# FINANCIAL STATEMENTS WITH SUPPLEMENTARY INFORMATION

FOR THE YEARS ENDED APRIL 30, 2019 AND 2018

AND

INDEPENDENT AUDITOR'S REPORT



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#### INDEPENDENT AUDITOR'S REPORT

Board of Trustees
City of Kansas City, Missouri
The Employees' Retirement System
Kansas City, Missouri

## **Report on the Financial Statements**

We have audited the accompanying financial statements of the City of Kansas City, Missouri The Employees' Retirement System (Plan), which comprise the statement of fiduciary net position as of April 30, 2019, the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, which comprise the Plan's basic financial statements.

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

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

## Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the 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 Plan'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 Plan's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Plan as of April 30, 2019, and the changes in its fiduciary net position for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

#### Other Matters

Prior Years Comparative Information

The financial statements of the Plan as of and for the year ended April 30, 2018 were audited by other auditors, whose previous report, dated October 3, 2018, expressed an unmodified opinion on those statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and pension information included in the required supplementary information section listed in the table of contents be presented to supplement the financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the 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.

Allen, Gibbs & Houlik, L.C. CERTIFIED PUBLIC ACCOUNTANTS

October 18, 2019 Wichita, Kansas

#### MANAGEMENT'S DISCUSSION AND ANALYSIS

The Employees' Retirement System of the City of Kansas City, Missouri (ERS or Plan) is a single-employer defined benefit plan covering general municipal employees and elected officials of the City of Kansas City, Missouri (City). ERS was established by City ordinance in 1962 and is administered by a ten-person Board of Trustees (Board) to provide retirement, death and survivor benefits to members and beneficiaries. This discussion and analysis of the financial performance of ERS provides an overview of financial activities for the fiscal years ended April 30, 2019 and 2018, with selected comparative information for the fiscal year ended April 30, 2017, and should be read along with the financial statements and notes to the financial statements.

## Overview of the Financial Statements and Accompanying Information

- The financial statements presented by ERS consist of the: (1) statements of fiduciary net position, which reflect resources available for the payment of benefits as of year-end and (2) statements of changes in fiduciary net position, which reflect the sources and uses of those funds during the year.
- The notes to the financial statements are an integral part of the financial statements and include information not necessarily discernible in the statements themselves. Following the notes are required supplemental information and other schedules that may be helpful in evaluating the financial condition of the Plan.
- Required supplementary information presents schedules related to employer contributions and the funding of the Plan.

#### 2019 and 2018 Summary Comparative Information of Fiduciary Net Position

	April 30, 2019	April 30, 2018	Amount Change	Percentage Change
Receivables	\$ 4,283,448	\$ 3,775,240	\$ 508,208	13.46%
Investments at fair value	1,168,503,016	1,150,183,828	18,319,188	1.59%
Securities lending collateral	60,724,175	91,205,944	(30,481,769)	-33.42%
Total assets	1,233,510,639	1,245,165,012	(11,654,373)	-0.94%
Due to broker for purchases				
of investments	2,570,730	1,322,518	1,248,212	94.38%
Administrative and investment				
expenses payable	944,149	975,572	(31,423)	-3.22%
Securities lending collateral	60,724,175	91,205,944	(30,481,769)	-33.42%
Total liabilities	64,239,054	93,504,034	(29,264,980)	-31.30%
Net position	\$1,169,271,585	\$1,151,660,978	\$ 17,610,607	1.53%

#### MANAGEMENT'S DISCUSSION AND ANALYSIS

#### 2019 and 2018 Summary Comparative Information of Changes in Fiduciary Net Position

			Amount	Percentage
	April 30, 2019	April 30, 2018	Change	Change
Member contributions	\$ 8,514,325	\$ 8,622,835	\$ (108,510)	-1.26%
Employer contributions	26,032,072	24,530,445	1,501,627	6.12%
Net investment income	59,453,267	98,766,580	(39,313,313)	-39.80%
Total additions	93,999,664	131,919,860	(37,920,196)	-28.74%
Benefits paid to members	71,410,862	68,328,453	3,082,409	4.51%
Refunds of contributions	4,393,283	3,666,251	727,032	19.83%
Administrative expenses	584,912	563,030	21,882	3.89%
Total deductions	76,389,057	72,557,734	3,831,323	5.28%
Net increase	17,610,607	59,362,126	(41,751,519)	-70.33%
Net position, Beginning of Year	1,151,660,978	1,092,298,852	59,362,126	5.43%
Net position, End of Year	\$1,169,271,585	\$1,151,660,978	\$ 17,610,607	1.53%

#### 2019 Financial Highlights

The global financial markets were volatile throughout the year due to trade tensions between the U.S. and China, Brexit issues in the United Kingdom, the Federal Reserve's actions of raising interest rates through December and then unexpectedly decreasing rates in March, and fears of a possible recession. The investment portfolio posted a positive net return of 5.4 percent, which underperformed the 5.9 percent return of the Policy Portfolio benchmark. The Non-U.S. equity, global equity and fixed income segments of the fund performed relatively well compared to benchmarks, while all other segments underperformed. U.S. equity was the best performing asset class on an absolute return basis, followed by fixed income. Non-U.S. equity was the only asset class with negative performance, with emerging markets equity posting the worst return.

Plan net position increased 1.5 percent to \$1.169 billion, fueled by \$59 million of investment income. Member contributions declined due to a decrease in the number of active employees, while employer contributions rose \$1.5 million due to an increase in the actuarial required contribution rate. Refunds of employee contributions increased \$727,000, with much of the increase attributable to distribution elections made by retiring employees, while benefits paid to members increased at an expected pace. Administrative expenses increased \$22,000, primarily due to custodial bank and legal fees.

#### 2019 Operational Highlights

The Plan's allocations to non-core fixed income and Non-U.S. equity were increased as the result of an asset allocation study. Due to this change, an additional non-core fixed income manager and a developed international equity manager were added, and the portfolio was rebalanced. Additionally, a Request for Proposal was issued for securities monitoring and litigation services. Four firms were hired, two of which were incumbents. On-going cash needs were met primarily through rebalancing and the sale of appreciating equity securities.

### MANAGEMENT'S DISCUSSION AND ANALYSIS

## 2018 and 2017 Summary Comparative Information of Plan Net Position

			Amount	Percentage
	April 30, 2018	April 30, 2017	Change	Change
Receivables	\$ 3,775,240	\$ 5,292,171	\$ (1,516,931)	-28.66%
Investments at fair value	1,150,183,828	1,091,442,174	58,741,654	5.38%
Securities lending collateral	91,205,944	71,134,948	20,070,996	28.22%
Total assets	1,245,165,012	1,167,869,293	77,295,719	6.62%
investments	1,322,518	3,016,930	(1,694,412)	-56.16%
Administrative and investment				
expenses payable	975,572	1,418,563	(442,991)	-31.23%
Securities lending collateral	91,205,944	71,134,948	20,070,996	28.22%
Total liabilities	93,504,034	75,570,441	17,933,593	23.73%
Net position	\$1,151,660,978	\$1,092,298,852	\$ 59,362,126	5.43%

## 2018 and 2017 Summary Comparative Information of Changes in Plan Net Position

	April 30, 2018	April 30, 2017	Amount Change	Percentage Change
Member contributions	\$ 8,622,835	\$ 7,966,105	\$ 656,730	8.24%
Employer contributions	24,530,445	23,701,217	829,228	3.50%
Net investment income	98,766,580	105,285,874	(6,519,294)	-6.19%
Total additions	131,919,860	136,953,196	(5,033,336)	-3.68%
Benefits paid to members	68,328,453	64,197,401	4,131,052	6.43%
Refunds of contributions	3,666,251	3,680,331	(14,080)	-0.38%
Administrative expenses	563,030	386,784	176,246	45.57%
Total deductions	72,557,734	68,264,516	4,293,218	6.29%
Net increase (Decrease)	59,362,126	68,688,680	(9,326,554)	-13.58%
Net position, Beginning of Year	1,092,298,852	1,023,610,172	68,688,680	6.71%
Net position, End of Year	\$1,151,660,978	\$1,092,298,852	\$ 59,362,126	5.43%

## 2018 Financial Highlights

Global financial markets soared during the first three quarters of the year due to U.S. fiscal policy stimulus and expectations of continued global growth. Then in the fourth quarter, volatility was reintroduced in the markets due to expectations of inflation, a repricing of the yield curve and headlines related to global trade negotiations, which somewhat muted the overall positive equity returns and caused slightly negative returns in fixed income. Albeit, the investment portfolio had a

#### MANAGEMENT'S DISCUSSION AND ANALYSIS

strong net return of 9.28 percent which compared favorably to the 8.75 percent rise in the Policy Portfolio benchmark. All segments of the fund performed relatively well, with the exceptions being the emerging market and opportunistic allocations. Non-U.S. equities were the best performing asset class, followed by global equities.

Plan net position climbed by 5.43 percent to \$1.152 billion, fueled by \$99 million of investment income. Contributions and benefits paid to members increased at an expected pace, while refunds of contributions decreased slightly. Administrative expenses rose significantly, primarily due to staffing costs and legal fees.

## 2018 Operational Highlights

The only significant change to the investment portfolio was the restructuring of the fixed income allocation. The global fixed income and passive allocations were removed while a core-plus fixed income allocation was added. Ongoing cash needs were met primarily through the sale of appreciating equity securities.

#### **Requests for Information**

This financial report is designed to provide members of the City of Kansas City, Missouri The Employees' Retirement System, citizens, investors and creditors of the City of Kansas City, Missouri with a general overview of the Employees' Retirement System's finances and to demonstrate its accountability for the money it receives. If you have questions about this report or need additional financial information, contact the City of Kansas City, Missouri The Employees' Retirement System, City Hall, 414 East 12<sup>th</sup> Street, 10<sup>th</sup> Floor, Kansas City, Missouri 64106-2705.

There are no other currently known facts, conditions or decisions that are expected to have a significant effect on the financial position or results of operations of the Plan.

## STATEMENTS OF FIDUCIARY NET POSITION

## April 30, 2019 and 2018

Assets	2019	2018
Investments, at Fair Value		
Short-term investment funds	\$ 19,631,100	\$ 22,785,127
U.S. Treasuries	14,645,298	25,817,600
U.S. government-backed mortgages	53,683,512	46,605,106
Municipal bonds	2,972,036	3,568,615
Asset-backed securities	8,050,597	5,376,639
Foreign debt obligations	2,609,685	2,279,269
Corporate bonds - domestic	36,251,398	29,960,341
Corporate bonds - foreign	28,335,866	20,261,196
Domestic preferred equities	1,232,768	1,220,017
Domestic common equities	173,827,795	196,131,355
Foreign equities	2,200,066	1,855,055
Partnerships	42,514,100	42,449,275
Hedge funds	23,206,749	27,082,692
Collective trusts - equities	405,087,413	524,171,575
Collective trusts - fixed income	238,882,585	131,000,000
Collective trusts - real estate	115,372,048	69,619,966
Total investments	1,168,503,016	1,150,183,828
Securities Lending Collateral	60,724,175	91,205,944
Receivables		
Contributions	1,634,734	1,453,333
Investment income	1,163,525	1,979,378
Due from broker for sales of investments	1,485,189	342,529
Total receivables	4,283,448	3,775,240
Total assets	1,233,510,639	1,245,165,012
Liabilities		
Due to broker for purchases of investments	2,570,730	1,322,518
Administrative and investment expenses payable	944,149	975,572
Securities lending collateral	60,724,175	91,205,944
Total liabilities	64,239,054	93,504,034
Net Position Restricted for Pensions	\$ 1,169,271,585	\$ 1,151,660,978

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

## STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

## Year Ended April 30, 2019

Additions	2019	2018
Investment Income Interest income Dividend income Net increase in fair value of investments Less investment expense	\$ 15,678,897 5,579,410 41,854,716 (3,852,913)	\$ 11,095,910 6,959,514 84,644,419 (4,154,106)
Net investment income	59,260,110	98,545,737
Securities Lending Income Securities lending gross income Securities lending expenses	1,688,850	1,306,402
Borrower fees Management fees	(1,413,141) (82,552)	(991,169) (94,390)
Total securities lending expenses	(1,495,693)	(1,085,559)
Net securities lending income	193,157	220,843
Total net investment income	59,453,267	98,766,580
Contributions Contributions from the City of Kansas City, Missouri Contributions from members	26,032,072 8,514,325	24,530,445 8,622,835
Total contributions	34,546,397	33,153,280
Total additions	93,999,664	131,919,860
Deductions		
Benefits Paid to Members	71,410,862	68,328,453
Refunds Termination Retirement	1,762,170 2,631,113	1,428,989 2,237,262
Administrative Expenses	584,912	563,030
Total deductions	76,389,057	72,557,734
Net Increase in Net Position	17,610,607	59,362,126
Net Position Restricted for Pensions, Beginning of Year	1,151,660,978	1,092,298,852
Net Position Restricted for Pensions, End of Year	\$ 1,169,271,585	\$ 1,151,660,978

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

#### NOTES TO THE FINANCIAL STATEMENTS

#### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity - The City of Kansas City, Missouri The Employees' Retirement System (Plan) is a contributory, single-employer, defined benefit pension plan, covering employees and elected officials of the City of Kansas City, Missouri (City). Members of the Police and Fire Departments' pension systems are excluded. The Plan is considered part of the City's financial reporting entity and is included in the City's comprehensive annual financial report as a pension trust fund. Employees should refer to the Plan agreement for more complete information.

<u>Basis of Accounting</u> - The financial statements are prepared on the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions to the Plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when paid in accordance with the terms of the Plan.

<u>Valuation of Investments</u> - Government securities, asset-backed securities, and corporate bonds are valued at fair value based on prices quoted by a major dealer in such securities.

Common stock, preferred stock, foreign common stock, and indexed notes and bonds are listed at fair value based on either listed prices (closing prices as reported on the composite summary of national securities exchanges) or on over-the-counter or bid prices.

Collective trusts, partnerships, real estate funds, and hedge funds consist primarily of non-marketable investments in various venture capital, corporate finance funds, and private partnerships (collectively, Portfolio Funds). These funds are primarily invested in a diversified portfolio of equities, real estate, U.S. fixed income instruments, and alternative or non-traditional investments. These investments are recorded at fair value based on financial data, which is generally at an amount equal to the net asset value per share or the Plan's proportionate interest in the net assets or net equity of the Portfolio Funds as determined by each Portfolio Fund's general partner or investment manager. The estimated value of such investments is subject to uncertainty and, therefore, may differ from the value that would have been used had a market for such investments existed.

The Plan is obligated to pay certain capital commitments to the partnerships. There were no outstanding commitments as of April 30, 2019 or 2018.

Investment transactions are accounted for on a trade-date basis, and dividend income is recognized on the ex-dividend date. Interest income is recognized on an accrual basis. Realized gains and losses from investments are determined on an average-cost basis.

<u>Tax Status</u> - The Retirement Board (Board) believes that the Plan is designed in accordance with applicable sections 401(a) of the Internal Revenue Code (Code) and is currently being operated in compliance with the applicable requirements of the Code.

<u>Administrative Expenses</u> - Plan administrative salary, duplicating, telecommunications, and travel expenses are included in the Plan's administrative expenses when incurred. The City provides office space, a portion of administrative and clerical services of the Human Resources Department, and accounting services of the Finance Department without any direct charge to the Plan.

#### NOTES TO THE FINANCIAL STATEMENTS

## 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

<u>Use of Estimates</u> - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the plan administrator to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of additions and deductions during the reporting period. Actual results could differ from those estimates.

<u>Subsequent Events</u> - These financial statements considered subsequent events through October 18, 2019, the date the financial statements were available to be issued.

#### 2. PLAN DESCRIPTION

The Plan is established by City ordinances enacted by the City Council. The Plan is administered by the Board of Trustees of The Employees' Retirement System of Kansas City, Missouri (Board). The Board is composed of ten members, two of which are the Director of Human Resources and the Director of Finance, two shall be active employees and members of the retirement system, one retired member of the ERS and one member designated by Firefighters' IAFF Local 42. The remaining members are prominent Kansas City business or civic leaders appointed by the mayor.

<u>Eligibility</u> - All full-time, permanent employees in the classified and unclassified services shall become members of the Plan as a condition of their employment. Employees of any administrative board or board of control as organized and existing under the general laws of the State of Missouri and as defined in RSMo § 95.540, whose governing body has elected membership, shall also be members. Members of the police, firemen's, or municipal judges' or any other pension system involving City funds) receiving or entitled to receive a future pension from those systems, are ineligible for membership.

<u>Tier I Member</u> - Those employees hired before April 20, 2014.

<u>Tier II Member</u> - Those employees hired on or after April 20, 2014.

At April 30, 2019 and 2018, the Plan's membership consisted of the following:

	2019				
	Tier I	Tier II	Total		
Retirees and beneficiaries currently receiving benefits	2,718		2,718		
Current employees					
Vested	2,060		2,060		
Nonvested		1,103	1,103		
Inactive	58	276	334		
Total	4,836	1,379	6,215		

#### NOTES TO THE FINANCIAL STATEMENTS

## 2. PLAN DESCRIPTION (CONTINUED)

	2018			
	Tier I	Tier II		
	Members	Members	Total	
Retirees and beneficiaries currently receiving benefits				
and terminated employees entitled to benefits but				
not yet receiving them	2,637		2,637	
Current employees				
Vested	2,097		2,097	
Nonvested	137	984	1,121	
Inactive	68	189	257	
Total	4,939	1,173	6,112	

<u>Contributions</u> - Funding is provided by contributions from Plan members and the City, and earnings on investments. Members contribute 5 percent of their base salary. The City's contribution is set by the City Council in conjunction with its approval of the annual budget, based on the actuarially determined contribution rate set by the Plan's consulting actuary. For the year ended April 30, 2019, the City contributed at a rate of 15.16 percent of annual covered payroll. For the year ended April 30, 2018, the City contributed at a rate of 14.85 percent of annual covered payroll.

<u>Retirement Benefits</u> - Benefit terms for the Plan are established in the City administrative code and can only be amended by the City Council. The Plan provides retirement benefits as well as pre-retirement death benefits as noted below:

<u>Tier I Members</u> - Employees become vested for retirement benefits after five years of service. Members who retire with total age and creditable service equal to 80, or the later of age 60 and 10 years of creditable service, are entitled to an annual pension based on a percentage of final average compensation multiplied by years and months of creditable service. If married at the time of retirement, the percentages is 2.0 percent for general employees and 2.2 percent for elected officials, and if unmarried at the date of retirement, the percentage is 2.22 percent up to a maximum of 70 percent of final average compensation as defined in the Plan. If the employee has at least 10 years of creditable service, the minimum benefit is \$400 per month.

If members terminate prior to retirement and before rendering five years of service, they forfeit the right to receive the portion of their accumulated plan benefits attributable to City contributions and are refunded their member contributions with interest. Such refunds result in the forfeiture of all other benefits under the Plan. Members terminating prior to retirement with five or more years of service may elect to receive a refund of their member contributions with interest as a lump-sum distribution, or they may elect to receive a deferred pension. An automatic annual cost-of-living adjustment of 3 percent, non-compounded, is provided annually.

#### NOTES TO THE FINANCIAL STATEMENTS

## 2. PLAN DESCRIPTION (CONTINUED)

<u>Tier II Members</u> - Employees become vested for retirement benefits after ten years of service. Members who retire with total age and creditable service equal to 85, or the later of age 62 and 10 years of creditable service are entitled to an annual pension of 1.75 percent of final average compensation multiplied by the number of years of creditable service, subject to a maximum limit of 70 percent of final average compensation as defined in the Plan. If the employee has at least 10 years of creditable service, the minimum benefit is \$400 per month.

If employees terminate prior to retirement and before rendering ten years of service, they forfeit the right to receive the portion of their accumulated plan benefits attributable to City contributions and are refunded their member contributions with interest.

An annual cost-of-living adjustment, not to exceed 2.5 percent, non-compounded, per year is provided to pensioners age 62 and older if the prior year funding ratio is equal to or greater than 80 percent and will be equal to the percentage increase in the prior 12 months of the final national consumer price index.

<u>Health Insurance Subsidy</u> - All retirees are eligible to receive a \$200 monthly health insurance subsidy. If a member dies in the line of duty, their surviving spouse is eligible to receive the health insurance subsidy.

Death Benefits - If a retired member dies, the following benefits shall be paid:

To the member's spouse until death, a retirement benefit equal to one-half of the member's normal retirement benefit.

To the member's designated beneficiary or estate, if there is no surviving spouse, any remaining member contributions and interest.

If an active member dies, the member contributions and interest are distributed to the surviving spouse or, if none, to the designated beneficiary. The surviving spouse, however, may elect to receive monthly benefit payments instead of the lump-sum distribution if the member had five or more years of creditable service.

#### 3. DEPOSITS AND INVESTMENTS

The City administrative code and ordinances passed by the City Council provide that Plan investments may include, but are not limited to, obligations of the U.S. government, state of Missouri and municipal corporations, including school districts, corporate bonds, real estate mortgages, common and preferred stocks, partnerships, collective trusts and derivatives. The Plan purchases investments from Securities and Exchange Commission registered securities broker- dealers and banks through its investment managers. Investments in U.S. Treasury obligations are held at the Federal Reserve Bank through the customer account of a financial institution.

#### NOTES TO THE FINANCIAL STATEMENTS

## 3. DEPOSITS AND INVESTMENTS (CONTINUED)

<u>Investment Policy</u> - The asset type and classes, target allocation and ranges that have been approved by the Board are shown below. All percentages are based on fair values. The Board has authorized Plan staff, with the guidance from the investment consultant, to rebalance the portfolio in accordance with the strategy guidelines below:

Asset Type and Class	Range	Target
Global Equity		
U.S. Equity	6.5% - 16.5%	11.5%
Emerging Manager of Managers	2% - 7%	4.0%
Non-U.S. Equity	11% - 21%	16.0%
Emerging Markets Equity	2% - 5%	3.5%
Global Equity	2% - 8%	5.0%
Long/Short Equity	2% - 8%	5.0%
Global Fixed Income		
Core Fixed Income	20.% - 30.%	25.0%
Non-Core Fixed Income	2% - 12%	7.0%
Real Assets		
Real Estate	2.5% - 12.5%	7.5%
Infrastructure	1% - 4%	2.5%
Opportunistic	7% - 17%	12.0%
Cash	0% - 5%	1.0%

<u>Securities Lending Transactions</u> - City ordinances and the Plan's Board policies permit the Plan to use investments of the Plan to enter into securities lending transactions - loans of securities to broker-dealers and other entities for collateral with a simultaneous agreement to return the collateral for the same securities in the future.

The Plan has contracted with The Northern Trust Company as its third-party lending agent to lend domestic equity and debt securities for cash collateral of not less than 102 percent of the fair value and international debt and equity securities of not less than 105 percent of the fair value. At April 30, 2019 and 2018, management believes the Plan has no credit risk exposure to borrowers because the amounts the Plan owes the borrowers exceed the amounts the borrowers owe the Plan. Contracts with the lending agent require it to indemnify the Plan if borrowers fail to return the securities, if the collateral is inadequate to replace the securities lent or if the borrowers fail to pay the Plan for income distributions by the securities' issuers while the securities are on loan; therefore, non-cash collateral is not recorded as an asset or liability on the financial statements.

## NOTES TO THE FINANCIAL STATEMENTS

## 3. DEPOSITS AND INVESTMENTS (CONTINUED)

	 2019	 2018
Fair value of securities loaned	\$ 59,218,527	\$ 88,923,982
Fair value of cash collateral received from borrowers	\$ 60,724,175	\$ 91,205,944

All security loans can be terminated on demand by either the Plan or the borrower. The cash collateral received on each security loan was invested, in accordance with the Plan investment guidelines, in short-term funds. The maturities of the resulting investments generally match the maturities of the securities lending arrangements themselves. The Plan is not permitted to pledge or sell collateral received unless the borrower defaults.

Loaned

At April 30, 2019, the Plan had the following investments and maturities:

				Maturities i	n Y	ears /			Under Securities
			Less					More	Lending
Туре	F	air Value	than 1	1 - 5		6 - 10		than 10	Agreements
U.S. Treasuries	\$	14,645,298	\$ 	\$ 5,776,485	\$	8,868,813	;	\$	\$ 9,545,724
U.S. government-backed mortgages		53,683,512		69,204		396,249		53,218,059	
Municipal bonds		2,972,036						2,972,036	226,991
Asset-backed securities		8,050,597		273,056		169,845		7,607,696	
Foreign debt obligations		2,609,685		223,852		848,943		1,536,890	
Corporate bonds - domestic		36,251,398	2,133,914	16,469,203		5,839,224		11,809,057	7,224,712
Corporate bonds - foreign		28,335,866	978,900	9,434,755		10,672,583		7,249,628	
Short-term investment funds		19,631,100	19,631,100						
	\$	166,179,492	\$ 22,743,914	\$ 32,246,555	\$	26,795,657	\$	84,393,366	
Domestic preferred equities		1,232,768						_	
Domestic common equities		173,827,795							42,221,100
Foreign equities		2,200,066							
Partnerships		42,514,100							
Collective trusts - equities		405,087,413							
Collective trusts - fixed income		238,882,585							
Collective trusts - real estate		115,372,048							
Hedge funds		23,206,749							
	\$ 1	,168,503,016							\$ 59,218,527

#### NOTES TO THE FINANCIAL STATEMENTS

## 3. DEPOSITS AND INVESTMENTS (CONTINUED)

At April 30, 2018, the Plan had the following investments and maturities:

				Maturities in	Ye	ars			aned Under Securities
			Less				More		Lending
Туре	ı	air Value	than 1	1 - 5	6	- 10	than 10	A	greements
U.S. Treasuries	\$	25,817,600	\$ 11,371,793	\$ 14,445,807	\$		\$ -	\$	18,514,557
U.S. government-backed mortgages		46,605,106		86,457		796,346	45,722,303		
Municipal bonds		3,568,615		676,133			2,892,482		
Asset-backed securities		5,376,639		269,515		1,350,738	3,756,386		
Foreign debt obligations		2,279,269				1,094,389	1,184,880		54,321
Corporate bonds - domestic		29,960,341		7,328,974		10,667,142	11,964,225		2,412,129
Corporate bonds - foreign		20,261,196	103,925	3,932,424		11,536,463	4,688,384		571,771
Short-term investment funds		22,785,127	22,785,127						
Collective trusts - fixed income		131,000,000	131,000,000	 					
	\$	287,653,893	\$ 165,260,845	\$ 26,739,310	\$	25,445,078	\$ 70,208,660		
Domestic preferred equities		1,220,017							
Domestic common equities		196,131,355							65,516,149
Foreign equities		1,855,055							1,855,055
Partnerships		42,449,275							
Collective trusts - equities		524,171,575							
Collective trusts - real estate		69,619,966							
Hedge funds		27,082,692							<u></u>
	\$	1,150,183,828						\$	88,923,982

<u>Custodial Credit Risk</u> - Custodial credit risk is the risk that, in the event of the failure of the counterparty, the Plan will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. Consistent with the Plan's securities lending policy, \$59,218,527 and \$88,923,982 was held by the counterparty that was acting as the Plan's agent in securities lending transactions at April 30, 2019 and 2018, respectively.

<u>Investment Concentrations</u> - The following presents investments that represent 5 percent or more of the fiduciary net position of the Plan as of April 30, 2019:

Investment	
Prudential Core Plus Bond Fund	\$ 153,382,586
FIAM Tactical Bond Pool	85,500,000
Lazard Wilmington International Equity Portfolio	80,453,915
Blackrock Alpha Advantage International Fund	75,437,659
Mellon EB DV Global Exp Alpha I Fund	73,387,327

#### NOTES TO THE FINANCIAL STATEMENTS

## 3. DEPOSITS AND INVESTMENTS (CONTINUED)

The following presents investments that represent 5 percent or more of the fiduciary net position of the Plan as of April 30, 2018:

Investment	
Investments managed by Prudential, Inc.	\$ 131,540,105
American Century Global Growth Equity Trust - Tier 2	121,782,475
Investments managed by GMO	113,849,077
Investments managed by JP Morgan	112,059,758
Investments managed by Blackrock	109,541,417
Mellon EB DV Global Exp Alpha I Fund	68,906,366
Investments managed by Northern Trust	59,169,924

<u>Credit Risk</u> - Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the Plan. The Plan's policy is that fixed income securities must have a minimum investment quality of "B" at the time of purchase. The weighted average credit rating of the portfolio must have a minimum investment quality of "A." As of April 30, 2019 and 2018, the Plan's fixed income assets that are not explicitly government guaranteed represented 74.60 percent and 74.70 percent of the fixed income portfolio, respectively. The following tables summarize the Plan's fixed income portfolio exposure levels and credit qualities at April 30, 2019 and 2018:

			S&P
		Percentage	Weighted
		of all Fixed	Average
	Fair Value	Income	Credit
Fixed Income Security Type	April 30, 2019	Assets	Quality
Municipal bonds	\$ 2,972,036	0.7%	A+
Asset-backed securities	8,050,597	2.0%	AA+
Foreign debt obligations	2,609,685	0.6%	BBB
Corporate bonds - domestic	36,251,398	9.0%	BBB
Corporate bonds - foreign	28,335,866	7.0%	BBB
Money market funds	19,631,100	4.8%	Not rated
Collective trusts - fixed income	238,882,585	59.0%	Not rated
	\$ 336,733,267	83.1%	

## NOTES TO THE FINANCIAL STATEMENTS

## 3. DEPOSITS AND INVESTMENTS (CONTINUED)

			S&P
		Percentage	Weighted
		of all Fixed	Average
	Fair Value	Income	Credit
Fixed Income Security Type	April 30, 2018	Assets	Quality
Municipal bonds	\$ 3,568,615	1.2%	Α
Asset-backed securities	5,376,639	1.9%	AAA
Foreign debt obligations	2,279,269	0.8%	BBB
Corporate bonds - domestic	29,960,341	10.4%	BBB
Corporate bonds - foreign	20,261,196	7.0%	BBB
Money market funds	22,785,127	7.9%	Not rated
Collective trusts - fixed income	131,000,000	45.5%	Not rated
	\$ 215,231,187	74.7%	

Each portfolio is managed in accordance with operational guidelines that are specific as to permissible credit quality ranges, exposure levels within individual quality tiers and the average credit quality of the overall portfolios.

Interest Rate Risk - Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed within the portfolio using the effective duration of option- adjusted methodology. The Plan's policy is to manage duration to a maximum 25 percent of underweighting/overweighting relative to the Barclays Aggregate Bond Index.

#### Effective Duration of Fixed Income Assets by Security Type

		Percentage	
		of all	Weighted
	Fair Value	Fixed Income	Average Effective
Fixed Income Security Type	April 30, 2019	Assets	Duration (Years)
U.S. Treasuries	\$ 14,645,298	3.6%	5.19
U.S. government-backed mortgages	53,683,512	13.3%	2.38
Municipal bonds	2,972,036	0.7%	9.42
Asset-backed securities	8,050,597	2.0%	6.32
Foreign debt obligations	2,609,685	0.6%	5.79
Corporate bonds - domestic	36,251,398	9.0%	6.68
Corporate bonds - foreign	28,335,866	7.0%	5.79
Money market funds**	19,631,100	4.8%	**
Collective trusts - fixed income	238,882,585	59.0%	5.93
	\$ 405,062,077	100.0%	

#### NOTES TO THE FINANCIAL STATEMENTS

#### 3. DEPOSITS AND INVESTMENTS (CONTINUED)

		Percentage of all	Weighted
	Fair Value	Fixed Income	Average Effective
Fixed Income Security Type	April 30, 2018	Assets	Duration (Years)
U.S. Treasuries	\$ 25,817,600	9.0%	2.5
U.S. government-backed mortgages	46,605,106	16.3%	24.1
Municipal bonds	3,568,615	1.2%	16.5
Asset-backed securities	5,376,639	1.9%	11.9
Foreign debt obligations	2,279,269	0.8%	15.8
Corporate bonds - domestic	29,960,341	10.4%	12.4
Corporate bonds - foreign	20,261,196	7.0%	11.5
Money market funds**	22,785,127	7.9%	**
Collective trusts - fixed income	131,000,000	45.5%	8.2
	\$ 287,653,893	100.0%	

<sup>\*\*</sup>The Plan actually owns an interest in the underlying assets of the money market funds and the unit values are based on the fair value of their underlying assets. The money market funds do not have a maturity date, even though their underlying assets do have maturity dates of less than one year.

<u>Foreign Currency Risk</u> - Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The Plan's currency risk exposure, or exchange rate risk, primarily reside within the Plan's foreign debt obligations and foreign equity holdings through the Plan's various asset managers. The Plan's policy for each specific portfolio does not place limits on the amount of foreign exposure that can be held by the individual asset managers.

<u>Annual Money-Weighted Rate of Return</u> - For the years ended April 30, 2019 and 2018, the annual money-weighted rate of return on the pension plan investments, net of pension plan investment expense, was 5.32 percent and 9.28 percent, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

#### 4. NET PENSION LIABILITY

The components of the net pension liability of the City at April 30, 2019 and 2018 were as follows:

	2019		2018
Total pension liability	\$ 1,396,170,598	\$	1,357,512,868
Plan fiduciary net position	 (1,169,271,585)		(1,151,660,978)
	_		_
City's net pension liability	\$ 226,899,013	\$	205,851,890
		-	
Fiduciary net position as a % of total pension liability	83.75%		84.84%

#### NOTES TO THE FINANCIAL STATEMENTS

#### 5. ACTUARIAL METHODS AND ASSUMPTIONS

An actuary from Cheiron determines the total pension liability. The total pension liability as of April 30, 2019 and 2018 was determined based on an actuarial valuation prepared as of May 1, 2018 and 2017, respectively, rolled forward one year, using the following actuarial assumptions:

Price inflation 3.00%

Salary increases, including wage 3.75% to 5.00%

inflation

Long-term investment rate of return, 7.50%

net of plan investment expense,

including inflation Mortality tables:

Healthy RP-2000 Combined Healthy Annuitant Mortality

Table (multiplied by 1.078 for males and 1.065 for females), projected using a modified Scale

MP-2015 on a generational basis

Disabled RP-2000 Combined Healthy Annuitant Mortality

Table (multiplied by 1.300 for males and 1.500 for females), projected using a modified Scale

MP-2015 on a generational basis

The actuarial assumptions used in the May 1, 2018 and 2017 valuations were based on the results of the actuarial experience study for the period May 1, 2010 through April 30, 2015. The actuarial experience study is dated February 23, 2016.

For purposes of calculating the total pension liability, future ad hoc COLAs of 3.0 percent (simple COLA) were assumed to be granted in all future years, for Tier I employees. Tier II employees COLA will only be payable if the prior year's funding ratio is greater than or equal to 80 percent and will be equal to the percentage increase in the consumer price index, up to a maximum of 2.50 percent, payable at age 62.

Long-Term Expected Rate of Return - The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best-estimates arithmetic real rates of return for each major asset class included in the Plan's target asset allocation as of April 30, 2019 and 2018 are summarized below:

## NOTES TO THE FINANCIAL STATEMENTS

## 5. ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

		Long-Term Expected Real Rate of Return
Asset Class	Target Allocation	April 30, 2019
U.S. Equity	16.25%	3.8%
Emerging Manager of Managers	4.0%	3.8%
Non-U.S. Equity	15.25%	5.0%
Emerging Markets Equity	4.5%	7.3%
Global Equity	5.0%	4.7%
Core Fixed Income	20.0%	0.5%
Non-core Fixed Income	12.0%	2.5%
Real Estate	7.5%	3.3%
Infrastructure	2.5%	3.0%
Opportunistic	12.0%	4.1%
Cash	1.0%	-0.5%
		Long-Term
		Expected
		Real Rate of
		Return
Asset Class	Target Allocation	April 30, 2018
U.S. Equity	11.5%	3.8%
Emerging Manager of Managers	4.0%	3.8%
Non-U.S. Equity	16.0%	5.0%
Emerging Markets Equity	3.5%	7.3%
Global Equity	5.0%	4.7%
Long/Short Equity	5.0%	4.0%
Core Fixed Income	25.0%	0.5%
Non-core Fixed Income	7.0%	2.5%
Real Estate	7.5%	3.3%
Infrastructure	2.5%	3.0%
Opportunistic	12.0%	4.1%
Cash	1.0%	-0.5%

<u>Discount Rate</u> - The discount rate used to measure the total pension liability was 7.5 percent. In the professional judgment of the Plan's actuary, the funding policy of the Plan will result in the pension Plan's projected Fiduciary Net Position being greater than or equal to the benefit payments projected for each future period. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments.

#### NOTES TO THE FINANCIAL STATEMENTS

#### 5. ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

<u>Sensitivity Analysis</u> - The following sensitivity analysis presents the net pension liability of the City, calculated using the discount rate of 7.50 percent as well as what the City's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.50 percent) or one percentage point higher (8.50 percent) than the current rate as of April 30, 2019 and 2018:

		2019	
	1%	Current	1%
	Decrease	<b>Discount Rate</b>	Increase
	(6.50%)	(7.5%)	(8.50%)
Total pension liability	\$ 1,561,849,484	\$ 1,396,170,598	\$ 1,257,200,457
Fiduciary net position	(1,169,271,585)	(1,169,271,585)	(1,169,271,585)
Net pension liability	\$ 392,577,899	\$ 226,899,013	\$ 87,928,872
		2018	
	1%	Current	1%
	Decrease	<b>Discount Rate</b>	Increase
	(6.50%)	(7.5%)	(8.50%)
Total pension liability	\$ 1,520,065,911	\$ 1,357,512,868	\$ 1,221,260,929
Fiduciary net position	(1,151,660,978)	(1,151,660,978)	(1,151,660,978)
	(1,101,000,010)	(1,101,000,010)	(1,101,000,010)

#### 6. RISKS AND UNCERTAINTIES

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

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

#### 7. FAIR VALUE MEASUREMENTS

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. Fair value measurements must maximize the use of observable inputs and minimize the use of unobservable inputs. There is a hierarchy of three levels of inputs that may be used to measure fair value:

## NOTES TO THE FINANCIAL STATEMENTS

## 7. FAIR VALUE MEASUREMENTS (CONTINUED)

- **Level 1** Quoted prices in active markets for identical assets or liabilities
- Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities
- **Level 3** Unobservable inputs supported by little or no market activity and are significant to the fair value of the assets or liabilities

Recurring Measurements - The following table presents the fair value measurements of assets and liabilities recognized in the accompanying statements of fiduciary net position measured at fair value on a recurring basis and the level within the fair value hierarchy in which the fair value measurements fall at April 30, 2019 and 2018:

		April 30, 2019					
	Total						
	Fair Value		Level 1	Level 2	Level 3		
Investments by fair value level							
U.S. Treasuries	\$ 14,645,298	\$		\$ 14,645,298	\$		
U.S. government-backed mortgages	53,683,512			49,523,356	4,160,156		
Municipal bonds	2,972,036			2,972,036			
Asset-backed securities	8,050,597			8,050,597			
Foreign debt obligations	2,609,685			2,609,685			
Corporate bonds - domestic	36,251,398			36,251,398			
Corporate bonds - foreign	28,335,866			28,335,866			
Short-term investment funds	19,631,100		19,631,100				
Domestic preferred equities	1,232,768		1,232,768				
Domestic common equities	173,827,795		173,827,795				
Foreign equities	2,200,066		2,200,066				
Collective trusts - equities	 38,082,013			38,082,013			
Total investments	\$ 381,522,134	\$	196,891,729	\$ 180,470,249	\$ 4,160,156		

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

Collective trusts - equities	367,005,400
Collective trusts - fixed income	238,882,585
Partnerships	42,514,100
Collective trusts - real estate	115,372,048
Hedge funds	 23,206,749
Total investments measured at the NAV	 786,980,882
Total investments	\$ 1,168,503,016

## NOTES TO THE FINANCIAL STATEMENTS

## 7. FAIR VALUE MEASUREMENTS (CONTINUED)

Α	pril	30,	. 20	118	٠

		Total			,			
	Fair Value		Level 1		Level 2		Level 3	
Investments by fair value level								
U.S. Treasuries	\$	25,817,600	\$		\$ 25,817,600	\$		
U.S. government-backed mortgages		46,605,106			44,769,376		1,835,730	
Municipal bonds		3,568,615			3,568,615			
Asset-backed securities		5,376,639			5,376,639			
Foreign debt obligations		2,279,269			2,279,269			
Corporate bonds - domestic		29,960,341			29,960,341			
Corporate bonds - foreign		20,261,196			20,261,196			
Short-term investment funds		22,785,127		22,785,127				
Domestic preferred equities		1,220,017		1,220,017				
Domestic common equities		196,131,355		196,131,355				
Foreign equities		1,855,055		1,855,055				
Collective trusts - equities		59,169,924		<u></u>	59,169,924			
Total investments		415,030,244	\$	221,991,554	\$ 191,202,960	\$	1,835,730	

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

Collective trusts - equities	465,001,651
Collective trusts - fixed income	131,000,000
Partnerships	42,449,275
Collective trusts - real estate	69,619,966
Hedge funds	27,082,692
Total investments measured at the NAV	735,153,584
Total investments	\$ 1,150,183,828

(A) Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts included above are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the statements of fiduciary net position.

Equity and short-term investment funds classified as Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Corporate and Governmental debt securities as well as certain collective trusts classified as Level 2 of the fair value hierarchy are valued using third-party pricing services based on market observable information such as market quotes for similar assets, as well as normal market pricing considerations such as duration, interest rates and prepayment assumptions.

#### NOTES TO THE FINANCIAL STATEMENTS

## 7. FAIR VALUE MEASUREMENTS (CONTINUED)

The fair value estimates presented herein are based on pertinent information available to management as of April 30, 2019. Although management is not aware of any factors that would significantly affect the estimated fair value amounts, such amounts have not been comprehensively revalued for purposes of these financial statements since that date, and current estimates of fair value may differ significantly from the amounts presented herein.

Where quoted market prices are available in an active market, securities are classified within Level 1 of the valuation hierarchy. If quoted market prices are not available, then fair values are estimated by using quoted prices of securities with similar characteristics or independent asset pricing services and pricing models, the inputs of which are market-based or independently sourced market parameters, including, but not limited to, yield curves, interest rates, volatilities, prepayments, defaults, cumulative loss projections and cash flows. Such securities are classified in Level 2 of the valuation hierarchy. In certain cases where Level 1 or Level 2 inputs are not available, securities are classified within Level 3 of the hierarchy.

Fair value determinations for Level 3 measurements of securities are the responsibility of the Pension Administrator's office. The Pension Administrator's office contracts with the respective money manager to engage a pricing specialist to generate fair value estimates on a monthly or quarterly basis. The Pension Administrator's office challenges the reasonableness of the assumptions used and reviews the methodology to ensure the estimated fair value complies with accounting standards generally accepted in the United States.

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

A -- --!! OO OO4O

Bi-Monthly

75 Days

			April 30, 2019	
		_	Redemption	
		Unfunded	Frequency (If Currently	
	Fair Value	Commitments	Eligible)	Notice Period
Collective trusts - equities (A) Collective trusts - fixed income (B) Partnerships (C) Collective trusts - real estate (D) Hedge funds (E)	\$ 367,005,400 238,882,585 42,514,100 115,372,048 23,206,749	\$   	Daily/Monthly Daily Semi-Annual Quarterly Bi-Monthly	1-7 Days 1 Day 2 Months 45 Days 75 Days
Total investments measured at NAV	\$ 786,980,882		Amril 20, 2040	
		<del>-</del>	April 30, 2018 Redemption	
		Unfunded	Frequency (If Currently	
	Fair Value	Commitments	Eligible)	Notice Period
Collective trusts - equities (A) Collective trusts - fixed income (B)	\$ 465,001,651 131,000,000	\$ 	Daily/Monthly Daily	1-7 Days 1 Day
Partnerships (C)	42,449,275		Semi-Annual	2 Months
Collective trusts - real estate (D)	69,619,966		Quarterly	45 Days

27,082,692

\$ 735,153,584

Hedge funds (E)

Total investments measured at NAV

#### NOTES TO THE FINANCIAL STATEMENTS

## 7. FAIR VALUE MEASUREMENTS (CONTINUED)

- (A) This category includes collective trust funds. Each invests in equity securities both on the national and international markets listed on public market exchanges.
- (B) This category is a fixed income fund. The fund includes U.S. and Non-U.S. government, securitized and corporate bonds, and currencies across the entire quality spectrum.
- (C) This category is a limited partnership. Investments are open-ended Global Core/Core Plus infrastructure investments.
- (D) This category is a common collective trust redeemable quarterly with a 45 day notice period. Investments are open-ended U.S. Commercial real estate.
- (E) This category is a limited partnership domiciled in the Cayman Islands. Investments provide exposure to more than sixty "hedge fund risk premiums" across nine broad strategy groups (event driven, convertible arbitrage, equity market neutral, dedicated short bias, long/short equity, emerging markets, global macro, managed futures and fixed income relative value) with a dynamic and disciplined investment process that aims to provide risk-balanced, long-term exposure to the underlying strategies. The result is a high risk-adjusted expected return stream with low correlation to traditional asset classes.

#### 8. RELATED PARTY TRANSACTIONS

The Plan reimburses the City for the cost of providing financial and other services. Amounts charged are expensed during the period incurred.



## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

## Last Ten Fiscal Years

	2019	2018	2017	2016	2015
Service cost Interest on total pension liability Differences between expected and actual experience Change of assumptions Benefit payments, including member refunds	\$ 20,312,736 100,099,386 (5,950,247)  (75,804,145)	\$ 20,085,682 97,267,046 (2,291,715)  (71,994,704)	\$ 20,048,780 94,116,208 (431,574)  (67,877,732)	\$ 19,485,402 87,902,877 (6,077,385) 43,062,525 (67,603,613)	\$ 19,694,295 85,393,038   (63,149,987)
Net change in total pension liability	38,657,730	43,066,309	45,855,682	76,769,806	41,937,346
Total pension liability - beginning	1,357,512,868	1,314,446,559	1,268,590,877	1,191,821,071	1,149,883,725
Total pension liability - ending	1,396,170,598	1,357,512,868	1,314,446,559	1,268,590,877	1,191,821,071
Fiduciary net position Net investment income (loss) City contributions Member contributions Benefits paid Refunds of contributions Administrative expenses	59,453,267 26,032,072 8,514,325 (71,410,862) (4,393,283) (584,912)	98,766,580 24,530,445 8,622,835 (68,328,453) (3,666,251) (563,030)	105,285,874 23,701,217 7,966,105 (64,197,401) (3,680,331) (386,784)	(26,366,931) 24,577,647 8,235,363 (63,007,354) (4,596,259) (365,571)	84,827,952 27,569,434 8,610,268 (58,650,593) (4,499,394) (379,424)
Net change in fiduciary net position	17,610,607	59,362,126	68,688,680	(61,523,105)	57,478,243
Fiduciary net position - beginning Fiduciary net position - ending	1,151,660,978 1,169,271,585	1,092,298,852 1,151,660,978	1,023,610,172 1,092,298,852	1,085,133,277 1,023,610,172	1,027,655,034 1,085,133,277
Net pension liability, ending	226,899,013	\$205,851,890	\$222,147,707	\$244,980,705	\$106,687,794
Fiduciary net position as a percentage of total pension liability  Covered payroll  Net pension liability as a percentage of covered payroll	83.75% \$ 171,688,301 132.16%	84.84% \$ 167,811,028 122.67%	83.10% \$ 164,248,048 135.25%	80.69% \$ 166,853,097 146.82%	91.05% \$ 167,629,048 63.65%

Note to Schedule: This schedule is intended to show a ten-year trend. Additional years will be reported as they become available.

## SCHEDULE OF CITY CONTRIBUTIONS

## Last Ten Fiscal Years

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Actuarially determined employer contribution	\$ 25,842,898	\$ 24,390,835	\$ 23,042,413	\$ 24,540,893	\$ 27,568,194	\$ 27,568,194	\$ 27,682,872	\$ 26,326,555	\$ 27,772,227	\$ 29,589,060
Actual City contributions	26,032,072	24,530,445	23,701,217	24,577,647	27,569,434	25,987,662	23,744,372	20,543,487	18,822,709	19,186,317
Annual contribution deficiency (excess)	\$ (189,174)	\$ (139,610)	\$ (658,804)	\$ (36,754)	\$ (1,240)	\$ 1,580,532	\$ 3,938,500	\$ 5,783,068	\$ 8,949,518	\$ 10,402,743
Covered payroll	\$ 171,688,301	\$ 167,811,028	\$ 164,248,048	\$ 166,853,097	\$ 167,629,048	\$ 167,629,049	\$ 166,877,689	\$ 161,134,295	\$ 163,113,722	\$ 153,948,044
Actual contributions as a percentage of covered payroll	15.16%	14.62%	14.43%	14.73%	16.45%	15.50%	14.23%	12.75%	11.54%	12.46%

## SCHEDULE OF INVESTMENT RETURNS

## Last Ten Fiscal Years

Fiscal Year Ending April 30	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net						
of investment expense	5.32%	9.28%	10.46%	-2.50%	8.36%	11.50%

**Note to Schedule:** This schedule is intended to show a ten-year trend. Additional years will be reported as they become available.

#### NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

<u>Changes of benefit and funding terms</u> - The following changes to the plan provisions were reflected in the valuations as listed below:

#### 5/01/2018 Valuation

• No changes in benefit or funding terms.

#### 5/01/2017 Valuation

• No changes in benefit or funding terms.

#### 5/01/2016 Valuation

No changes to benefit or funding terms.

#### 5/01/2015 Valuation

No changes to benefit or funding terms.

#### 5/01/2014 Valuation

- Effective April 20, 2014, Tier I member contribution rates increased by 1.00 percent and the interest credited to employee account balances decreased to 5.00 percent.
- Tier II members were added.

#### 5/01/2013 Valuation

• The City contribution rate changed from 9.50 percent of payroll for General Employees and 19.50 percent of payroll for Judges and Elected Officials to the prior year's actuarially determined contribution rate.

## 5/01/2012 Valuation

• The Plan was amended to provide MAST employees with service prior to April 25, 2010 and to implement a special benefit schedule for these employees.

#### 5/01/2011 Valuation

• The Plan was amended according to Ordinance No. 110218, so that unless otherwise provided, no members of the Council, including the Mayor, who commence a term of office after April 30, 2011 shall participate in this plan for any service after April 30, 2011. However, members of the Council, including the Mayor, elected on March 27, 2007 for a term beginning May 1, 2007 and also elected on March 22, 2011 for a term beginning on May 1, 2011 are members of this plan as long as they are continuously a member of the Council, including the Mayor.

<u>Changes in actuarial assumptions and methods</u> - The following changes were reflected in the valuations as listed below:

#### 5/01/2018 Valuation

No changes in actuarial assumptions or methods.

#### 5/01/2017 Valuation

No changes in actuarial assumptions or methods.

#### 5/01/2016 Valuation

No changes in actuarial assumptions or methods.

#### NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

#### 5/01/2015 Valuation

• No changes in actuarial assumptions or methods.

#### 5/01/2014 Valuation

 All assumptions have been revised based on the results of the experience study conducted for the period May 1, 2010 to April 30, 2015. These assumptions were incorporated into the GASB 67 disclosures and net pension liability calculation for the Plan's 2016 fiscal year-end which is based on the 4/30/2014 Valuation.

#### 5/01/2011 Valuation

 Actuarial assumptions were changed based on recommendations from the May 1, 2006 through April 30, 2010 actuarial experience study that was adopted by the Board. The changes affected withdrawal rates, retirement rates, age of spouse assumptions, salary increases and J&S election assumptions.

#### 5/01/2009 Valuation

• The Amortization of UAL changed from a 20-year level percent of pay amortization method to a 30-year layered level percent of pay amortization method for the 5/1/2009 change to the unfunded actuarial liability.

#### 5/01/2008 Valuation

- The Asset Smoothing Method switched from the prior method of using preliminary asset value plus 20 percent of the difference between the market value and the preliminary asset value to the new method of using 100 percent of expected returns plus 25 percent of actual returns above or below the expected return. The minimum asset corridor also changed from 90 percent to 85 percent.
- The Amortization of UAL changed from a 30-year rolling level dollar amortization method to a 20-year layered level percent of pay amortization method.
- The Investment Return Assumption changed from 7.75 percent to 7.50 percent.

The following actuarial methods and assumptions were used to determine the actuarially determined employer contribution reported in the most recent fiscal year, which was based on the May 1, 2017 actuarial valuation:

Valuation Date May 1, 2017

Timing Actuarially determined contribution rates are calculated

based on the actuarial valuation one year prior to the

beginning of the Plan year.

## Key Methods and Assumptions Used to Determine Contribution Rates:

Actuarial cost method Entry Age

Asset valuation method 4-year smoothing using Expected Value Method

Amortization method 20-year layered amortization as a level percent of pay. Changes

to the 5/1/2009 unfunded actuarial liability were amortized over

30 years.

Discount rate 7.50%

Amortization growth rate 3.75%

### NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

Price inflation 3.00%

Salary increases Ranges from 5.0% to 3.75%

Cost-of-living adjustments 3.00% simple for Tier 1 Members; 2.50% simple payable at 27th

anniversary of date at hire if the prior year's funding ratio is

greater than or equal to 80% for Tier II Members.

Mortality Non-Annuitants: RP-2000 Combined Healthy Non-Annuitant

Mortality Table (multiplied by 0.956 for males and 0.960 for females), projected using a modified Scale MP-2015 on a

generational basis.

Healthy Annuitants: RP-2000 Combined Healthy Annuitant Mortality Table (multiplied by 1.078 for males and 1.065 for females), projected using a modified Scale MP-2015 on a

generational basis.

Disabled: RP-2000 Combined Healthy Annuitant Mortality Table (multiplied by 1.300 for males and 1.500 for females)

projected using a modified Scale MP-2015 on a

generational basis.