return (other than COLA account assets). The methodology for determining the excess investment return and amounts available for the COLA II benefit are described in detail in Section 40-213 of the City of Miami Code. An actuarial table is developed yearly identifying the benefits due. This table is based upon full years of creditable service at retirement and full years retired as of April of the current year. For accidental death and accidental disability, years of service are defined as twenty-five (25) years, or actual creditable service if greater. Receipt of the COLA II benefit is based on the retiree reaching at least four (4) full years of retirement and fifty years of age. In case of accidental death, the beneficiary will be entitled to the COLA benefit on April 1<sup>st</sup> following the fiftieth anniversary of the employee's birth and the fourth anniversary of the employee's death. COLA benefits for a vested right retiree are based upon such retiree reaching at least four (4) full years of retirement after fifty (50) years of age. COLA benefits reflect the option selected at the time of retirement.

In addition, funding for COLA benefits for future employees hired during the remaining term of the amended final judgement, Gates vs. City of Miami, Circuit Court Case No. 77-9491 CA04, shall be defined and allocated through the remaining term of such final judgement.



ORDINANCES ADOPTED DURING FISCAL YEAR 2016/2017

DATE

ORDINANCE NUMBER

None

