



CITY OF MIAMI

FIRE FIGHTERS' AND POLICE OFFICERS' RETIREMENT TRUST



2020 Annual Report





ADMINISTRATOR

Dania L. Orta

TRUSTEES

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

July 1, 2021

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, 2010.

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, MARCUM, LLC, concluded that there was a reasonable basis for rendering an unqualified opinion that the financial statements for the fiscal year ended September 30, 2020, were fairly stated in conformity with US generally accepted accounting principles.

Sincerely,

Dania L. Orta
Administrator

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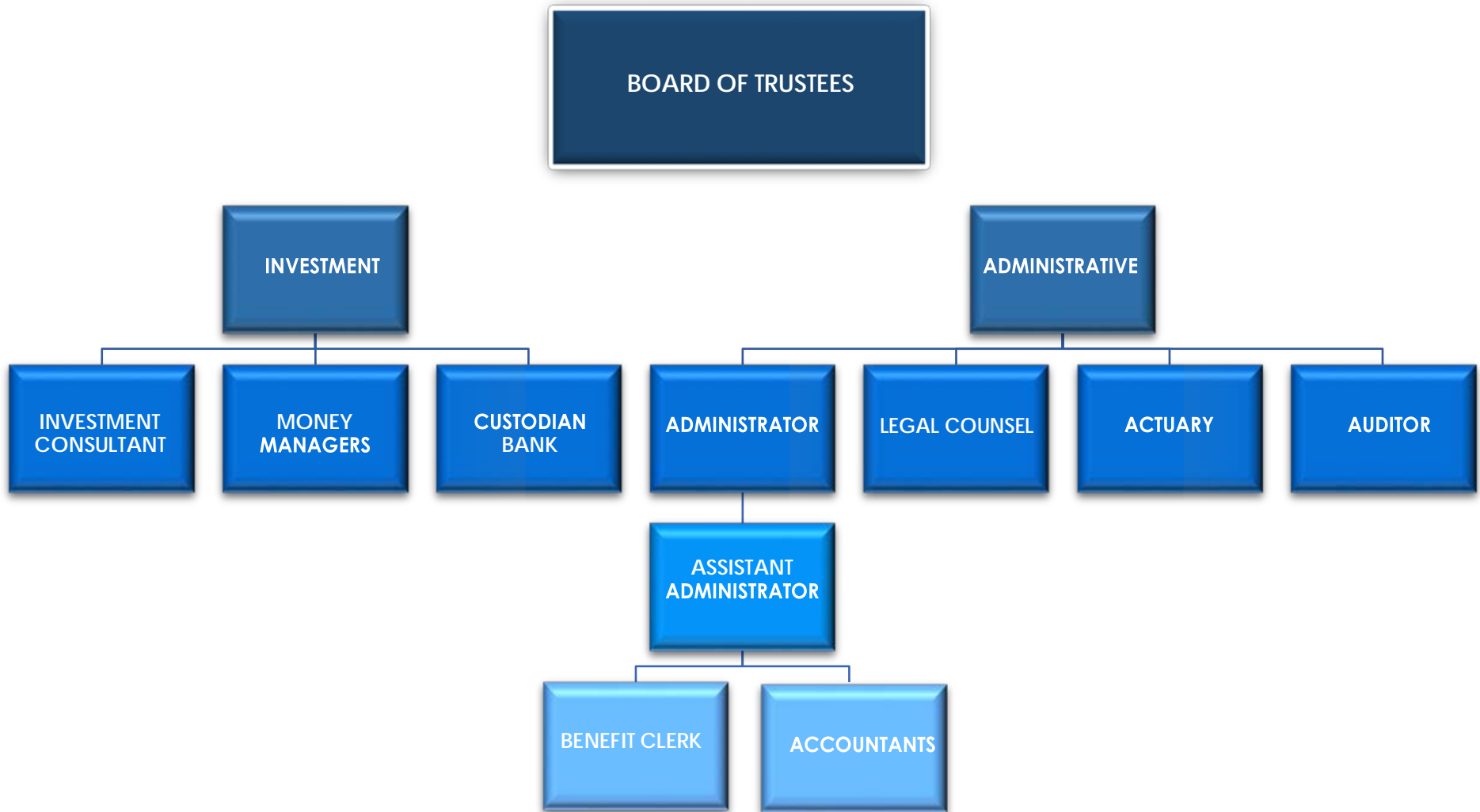
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Introductory Section

Table of Organization



BOARD OF TRUSTEES
AND
PERSONNEL OF THE RETIREMENT TRUST

AS OF SEPTEMBER 30, 2020

Chairman

Ornel Cotera – 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
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

Marcum LLP

Investment Managers

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

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

Consultant

Meketa

Custodian

Northern Trust Company



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

On September 30, 2020, the City of Miami Fire Fighters' and Police Officers' Retirement Trust completed its eighty-first year of operation.

Retirement benefits granted during the year represent annual benefits of \$8,190,608 and are as follows:

4	Service Retirements with annual benefits of	480,537
69	DROP Service Retirements with annual benefits of	7,711,482
1	Benefit Adjustments with annual benefits of	-1,412
1	Accidental Disability Retirement with annual benefits of	63,123

During the year, 62 pensioners of the Retirement Trust died. Of these, 44 had selected a pension which terminated at their death and 18 had selected an option that will continue to a beneficiary representing yearly benefits of \$398,415.

During the year ending September 30, 2020, the pension payroll totaled \$137,866,491, which is a increase of 5.6382% when compared to the previous year's total payroll, and is broken down as follows:

		<u>ANNUAL BENEFITS</u>
1668	Service Retirements	115,151,429
147	DROP Service Retirements	15,465,463
29	Early Service Retirements	397,232
7	Ordinary Disability Retirements	95,876
109	Service/Accidental Disability Retirements	2,702,889
7	Accidental Death Retirements	184,133
9	Ordinary Death Early	273,212
240	Continuances	<u>3,596,258</u>
		137,866,491
Securities' gains and losses, Miscellaneous Income		151,007,451

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.





Financial Section

INDEPENDENT AUDITORS' REPORT

To the Board of Trustees and Plan Administrator
City of Miami Fire Fighters' and Police Officers' Retirement Trust

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 statement of fiduciary net position as of September 30, 2020, the related statement of changes in fiduciary net position for the year 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.

Auditors' Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the 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.



Opinion

In our opinion, the 2020 financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Trust as of September 30, 2020, 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.

Other Matters

Report on Summarized Comparative Information

We have previously audited the Trust's 2019 financial statements, and we expressed an unmodified opinion on those audited financial statements in our report dated February 19, 2020. In our opinion, the summarized comparative information presented herein as of and for the year ended September 30, 2019 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in the City's net pension liability and related ratios, schedule of City contributions, schedule of investment returns and notes to required supplementary information on pages 4-9 and 37-41 be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The Schedules of Administrative and Investment Expenses (the Schedules) are presented for purposes of additional analysis and are not a required part of the financial statements.

The Schedules are the responsibility of management and were derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the 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 19, 2021 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 solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Trust's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Trust's internal control over financial reporting and compliance.

Marcum LLP

Miami, FL
February 19, 2021



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

MANAGEMENT'S DISCUSSION AND ANALYSIS

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, 2020 and 2019. 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 year ended 2020 and 2019 by \$1,566.1 million and \$1,561.2 million, respectively. The Trust's net position is held in trust to meet future benefit payments. The Trust experienced an increase in fiduciary net position of \$5 million in 2020 and a decrease of \$5.5 million in fiduciary net position in 2019 which resulted primarily from changes in the fair value of the Trust's investments, due to better performing financial markets.
- For the fiscal year ended September 30, 2020 the Trust received contributions totaling \$83.4 million and had a net investment income of \$87.6 million.

For the fiscal year ended September 30, 2019 the Trust received contributions totaling \$79 million and had a net investment income of \$73.5 million.

- For the fiscal year ended September 30, 2020 the Trust's deductions increased over the prior year from \$158.9 million to \$166.6 million or 4.8%. The increase can be attributed to a combination of increases in retiree payroll (more members retired), as well as the annual increase in the cost-of-living allowance (COLA II) given to retirees.
- For the year ended September 30, 2020, the total return of the portfolio was 6.17%. Actual net investment income was \$87.6 million in 2020 compared with \$73.5 million in 2019.

OVERVIEW OF THE FINANCIAL STATEMENTS

The financial statements include the Statement of Fiduciary Net Position and Statement 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 provides historical trend information about the Trust.

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



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

MANAGEMENT'S DISCUSSION AND ANALYSIS

DESCRIPTION OF THE FINANCIAL STATEMENTS

The Statement of Fiduciary Net Position presents 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 Statement of Changes in Fiduciary Net Position reports 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 the employer (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.

The Required Supplementary Information included in this report is required by the Governmental Accounting Standards Board. These schedules consist of information pertaining to 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 the Supplementary Information. 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.

FINANCIAL ANALYSIS

- Trust's total assets as of September 30, 2020, were \$1,622.5 million and were mostly comprised of cash and cash equivalents, investments and securities lending collateral. Total assets decreased \$66.8 million or 3.9% as compared to 2019.
- Total liabilities as of September 30, 2020 were \$56.4 million and were mostly comprised of obligations under securities lending. Total liabilities decreased \$71.7 million or 56% from the prior year primarily due to a decrease in obligations under securities lending.



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

MANAGEMENT'S DISCUSSION AND ANALYSIS

- Payables for securities purchased increased by \$3.8 million or 40% from the prior year primarily due the timing of a pending investments transactions. A unsettled transaction in the amount of \$10 Million to Northern Trust is included in the 2020 balance.
- Trust assets exceeded its liabilities at the close of fiscal year ended September 30, 2020 by \$1,566.1 million. Total fiduciary net position restricted for pensions increased \$4.9 million or 0.3% from the previous year.

**Table 1 - Summary of Fiduciary Net Position
As of September 30, 2020 and 2019
(Dollar Amounts in Thousands)**

	2020	2019	Increase (Decrease) Amount	Total Percentage Change
Assets				
Cash and cash equivalents	\$ 30,137	\$ 43,221	\$ (13,084)	-30.3%
Receivables	13,473	14,790	(1,317)	-8.9%
Investments	1,534,583	1,514,508	20,075	1.3%
Security lending collateral - invested	42,231	114,569	(72,338)	-63.1%
Property and equipment, net	2,075	2,095	(20)	-1.0%
Total Assets	1,622,499	1,689,183	(66,684)	-3.9%
Liabilities				
Payables for securities purchased	13,378	9,591	3,787	39.5%
Accounts payable and other liabilities	760	3,815	(3,055)	-80.1%
Obligations under securities lending	42,231	114,569	(72,338)	-63.1%
Total Liabilities	56,369	127,975	(71,606)	-56.0%
Net Position Restricted for Pension				
Benefits	<u>\$ 1,566,130</u>	<u>\$ 1,561,208</u>	<u>\$ 4,922</u>	0.3%



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

MANAGEMENT'S DISCUSSION AND ANALYSIS

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 2020 and 2019 totaled \$171.6 million and \$153.5 million, respectively. For the fiscal year ended September 30, 2020 total additions to plan fiduciary net position increased by \$18.1 million or 11.8% from those of the prior year, due primarily to an increase in net investment income.

Actual results were:

- City contributions increased from the previous year by approximately \$4.9 million or 7.8% based on the actuarial valuation.
- Member contributions decreased from the previous year by approximately \$488 thousand or 3.0%. This decrease is primarily due to an increase in the number of active retirees.
- Net investment income increased from the previous year by \$14.1 million or 19% as the funds performed more favorably compared to prior year.

Additions to Fiduciary Net Position Years Ended September 30, 2020 and 2019 (Dollar Amounts in Thousands)

	2020	2019	Increase (Decrease) Amount	Total Percentage Change
City contribution	\$ 67,564	\$ 62,695	\$ 4,869	7.8%
Member contributions	15,821	16,309	(488)	-3.0%
Net investment income	87,913	73,863	14,050	19.0%
Other income	<u>272</u>	<u>605</u>	<u>(333)</u>	-55.0%
Total Additions	<u>\$ 171,570</u>	<u>\$ 153,472</u>	<u>\$ 18,098</u>	11.8%

DEDUCTIONS FROM FIDUCIARY NET POSITION

The primary expenses of the Trust include the payment of pension benefits to retired members and beneficiaries, cost of living allowance (COLA) payments to retired members and beneficiaries, refund of contributions to former members, and administrative expenses and depreciation. Total deductions for fiscal years ended 2020 and 2019 were \$166.6 million and \$158.9 million, an increase of 4.8% and 0.5%, respectively.

For the fiscal year ended September 30, 2020, the payment of pension benefits to retirees and COLA payments increased by \$8 million or 5.1% from the previous year. The slight increase is due to COLA payments to retirees along with an increase in retiree payroll.



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

MANAGEMENT'S DISCUSSION AND ANALYSIS

For the fiscal year ended September 30, 2020, the refund of contributions decreased by \$348 thousand or 52.1% from the previous year. This decrease is mostly due to less active members terminating employment during the fiscal year.

For the fiscal year ended September 30, 2020, administrative expenses and depreciation increased by approximately \$82 or 3.8% from the previous year due mostly to small increase in building maintenance cost.

Deductions from Fiduciary Net Position Years Ended September 30, 2020 and 2019 (Dollar Amounts in Thousands)

	2020	2019	Increase (Decrease) Amount	Total Percentage Change
Pension benefits paid	\$ 137,866	\$ 130,507	\$ 7,359	5.6%
Refund of contributions	320	668	(348)	-52.1%
Cost of Living Allowance	26,231	25,623	608	2.4%
Administrative expenses and depreciation	<u>2,230</u>	<u>2,148</u>	<u>82</u>	3.8%
Total Additions	<u>\$ 166,647</u>	<u>\$ 158,946</u>	<u>\$ 7,701</u>	4.8%

CAPITAL ASSETS

As of September 30, 2020, the Trust's investment in capital assets totaled \$2.1 million (net of accumulated depreciation). This investment in capital assets includes land, building and equipment for administrative use. The appraised value of the Administration building is \$3.35 million at September 30, 2020. An appraisal is performed on an annual basis for insurance and valuation purposes.

RETIREMENT SYSTEM AS A WHOLE

Management believes, and actuarial studies concur, that the Trust's fiduciary net position is in line to meet all its current obligations.



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

MANAGEMENT'S DISCUSSION AND ANALYSIS

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 and the money it dispenses. If you have any questions about this report or need additional financial information, they can be directed to Dania L. Orta, Administrator, 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

STATEMENT OF FIDUCIARY NET POSITION

SEPTEMBER 30, 2020

(WITH COMPARATIVE TOTALS AS OF SEPTEMBER 30, 2019)

	2020				2019			
	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
Assets								
Cash and cash equivalents	\$ 21,815,702	\$ 1,504,121	\$ 6,817,163	\$ 30,136,986	\$ 31,387,017	\$ 2,045,551	\$ 9,788,498	\$ 43,221,066
Investments, at Fair Value								
Debt securities, domestic	271,654,965	18,729,692	84,889,163	375,273,820	265,251,243	17,286,920	82,722,465	365,260,628
Debt securities, international	12,193,840	840,724	3,810,440	16,845,004	21,678,159	1,412,806	6,760,650	29,851,615
Equity securities, domestic	372,275,603	25,667,145	116,331,996	514,274,744	359,446,305	23,425,788	112,098,567	494,970,660
Equity securities, international	230,852,064	15,916,470	72,138,709	318,907,243	189,282,880	12,335,919	59,030,623	260,649,422
Private equity	132,476,764	9,133,825	41,397,519	183,008,108	126,378,443	8,236,320	39,412,959	174,027,722
Real estate	91,407,980	6,302,271	28,563,979	126,274,230	137,794,548	8,980,329	42,973,237	189,748,114
Total Investments	<u>1,110,861,216</u>	<u>76,590,127</u>	<u>347,131,806</u>	<u>1,534,583,149</u>	<u>1,099,831,578</u>	<u>71,678,082</u>	<u>342,998,501</u>	<u>1,514,508,161</u>
Securities Lending Cash Collateral Invested	<u>30,570,773</u>	<u>2,107,752</u>	<u>9,553,028</u>	<u>42,231,553</u>	<u>83,199,351</u>	<u>5,422,257</u>	<u>25,946,928</u>	<u>114,568,536</u>
Receivables								
Proceeds from securities sold	10,945,195	--	--	10,945,195	11,277,977	--	--	11,277,977
Accrued interest	2,527,651	--	--	2,527,651	3,511,794	--	--	3,511,794
Total Receivables	<u>13,472,846</u>	<u>--</u>	<u>--</u>	<u>13,472,846</u>	<u>14,789,771</u>	<u>--</u>	<u>--</u>	<u>14,789,771</u>
Property and Equipment, Net	<u>1,502,160</u>	<u>103,569</u>	<u>469,409</u>	<u>2,075,138</u>	<u>1,521,755</u>	<u>99,176</u>	<u>474,581</u>	<u>2,095,512</u>
Total Assets	<u>1,178,222,697</u>	<u>80,305,569</u>	<u>363,971,406</u>	<u>1,622,499,672</u>	<u>1,230,729,472</u>	<u>79,245,066</u>	<u>379,208,508</u>	<u>1,689,183,046</u>
Liabilities								
Payable for securities purchased	13,377,715	--	--	13,377,715	9,591,173	--	--	9,591,173
Accounts payable and other liabilities	759,830	--	--	759,830	3,814,775	--	--	3,814,775
Obligations under securities lending	30,570,773	2,107,752	9,553,028	42,231,553	83,199,350	5,422,257	25,946,929	114,568,536
Total Liabilities	<u>44,708,318</u>	<u>2,107,752</u>	<u>9,553,028</u>	<u>56,369,098</u>	<u>96,605,298</u>	<u>5,422,257</u>	<u>25,946,929</u>	<u>127,974,484</u>
Net Position Restricted for Pension Benefits	<u>\$ 1,133,514,379</u>	<u>\$ 78,197,817</u>	<u>\$ 354,418,378</u>	<u>\$ 1,566,130,574</u>	<u>\$ 1,134,124,174</u>	<u>\$ 73,822,809</u>	<u>\$ 353,261,579</u>	<u>\$ 1,561,208,562</u>



The accompanying notes are an integral part of these financial statements.

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

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

**FOR THE YEAR ENDED SEPTEMBER 30, 2020
(WITH COMPARATIVE TOTALS FOR THE YEAR ENDED SEPTEMBER 30, 2019)**

	2020				2019			
	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
Additions								
Contributions:								
City	\$ 60,633,239	\$ --	\$ 6,931,175	\$ 67,564,414	\$ 56,030,260	\$ --	\$ 6,664,591	\$ 62,694,851
Members	15,820,796	--	--	15,820,796	16,309,563	--	--	16,309,563
Total Contributions	<u>76,454,035</u>	<u>--</u>	<u>6,931,175</u>	<u>83,385,210</u>	<u>72,339,823</u>	<u>--</u>	<u>6,664,591</u>	<u>79,004,414</u>
Investment Income								
Net appreciation in fair value of investments	48,828,661	3,530,052	15,946,803	68,305,516	37,523,258	2,342,295	11,237,490	51,103,043
Interest	11,656,596	754,487	3,551,108	15,962,191	12,744,076	791,173	3,900,381	17,435,630
Dividends	7,206,427	471,027	2,204,891	9,882,345	7,669,494	476,164	2,349,204	10,494,862
	67,691,684	4,755,566	21,702,802	94,150,052	57,936,828	3,609,632	17,487,075	79,033,535
Less: investment expenses	(4,802,594)	(315,833)	(1,475,649)	(6,594,076)	(4,058,525)	(250,735)	(1,240,171)	(5,549,431)
Net Investment Income from Investing Activities	<u>62,889,090</u>	<u>4,439,733</u>	<u>20,227,153</u>	<u>87,555,976</u>	<u>53,878,303</u>	<u>3,358,897</u>	<u>16,246,904</u>	<u>73,484,104</u>
Securities Lending Activities								
Securities lending income	346,830	22,595	105,975	475,400	369,617	22,852	113,025	505,494
Securities lending fees	(86,647)	(5,645)	(26,475)	(118,767)	(92,331)	(5,708)	(28,234)	(126,273)
Net Income from Securities Lending Activities	<u>260,183</u>	<u>16,950</u>	<u>79,500</u>	<u>356,633</u>	<u>277,286</u>	<u>17,144</u>	<u>84,791</u>	<u>379,221</u>
Total Net Investment Income	<u>63,149,273</u>	<u>4,456,683</u>	<u>20,306,653</u>	<u>87,912,609</u>	<u>54,155,589</u>	<u>3,376,041</u>	<u>16,331,695</u>	<u>73,863,325</u>
Other	<u>198,448</u>	<u>12,827</u>	<u>60,380</u>	<u>271,655</u>	<u>440,591</u>	<u>27,960</u>	<u>136,082</u>	<u>604,633</u>
Total Additions	<u>139,801,756</u>	<u>4,469,510</u>	<u>27,298,208</u>	<u>171,569,474</u>	<u>126,936,003</u>	<u>3,404,001</u>	<u>23,132,368</u>	<u>153,472,372</u>
Deductions								
Pension benefits paid	137,866,491	--	--	137,866,491	130,508,175	--	--	130,508,175
Refund of contributions	320,190	--	--	320,190	667,508	--	--	667,508
COLA distributions to retirees	--	93,495	26,136,817	26,230,312	--	102,247	25,520,278	25,622,525
Depreciation expense	14,774	1,007	4,592	20,373	14,189	915	4,405	19,509
Administrative expenses	2,210,096	--	--	2,210,096	2,128,469	--	--	2,128,469
Total Deductions	<u>140,411,551</u>	<u>94,502</u>	<u>26,141,409</u>	<u>166,647,462</u>	<u>133,318,341</u>	<u>103,162</u>	<u>25,524,683</u>	<u>158,946,186</u>
Change in Net Position	<u>(609,795)</u>	<u>4,375,008</u>	<u>1,156,799</u>	<u>4,922,012</u>	<u>(6,382,338)</u>	<u>3,300,839</u>	<u>(2,392,315)</u>	<u>(5,473,814)</u>
Net Position Restricted for Pension Benefits								
Beginning of year	1,134,124,174	73,822,809	353,261,579	1,561,208,562	1,140,506,512	70,521,970	355,653,894	1,566,682,376
End of year	\$ 1,133,514,379	\$ 78,197,817	\$ 354,418,378	\$ 1,566,130,574	\$ 1,134,124,174	\$ 73,822,809	\$ 353,261,579	\$ 1,561,208,562

The accompanying notes are an integral part of these financial statements.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 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 annual 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 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, 2019, the date of the latest available actuarial valuation report:

Inactive plan members and beneficiaries currently receiving benefits	2,195
Inactive plan members entitled but not yet receiving benefits	23
Active plan members - vested	900
Active plan members - non-vested	<u>1,103</u>
Total Members	<u><u>4,221</u></u>



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 1 – DESCRIPTION OF THE PLAN (CONTINUED)

MEMBER CONTRIBUTION

Members contribute a percentage of their base salaries on a bi-weekly basis. Prior to the agreement dated January 9, 1994, a 2% contribution was designated 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 0% 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).

As of 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 shall be 10% of earnable compensation.

As of September 30, 2014, the member contribution for fire fighters shall be 10% of earnable compensation.

During the year ended September 30, 2020, approximately \$371,000 is included as member contributions for the purchase of additional service years by members as provided for by the Trust.

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 unrealized and 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.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 1 – DESCRIPTION OF THE PLAN (CONTINUED)

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.

Members who were vested as of September 27, 2010, may elect to retire after 10 or more years of creditable service upon attainment of normal retirement age. A member entitled to a normal retirement shall receive a retirement allowance equal to 3% of the member's average final compensation multiplied by years of creditable service for the first 15 years of such creditable service, and 3½% of the member's average final compensation multiplied by years of creditable service exceeding 15 years. This benefit paid in monthly installments.

Members who were not vested as of September 27, 2010, may elect to retire upon reaching Rule of 70 with a minimum age of 50.

Effective September 30, 2010, for members who retire under normal service retirement or Rule of 70 retirement the retirement allowance 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.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 1 – DESCRIPTION OF THE PLAN (CONTINUED)

PENSION BENEFITS (CONTINUED)

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

INVESTMENT POLICY

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 method.
- 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

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 1 – DESCRIPTION OF THE PLAN (CONTINUED)

COLA ACCOUNTS (CONTINUED)

- 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 \$2,500,000, 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 year ended September 30, 2020, approximately \$6,931,000, 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 PROGRAM (DROP)

Members who are eligible for service retirement or Rule of 64 or Rule of 68 after September 1998 may elect to enter the Deferred Retirement Option Program (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.

The DROP assets are held by an independent third party and therefore not a part of the Trust's Financial Statements. The DROP balance was \$151,905,900 as of September 30, 2020.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF ACCOUNTING

The Trust's financial statements are prepared in accordance with generally accepted accounting principles accepted in the United States of America ("U.S. GAAP") as prescribed by the Governmental Accounting Standards Board ("GASB"). Member contributions are recognized as revenues in the period in which contributions are due. City contributions are due when there is a formal commitment to provide amounts determined by an actuarial valuation. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

CASH EQUIVALENTS

The Trust considers all highly liquid investments with short-term 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 and realized gains and losses are presented as net appreciation in fair value of investments on the Statement of Changes in Fiduciary Net Position. 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 statement of fiduciary net position.

USE OF ESTIMATES

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

PROPERTY AND EQUIPMENT, NET

Property and equipment (capital assets) 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.

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.

COMPARATIVE INFORMATION

The financial statements include certain prior-year comparative information. Such summarized information does not include sufficient detail to constitute a presentation in conformity with U.S. GAAP. Accordingly, such information should be read in conjunction with the Trust’s financial statements for the year ended September 30, 2019, from which the information was derived.

NOTE 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.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

Cash and cash equivalents at September 30, 2020 consist of the following:

(Managed overdraft) deposits	\$ (1,015,966)
Invested cash and foreign currency	18,419,969
Short-term investments	<u>12,732,983</u>
Total	<u>\$ 30,136,986</u>

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.

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 real estate investment trust 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 40% (at market value) of the Trust’s total asset value, in accordance with the Trust’s investment policy. Investments in stocks of foreign companies shall be limited to 30% of the value of the Trust’s portfolio.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

INVESTMENT AUTHORIZATION (CONTINUED)

Investments in core domestic fixed income securities shall be limited to 47% (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. Derivative investments with allocation limits, may not represent more than 5% of the individual portfolio manager's assets managed for the Trust. Derivative investments with allocation limits in the aggregate may not expose the individual manager's portfolio to losses in excess of 5% of the manager's total assets.

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 12% and 12%, 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.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

TYPES OF INVESTMENTS

Florida Statutes and the Trust’s 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, 2020:

Authorized Investments	Target % of Portfolio	Actual % of Portfolio
Cash and cash equivalents	0.00%	1.93%
Domestic equities	32.00%	32.87%
Core domestic fixed income	31.00%	25.06%
International equities	22.00%	20.38%
Global real estate	9.00%	8.07%
Private equity	<u>6.00%</u>	<u>11.70%</u>
Total Authorized Investments	<u>100.00%</u>	<u>100.00%</u>

RATE OF RETURN

For the year ended September 30, 2020, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 6.17%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

INVESTMENTS

The table below shows the Trust's investments by type as of September 30, 2020:

Debt Securities, Domestic	
U.S. treasuries	\$ 4,853,052
U.S. agencies	85,317
Corporate bonds	19,270,306
Asset backed securities	4,532,101
Mortgage backed securities	24,924,507
High yield bond	<u>321,608,537</u>
Total Debt Securities, Domestic	<u>375,273,820</u>
Debt Securities, International	
International government bonds	3,601,538
Corporate bonds	<u>13,243,466</u>
Total Debt Securities, International	<u>16,845,004</u>
Total Debt Securities	392,118,824
Equity securities, domestic	514,274,744
Equity securities, international	318,907,243
Private equity	183,008,108
Real estate	<u>126,274,230</u>
Total Investments	<u>\$1,534,583,149</u>

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.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

INTEREST RATE RISK (CONTINUED)

Information about the sensitivity of the fair values of the Trust's fixed income (debt securities) 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, 2020:

Investment Type	Fair Value	Investment Maturities (In Years)			
		Less Than 1	1-5 Years	6-10 Years	More Than 10 Years
U.S. treasuries	\$ 4,853,052	\$ --	\$ 3,199,193	\$ --	\$ 1,653,859
U.S. agencies	85,317	--	25,091	60,226	--
Corporate bonds	19,270,306	963,035	5,093,103	4,850,430	8,363,738
Asset backed securities	4,532,101	11,250	33,017	--	4,487,834
Mortgage backed securities	24,924,507	--	220,104	332,405	24,371,998
High yield bond	321,608,537	--	--	321,608,537	--
International government bonds	16,845,004	896,099	6,646,468	3,515,614	5,786,823
Total Debt Securities	\$ 392,118,824	\$ 1,870,384	\$ 15,216,976	\$ 330,367,212	\$ 44,664,252
% of Debt Securities Portfolio	100.00%	0.48%	3.88%	84.25%	11.39%

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.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

CREDIT RISK (CONTINUED)

The following tables disclose credit ratings by investment type, at September 30, 2020, as applicable:

Investment	Fair Value	Percentage of Portfolio
U.S. Government Guaranteed*	\$ 4,183,742	1.07%
Credit Risk Debt Securities		
AAA	316,882,914	80.81%
AA+	4,103,510	1.05%
AA	595,981	0.15%
AA-	80,039	0.02%
A+	1,276,447	0.33%
A	976,530	0.25%
A-	3,093,656	0.79%
BBB+	8,439,547	2.15%
BBB	9,333,772	2.38%
BBB-	5,103,583	1.30%
BB+	4,852,448	1.24%
BB-	1,239,599	0.32%
BB	1,047,992	0.27%
B	513,303	0.13%
Not rated	<u>30,395,761</u>	<u>7.75%</u>
Total Credit Risk Debt Securities	<u>387,935,082</u>	<u>98.93%</u>
Total Debt Securities	<u>\$ 392,118,824</u>	<u>100.00%</u>

*Obligations are backed by the full faith and credit of the U.S. Government.

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 5 individual investments that represent 5% or more of the fair value of the Trust's net position at September 30, 2020.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

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.

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.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

FOREIGN CURRENCY RISK (CONTINUED)

The Trust has exposure to foreign currency fluctuation as of September 30, 2020, as follows:

Currency	Cash and Cash Equivalents	Equity Securities	Debt Securities	Private Equity	Total
Australian Dollar	\$ --	\$ 2,841,533	\$ --	\$ --	\$ 2,841,533
Brazilian Real	--	172,169	--	--	172,169
British Pound Sterling	4	12,942,704	--	--	12,942,708
Canadian Dollar	--	7,171,282	--	--	7,171,282
Danish Krone	--	4,840,326	--	--	4,840,326
Euro	7,309	42,872,299	--	6,721,836	49,601,444
Hong Kong Dollar	--	17,630,886	--	--	17,630,886
Indonesian Rupiah	--	--	226,662	--	226,662
Japanese Yen	--	31,169,506	--	--	31,169,506
Malaysian ringgit	--	--	463,308	--	463,308
Mexican Peso	--	259,004	470,302	--	729,306
Norwegian Krone	--	1,217,259	--	--	1,217,259
Polish zloty	--	--	--	--	--
Singapore Dollar	--	1,759,037	627,297	--	2,386,334
South Korean Won	--	4,904,573	--	--	4,904,573
Swedish Krona	--	7,873,941	--	--	7,873,941
Swiss Franc	--	18,565,405	--	--	18,565,405
Taiwan Dollar	--	9,107,086	--	--	9,107,086
Other	--	3,515,125	463,782	--	3,978,907
Total	<u>\$ 7,313</u>	<u>\$166,842,135</u>	<u>\$2,251,351</u>	<u>\$6,721,836</u>	<u>\$175,822,635</u>

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 57 days, as of September 30, 2020. The custodial bank and its affiliates are prohibited from borrowing the Trust's securities.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

SECURITIES LENDING TRANSACTIONS (CONTINUED)

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, 2020, the pool had a weighted average term to maturity of 29 days.

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 repledge the associated collateral.

The following represents the balances relating to securities lending transactions at September 30, 2020:

Currency	Market Value of Securities on Loan for Cash	Fair Value Cash Collateral Invested	Fair Value of Liabilities to Borrowers
Securities Lent			
Global equities	\$ 104,981	\$ 114,636	\$ 114,636
U.S. government and agency obligations	2,595,900	2,663,528	2,663,528
Domestic corporate stocks	35,764,236	36,562,659	36,562,659
Domestic corporate bonds	<u>2,814,146</u>	<u>2,890,730</u>	<u>2,890,730</u>
Total Securities Lent	<u>\$ 41,279,263</u>	<u>\$ 42,231,553</u>	<u>\$ 42,231,553</u>



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

SECURITIES LENDING TRANSACTIONS (CONTINUED)

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 are no income distributions owing on securities lent.

INVESTMENT VALUATION

The Trust categorizes its fair value measurements with the fair value hierarchy established by generally accepted accounting principles. The fair value hierarchy categorizes the inputs to valuation techniques used to measure fair value into three levels based on the extent to which inputs used in measuring fair value are observable in the market.

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.

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



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

INVESTMENT VALUATION (CONTINUED)

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 policies 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.

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 rate in effect at September 30, 2020. 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.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

INVESTMENT VALUATION (CONTINUED)

Alternative investments: These investments pertain to private equity 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, 2020. The estimated fair value of these investments may differ from values that would have been used had a ready market existed. The Trust also has investments which are measured at net asset value ("NAV") based on their proportionate share of the value of the investments as determined by the fund manager and are valued according to methodologies which include pricing models, property valuations (appraisals), discounted cash flow models, and similar techniques. Investments measured at NAV as a practical expedient would be excluded from the fair value hierarchy because the valuation is not based on actual market inputs but rather is quantified using the investments' reported NAV as a matter of convenience.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

INVESTMENT VALUATION (CONTINUED)

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, 2020:

	September 30, 2020	Fair Value Measurements Using		
		(Level 1 Inputs)	(Level 2 Inputs)	(Level 3 Inputs)
Investment by Fair Value Level:				
Debt Securities				
U.S. treasuries	\$ 4,853,052	\$ --	\$ 4,853,052	\$ --
U.S. agencies	85,317	--	85,317	--
Corporate bonds	32,513,772	--	32,513,772	--
Asset backed securities	4,532,101	--	4,532,101	--
Mortgage backed securities	24,928,157	--	24,928,157	--
International fixed income	<u>3,601,538</u>	--	<u>3,601,538</u>	--
Total Debt Securities	<u>70,513,937</u>	--	<u>70,513,937</u>	--
Equity Securities				
Domestic equities	147,483,754	147,483,754	--	--
International equities	<u>205,257,965</u>	<u>205,257,965</u>	--	--
Total Equity Securities	<u>352,741,719</u>	<u>352,741,719</u>	--	--
Alternative Investments				
Private equity	<u>6,721,837</u>	--	--	<u>6,721,837</u>
Total Investments by Fair Value Level	<u>429,977,493</u>	\$ 352,741,719	\$ 70,513,937	\$ 6,721,837
Investments Measured at Net Asset Value (NAV)				
Commingled domestic fixed income funds	321,608,537			
Commingled international equity funds	113,649,278			
Commingled domestic equity funds	366,787,339			
Real estate investment funds	126,274,230			
Venture capital private equity funds	<u>176,286,272</u>			
Total Investments Measured at NAV	<u>1,104,605,656</u>			
Total Investments	<u>\$ 1,534,583,149</u>			



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

INVESTMENT VALUATION (CONTINUED)

The following tables summarize investments as of September 30, 2020 for which fair value is measuring using the net asset value per share, including their related unfunded commitments and redemption restrictions.

Investments Measured at NAV	Fair Value	Investments Measured at NAV		
		Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Commingled domestic fixed income funds (1)	\$ 321,608,537	\$ --	Daily	Same Day
Commingled international equity funds (2)	113,649,278	--	Daily	Same Day
Commingled domestic equity funds (3)	366,787,339	--	Daily	Same Day
Real estate investment funds (4)	126,274,230	--	Quarterly	45 days
Venture capital private equity funds (5)	<u>176,286,272</u>	<u>70,413,409</u>	N/A	N/A
Total Investments Measured at NAV	<u>\$ 1,104,605,656</u>	<u>\$ 70,413,409</u>		

1. Commingled domestic fixed income funds with established investment objectives to seek high income and capital growth by investing in U.S. high yield debt securities over a long-term period. These funds aim at hedging the foreign exchange risk resulting from the divergence between the reference currency of subfunds and the currency of share classes by using derivatives instruments.
2. Commingled international equity funds with globally diversified private equity programs that invest and seeks to measure the stocks representing the lowest 15% of float-adjusted market cap in key developed countries, excluding the U.S.
3. Commingled domestic equity funds which aim to pursue varying strategies in order to diversify risks and reduce volatility. These funds have a diversified portfolio of relative value and event driven hedge funds with a focus on U.S. holdings.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 3 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (CONTINUED)

INVESTMENT VALUATION (CONTINUED)

4. Real estate investment funds are established for the purpose to acquire, own, hold for investment and ultimately dispose of investments in real estate. These funds strive to keep a diversified portfolio of income producing institutional properties throughout the US.
5. Venture capital private equity funds whose investment objective is investing primarily in private equity investments, including primary and secondary investments in private equity, infrastructure, and other private asset funds and co-investments in portfolio companies, although the allocation among those types of investments may vary from time to time.

NOTE 4 – OFF-BALANCE-SHEET COMMITMENTS

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 majority of these future financial commitments are reported as part of the unfunded commitments for investments measured at NAV which are disclosed in Note 3 of the financial statements.

In addition to the unfunded commitments disclosed in Note 3, the Trust has future investment commitments outstanding for foreign private equity investments at September 30, 2020 of approximately €1,337,000 (euros), respectively.

NOTE 5 – NET PENSION LIABILITY OF THE CITY

The components of the net pension liability of the City at September 30, 2020 were as follows:

Total Pension Liability	\$ 2,227,232,505
Less: Plan fiduciary net position	(1,566,130,574)
Net Pension Liability	<u>\$ 661,101,931</u>
Plan Fiduciary Net Position as a % of the Total Pension Liability	70.32%



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 5 – NET PENSION LIABILITY OF THE CITY (CONTINUED)

SIGNIFICANT ACTUARIAL ASSUMPTIONS

The total pension liability at September 30, 2020 was determined using an actuarial valuation as of October 1, 2019. The actuarial valuation used the following actuarial assumptions:

Inflation	2.60%
Projected salary increases	1.5% for promotions plus salary merit scale
Projected COLAs	Amount varies annually with the adjustment on January 1st
Investment rate of return	7.34% 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.

LONG-TERM EXPECT RATE OF RETURN

The long-term expected rate of return on Plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the Trust's target asset allocation as of September 30, 2020 (see the discussion of the Trust's investment policy) are summarized in the following table:

Asset Class	*Long-term Expected Real Rates of Return
Domestic Fixed Income	1.78%
Foreign Fixed Income	0.00%
Domestic Equities	5.50%
International Equities	5.90%
Real Estate	4.73%
Private Equity	6.30%
Cash	0.00%

* Real rates of return are net of the long-term inflation assumption of 2.60% for 2020.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 5 – NET PENSION LIABILITY OF THE CITY (CONTINUED)

DISCOUNT RATE

The discount rate used to measure the total pension liability was 7.34%, for 2020. 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 7.34% for 2020, 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:

	<u>1% Decrease (6.34%)</u>	<u>Current Discount Rate (7.34%)</u>	<u>1% Increase (8.34%)</u>
City's Net Pension Liability	<u>\$ 891,027,538</u>	<u>\$ 661,101,931</u>	<u>\$ 466,079,685</u>

NOTE 6 – PROPERTY AND EQUIPMENT

As of September 30, 2020, the property and equipment consist of:

		<u>Estimated Useful Lives</u>
Land	\$ 760,865	N/A
Building	<u>1,666,306</u>	39 years
Less: accumulated depreciation	<u>(352,033)</u>	
Property and Equipment, Net	<u><u>\$ 2,075,138</u></u>	

The depreciation expense for year ended September 30, 2020 was \$20,373.



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

NOTES TO FINANCIAL STATEMENTS

FOR THE YEAR ENDED SEPTEMBER 30, 2020

NOTE 7 – ADMINISTRATIVE EXPENSES REIMBURSEMENT

For the fiscal year ended September 30, 2020 administrative costs of the Trust in the amount of \$2,210,096 were 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 accompanying Statement of Changes in Fiduciary Net Position.

NOTE 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. The employees' contribution is 7% of earnable compensation. Employee retirement contributions for the fiscal year ended September 30, 2020, totaled \$21,073.

The Trust, as employer, is to contribute such amounts as necessary to provide the Staff Plan with assets sufficient to meet the benefits to be paid to the participants. The employer contributions to the Plan for fiscal year ended September 30, 2020 were \$60,584.

NOTE 9 – LEGAL MATTERS

A suit was brought against the Trust in 2013 by a group of retirees claiming additional benefits. During the course of the litigation, all but one count was dismissed on sovereign immunity grounds. In September 2019, a final order of dismissal on the one remaining count was ordered by the Third District Court of Appeal, also on sovereign immunity grounds. A final judgment is pending entry by the trial court. The Trust is pursuing attorneys' fees and costs.



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

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN THE CITY'S NET PENSION LIABILITY AND RELATED RATIOS (UNAUDITED)

September 30,	2020	2019	2018	2017 (Restated)	2016	2015	2014
Total Pension Liability							
Service cost	\$ 33,703,733	\$ 30,947,329	\$ 27,965,925	\$ 26,279,333	\$ 21,625,163	\$ 19,203,823	\$ 17,233,272
Interest	160,096,512	152,192,907	149,244,425	146,548,443	156,265,650	156,479,438	155,338,970
Changes in benefit terms	4,270,406	55,386,337	--	122,641,436 (1)	--	9,453,429	--
Differences between expected and actual experience	46,795,554	32,027,954	21,728,074	15,553,948	12,725,721	(16,970,540)	(6,638,755)
Changes of assumptions	(82,872,814)	(5,024,797)	16,618,357	--	30,651,781	14,895,466	--
Benefit payments, including refunds of member contributions	_(164,416,994)	_(156,798,207)	_(156,093,286)	_(151,375,376)	_(166,203,470)	_(165,535,327)	_(139,860,276)
Net Change in Total Pension Liability	(2,423,603)	108,731,523	59,463,495	159,647,784	55,064,845	17,526,289	26,073,211
Total Pension Liability - Beginning	2,229,656,108	2,120,924,585	2,184,102,526	2,222,547,481	2,167,482,636	2,149,956,347	2,123,883,136
Changes in benefit terms (1)	--	--	(122,641,436)	--	--	--	--
Restatement (2)	--	--	--	_(198,092,739)	--	--	--
Total Pension Liability - Ending	<u>\$ 2,227,232,505</u>	<u>\$ 2,229,656,108</u>	<u>\$ 2,120,924,585</u>	<u>\$ 2,184,102,526</u>	<u>\$ 2,222,547,481</u>	<u>\$ 2,167,482,636</u>	<u>\$ 2,149,956,347</u>
Plan Fiduciary Net Position							
Contributions - employer	\$ 67,564,414	\$ 62,694,851	\$ 56,999,866	\$ 53,264,009	\$ 48,672,615	\$ 48,616,677	\$ 47,535,499
Contributions - member	15,820,796	16,309,563	14,258,763	13,206,378	12,082,805	9,317,231	9,462,569
Net investment income	88,163,893	73,863,324	102,296,007	136,351,212	132,946,827	35,844,550	132,696,604
Benefit payments, including refunds of member contributions	(164,416,995)	(156,798,207)	(156,093,286)	(151,375,376)	(166,203,470)	(165,537,888)	(139,860,276)
Administrative expense	(2,210,096)	(2,128,469)	(2,086,709)	(2,058,797)	(2,029,168)	(2,222,561)	(2,086,240)
Other	--	585,124	(42,726)	(42,726)	(42,726)	(42,726)	989,372
Net Change in Plan Fiduciary Net Position	4,922,012	(5,473,814)	15,331,915	49,344,700	25,426,883	(74,024,717)	48,737,528
Plan Fiduciary Net Position - Beginning	1,561,208,562	1,566,682,376	1,551,350,461	1,700,098,500	1,674,671,617	1,748,696,334	1,699,958,806
Restatement	--	--	--	_(198,092,739)	--	--	--
Plan Fiduciary Net Position - Ending	<u>\$ 1,566,130,574</u>	<u>\$ 1,561,208,562</u>	<u>\$ 1,566,682,376</u>	<u>\$ 1,551,350,461</u>	<u>\$ 1,700,098,500</u>	<u>\$ 1,674,671,617</u>	<u>\$ 1,748,696,334</u>
Net Pension Liability - Ending	<u>\$ 661,101,931</u>	<u>\$ 668,447,546</u>	<u>\$ 554,242,209</u>	<u>\$ 632,752,065</u>	<u>\$ 522,448,981</u>	<u>\$ 492,811,019</u>	<u>\$ 401,260,013</u>

(1) See "Total Pension Liability Adjustment" description in notes to required supplementary information.

(2) Restated for elimination of DROP assets and related activity. There was no effect on the City's net pension liability.

This schedule is presented as required by accounting principles generally accepted in the United States of America, however, until a full 10-year trend is compiled, information is presented for those years available.

(Continued)



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

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN THE CITY'S NET PENSION LIABILITY AND RELATED RATIOS (UNAUDITED) (CONTINUED)

September 30,	2020	2019	2018	2017 (Restated)	2016	2015	2014
Total Pension Liability	\$ 2,227,232,505	\$ 2,229,656,108	\$ 2,120,924,585	\$ 2,184,102,526	\$ 2,222,547,481	\$ 2,167,482,636	\$ 2,149,956,347
Plan Fiduciary Net Position	<u>_(1,566,130,574)</u>	<u>_(1,561,208,562)</u>	<u>_(1,566,682,376)</u>	<u>_(1,551,350,461)</u>	<u>_(1,700,098,500)</u>	<u>_(1,674,671,617)</u>	<u>_(1,748,696,334)</u>
City's Net Pension Liability	<u>\$ 661,101,931</u>	<u>\$ 668,447,546</u>	<u>\$ 554,242,209</u>	<u>\$ 632,752,065</u>	<u>\$ 522,448,981</u>	<u>\$ 492,811,019</u>	<u>\$ 401,260,013</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	70.32%	70.02%	73.87%	71.03%	76.49%	77.26%	81.34%
Covered Payroll⁽³⁾	\$ 168,059,448	\$ 166,670,939	\$ 141,497,840	\$ 133,083,231	\$ 106,278,376	\$ 93,705,765	\$ 85,222,842
City's Net Pension Liability as a Percentage of Covered Payroll	393.37%	401.06%	391.70%	475.46%	491.59%	525.91%	470.84%
Total Payroll Including DROP Participants	\$ 184,484,315	\$ 176,975,203	\$ 159,787,486	\$ 153,785,532	\$ 133,966,173	\$ 127,786,644	\$ 124,563,050

(3) Covered payroll is as of September 30, of the prior fiscal year.

This schedule is presented as required by accounting principles generally accepted in the United States of America, however, until a full 10-year trend is compiled, information is presented for those years available.



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

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CITY CONTRIBUTIONS (UNAUDITED)

	2020	2019	2018	2017	2016
Actuarially determined contribution	\$ 67,564,414	\$ 62,694,851	\$ 56,999,866	\$ 53,264,009	\$ 48,672,615
Contributions in relation to the actuarially determined contribution	<u>67,564,414</u>	<u>62,694,851</u>	<u>56,999,866</u>	<u>53,264,009</u>	<u>48,672,615</u>
Contribution Deficiency (Excess)	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>
Covered payroll ⁽¹⁾	\$ 176,635,568	\$ 168,059,448	\$ 166,670,939	\$ 141,497,840	\$ 133,083,231
Contributions as a percentage of covered payroll	38.25%	37.31%	34.20%	37.64%	36.57%
	2015	2014	2013	2012	2011
Actuarially determined contribution	\$ 48,616,677	\$ 47,305,679	\$ 45,412,248	\$ 47,418,316	\$ 47,156,797
Contributions in relation to the actuarially determined contribution	<u>48,616,677</u>	<u>47,305,679</u>	<u>45,412,248</u>	<u>47,418,316</u>	<u>47,156,797</u>
Contribution Deficiency (Excess)	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>	<u>\$ --</u>
Covered payroll ⁽¹⁾	\$ 106,278,378	\$ 93,705,765	\$ 85,222,842	\$ 82,205,838	\$ 82,164,617
Contributions as a percentage of covered payroll	45.74%	50.48%	53.29%	57.68%	57.39%

(1) Covered payroll is as of September 30, the fiscal year end date.



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

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

FOR THE YEAR ENDED SEPTEMBER 30, 2020

Total Pension Liability Adjustment. For the fiscal year 2017, the GASB Statement No. 67 and No. 68 report, the actuary included the impact of the full restoration of benefits under Supreme Court Ruling which increased both the total pension liability and pension expense by \$122.6 million. Since the restoration of benefits was under negotiation, the Board decided not to include the impact of the restoration of benefits in the October 1, 2017 funding valuation. As a result of this determination, in the September 30, 2018 GASB Statement No. 67 and No. 68 report, the actuary reduced the beginning pension liability by \$122.6 million. The pension liability reported by the actuary as of September 30, 2018 does not include any impact from this Supreme Court ruling. This matter was resolved.

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, two years 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.

Valuation Date	October 1, 2018
Actuarial cost method	Aggregate Cost Method
Asset valuation method	20% Write-Up Method: Expected actuarial value and actual market value (net of pending transfers to the COLA fund)
Interest Rates	7.34% net of investment expenses
Inflation	3.25%
Projected salary increases	1.5% for promotions plus salary merit scale
Mortality Rates:	
Healthy	Florida Retirement System special risk mortality projected generationally with scale BB
Disabled	100% of the assumed deaths are expected to be ordinary deaths



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

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF INVESTMENT RETURNS (UNAUDITED)

September 30,	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	6.17%	5.39%	7.48% *	9.22%	9.70%	1.84%	8.60%

* Restated

This schedule is presented as required by accounting principles generally accepted in the United States of America, however, until a full 10-year trend is compiled, information is presented for those years available.



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

**SUPPLEMENTARY INFORMATION
SCHEDULE OF INVESTMENT EXPENSES**

**FOR THE YEAR ENDED SEPTEMBER 30, 2020
(WITH COMPARATIVE TOTALS FOR THE YEAR ENDED SEPTEMBER 30, 2019)**

	2020	2019
Equities		
Barrow Hanley	\$ 395,962	\$ 377,484
BGI/Black Rock	21,619	15,097
Boston Partners	391,801	228,223
Center Square Partners	409,681	411,041
Champlain Investments	482,451	466,305
Copper Rock	179,244	210,400
Eagle Asset Management	210,451	106,078
First Eagle	921,194	896,417
Total Equities	3,012,403	2,711,045
Debt Securities		
AXA U.S. High Yield	236,568	258,258
Barrow Hanley	312,866	281,498
Dodge & Cox	237,717	225,465
Munder Capital	144,608	175,919
Wellington International	859,458	797,036
Total Debt Securities	1,791,217	1,738,176
Real Estate		
Proxy Voting	10,000	8,000
J.P. Morgan	1,775,291	1,086,957
Total Real Estate	1,785,291	1,094,957
Other	5,165	5,253
Total Investment Expenses	\$ 6,594,076	\$ 5,549,431



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

**SUPPLEMENTARY INFORMATION
SCHEDULE OF ADMINISTRATIVE EXPENSES**

**FOR THE YEAR ENDED SEPTEMBER 30, 2020
(WITH COMPARATIVE TOTALS FOR THE YEAR ENDED SEPTEMBER 30, 2019)**

	2020	2019
Personnel Services		
Salaries and payroll taxes	\$ 506,208	\$ 502,317
Fringe benefits	77,791	89,558
Total Personnel Services	583,999	591,875
Professional Services		
Actuarial	118,537	124,261
Audit	52,810	47,614
Consultant and custodial	833,082	654,315
Legal	70,155	71,238
Medical	2,200	200
Total Professional Services	1,076,784	897,628
Other		
Education and travel	10,957	68,761
Insurance	143,970	130,169
Office expense	191,324	178,241
Repair and maintenance	105,476	186,525
Retirement contribution	75,586	49,957
Utilities	22,000	25,313
Total Other	549,313	638,966
Total Administrative Expense	\$ 2,210,096	\$ 2,128,469



**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER
FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED
ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE
WITH *GOVERNMENT AUDITING STANDARDS***

To the Board of Trustees and Plan Administrator
City of Miami Fire Fighters' and Police Officers' Retirement Trust

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 City of Miami Fire Fighters' and Police Officers' Retirement Trust (the "Trust"), which collectively comprise the statement of fiduciary net position as of September 30, 2020, 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 19, 2021.

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) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of 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.



Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Trust's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and agreements, noncompliance with which could have a direct and material effect on the financial statements. 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 entity'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 entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Marcum LLP

Miami, FL
February 19, 2021



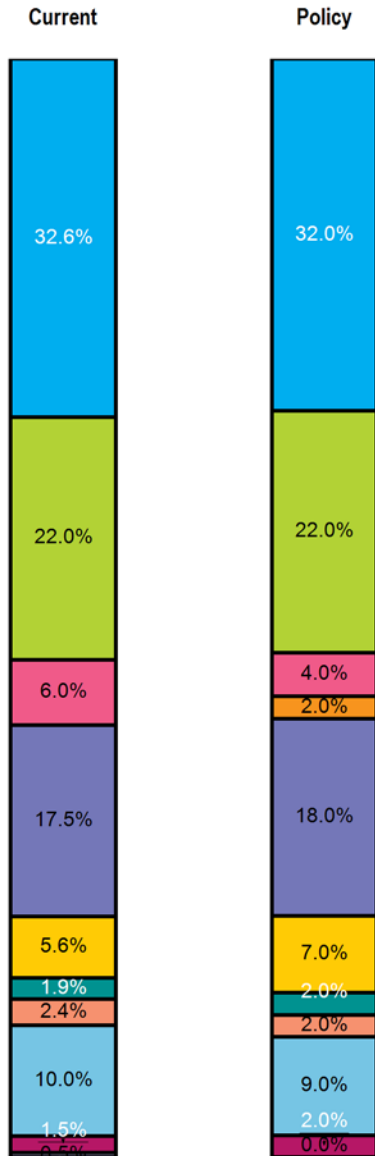


Investment Section

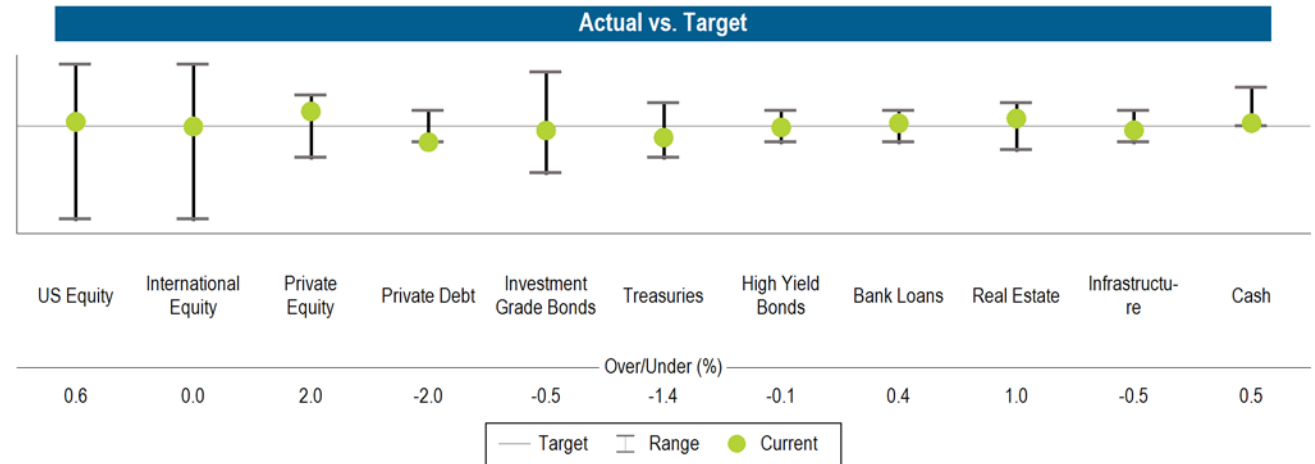
INVESTMENT ANALYSIS
YEAR END SEPTEMBER 30, 2020

	GENERAL FUND	C.O.L.A. I	C.O.L.A. II
Balance - October 1, 2019	1,087,424,017	73,822,808	353,261,581
<u>Additions: Purchases</u>			
Short Term Investment	3		
Mutual Funds	14,927,625		
Private Equity	30,237,255		
Private Equity International	1,196,745		
Commercial Paper	1,031,791		
Commodity Ex. Traded Fund			
International	4,222,412		
U.S. Treasury Bonds	310,594,549		
U.S. Treasury Bonds International	4,065,640		
U.S. Treasury Notes	25,282,986		
Corporate Bonds	46,996,419		
Corporate Bonds International	11,130,085		
Domestic Equity	650,120,654		
International Equity	215,444,067		
Share of Asset transferred	0	4,468,503	27,293,615
	1,315,250,231	4,468,503	27,293,615
<u>Deductions: Redemptions & Sale</u>			
Other Money Market	1		
Mutual Funds	78,401,508		
Private Equity	20,955,672		
Private Equity International	1,497,941		
Commercial Paper	2,100,158		
Commodity Ex. Traded Fund			
International	3,215,230		
U.S. Treasury Bonds	86,353,887		
U.S. Treasury Bonds International	3,165,231		
U.S. Treasury Notes	63,746,858		
Corporate Bonds	221,691,650		
Corporate Bonds International	25,037,104		
Domestic Equity	630,816,570		
International Equity	158,193,427		
Share of Securities transfer to Cola I	4,375,008	93,495	
Share of Securities transfer to Cola II	1,156,798		26,136,817
	1,300,707,043	93,495	26,136,817
Balance - September 30, 2020	1,101,967,205	78,197,816	354,418,379





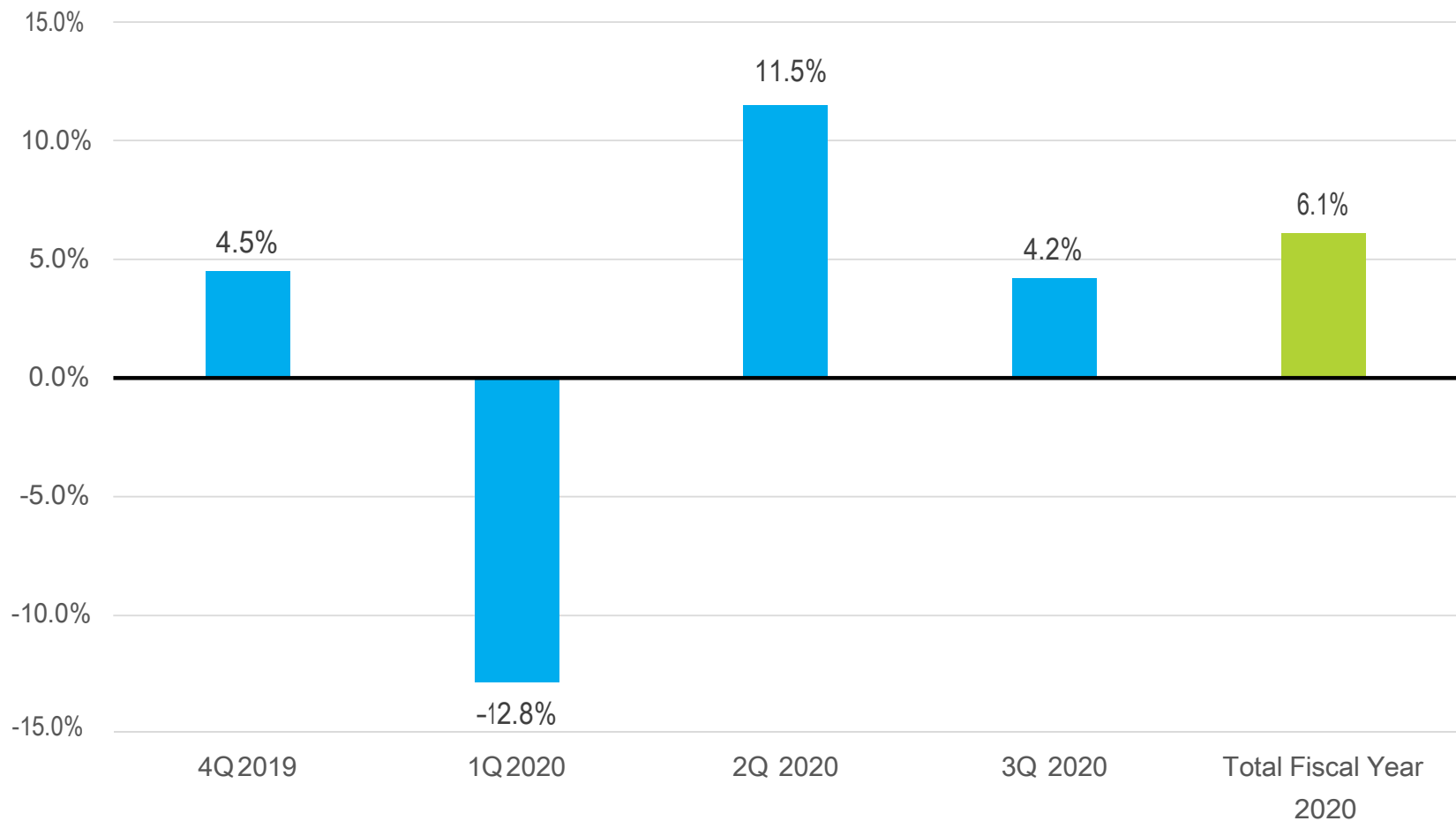
Allocation vs. Targets and Policy					
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
US Equity	\$510,877,928	32.6%	32.0%	20.0% - 40.0%	Yes
International Equity	\$344,597,565	22.0%	22.0%	10.0% - 30.0%	Yes
Private Equity	\$93,300,077	6.0%	4.0%	0.0% - 8.0%	Yes
Private Debt	--	--	2.0%	0.0% - 4.0%	Yes
Investment Grade Bonds	\$273,876,522	17.5%	18.0%	12.0% - 25.0%	Yes
Treasuries	\$87,508,023	5.6%	7.0%	3.0% - 10.0%	Yes
High Yield	\$29,758,869	1.9%	2.0%	0.0% - 4.0%	Yes
Bank Loans	\$38,058,236	2.4%	2.0%	0.0% - 4.0%	Yes
Real Estate	\$157,244,194	10.0%	9.0%	6.0% - 12.0%	Yes
Infrastructure	\$23,750,259	1.5%	2.0%	0.0% - 4.0%	Yes
Cash & Cash Alternatives	\$7,034,539	0.4%	0.0%	0.0% - 5.0%	Yes
Total	\$1,566,006,213	100.0%	100.0%		



Throughout the entire report, cash includes investment in the Blackrock Liquid Policy Portfolio.



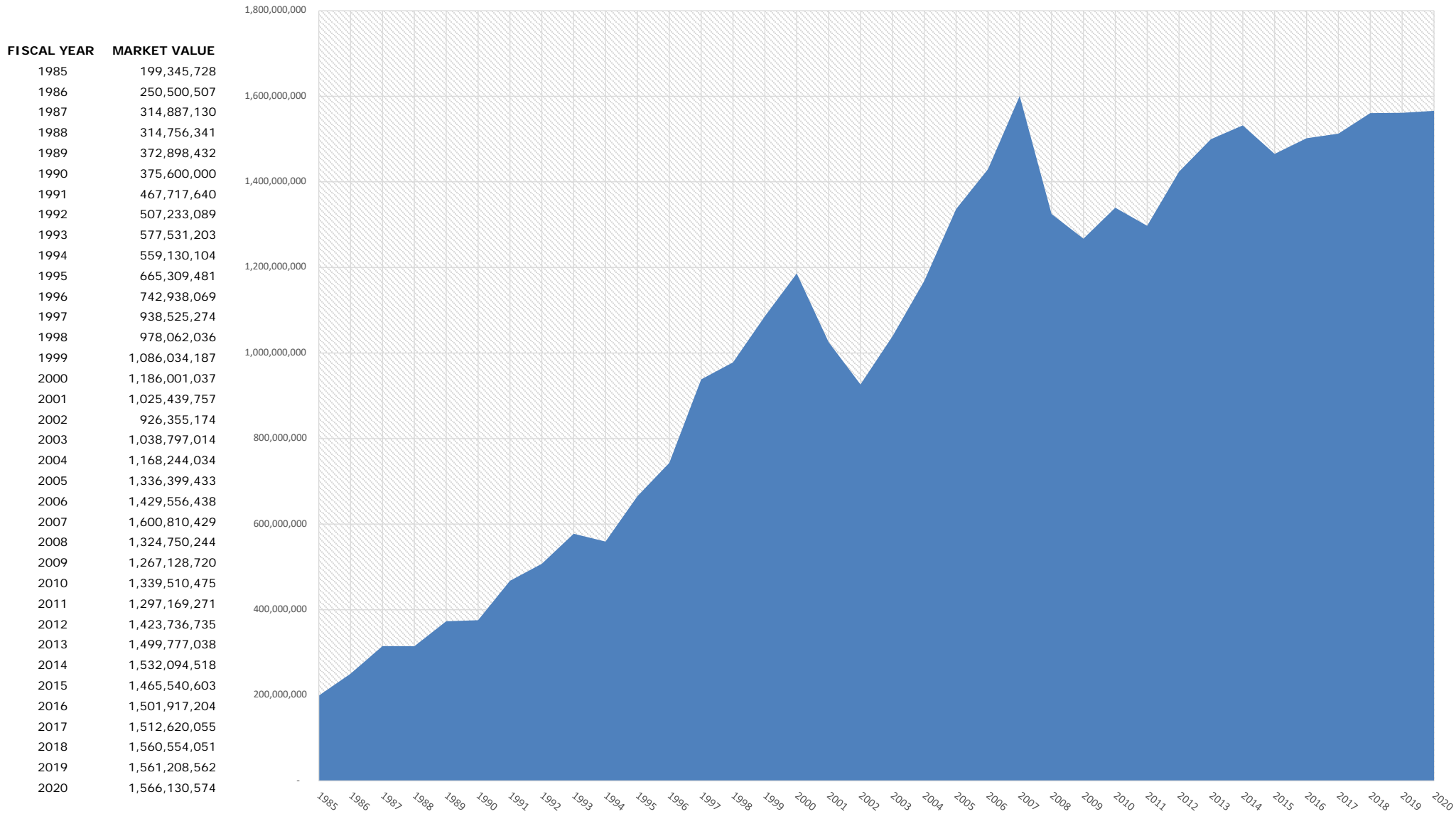
FIPO Fiscal Year Quarter by Quarter Performance



- Returns rebounded in the second half of the fiscal year. The plan ended with fiscal year return of 6.1%.



GROWTH OF THE FUND





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, 2020. 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, 2021 through September 30, 2022.

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.

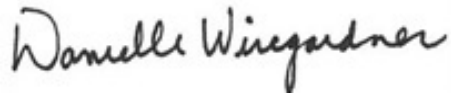


With respect to reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best 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.

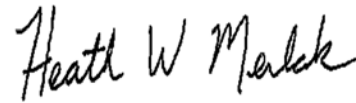
Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the 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, FSA, EA, MAAA
Enrolled Actuary No. 20-08260



Heath W. Merlak, FSA, EA, MAAA
Enrolled Actuary No. 20-05967

April 15, 2021
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

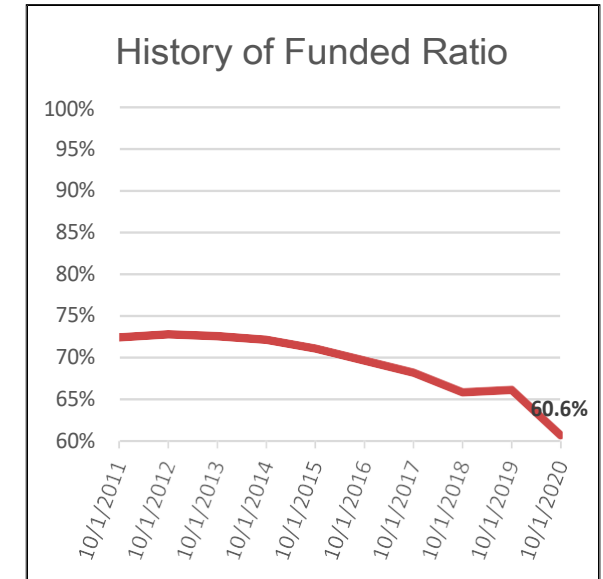
Mr. Keith Brinkman
Bureau Chief, Bureau of Local Retirement Systems
Florida Department of Management Services
Division of Retirement
Department of Management Services
P. O. Box 9000
Tallahassee, FL 32315-9000



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, 2019	October 1, 2020
Funded Status Measures		
Accrued Liability	\$1,822,559,347	\$1,940,883,223
Actuarial Value of Assets	<u>1,189,509,806</u>	<u>1,176,911,870</u>
Unfunded Accrued Liability	\$633,049,541	\$763,971,353
Funded Percentage (AVA)	65.3%	60.6%
Funded percentage (MVA)	63.0%	59.3%
Cost Measures ¹		
Recommended Contribution For Next Fiscal Year	\$62,773,727	\$65,889,915
Recommended Contribution (as a percentage of payroll)	37.4%	37.3%
Asset Performance		
Market Value of Assets (MVA)	\$1,149,117,960	\$1,150,108,084
Actuarial Value of Assets (AVA)	\$1,189,509,806	\$1,176,911,870
Actuarial Value/Market Value	103.5%	102.3%
Participant Information		
Active Participants	2,003	1,931
Terminated Vested Participants	22	27
Terminated, Due Refund	106	116
Retirees, Beneficiaries, and Disabled	2,072	2,080
DROP Participants	122	145
Total Participants	<u>4,325</u>	<u>4,299</u>
Valuation Payroll		
Valuation Payroll	\$168,059,448	\$176,712,600
Total Payroll	\$179,393,179	\$190,924,730



¹Does not include any contribution to the Stabilization Trust. Please see page 46 for more information.



Changes Since Prior Valuation and Key Notes

There have been no changes to the plan provisions since the last valuation.

The administrative expense has decreased from \$2,181,634 to \$2,137,199.

The interest rate was changed from 7.34% to 7.00% in accordance with the experience study completed January 2021. The contribution impact of this change will be phased in over three years via direct rate smoothing. This change resulted in an increase in the Accrued Liability and in the recommended contribution.

The asset valuation method was changed from the 20% write-up method to the 20% phase-in method, in which the market value of assets on the valuation date are adjusted for a 5-year phase-in of gains and losses on the fair market value of assets. This change was implemented retrospectively so that the phase-in of gains and losses starts with the gain or loss from the fiscal year ending September 30, 2017. This change resulted in a decrease in the Actuarial Value of Assets and an increase in the recommended contribution.

The retirement rates for participants vested as of 9/27/2010 and who are still eligible for the Forward DROP were changed in accordance with the experience study completed January 2021. The withdrawal and disability rates were changed for all active participants in accordance with the experience study completed January 2021. The demographic assumption changes resulted in a decrease in the Accrued Liability and in the recommended contribution.



Five Year Valuation Summary

	10/1/2016	10/1/2017	10/1/2018	10/1/2019	10/1/2020
Funding					
Accrued Liability	\$1,654,140,143	\$1,705,061,093	\$1,796,349,619	\$1,822,559,347	\$1,940,883,223
Actuarial Value of Assets	\$1,150,653,520	\$1,161,585,161	\$1,172,416,575	\$1,189,509,806	\$1,176,911,870
Unfunded Actuarial Accrued Liability	\$503,486,623	\$543,475,932	\$623,933,044	\$633,049,541	\$763,971,353
Funded Percentage	69.6%	68.1%	65.3%	65.3%	60.6%
Actual Employer Contribution ¹	\$50,591,604	\$56,030,260	\$60,633,239	TBD	TBD
Recommended Contribution	\$50,591,604	\$56,030,260	\$60,633,239	\$62,773,727	\$65,889,915
Recommended Contribution (% of Pay)	38.0%	39.6%	36.4%	37.4%	37.3%
Interest Rate	7.42%	7.42%	7.34%	7.34%	7.00%
Expense Load Assumption	\$2,086,709	\$2,128,469	\$2,210,096	\$2,181,634	\$2,137,199
Rate of Return					
Actuarial Value of Assets	6.5%	6.8%	6.7%	6.5%	6.3%
Market Value of Assets	8.4%	8.2%	6.9%	6.1%	5.7%
Demographic Information					
Active Participants	1,869	1,943	1,998	2,003	1,931
Terminated Vested Participants	15	16	15	22	27
Terminated, Due Refund	N/A	97	111	106	116
Retirees, Beneficiaries, and Disabled	2,014	2,059	2,120	2,072	2,080
DROP Participants	191	129	83	122	145
Total Participants	4,089	4,244	4,327	4,325	4,299
Covered Payroll	\$133,083,231	\$141,497,840	\$166,670,939	\$168,059,448	\$176,712,600
Average Covered Pay	\$71,206	\$72,824	\$83,419	\$83,904	\$91,514

¹ Recommended contribution is for the following fiscal year (e.g., the October 1, 2020 recommended contribution will be made in the fiscal year beginning October 1, 2021 and will be documented in the October 1, 2022 valuation report).



Plan Maturity Measures – October 1, 2020

Each pension plan has a distinct life-cycle. New plans promise future benefits to active employees and then accumulate assets to pre-fund those benefits. As the plan matures, benefits are paid and the pre-funded assets begin to decumulate until ultimately, the plan pays out all benefits. A plan's maturity has a dramatic influence on how risks should be viewed. The following maturity measures illustrate where the City of Miami Fire Fighters' and Police Officers' Retirement Trust falls in its life-cycle.

Duration of Liabilities: 9.5

Duration is the most common measure of plan maturity. It is defined as the sensitivity of the liabilities to a change in the interest rate assumption. The metric also approximates the weighted average length of time, in years, until benefits are expected to be paid. A plan with high duration is, by definition, more sensitive to changes in interest rates. A plan with low duration is more susceptible to risk if asset performance deviates from expectations as there would be less time to make up for market losses in adverse market environments while more favorable environments could result in trapped surplus from gains. Conversely, high duration plans can often take on more risk when investing, and low duration plans are less sensitive to interest rate fluctuations.

Demographic Distribution - Ratio of Actively Accruing Participants to All Participants: 44.9%

A plan with a high ratio is more sensitive to fluctuations in salary (if a salary-based plan) and statutory changes. A plan with a low ratio is at higher risk from demographic experience. Such a plan should pay close attention to valuation assumptions as there will be less opportunity to realize future offsetting gains or losses when current experience deviates from assumptions. Plans with a low ratio also have limited opportunities to make alterations to plan design to affect future funded status.

Asset Leverage - Ratio of Payroll for Plan Participants to Market Value of Assets: 15.4%

Younger plans typically have a large payroll base from which to draw in order to fund the plan while mature plans often have a large pool of assets dedicated to providing benefits to a population primarily consisting of members no longer on payroll. Plans with low asset leverage will find it more difficult to address underfunding, as the contributions needed to make up the deficit will represent a higher percentage of payroll than for a plan with high asset leverage.

Benefit Payment Percentage - Ratio of Annual Benefit Payments to Market Value of Assets: 12.0%

As a plan enters its decumulation phase, a larger percentage of the pre-funded assets are paid out each year to retirees. A high percentage is not cause for alarm as long as the plan is nearly fully funded. However, such a plan is more sensitive to negative asset performance, especially if cash contributions are not an option to make up for losses.



Identification of Risks

The results presented in this report are shown as single point values. However, these values are derived using assumptions about future markets and demographic behavior. If actual experience deviates from our assumptions, the actual results for the plan will consequently deviate from those presented in this report. Therefore, it is critical to understand the risks facing this pension plan. The following table shows the risks we believe are most relevant to the City of Miami Fire Fighters' and Police Officers' Retirement Trust. The risks are generally ordered with those we believe to have the most significance at the top. Also shown are possible methods by which a more detailed assessment of the risk can be performed.

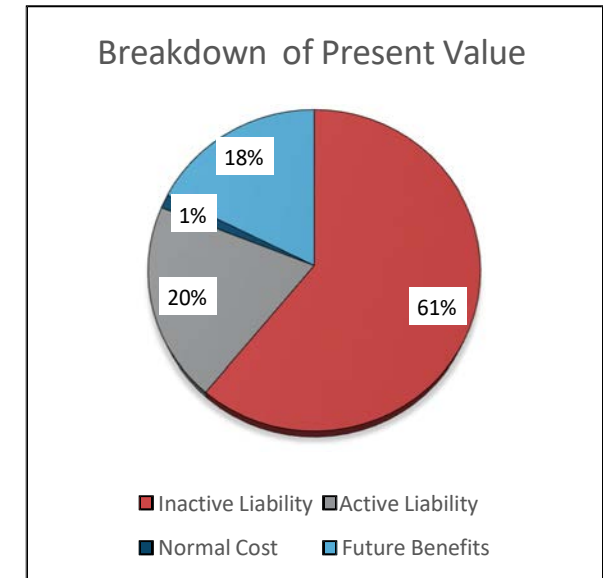
Type of Risk	Method to Assess Risk
Investment Return	Scenario Testing; Asset Liability Study
Demographic	Scenario Testing
Participant Longevity	Stress Testing; Scenario Testing
Early Retirement	Stress Testing; Scenario Testing



Present Value of Future Benefits

The Present Value of Future Benefits represents the current future benefits payable to the participant.

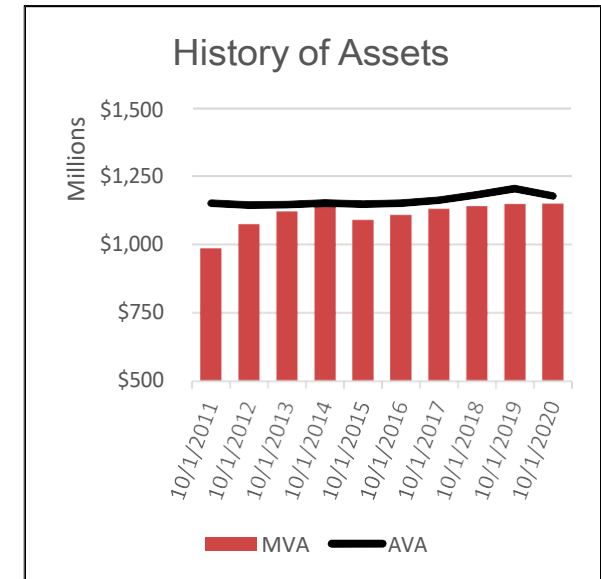
	October 1, 2020
Present Value of Future Benefits	
Active members	
Retirement	\$865,931,760
Disability	25,404,417
Death	12,530,384
Termination	28,627,156
Refund of contributions	2,686,085
Total active	\$935,179,802
Inactive members	
Retired members	\$1,205,235,070
DROP members	191,533,413
Beneficiaries	32,676,004
Disabled members	25,542,570
Terminated vested members	7,427,179
Total inactive	\$1,462,414,236
Total	\$2,397,594,038
 Present value of future payrolls	 \$2,781,538,694



Asset Information

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.

	October 1, 2020
Market Value Reconciliation	
Market value of assets, beginning of prior year	\$1,149,117,960
Employer contributions (incl. discounted accrued items)	60,633,239
Member contributions	15,820,796
Investment income, net expenses	64,932,866
Benefit payments and refunds	(138,186,681)
Administrative expenses	(2,210,096)
Other expenses	0
Market value of asset, beginning of current year	\$1,150,108,084
Return on Market Value	5.65%
Actuarial value of assets	
Value at beginning of current year	\$1,176,911,870



Asset Information (continued)

Plan Assets are used to develop funded percentages and contribution requirements

October 1, 2020

1.	Expected market value of assets	
	(a) Market value of assets – beginning of prior year	\$1,149,117,960
	(b) City Contributions	60,633,239
	(c) Member Contributions	15,820,796
	(d) Benefits Payments and Administrative Expenses	(140,396,777)
	(e) Expected return	84,304,750
	(f) Expected market value of assets – beginning of current year	\$1,169,479,968
2.	Market value of assets – beginning of current year	\$1,150,108,084
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)]	\$1,150,108,084
5.	Amount subject to phase in [(4)-(1f)]	(\$19,371,884)
6.	Phase in of asset gain/(loss)	
	(a) Current Year [80% x (\$19,371,884)]	(\$15,497,507)
	(b) First Prior Year [60% x (\$16,237,126)]	(9,742,276)
	(c) Second Prior Year [40% x (\$7,128,850)]	(2,851,540)
	(d) Third Prior Year [20% x \$6,437,685]	1,287,537
	(e) Total Phase-In	(\$26,803,786)
7.	Preliminary actuarial value of assets – beginning of current year [(1f)-(6e)]	\$1,176,911,870
8.	80% of Market value of assets	\$920,086,468
9.	120% of Market value of assets	\$1,380,129,700
10.	Adjusted actuarial value of assets	\$1,176,911,870
11.	Contribution surplus account balance	\$0
12.	Final actuarial value of assets – beginning of current year [(10)-(11)]	\$1,176,911,870
13.	Return on actuarial value of assets	6.25%



Reconciliation of Gain/Loss

October 1, 2020

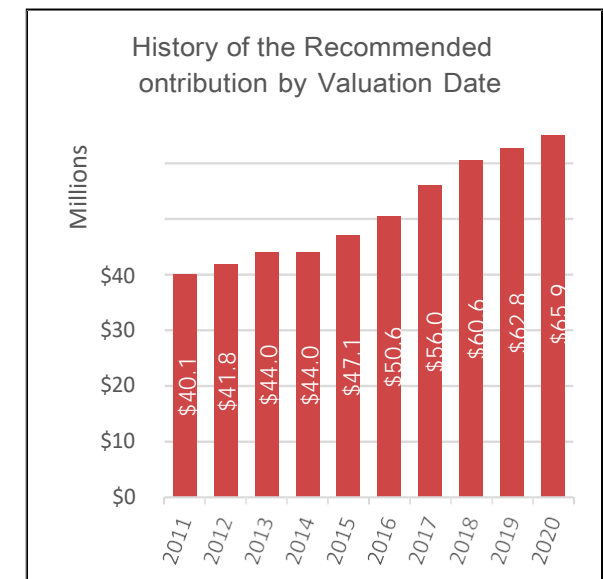
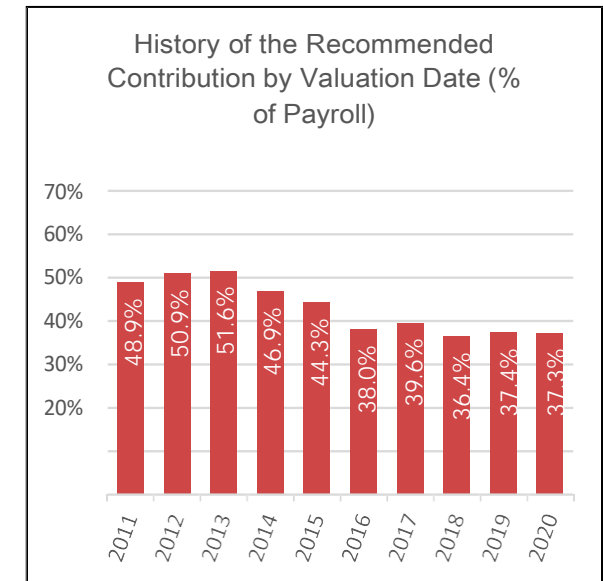
Liability (gain)/loss	
Present value of future benefits	\$2,231,572,700
Present value of employee contributions	(211,858,770)
Expected employee contribution	14,255,827
Benefit payments	(138,186,681)
Interest	144,311,724
Expected liability	\$2,040,094,800
Assumption change	95,992,415
Expected after changes	\$2,136,087,215
Actual liability	\$2,156,820,226
Liability (gain)/loss	\$20,733,011
Asset (gain)/loss	
Actuarial value of assets, beginning of prior year	\$1,189,509,806
Contributions	76,454,035
Benefit payments and expenses	(140,396,777)
Expected Investment return	87,269,511
Change in actuarial value of assets methodology	(23,379,007)
Expected actuarial value of assets, beginning of current year	\$1,189,457,568
Actual actuarial value of assets, beginning of current year	\$1,176,911,870
Asset (gain)/loss	\$12,545,698
Total (gain)/loss	\$33,278,709



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, 2020
1. Present value of future benefits	\$2,397,594,038
2. Actuarial value of assets	1,176,911,870
3. Present value of future member contributions	240,773,812
4. Present value of future normal Cost [(1)-(2)-(3)]	\$979,908,356
5. Present value of future payroll	\$2,781,538,694
6. Normal cost accrual rate [(4)/(5)]	35.23%
7. Administrative expenses	\$2,137,199
8. Valuation payroll	\$176,712,600
9. Applicable interest	7.00%
10. Normal cost	\$64,391,287
11. Interest to estimated payment date	\$4,507,390
12. Recommended contribution as of end of year at 7.00% [(10)+(11)]	\$68,898,677
13. As a percentage of valuation payroll	38.99%
14. As a percentage of total payroll	36.09%
15. Recommended contribution, prior discount rate of 7.34%	\$64,385,534
16. Recommended contribution, reflecting direct rate smoothing [(12) x (1/3) + (15) x (2/3)] ⁽¹⁾	\$65,889,915
17. As a percentage of valuation payroll	37.29%
18. As a percentage of total payroll	34.51%



¹Does not include any contribution to the Stabilization Trust. Please see page 46 for more information.



Cost Method (CO)

Aggregate Cost Method.

Asset Valuation Method (CO)

20% Phase-In Method: fair market value of assets on the valuation date adjusted for a 5-year phase-in of gains and losses on the fair market value of assets.

The result cannot be greater than 120% of market value or less than 80% of market value (net of pending COLA transfers).

Interest Rates (CO)

7.00% net of investment expenses

Support for the discount rate assumption has been provided in the experience study report dated January 2021.

Annual Pay Increases (FE)

3.25% inflation and 1.5% for promotions and other increases plus salary merit scale below.

<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%

The annual pay increases are based on a study of actual experience for the plan during 2017-2020. See the experience study report dated January 2021.

Expense and/or Contingency Loading (FE)

\$2,137,199.



Mortality Rates (CO)

Pre-Retirement: Pub-2010 Generational using scale MP-2018; Females, Headcount Weighted Safety Employee Female Table, set forward 1 year; Males, Headcount Weighted Safety Below Median Employee Male Table, set forward 1 year.

Post-Retirement: Pub-2010 Generational using scale MP-2018; Females, Headcount Weighted Safety Healthy Retiree Female Table, set forward 1 year; Males, Headcount Weighted Safety Below Median Healthy Retiree Male Table, set forward 1 year

Disabled: Pub-2010; Females, 80% Headcount Weighted General Disabled Retiree Female Table / 20% Headcount Weighted Safety Disabled Retiree Female Table; Males, 80% Headcount Weighted General Disabled Retiree Male Table / 20% Headcount Weighted Safety Disabled Retiree Male Table.

The mortality rate assumptions were set in accordance with the Florida Retirement System Valuation report dated December 2019. The board adopted the new mortality tables for the October 1, 2019 valuation.

Retirement Rates (FE)

For participants non-vested as of 9/27/2010 and not eligible for the Forward DROP, 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 eligible for BackDROP retirement are assumed to elect a 5-year BackDROP when they reach five years following first retirement eligibility.



Retirement Rates (FE) (Continued)

For participants vested as of 9/27/2010 and eligible for the Forward DROP, the following decrements apply based on service.

<u>Years of Service</u>	<u>Police %</u>	<u>Fire %</u>
<20	0	0
20	15	10
21-24	20	7.5
25	50	20
26-29	40	20
30-34	100	40
35		100

The assumed retirement rates are based on a study of actual experience for the plan during 2017-2020. See the experience study report dated January 2021.

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	0.07125%
40	0.09750%
45	0.20000%
50	0.30250%

The disability rates are based on a study of actual experience for the plan during 2017-2020. See the experience study report dated January 2021.

Withdrawal Rates (FE)

Based on Years of Creditable Service using the rates below

<u>Years of Service</u>	<u>Police %</u>	<u>Fire %</u>
0	12.00	7.50
1	4.00	4.00
2-6	1.50	1.75
7-19	0.75	1.00
20+	0.00	0.00

The withdrawal rates are based on a study of actual experience for the plan during 2017-2020. See the experience study report dated January 2021.

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	<p>The administrative expenses decreased to \$2,137,199.</p> <p>The interest rate was changed from 7.34% to 7.00% in accordance with the experience study completed January 2021. The contribution impact of this change will be phased in over three years via direct rate smoothing.</p> <p>The asset valuation method was changed from the 20% write-up method to the 20% phase-in method, in which the market value of assets on the valuation date are adjusted for a 5-year phase-in of gains and losses on the fair market value of assets. This change was implemented retrospectively so that the phase-in of gains and losses starts with the gain or loss from the fiscal year ending September 30, 2017.</p> <p>The retirement rates for participants vested as of 9/27/2010 and who are still eligible for the Forward DROP were changed in accordance with the experience study completed January 2021. The withdrawal and disability rates were also changed in accordance with this experience study.</p>

FE indicates an assumption representing an estimate of future experience.

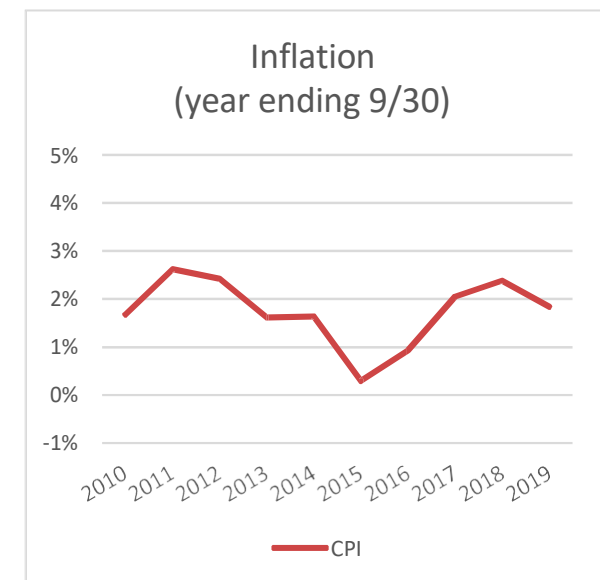
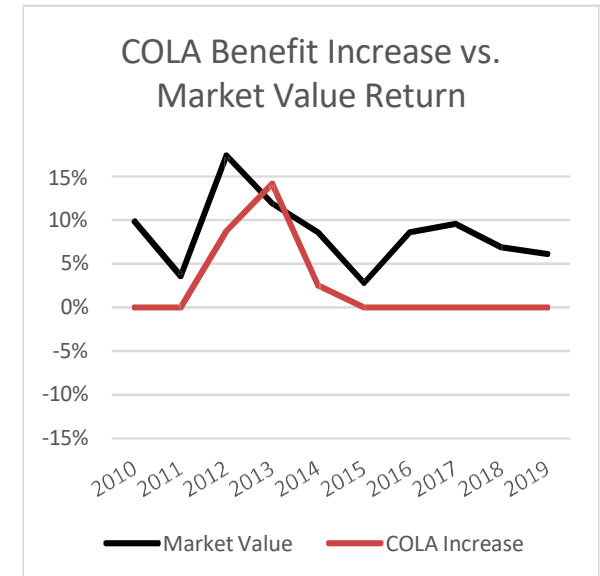
MO indicates an assumption representing an observation of estimates inherit to market data.

CO indicates an assumption representing a combination of an estimate of future experience and observations of market data.



Summary Results

	October 1, 2018	October 1, 2019
COLA Table Amount	\$1,670	\$1,670 [Proposed]
Asset Performance		
Market Value of Assets	\$1,140,506,121	\$1,149,117,960
Actuarial Value of Assets	\$1,172,416,575	\$1,189,509,806
Actuarial Asset Value Return	6.66%	6.48%
COLA Fund Asset Value Return	6.00%	1.20%
COLA Information		
Current COLA Assets	\$426,176,255	\$412,090,602
Future Contributions (discounted)	96,631,033	100,496,275
Assets for COLA	\$522,807,288	\$512,586,877
COLA Liability	\$440,222,258	\$447,248,968
Net Reserve	15.8%	12.7%
Target Reserve (20% of Asset Value)	\$104,561,458	\$102,517,375
Actual Reserve	\$82,585,030	\$65,337,909
Participant Information		
Active	1,998	2,003
Retirees and Beneficiaries	2,072	2,072
Disableds	130	121
Terminated Vesteds	14	13
Terminated, Due a Refund of Employee Contributions	112	115
Total	4,326	4,324



Changes Since Prior Valuation and Key Notes

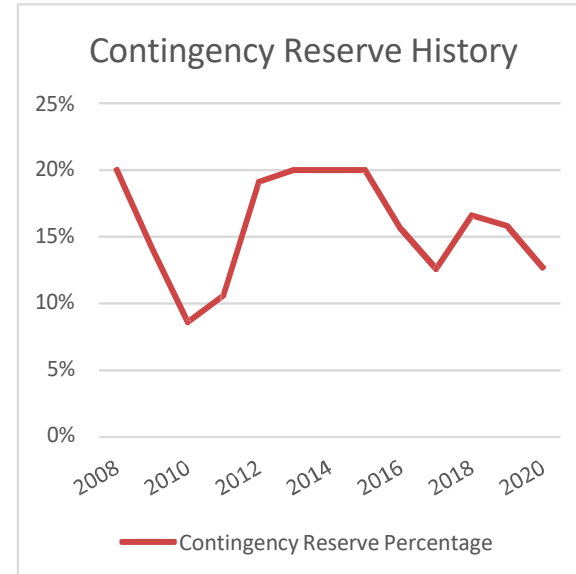
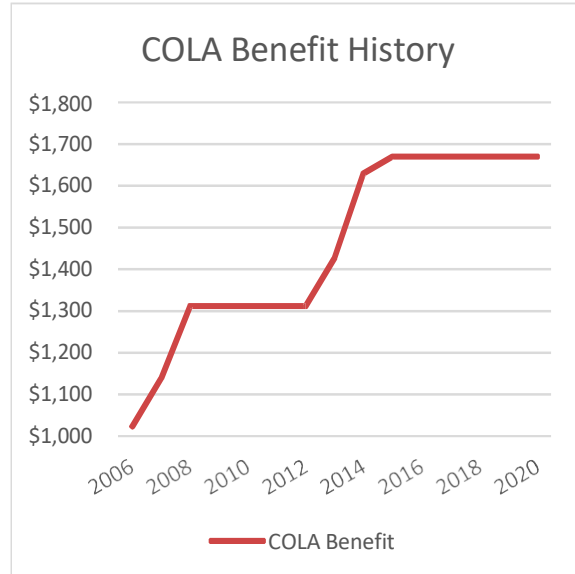
We recommend maintaining the COLA table at its current level (i.e. \$1,670) as of January 1, 2020. The contingency reserve is 12.7%, a decrease from the prior year's 15.8%. A ten-year historical graph of the COLA table level and contingency reserve amount are below.

This report reflects the settlement agreements that were approved by the city commission in October 2018. Plan provisions have been partially restored to the provisions that existed prior to 10/1/2010 as follows:

- Retroactively restore and uncap the FIPO pension plan benefits that were in effect prior to September 27, 2010, for all bargaining unit members who were vested in that plan before September 27, 2010; and
- Retroactively grandfather the select group of retirees that the FIPO Trust began payment to in January 2018, and assume the ongoing obligations for payment to those retirees based on their pension plan benefits to those that were in effect prior to September 27, 2010.

The mortality assumption was updated to match a recent change to the Florida Retirement System mortality for special risk members' pre-retirement mortality. The pre-retirement mortality was changed to apply the Combined Healthy tables rather than the Annuitant tables.

The withdrawal and disability assumptions were changed in accordance with the recent experience study dated December 2017.



Historical Valuation Summary

	10/1/2014	10/1/2015	10/1/2016	10/1/2017	10/1/2018	10/1/2019
COLA Table Amount	\$1,670	\$1,670	\$1,670	\$1,670	\$1,670	\$1,670
Asset Performance						
Market Value of Assets	\$1,136,462,242	\$1,090,944,360	\$1,109,146,744	\$1,131,066,046	\$1,140,506,121	\$1,149,117,960
Actuarial Value of Assets	\$1,151,016,531	\$1,147,334,950	\$1,150,653,520	\$1,161,585,161	\$1,172,416,575	\$1,189,509,806
Actuarial Asset Value Return	7.20%	6.20%	6.50%	6.76%	6.66%	6.48%
COLA Information						
Current COLA Assets	\$394,567,656	\$381,440,561	\$392,859,018	\$420,284,415	\$426,176,255	\$412,090,602
Future Contributions (discounted)	\$80,826,996	\$84,972,329	\$88,371,217	\$91,906,070	\$96,631,033	\$100,496,275
Assets for COLA	\$475,394,652	\$466,412,890	\$481,230,235	\$512,190,485	\$522,807,288	\$512,586,877
COLA Liability	\$370,959,121	\$393,512,220	\$420,490,548	\$427,229,145	\$440,222,258	\$447,248,968
Net Reserve	21.97%	15.60%	12.60%	16.60%	15.80%	12.70%
Target Reserve (20% of Asset Value)	\$95,078,930	\$93,282,578	\$96,246,047	\$102,438,097	\$104,561,458	\$102,517,375
Actual Reserve	\$95,078,930	\$72,900,670	\$60,739,687	\$84,961,340	\$82,585,030	\$65,337,909
Participant Information						
Active	1,482	1,650	1,869	1,943	1,998	2,003
Retirees and Beneficiaries	2,098	2,088	2,062	2,052	2,072	2,072
Disableds	149	147	143	136	130	121
Terminated Vesteds	12	15	15	16	14	13
Terminated, Due a Refund of Employee Contributions				97	112	115
	3,741	3,900	4,089	4,244	4,326	4,324



Plan Maturity Measures – October 1, 2019

Each pension plan has a distinct life-cycle. New plans promise future benefits to active employees and then accumulate assets to pre-fund those benefits. As the plan matures, benefits are paid and the pre-funded assets begin to decumulate until ultimately, the plan pays out all benefits. A plan's maturity has a dramatic influence on how risks should be viewed. The following maturity measures illustrate where the COLA Fund of the City of Miami Fire Fighters' and Police Officers' Retirement Trust falls in its life-cycle.

Duration of Liabilities: 11.3

Duration is the most common measure of plan maturity. It is defined as the sensitivity of the liabilities to a change in the interest rate assumption. The metric also approximates the weighted average length of time, in years, until benefits are expected to be paid. A plan with high duration is, by definition, more sensitive to changes in interest rates. A plan with low duration is more susceptible to risk if asset performance deviates from expectations as there would be less time to make up for market losses in adverse market environments while more favorable environments could result in trapped surplus from gains. Conversely, high duration plans can often take on more risk when investing, and low duration plans are less sensitive to interest rate fluctuations.

Demographic Distribution - Ratio of Actively Accruing Participants to All Participants: 46.3%

A plan with a high ratio is more sensitive to fluctuations in salary (if a salary-based plan) and statutory changes. A plan with a low ratio is at higher risk from demographic experience. Such a plan should pay close attention to valuation assumptions as there will be less opportunity to realize future offsetting gains or losses when current experience deviates from assumptions. Plans with a low ratio also have limited opportunities to make alterations to plan design to affect future funded status.

Asset Leverage - Ratio of Payroll for Plan Participants to Market Value of Assets: 13.6%

Younger plans typically have a large payroll base from which to draw in order to fund the plan while mature plans often have a large pool of assets dedicated to providing benefits to a population primarily consisting of members no longer on payroll. Plans with low asset leverage will find it more difficult to address underfunding, as the contributions needed to make up the deficit will represent a higher percentage of payroll than for a plan with high asset leverage.

Benefit Payment Percentage - Ratio of Annual Benefit Payments to Market Value of Assets: 6.22%

As a plan enters its decumulation phase, a larger percentage of the pre-funded assets are paid out each year to retirees. A high percentage is not cause for alarm as long as the plan is nearly fully funded. However, such a plan is more sensitive to negative asset performance, especially if cash contributions are not an option to make up for losses.



Identification of Risks

The results presented in this report are shown as single point values. However, these values are derived using assumptions about future markets and demographic behavior. If actual experience deviates from our assumptions, the actual results for the plan will consequently deviate from those presented in this report. Therefore, it is critical to understand the risks facing this pension plan. The following table shows the risks we believe are most relevant to the COLA fund of the City of Miami Fire Fighters' and Police Officers' Retirement Trust. The risks are generally ordered with those we believe to have the most significance at the top. Also shown are possible methods by which a more detailed assessment of the risk can be performed.

Type of Risk	Method to Assess Risk
Investment Return	Scenario Testing; Asset Liability Study
Interest Rates	Scenario Testing; Asset Liability Study
Participant Longevity	Stress Testing; Scenario Testing
Early Retirement	Stress Testing; Scenario Testing



Reviewing Results under Various Test Scenarios

To help the Board better understand how the COLA results are impacted by assumption changes and changes to the COLA, the following test scenarios were completed. The scenarios are not recommendations and are only intended to identify how valuation results change based on inputs to the valuation.

Scenario 1 – Interest Rate lowered by 25 basis points.

Scenario 2 – No COLA increase provided from 2019 to 2020, future COLA growth as designed

Scenario 3 – Standard COLA increase from 2019 to 2020, future COLA growth declines by 10%

Scenario 4 – Standard COLA increase from 2019 to 2020, future COLA growth declines by 50%

Note the COLA table has built in scheduled increases for each year the retiree is in retirement. For example, a retiree with 25 years of service at retirement and has been retired for 22 years, the monthly amount would increase \$84 (\$1,670 to \$1,754). In the indicated scenarios where a future COLA growth declines, it means there would still be growth but at a smaller amount. For example, under the “COLA growth declines by 10%” scenario, instead of the standard COLA growth of approximately \$84 per month, it would be approximately \$76 increase per month.

Scenario	Baseline	Lower Interest Rate	No 2020 COLA Increase, Normal COLA Growth After	Standard 2020 COLA Increase, COLA Growth Declines by 10% After 2020	Standard 2020 COLA Increase, COLA Growth Declines by 50% After 2020
Interest Rate	7.34%	7.09%	7.34%	7.34%	7.34%
Summary of Test Scenario Results					
Assets Available:	\$512,586,877	\$516,155,214	\$512,586,877	\$512,586,877	\$512,586,877
Total Cola Liability	\$447,248,968	\$463,151,951	\$417,524,779	\$411,079,544	\$307,887,934
Net Reserve	12.70%	10.30%	18.50%	19.80%	39.90%
Target Reserve (20% of Asset Value)	\$102,517,375	\$103,231,043	\$102,517,375	\$102,517,375	\$102,517,375
Actual Reserve	\$65,337,909	\$53,003,263	\$95,062,098	\$101,507,333	\$204,698,943



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.

	Membership and Benefit Accounts	September 30, 2019 COLA Account
1. Market value – beginning of prior year	\$1,140,506,121	\$426,176,255
2. Book value – beginning of prior year	\$984,859,741	\$350,560,169
3. Income		
(a) City contributions	\$56,030,260	\$6,664,591
(b) Member contributions	16,309,563	0
(c) Other contributions	0	0
(d) Interest and dividends	20,688,675	7,241,816
(e) Net realized gains (losses)	24,265,659	8,564,862
(f) Securities lending income	374,604	121,915
(g) Rental and other income	446,467	158,166
(h) Income transfer	0	0
(i) Total	\$118,115,228	\$22,751,350
4. Disbursements		
(a) Benefit payments and refunds	\$131,175,683	\$25,622,524
(b) Custodial and investment expenses	4,148,392	1,448,312
(c) Administrative expense	2,128,469	0
(d) Other expense	0	0
(e) Securities lending fees	93,577	23,722
(f) Building depreciation	14,377	5,132
(g) Total	\$137,560,498	\$27,099,690
5. Book value – beginning of current year [(2)+(3i)-(4g)]	\$965,414,471	\$346,211,829
6. Net change in unrealized gains (losses)	\$28,057,109	(\$9,737,313)
7. Unrealized gains (losses)	\$183,703,489	\$65,878,773
8. Market value – beginning of current year [(1)+(3i)-(4g)+(6)]	\$1,149,117,960	\$412,090,602
9. Current year allocation to COLA II (discounted)	\$0	N/A
10. Net market value – beginning of current year	\$1,149,117,960	\$412,090,602



Membership and Benefits Cost-Of-Living Adjustment Account Summary

		September 30, 2019	
		Market	Book
1.	Investments		
	(a) Bill, bonds, notes	\$394,043,877	\$364,007,233
	(b) Domestic stocks	494,970,660	406,393,257
	(c) International stocks	249,461,359	209,504,493
	(d) Private equity	174,027,722	155,468,811
	(e) Money market fund and time deposit	12,256,675	11,300,087
	(f) Mutual fund	189,748,114	118,252,264
	(g) Real estate	2,095,512	2,095,512
	(h) Securities lending adjustment	0	0
	(i) Total investment	\$1,516,603,919	\$1,267,021,657
2.	Cash	\$43,220,820	\$43,220,820
3.	Receivables		
	(a) City contributions	\$0	\$0
	(b) Member contributions	0	0
	(c) Accounts receivable	6,732	6,732
	(d) Accrued interest and dividend	3,505,062	3,505,062
	(e) Securities sold	11,277,977	11,277,977
	(f) Total receivables	\$14,789,771	\$14,789,771
4.	Payables:		
	(a) Budget advance	\$0	\$0
	(b) Accrual expense	483,754	483,754
	(c) Transfer	0	0
	(d) Tax withheld	5,687	5,687
	(e) Accounts payable	3,325,334	3,325,334
	(f) Securities purchased	9,591,173	9,591,173
	(g) Total payables	\$13,405,948	\$13,405,948
5.	Total [(1i)+(2)+(3f)-(4g)]	\$1,561,208,562	\$1,311,626,300
6.	COLA account	\$412,090,602	\$346,211,829
7.	Current year COLA transfer	\$0	\$0
8.	Membership & benefits account [(5)-(6)-(7)]	\$1,149,117,960	\$965,414,471



Investment Results - Membership and Benefits Accounts

September 30, 2019

	<u>Dollar Return</u>	<u>Market Return</u>	<u>Book Return</u>
<u>Membership and Benefits Accounts</u>			
Interest	\$12,915,881	1.1%	1.4%
Dividends	7,772,794	0.7%	0.8%
Rental and Other Income, less Depreciation	432,090	0.0%	0.0%
Realized Gains	24,265,659	2.1%	2.5%
Securities Lending (Net)	281,027	0.0%	0.0%
Increase in Unrealized Gains	28,057,109	2.5%	2.9%
Custodial and Investment Expenses	(4,148,392)	(0.3%)	(0.3%)
	<u>\$69,576,168</u>	<u>6.1%</u>	<u>7.3%</u>



Investment Results – COLA I and II Accounts

September 30, 2019

COLA Accounts

	<u>Dollar Return</u>	<u>Market Return</u>	<u>Book Return</u>
Interest	\$4,519,749	1.1%	1.3%
Dividends	2,722,067	0.7%	0.8%
Rental and Other Income, less Depreciation	153,034	0.0%	0.0%
Realized Gains	8,564,862	2.1%	2.5%
Securities Lending (Net)	98,193	0.0%	0.0%
Increase in Unrealized Gains	(9,737,313)	(2.3%)	(2.9%)
Custodial and Investment Expenses	(1,448,312)	(0.4%)	(0.3%)
	\$4,872,280	1.2%	1.4%



GASB 5 – COLA Fund

Funding Status and Progress as of September 30, 2019 and 2018	2018	2019
1. COLA Fund Table	\$1,670	\$1,670
2. Pension benefit obligation (in millions)		
a. Retirees and beneficiaries receiving benefits and terminated members not yet receiving	365.9	\$366.1
b. Current Employees		
Accumulated employee contributions including interest	0	0
Employer-financed vested	0	0
Employer-financed nonvested	74.3	\$81.1
c. Total pension benefit obligation (a+b+c)	\$440.2	\$447.2
3. Net assets available for benefits	\$426.2	\$412.1
4. Unfunded pension benefit (obligation)/asset [(3)-(2)]	(\$14.0)	(\$35.1)

The pension benefit obligations were determined as part of actuarial valuations at January 1, 2019 and January 1, 2020, based on data and asset information at September 30, 2019 and September 30, 2018. Significant actuarial assumptions used include (a) a rate of return on the investment of present and future assets of 7.34% per year compounded annually, (b) post retirement COLA benefits based on the table in effect at January 1, 2020 and January 1, 2019. All plan provisions and other assumptions not listed above can be found in the January 1, 2020 COLA Fund Report.



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 7.34 percent assumption

Analysis of funding progress

Fiscal Year	(1) Net Assets Available for Benefits ⁽¹⁾	(2) Pension Benefit Obligation	(3) Percent Funded	(4) Unfunded PBO (2)-(1)	(5) Annual Covered Payroll	(4)/(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	420.3	427.2	98	6.9	141.5	5
2018	426.2	440.2	97	14.0	148.9	9
2019	412.1	447.2	92	35.1	168.1	21

⁽¹⁾ Excluding future City minimum contributions

⁽²⁾ Excluding new increment and contingency reserves



GASB 5 – COLA Fund

Revenues and Expenses

Fiscal Year	Revenues by Source			
	Employee Contributions	Employer Contributions	Investment Income	Total
	(\$)	(\$)	(\$)	(\$)
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
2018	0	6,408,261	19,212,430	25,620,691
2019	0	6,664,591	16,086,759	22,751,350

Expenses by Type

Fiscal Year	Expenses by Type			Total (\$)
	Benefits	Administrative Expenses	Refunds	
	(\$)	(\$)	(\$)	
2010	17,236,918	1,164,379	0	18,401,297
2011	17,363,841	1,321,324	0	18,685,165
2012	17,747,481	1,456,098	421	19,204,000
2013	19,522,271	1,604,698	0	21,126,969
2014	22,188,409	1,483,762	0	23,672,171
2015	23,563,734	1,190,614	0	24,754,348
2016	24,344,325	1,286,086	0	25,630,411
2017	24,882,453	1,202,695	0	26,085,148
2018	25,279,985	1,758,350	0	27,038,335
2019	25,622,524	1,477,166	0	27,099,690



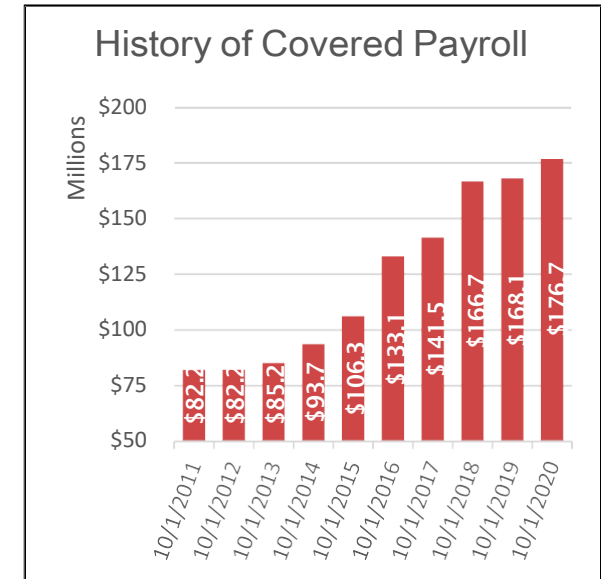


Statistical Section

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, 2019	October 1, 2020
Member Counts		
Active Members	2,003	1,931
Retired Members	1,684	1,706
Beneficiaries	267	258
Disabled Members	121	116
Terminated Vested Members, due a Monthly Benefit	22	27
Terminated Members, Due a Refund of Employee Contributions	106	116
DROP Members	122	145
Total	4,325	4,299
Active Participant Demographics		
Average Age	36.8	37.2
Average Service	9.8	10.1
Average Compensation	\$83,904	\$91,514
Valuation Payroll	\$168,059,448	\$176,712,600
Total Payroll	\$179,393,179	\$190,924,730



Demographic Information (continued)

	October 1, 2019	October 1, 2020
Retired Member Statistics		
Average Age	66.0	66.4
Average Monthly Benefit	\$5,624	\$5,669
Beneficiary Statistics		
Average Age	77.4	77.5
Average Monthly Benefit	\$1,208	\$1,275
Disabled Member Statistics		
Average Age	72.3	72.3
Average Monthly Benefit	\$2,020	\$2,083
Terminated Member Statistics		
Average Age	38.7	38.9
Average Monthly Benefit for Participants due Monthly Benefit	\$1,911	\$2,292
Average Remaining Contributions for Participants Due a Refund	\$8,426	\$8,635
DROP Member Statistics		
Average Age	51.4	51.4
Average Monthly Benefit	\$7,137	\$8,729
Payroll	\$11,333,731	\$14,212,130



Participant Reconciliation

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Totals
Prior Year	2,003	128	121	1,806	267	4,325
Active						
To Terminated Vested	(5)	5				
To Retired	(78)			78		
To Disabled	(1)		1			
To Refund	(9)					(9)
To Due Refund	(13)	13				
To Death						
Terminated Vested						
To Retired						
To Refund		(3)				(3)
To Active	1	(1)				
Disabled						
To Death			(6)			(6)
Retired						
To Death				(32)		(32)
Survivor						
To Death					(26)	(26)
Additions	33	1			17	51
Removed				(1)		(1)
Current Year	1,931	143	116	1,851	258	4,299



Active Participant Schedule

Active participant information grouped based on age and service.

Age Group	Years of Service										Total	Average Pay
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up		
Under 25	11	63									74	\$63,663
25 to 29	9	203	110	1							323	73,913
30 to 34	5	141	254	49	4						453	82,566
35 to 39	1	68	131	173	55	1					429	93,519
40 to 44	2	18	42	79	100	51	1				293	106,221
45 to 49		8	11	39	57	81	9				205	110,437
50 to 54		1	4	27	29	38	16	2			117	110,921
55 to 59			4	7	8	8	6				33	105,619
60 to 64		1			3						4	95,056
65 to 69											0	0
70 & up											0	0
Total	28	503	556	375	256	179	32	2	0	0	1931	91,514



**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% of pre-tax earnable compensation. For police officer members who were hired on or after October 1, 2011 it will be 13% of pre-tax earnable compensation. 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% of pre-tax earnable compensation. For police officer members who were hired on or after October 1, 2012, it will be 10% of pre-tax earnable compensation.

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 for age.

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



BACK DEFERRED RETIREMENT OPTION PROGRAM: (continued)

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 a 1 year certain. Option 6D is the base pension with a 10 year certain.

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 $66 \frac{2}{3}\%$ 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 1st 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.



C.O.L.A. ACCOUNT: (continued)

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 judgment.



ORDINANCES ADOPTED DURING FISCAL YEAR 2018/2019

DATE

ORDINANCE NUMBER

None

