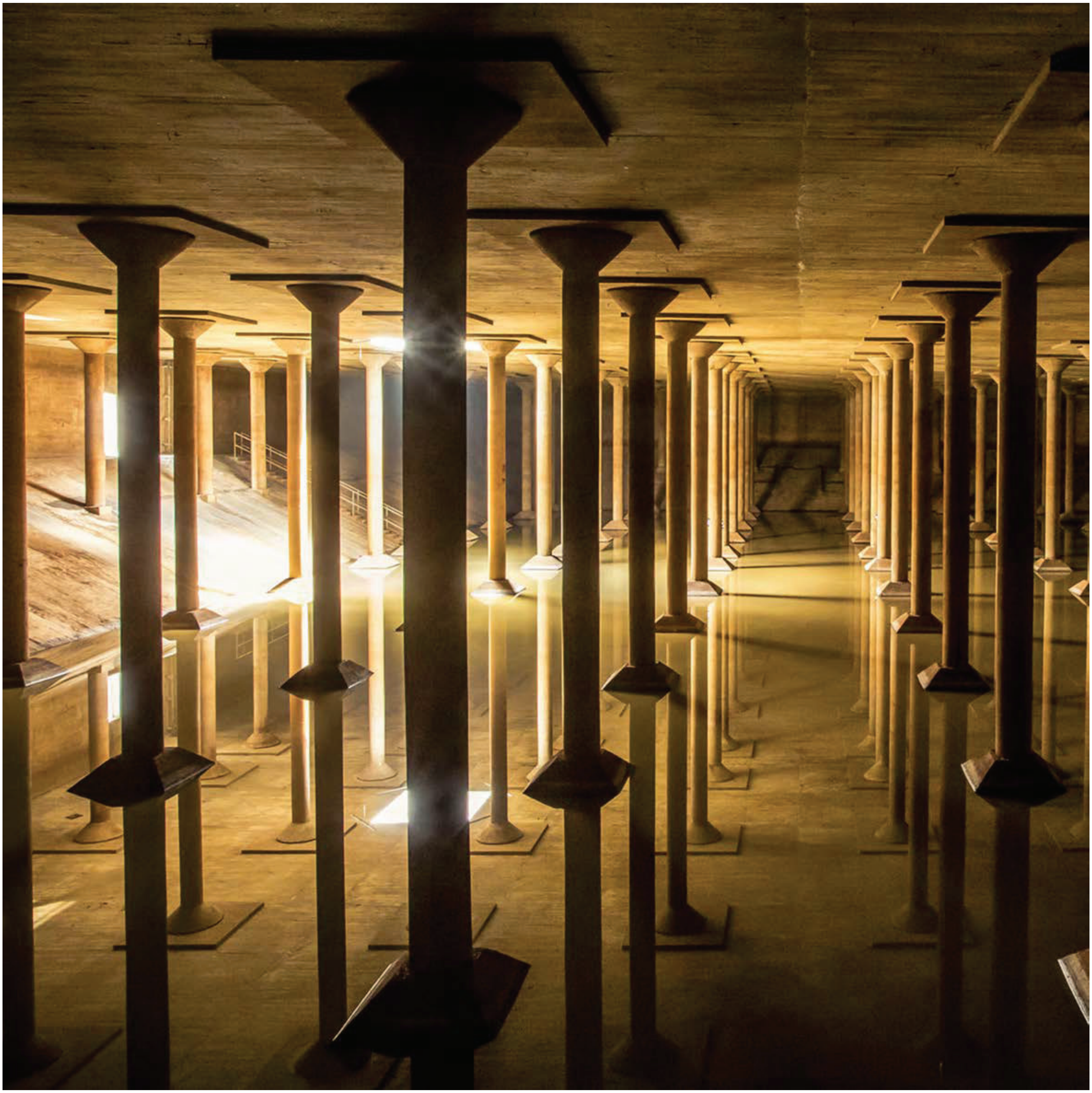
FINANCIAL

- SECTION 2 -

Perseverance and commitment create a solid foundation for the future.

__The Buffalo Bayou Park Cistern__ is a former drinking water reservoir built in 1926 for the City of Houston for fire suppression and drinking water storage. The reservoir ceased operations in 2007, and in 2010 the Buffalo Bayou Partnership took over its development and repurposed the Cistern into a magnificent public space for art installations. The Cistern is the size of 1.5 football fields, contains 221 concrete columns, holds 15 million gallons of water when functioning at capacity, and has a 17-second echo. It was named "the Cistern" due to its resemblance to the ancient Roman cisterns under Istanbul.



HMEPS
HOUSTON MUNICIPAL EMPLOYEES PENSION SYSTEM

Independent Auditor's Report

To the Board of Trustees of the
Houston Municipal Employees Pension System

Report on the Financial Statements

We have audited the accompanying financial statements of the Pension Plan and OPEB Trust of the Houston Municipal Employees Pension System (the System), which comprise the statements of fiduciary net position as of June 30, 2020 and 2019, and the related statements of changes in fiduciary net position for the fiscal years then ended and the related notes to the basic financial statements.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Pension Plan and OPEB Trust of the System as of June 30, 2020 and 2019, and the respective changes in financial position thereof for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

Weaver and Tidwell, L.L.P.
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Main: 713.850.8787

CPAs AND ADVISORS | WEAVER.COM

The Board of Trustees of the
Houston Municipal Employees Pension System

Emphasis of Matter - Restatement

As discussed in Note 2 to the financial statements, the 2019 financial statements have been restated to correct a misstatement. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplemental Information
Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis (MD&A) and the Required Supplementary Information, as 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 supplemental information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audits 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.

Supplemental and Other Information
Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements. The Other Supplemental Information, as listed in the table of contents, and the Introductory, Investment, Actuarial and Statistical sections are presented for the purpose of additional analysis and are not a required part of the basic financial statements.

The Other Supplemental Information is the responsibility of the System's management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Other Supplemental Information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Introductory, Investment, Actuarial and Statistical sections have not been subjected to the auditing procedures applied in the audits of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

Weaver and Tidwell, L.L.P.

WEAVER AND TIDWELL, L.L.P.

Houston, Texas
October 25, 2020

The Board of Trustees (the Board) of the Houston Municipal Employees Pension System (the System) is pleased to provide this overview and analysis of the financial performance and activities of the System for the fiscal years ended June 30, 2020 and 2019. We encourage the readers to consider the information presented here in conjunction with the basic financial statements.

OVERVIEW OF THE FINANCIAL STATEMENTS

The discussion and analysis is intended to serve as an introduction to the System's financial statements. The financial section consists of (1) System's Basic Financial Statements, (2) Notes to Basic Financial Statements, and (3) Supplemental Information. The year-end financials for fiscal years 2020 and 2019 Notes to the Basic Financial Statements, and the Required Supplemental Information and Other Supplemental Information in this report were prepared in conformity with generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB).

SYSTEM'S BASIC FINANCIAL STATEMENTS

There are two basic financial statements presented herewith. The Statements of Fiduciary Net Position as of June 30, 2020 and 2019 indicate the net position available to meet future payments and give a snapshot at a particular point in time. The Statements of Changes in Fiduciary Net Position for the fiscal years ended June 30, 2020 and 2019 provide a view of the fiscal year's additions to and deductions from the System.

NOTES TO BASIC FINANCIAL STATEMENTS

The notes are an integral part of the basic financial statements and provide additional background information that is essential for a complete understanding of the data provided in the System's financial statements. The Notes to the Basic Financial Statements can be found on pages 23 to 47 of this report.

SUPPLEMENTAL INFORMATION

The required supplemental information consists of:

Schedule 1 – Schedule of Changes in Net Pension Liability and Related Ratios – Information about the components of the net pension liability and related ratios includes the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percentage of covered payroll. It should be noted though that actuarial information is based upon assumptions about future events, and therefore, the figures presented are estimates.

Schedule 2 – Schedule of Net Pension Liability – This schedule provides the historical liability of employers for benefits provided through a defined benefit pension plan.

Schedule 3 – Schedule of Contributions – Pension Plan – Details the actuarially determined contribution calculated for employers, actual contributions, covered payroll, and actual contributions as a percentage of payroll.

Schedule 4 – Schedule of Investment Returns – Pension Plan – A 10-year schedule presenting the annual money-weighted rate of return on pension plan investments for each fiscal year.

Schedule 5 – Schedule of Changes in Total OPEB Liability and Related Ratios – These are calculations made by the System's actuary that provide actuarial information that contributes to the understanding of the changes in the actuarial funding of and the funded status of the OPEB over a number of years. It should be noted that actuarial information is based upon assumptions about future events, and therefore, the figures presented are estimates.

Schedule 6 – Schedule of Contributions - OPEB Trust – Details the actuarially determined contribution calculated for employers, actual contributions, covered payroll, and actual contributions as a percentage of payroll.

Schedule 7 – Schedule of Investment Returns - OPEB Trust – A 10-year schedule presenting the annual money-weighted rate of return on pension plan investments for each fiscal year.

The other supplemental information consists of:

Schedule 8 – Investment Summary – This lists the System's investments by type presented both at cost and fair market value.

Schedule 9 – Investment Expenses, Professional Services and Administration Expenses – This provides additional information for purposes of a more detailed analysis.

Schedule 10 – Summary of Costs of Investment and Professional Services – This provides additional information for purposes of a more detailed analysis.

COMPARATIVE FINANCIAL STATEMENTS

Below is a condensed and comparative summary of major classes of Fiduciary Net Position at fair value. (In thousands of dollars)

	June 30, 2020	June 30, 2019	June 30, 2018
Assets		(Restated)	
Cash and cash equivalents	$ 4,746	$ 11,797	$ 31,377
Investments	2,860,150	3,073,932	2,959,795
Receivables on asset sales	6,539	7,581	6,059
Contribution receivable - City of Houston	13,317	12,962	7,751
Other receivables	4,560	5,606	4,493
Collateral on securities lending	13,246	60,246	49,472
NET OPEB Asset	2,257	1,752	-
Furniture, fixtures and equipment, net	307	184	133
Total assets	2,905,122	3,174,060	3,059,080
Deferred outflows of resources	227	98	-
Liabilities			
Payables on asset purchase	5,105	7,030	9,149
Accrued liabilities	3,176	3,958	11,520
Collateral on securities lending	13,246	60,246	49,472
Total liabilities	21,527	71,234	70,141
Deferred inflows of resources	2,035	1,925	75
Net position restricted for pensions	$ 2,881,787	$ 3,100,999	$ 2,988,864

Below is a comparative summary of Statements of Changes in Fiduciary Net Position available for pension benefits. (In thousands of dollars)

	Fiscal Year 2020	Fiscal Year 2019	Fiscal Year 2018
Additions			
Contributions	$ 209,012	$ 208,797	$ 449,467
Investment and interest income, net	(115,166)	200,445	231,815
Other income	484	710	701
Total additions	94,330	409,952	681,983
Deductions			
Benefits paid	308,002	291,060	283,928
Contribution refunds	649	1,394	807
Administrative expenses and professional fees	4,891	5,363	6,442
Total deductions	313,542	297,817	291,177
Net increase in net position	(219,212)	112,135	390,806
Net position restricted for pensions			
Beginning of year	3,100,999	2,988,864	2,598,058
End of year	$ 2,881,787	$ 3,100,999	$ 2,988,864

FINANCIAL HIGHLIGHTS (IN THOUSANDS OF DOLLARS, UNLESS OTHERWISE NOTED)

CONTRIBUTIONS

For fiscal year 2020, employee contributions increased by $45 or 0.1% to $32,582, compared to $32,537 in fiscal year 2019. Fiscal year 2019 employee contributions represented an increase of $4,632 or 16.6% over fiscal year 2018. The increase in fiscal year 2019 was primarily the result of Senate Bill 2190 of the 85th Texas Legislature (SB 2190) which amended the state statute governing the System, Article 6243h Vernon's Texas Civil Statutes (Pension Statute). Among other changes, SB 2190 increased contributions by all participants

Also as a result of SB 2190, beginning with fiscal year 2018, the City has been required to contribute the "Total City Contribution" to the System, which consists of the sum of (a) an actuarially determined percentage of payroll (City Contribution Rate) multiplied by actual payroll and (b) a fixed dollar amount (City Contribution Amount). In fiscal year 2020, the City Contribution Rate was 8.32% of payroll, and the City Contribution Amount was $130,946, for a Total City Contribution of $176,430.

In addition to these ongoing employer contributions, SB 2190 required a one-time contribution of $250 million in Pension Obligation Bond proceeds (POB proceeds) to the System. This payment was made during fiscal year 2018.

The System received cash contributions from the City of Houston (the City) of $176,430, $176,261 and $421,562 (which are net of contributions to the replacement benefit plan of $6,328, $1,847 and $2,148) for fiscal years 2020, 2019 and 2018, respectively.

BENEFIT PAYMENTS

Total benefit payments were $308,002, $291,060 and $283,928 in fiscal years 2020, 2019 and 2018, respectively. The increases in total benefit payments for these years were 5.8%, 2.5% and 1.2%, respectively.

Refunds amounted to $649, a decrease of 53.4%, in fiscal year 2020 over fiscal year 2019. Refunds were $1,394 and $807 in fiscal years 2019 and 2018, respectively.

Monthly recurring benefits represented 85.2% ($262,290) of total benefit payments in fiscal year 2020. This compares with 88.3% ($256,926) and 87.1% (247,225) in fiscal years 2019 and 2018, respectively.

Monthly recurring benefits increased 2.1%, 3.9% and 4.8%, respectively, in fiscal years 2020, 2019 and 2018.

Distributions to Deferred Retirement Option Plan (DROP) participants represented 14.7% ($45,206) of total benefit payments in fiscal year 2020. This compares with 11.6% ($33,687) and 12.8% ($36,478) in fiscal years 2019 and 2018, respectively. DROP distributions increased 34.2%, decreased 7.7% and decreased 17.6%, respectively, in fiscal years 2020, 2019 and 2018.

DROP distributions in fiscal year 2020 can be broken down into $43,680 in lump sum payments and $1,526 in monthly distributions. In 2019, the breakdown was $32,186 in lump sum payments and $1,501 in monthly distributions. In 2018, the breakdown was $34,698 (lump sum) and $1,780 (monthly).

Total benefit payments exceeded total employee and employer contributions by $98,990 in 2020, and $82,263 in 2019. Total employee and employer contributions exceeded benefit payments in fiscal year 2018 by $165,539.

ACCOUNTING AND ADMINISTRATION

Costs of administering the benefit programs of the System, including professional fees, decreased to $4,891 for fiscal year 2020 from $5,363 for fiscal year 2019, down 8.8%. Fiscal year 2019 administrative expenses were down 16.8% versus fiscal year 2018. Both decreases were mainly due to a reduction in costs of staff and benefits and in professional services expenses.

The System capitalizes expenditures for furniture, fixtures and equipment in accordance with Governmental Accounting Standards Board Statement No. 34, Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments, as amended.

Furniture, fixtures and equipment, net of accumulated depreciation, as of fiscal year ends 2020, 2019, and 2018 were $307, $184, and $133, respectively.

ACTUARIAL VALUATIONS AND FUNDING

The funded ratio is a standard measure of a plan's funded status representing the ratio of the actuarial value of assets to the actuarial accrued liability. The funded ratio as of the last actuarial report, July 1, 2019, is 59.3%, compared to 57.7% on July 1, 2018, and 56.4% on July 1, 2017. As of July 1, 2019, the System's unfunded actuarial accrued liability was $2.072 billion. In determining contribution rates, an actuarial value of assets is used rather than a market value of assets, with the actuarial value of assets (AVA) based on smoothed returns. This "smoothing method" is intended to help reduce the volatility of the contribution rates from year to year. The method used to compute the AVA takes the difference between the actual market value of assets and the expected actuarial value of assets (based on the assumed 7.0% investment return rate), and establishes a base each year which is equal to this difference less any unrecognized bases from prior years. If the current year's base is of opposite sign from the prior years' bases then it is offset dollar for dollar against the prior years' bases (oldest bases first) until either the prior years' bases or the current year's base is reduced to zero. Any remaining bases are then recognized over the remaining period for the base (5 less the number of years between the base year and the valuation year) in equal dollar amounts.

INVESTMENTS

The net investment and interest loss of the System was $(115,166) during fiscal year 2020, a decrease of $315,611 from fiscal year 2019's income of $200,445. The investment and interest income (loss) of the System consists of:

	Fiscal Year 2020	Fiscal Year 2019	Dollar Change	Fiscal Year 2019	Fiscal Year 2018	Dollar Change
Interest	$ 14,831	$ 15,881	$ (1,050)	$ 15,881	$ 10,530	$ 5,351
Dividends	26,416	28,780	(2,364)	28,780	19,974	8,806
Earnings from limited partnerships and real estate trusts	238	1,605	(1,367)	1,605	5	1,600
Realized gain/(loss) on investments	35,569	27,788	7,781	27,788	92,478	(64,690)
Change in unrealized gain/(loss) on investments	(183,981)	134,138	(318,199)	134,138	116,195	17,943
Net proceeds from lending securities	171	272	(101)	272	301	(29)
Less: cost of investment services	(8,410)	(8,019)	(391)	(8,019)	(7,668)	(351)
Net investment and interest income(loss)	$ (115,166)	$ 200,445	$ (315,611)	$ 200,445	$ 231,815	$ (31,370)

The System's gross rate of return on investments during fiscal year 2020 was -0.9% compared with the fiscal year 2019 rate of return of 7.2%. The decrease in the rate of return was primarily due to negative impact the COVID-19 pandemic had on global equity markets. The System's investment returns were also negatively affected by the disruption in the energy markets due to the over-supply and the decreased demand as global economic activity slowed.

- Fiscal year 2020 saw record breaking volatility in the equity markets with sharp decreases in March followed by a swift though uneven recovery in the quarter ending June 30, 2020. Domestic equities (Wilshire 5000 Index) ended the year with a gain of 6.8%, while international equities (MSCI All Country ex-US Index) recorded a loss of -4.8%.
- Investment grade bonds benefited from a flight to safety as the COVID-19 pandemic caused economic uncertainty, ending the year with a gain of 8.7%. High yield bonds as represented by the JP Morgan EMBI Global Total Return Index returned 1.5% for the year, as credit spreads widened in March and narrowed in April. Real Estate saw relatively little change, with the NCREIF Property Index returning 2.7% in fiscal year 2020.
- At June 30, 2020, the Systems' total pension liability was $5.33 billion. The System's Fiduciary Net Position was $2.88 billion leaving a Net Pension Liability of $2.45 billion. The Plan's Fiduciary Net Position as a percentage of total pension liability was 54.04%.
- The Fiduciary Net Position of $2.88 billion decreased by $220 million or -7.1% during fiscal year 2020 due primarily to weak investment returns. This compares to an increase of $112 million or 3.8% in the Fiduciary Net Position during fiscal year 2019.

INVESTMENT REVIEW

The System's investment portfolio closed its 2020 fiscal year at $2.9 billion, down from $3.1 billion at the beginning of the year. The total gross investment return for the fiscal year was -0.9%. The System's performance, including the total fund, each asset class and their corresponding benchmark(s), for fiscal year 2020 and the trailing three, five, and ten-year periods are listed in Table 1 on page 19.

The best performing asset classes for fiscal year 2020 were Fixed Income, up 4.3% and Private Credit, up 4.0%. For fiscal year 2019, Private Equity and Private Credit were the top two performing asset classes. The benefits of a well-diversified asset allocation are evidenced by the System's ability to perform very competitively over multi-year periods where different asset classes drive overall returns. For the past three-year and ten-year periods, Private Equity was the System's best performing asset class, providing returns of 11.4% and 12.3%, respectively.

Asset Class	Target Allocation	Actual Allocation
Global Equity	32.5%	31.6%
Private Equity	17.0%	26.5%
Fixed Income	10.0%	11.5%
Real Estate	12.5%	11.2%
Absolute Return	8.0%	4.6%
Inflation Linked	15.0%	11.3%
Private Credit	5.0%	2.8%
Cash/Liquidation	0.0%	0.5%
Total	100.0%	100.0%

TABLE 1

Periods Ended June 30, 2020

	Assets ($Millions)	Assets (%)	Performance 1-year	Performance 3-year	Performance 5-year	Performance 10-year
Total Global Equity	**907.7**	**31.6**	**0.0%**	**5.2%**	**6.2%**	**-.-%**
Global Equity Policy[1]			0.3%	5.7%	6.4%	-.-%
Global Low Volatility Equity	**219.4**	**7.6**	**-2.1%**	**6.2%**	**7.4%**	**-.-%**
MSCI ACWI Min Vol (Net)			-2.5%	5.7%	6.9%	-.-%
Domestic Equity	**350.3**	**12.2**	**-2.3%**	**5.2%**	**7.3%**	**12.2%**
Wilshire 5000			6.8%	10.1%	10.3%	13.7%
International Equity	**338.1**	**11.8**	**3.7%**	**4.5%**	**4.3%**	**6.3%**
MSCI ACWI ex-US (Net)			-4.8%	1.1%	2.3%	5.0%
Global Fixed Income	**330.0**	**11.5**	**4.3%**	**4.2%**	**4.7%**	**5.5%**
Global Fixed Income Policy[2]			3.9%	4.2%	4.5%	5.2%
Real Estate	**322.8**	**11.2**	**-4.0%**	**4.3%**	**7.0%**	**8.2%**
NCREIF Property			2.7%	5.4%	6.8%	9.7%
Private Equity	**760.7**	**26.5**	**3.4%**	**11.4%**	**11.4%**	**12.3%**
S&P 500 + 3%			10.5%	13.7%	13.7%	17.0%
Absolute Return	**132.4**	**4.6**	**-1.4%**	**2.1%**	**1.2%**	**3.9%**
Custom Benchmark[3]			5.4%	6.0%	5.5%	5.0%
Inflation Linked	**323.6**	**11.3**	**-28.2%**	**-8.1%**	**-5.9%**	**0.2%**
Custom Benchmark[4]			4.7%	5.8%	5.6%	5.8%
Private Credit	**79.7**	**2.8**	**4.0%**	**-.-%**	**-.-%**	**-.-%**
CSFB Leveraged Loan Index			-2.3%	-.-%	-.-%	-.-%
Cash	**10.5**	**0.5**	**1.8%**	**1.6%**	**1.1%**	**1.8%**
Total Fund	**2,870.5**	**100.00**	**-0.9%**	**5.1%**	**5.9%**	**8.3%**
Policy Index			4.4%	7.0%	7.0%	8.9%
TUCS Ranking (6/30/20)[5]			91 (131)	78 (121)	62 (120)	55 (114)

1 ***Global Equity Policy: 3Q13 - Present:*** *75% MSCI All-Country World IMI (Net), 25% MSCI All-Country World Minimum Volatility Index (Net).*

2 ***Global Fixed Income Policy: 1Q04 - Present:*** *50% Barclays US Aggregate Bond Index, 50% ML High Yield Master II.*

3 ***Absolute Return Custom Benchmark: 2Q11 - Present:*** *Libor 3-Month Yield + 4% annually; Prior to 2Q11: Libor 3-Month Yield + 5% annually.*

4 ***Inflation-Linked Assets Custom Benchmark:*** *2Q11 - Present: CPI + 4% annually; Prior to 2Q11: CPI + 5% annually.*

5 ***Wilshire TUCS:*** *total returns of all public DB plans, as of date noted; ranking is based on percentile within universe. Number in parentheses is number of observations for period.*

SECURITIES LENDING PROGRAM

The System's securities lending program obtains additional income by lending securities to broker dealers and banks. During the years ended June 30, 2020 and 2019, the System's custodian lent the System's securities and received cash, securities issued or guaranteed by the United States government, and irrevocable bank letters of credit as collateral. The Board and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested in a collective investment pool.

LIMITED PARTNERSHIP COMMITMENT

The System's investments in limited partnerships are included in the first table appearing in Note 9 on page 34. In connection with those investments, the System has remaining commitments as of June 30, 2020, 2019, and 2018 of approximately $876 million, $960 million, and $872 million, respectively, pursuant to terms of the respective limited partnerships.

OTHER COMMENTS

ACTUARIAL VALUATION

In compliance with the System's policy, an actuarial valuation along with an experience study will be performed by the System's actuary. Under the Pension Statute, experience studies comparing plan assumptions against plan experience will be performed at least once every four years effective 2021.

CONTACTING THE SYSTEM'S FINANCIAL MANAGEMENT

This financial report is designed to provide our participants, business partners, and other stakeholders with a general overview of the System's financial activities. Questions about this report should be directed to the Executive Director of the Houston Municipal Employees Pension System at 1201 Louisiana, Suite 900, Houston, Texas 77002.

STATEMENTS OF FIDUCIARY NET POSITION

June 30, 2020 and 2019 *(in whole dollars)*

	2020		2019	
	Pension Plan	HMEPS OPEB Trust	Pension Plan Restated	HMEPS OPEB Trust Restated
Assets				
Cash and cash equivalents	$ 4,745,752	$ 450,447	$ 11,796,817	$ 223,030
Receivables				
Contribution receivable - City of Houston	13,317,068	-	12,961,715	-
Receivables on asset sales	5,532,926	-	6,492,984	-
Receivables on foreign exchanges	1,006,356	-	1,088,014	-
Other receivables	4,559,922	169,858	5,605,983	6,924
Total receivables	24,416,272	169,858	26,148,696	6,924
Investments, at fair value				
Short-term investment funds (valued at cost)	34,311,312	-	44,271,926	-
Government securities	46,656,593	-	100,318,852	-
Corporate bonds	211,420,667	-	198,302,026	-
Capital stocks	602,369,728	-	805,238,023	-
Commingled funds	608,647,710	8,179,637	646,384,175	8,163,057
Real estate	322,647,945	-	259,725,223	-
Alternative investments	1,034,098,032	-	1,019,691,808	-
Total investments	2,860,149,987	8,179,367	3,073,932,033	8,163,057
Net OPEB asset	2,257,363	-	1,752,422	-
Collateral on securities lending arrangements	13,246,010	-	60,245,598	-
Furniture, fixtures and equipment, net	306,805	-	184,720	-
Total assets	2,905,122,189	8,799,672	3,174,060,286	8,393,011
Deferred outflows of resources - related to HMEPS OPEB	226,744	-	98,241	-
Liabilities				
Payables on asset purchases	4,097,420	-	5,940,534	-
Payables on foreign exchanges	1,007,181	-	1,089,273	-
Accrued liabilities	3,175,559	184,869	3,958,278	1,482
Collateral on securities lending arrangements	13,246,010		60,245,598	-
Total liabilities	21,526,170	184,869	71,233,683	1,482
Deferred inflows of resources - related to HMEPS OPEB	2,035,243	-	1,925,779	-
Net position restricted for benefits	$ 2,881,787,520	$ 8,614,803	$ 3,100,999,065	$ 8,391,529

See accompanying notes to financial statements

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

Years Ended June 30, 2020 and 2019 *(in whole dollars)*

	2020		2019	
	Pension Plan	HMEPS OPEB Trust	Pension Plan	HMEPS OPEB Trust
Additions				
Contributions				
Employer	$ 176,430,316	$ 169,765	$ 176,261,043	$ 8,473,008
Participant	32,581,955	-	32,536,529	-
Total contributions	209,012,271	169,765	208,797,572	8,473,008
Other income (loss)	484,351	(5,094)	709,841	-
Investment income				
Interest on bonds and deposits	14,830,595	5,083	15,880,554	28,971
Dividends	26,416,499	185,141	28,779,950	5,187
Earnings from limited partnerships and real estate trusts	237,717	-	1,604,545	-
Net appericiation (depreciation) on investments	(148,411,484)	117,607	161,925,989	81,296
Total investments income (loss)	(106,926,673)	307,831	208,191,038	115,454
Proceeds from lending securities	657,439	-	1,309,207	-
Less costs of securities lending	(486,151)	-	(1,036,723)	-
Net proceeds from lending services	171,288	-	272,484	-
Less investment expenses	(8,410,153)	(44,853)	(8,018,947)	(1,482)
Total net investment income (loss)	(115,165,538)	262,978	200,444,575	113,972
Total additions	94,331,084	427,649	409,951,988	8,586,980
Deductions				
Benefits paid to participants	308,002,053	204,375	291,060,500	195,451
Contribution refunds to participants	649,551	-	1.393.772	-
Professional services	635,676	-	663,634	-
Administrative services	4,255,349	-	4,699,295	-
Total deductions	313,542,629	204,375	297,817,201	195,451
Net increase (decrease) in net position	(219,211,545)	223,274	112,134,787	8,391,529
Net position restricted for benefits				
Beginning of year	3,100,999,065	8,391,529	2,988,864,278	-
End of year	$ 2,881,787,520	$ 8,614,803	$ 3,100,999,065	$ 8,391,529

See accompanying notes to financial statements

NOTE 1 – DESCRIPTION OF PLAN

The Houston Municipal Employees Pension System (the System) was created under Chapter 358, Acts of the 48th Texas Legislature, Regular Session, 1943 (Article 6243g, Vernon’s Texas Civil Statutes) and reenacted and continued under HB1573, 77th Texas Legislature, Article 6243h, Vernon’s Texas Civil Statutes (the Pension Statute), as amended. The System is a cost- sharing multiple-employer defined benefit pension plan with two participating employers covering all municipal employees, except police officers and firefighters (other than certain police officers in the System as authorized by the Pension Statute), employed full time by the City of Houston, Texas (the City), elected City Officials, and the full time employees of the System (collectively referred to as participants). The System includes three contributory groups (Groups A, B and D) and provides for service, disability and death benefits for eligible participants. The System’s plan net position is used to pay benefits for eligible participants of Group A, Group B, and Group D. The System is a governmental plan and therefore is not subject to the Employee Retirement Income Security Act of 1974. The System is governed by a Board of Trustees (the Board) consisting of eleven trustees – four elected by the active plan members, two elected by the retired plan members, one appointed by the mayor of the city, one appointed by the controller of the city, one appointed by the elected trustees, and two appointed by the governing body of the city. The appointed trustees must have expertise in at least one of the following areas: accounting, finance, pension, investment or actuarial science. The System can only be terminated or amended by an act of the Legislature of the State of Texas or by an agreement between the City and the Board pursuant to the Pension Statute.

PARTICIPATION

Participants newly hired on or after January 1, 2008 automatically become members of Group D. Participants hired before September 1, 1981 participate in Group A, unless they elected before December 1, 1981 or after May 1, 1996 to transfer to Group B. Participants hired or rehired after September 1, 1981 but before September 1, 1999, may make a one-time irrevocable election to participate in Group A; otherwise, they participate in Group B. Participants hired or rehired on or after September 1, 1999 and before January 1, 2008 participate in Group A; except that Executive Officials of the City and the Executive Director of the System (Executive Officials) participated in Group C. Effective January 1, 2005, the Executive Officials of the City and the Executive Director of the System automatically became Group A members pursuant to the First Amendment to Meet and Confer Agreement, dated December 21, 2004.

The most recent actuarial report shows the following System participants as of July 1, 2019:

	2019	***2018***
Retirees and beneficiaries currently receiving benefits	11,110	10,834
Former employees - vested but not yet receiving benefits	3,609	3,457
Former employees - non-vested	3,043	2,587
Vested active participants	7,590	7,745
Non-vested active participants	3,917	4,135
Total participants	29,269	28,758

RETIREMENT ELIGIBILITY

Effective January 1, 2008, new employees participate in Group D with:

- Normal retirement eligibility of age 62 and 5 years of credited service:
- Option to elect an early reduced retirement benefit.

A former employee who is rehired as an employee by the City or by the System on or after January 1, 2008 is a member of the group in which the employee participated at the time of the employee’s immediately preceding separation from service.

For those participants in Group A and Group B employed effective January 1, 2005, a participant who terminates employment with the City or the System is eligible for a normal retirement pension beginning on the member's effective retirement date after the date the member completes at least five years of credited services and attains:

- 62 years of age, or
- A combination of years of age and years of credited service, including parts of years, the sum of which equals the number 75, provided the participant is at least 50 years of age, or
- Any combination of age and credited service that when added together equal 70 or more, provided that the member, prior to January 1, 2005 completed at least 5 years of credited service and attained a combination of age and credited service that when added together equal 68 or more.

PENSION BENEFITS

Pension benefits are based on a participant's average monthly salary and years of credited service, as defined in the Pension Statute. The maximum normal retirement pension is 90.0% of the participant's average monthly salary.

Pension benefits are increased annually by a Cost of Living Adjustment (COLA) equal to a calculated percentage of the original benefit amount, not compounded, for all persons receiving a pension or survivor benefit as of January 1 of the year in which the increase is made (except for Group D members who terminated employment prior to July 1, 2017 who do not receive COLAs). The amount of the COLA is the rolling five-year net investment return minus 5.0%, and then multiplied by 50.0%, but not less than 0% or more than 2.0%.

A participant who is eligible to receive a deferred benefit may elect to receive his or her pension benefit in an early lump sum distribution if the actuarial present value of the participant's benefit is less than $20,000 on the date of termination. Early lump-sum distributions are subject to approval by the Board.

DISABILITY BENEFITS

Service-connected disability benefits for covered participants are based on the participant's normal accrued benefit, but are not less than 20.0% of the participant's average monthly salary. There is no minimum credited service requirement to qualify for service-connected disability benefits.

Participants with at least five years of credited service who become disabled may qualify for a non-service connected disability allowance equal to the participant's normal accrued pension benefit.

SURVIVOR BENEFITS

Survivor benefits are provided for a participant's surviving spouse and/or dependent children. A deceased participant must have had at least five years of credited service at the time of his or her death to qualify for survivor benefits unless death was caused by a service-connected incident as defined by the Pension Statute. For a Group D member, eligibility for survivor benefits for a death that occurs while actively employed is determined in the same manner as for Group A and Group B. For a death that occurs after the Group D participant's termination of employment, the payment of a death benefit depends on whether the participant elected an optional annuity.

A Group D participant with at least five years of credited service has the option to elect an actuarially equivalent amount under one of three joint and survivor (J&S) annuity options in lieu of a normal benefit with no survivor benefit. If a Group D participant with at least five years of credited service elects a normal benefit, no death or survivor benefit is payable. If a Group D participant with at least five years of credited service makes no optional annuity election and dies prior to retirement, the surviving spouse is eligible to receive an amount equal to the amount that would have been paid if the participant had elected a 50.0% joint and survivor annuity and named the surviving spouse as the designated beneficiary.

Effective July 1, 2011, eligible unmarried Group A and Group B members who terminate service on or after June 30, 2011 have the option to select an annuity option in lieu of a normal benefit. The optional annuity election, which was already available to vested Group D members and vested Group B members who separated from service prior to September 1997, allows eligible participants to elect to take a reduced pension and provide an annuity (50.0% J&S, 100.0% J&S, or 10-year Guarantee) to a designated annuitant.

In order to qualify for survivor benefits other than under an annuity option, a surviving spouse must have been married to the deceased participant at the time the participant's employment with the City or System was terminated and at the time of the participant's death. To qualify for benefits, a child must be the unmarried natural or legally adopted dependent child of the deceased participant at the time of the participant's death and (a) must be under age 21 or (b) have been totally and permanently disabled before age 18 and before the participant's termination of employment. Dependent benefits are payable to the legal guardian of the dependent(s) unless the dependent is at least 18 years of age.

DEFERRED RETIREMENT OPTION PLAN (DROP)

A Group A or Group B participant who is eligible to retire, except that he or she has not retired and remains a full-time employee of the City, or the System, or has been separated from service for not more than thirty calendar days, may elect to participate in the Deferred Retirement Option Plan (DROP). The DROP provides that a monthly amount (monthly DROP credit) will be credited to a notional account (DROP Account). Beginning January 1, 2018 interest is credited to the DROP Account at a rate equal to half of the System's rolling five-year net investment return, but not less than 2.5% or more than 7.5%. Interest is compounded at an interval approved by the Board. The first day of DROP participation is the DROP Entry Date. The day a participant's fully executed DROP election is accepted by the System is the DROP Election Date. Normal pension benefits cease to accrue on the DROP Entry Date, except that all Cost of Living Adjustments (COLA) noted previously apply to DROP participants who are active employees under the Pension Statute. As a result of SB 2190, beginning in 2018, DROP participants who are active employees receive the COLA if the employee is at least age 62 on January 1 of that year.

Effective January 1, 2005, a participant's election to participate in DROP cannot establish a DROP entry date that occurs prior to the date of the System's receipt of the member's request to participate in DROP. The monthly DROP credit is based on the participant's years of credited service and average monthly salary as of DROP Entry Date, and benefit accrual rates in effect on DROP Election Date.

DROP participation terminates when a DROP participant's employment with the City, or the System, terminates. The balance of the participant's notional DROP account (DROP Benefit) at the time of such termination is an amount equal to the sum of a participant's monthly DROP credits and interest accrued on such amount up to the time the participant's employment terminates. A DROP Benefit is subject to approval by the Board. A DROP participant eligible to receive a DROP Benefit distribution may elect to receive the distribution in a lump-sum, partial distribution, in substantially equal periodic payments over a period of time approved by the Board, or in a combination of a lump-sum followed by substantially equal periodic payments over a period of time approved by the Board until the balance of the DROP Benefit is depleted. The DROP Benefit is not available to a DROP participant until such participant's employment with the City or the System has terminated and the participant has made a DROP distribution election.

Group D participants do not participate in DROP.

GROUP D CASH BALANCE PLAN

In addition to the required Group D member contributions, Group D members contribute an additional 1% of salary to a notional cash balance account beginning in calendar year 2018. On separation from service, if a Group D participant has less than one year of service while contributing to the account, the participant is eligible to receive only a distribution of the contributions credited to the account, without interest. If the participant has at least one year of contributions to the account, the participant is eligible to receive a distribution of contributions credited to the account, including interest.

The Group D Cash Balance interest rate is equal to half of the System's rolling five-year net investment return, with a minimum of 2.5% and maximum of 7.5%.

REFUNDS OF PARTICIPANT CONTRIBUTIONS (BESIDES THE GROUP D CASH BALANCE PLAN)

All participants who terminate employment prior to being approved for retirement may request a refund of their accumulated employee contributions, if any, without interest, in lieu of a pension or in the event the participant has fewer than five years of credited service.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

The accompanying basic financial statements are presented in accordance with generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB), which designates the accounting principles and financial reporting standards applicable to state and local governmental units. The accompanying basic financial statements include solely the accounts of the System, which include all programs, activities and functions relating to the accumulation and investment of the assets and related income necessary to provide the pension benefits required by the governing statutes and amendments thereto.

BASIS OF ACCOUNTING

The economic resources basis of accounting is the method by which revenues and expenses are recognized in the accounts and reported in the basic financial statements. The accompanying basic financial statements are presented on the accrual basis of accounting. Under the accrual basis of accounting, revenues, which include investment and other income, are recognized when they are earned and collection is reasonably assured, and expenses are recognized when the liability is incurred. Accrued income, when deemed not collectible, is charged to operations.

Participant and employer contributions are recognized as revenues in the period in which they are due pursuant to the Pension Statute and formal recommitments. Benefits and refunds are recognized when due and payable in accordance with the terms of the Pension Statute.

REPORTING ENTITY

The System is a component unit of the City. Therefore, its basic financial statements and required supplemental information are included in the City's Comprehensive Annual Financial Report.

INVESTMENT VALUATION AND INCOME RECOGNITION

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. The fair value of limited partnerships and real estate trusts are based on the System's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Short-term investments are carried at amortized cost, which approximates fair value.

Purchases and sales of investments and forward foreign exchange contracts are recorded on the trade date. Gains or losses on the forward foreign exchange contracts are recognized when the contract is complete. Dividend income is recorded on the ex-dividend date. Interest and income from other investments are recorded when earned. Net appreciation/depreciation on investments represents realized gains and losses on sales of investments during the year and the change in the fair value of investments between years.

FURNITURE, FIXTURES AND EQUIPMENT

Furniture, fixtures and equipment are recorded at cost less accumulated depreciation and amortization. Depreciation and amortization expense is computed using the straight-line method over the estimated useful lives of the related assets ranging from three to ten years. Any gain or loss on the retirement of assets is recognized currently. Maintenance and repairs are charged to expense while expenditures for improvements greater than or equal to $5,000 are capitalized.

COMPENSATED EMPLOYEE ABSENCES

The System employees earn paid leave (vacation and sick leave) based on years of service and may accumulate them subject to certain limitations and be paid upon termination or resignation from the System. The amount paid is determined based on the departing employee's regular rate of pay at separation. Compensated employee absences (vacation, compensatory time off, annual leave and sick leave) are accrued as an expense and liability in the basic financial statements at their most current rate.

USE OF ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the basic financial statements and the reported amounts of additions and deductions during the reporting period. Accordingly, actual results could differ from those estimates.

INCOME TAX STATUS

The System obtained its latest determination letter on April 14, 2017, in which the Internal Revenue Service stated that the System is in compliance with the applicable requirements of the Internal Revenue Code. The System has been amended since receiving the determination letter. However, the System's management and Board believe that the System is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code.

COSTS OF ADMINISTERING THE SYSTEM

The costs of administering the System are paid by the System from current earnings pursuant to an annual fiscal budget adopted by the Board.

NEW ACCOUNTING PRONOUNCEMENTS

GASB Statement No. 87, Leases. The primary objective of this statement is to increase the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Under this statement, a lessee is required to recognize a lease liability and an intangible right-touse lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. The effective date of this standard is for reporting periods beginning after December 15, 2019. The System is evaluating this statement with the plan of implementing for the FY 2021 annual report.

RESTATEMENT

The System established the OPEB Trust in 2019. It was determined that the Total Assets and Deferred Outflows of Resources and Total Liabilities and Deferred Inflows of Resources were incorrectly presented in the prior year. This restatement has no effect on the 2019 Fiduciary Net Positions.

The effect of the restatement on the Pension is shown below:

	June 30, 2019		
	As Previously Reported	Prior Period Adjustments	As Restated
Total Assets and deferred outflows of resources	$ 3,172,232,748	$ 1,925,779	$ 3,174,158,527
Total Liabilities and deferred outflow of resources	71,233,683	1,925,779	73,159,462
Fiduciary Net Position	$ 3,100,999,065	$ -	$ 3,100,999,065

The effect of the restatement on the OPEB Trust is shown below:

	June 30, 2019		
	As Previously Reported	Prior Period Adjustments	As Restated
Total Assets and deferred outflows of resources	$ 10,318,790	$ 1,925,779	$ 8,393,011
Total Liabilities and deferred outflow of resources	1,927,261	1,925,779	1,482
Fiduciary Net Position	$ 8,391,529	$ -	$ 8,391,529

NOTE 3 - CONTRIBUTIONS AND FUNDING POLICY

All active participants are required to contribute to the System. Effective July 2017, Group A participants contribute 7% of salary, Group B participants contribute 2% of salary, and Group D participants contribute 2% of salary. Effective July 2018, Group A and Group B participants contribute 8% and 4% respectively. Beginning in January of 2018, Group D participants contributed an additional 1% of salary (see discussion of Cash Balance Plan on page 25).

As a result of SB 2190, beginning in fiscal year 2018, the City is required to contribute the "Total City Contribution" to the system, which consists of the sum of (a) an actuarially determined percentage of payroll (City Contribution Rate) multiplied by actual payroll and (b) a fixed dollar amount (City Contribution Amount) which is based on the Unfunded Actuarial Accrued Liability (UAAL) as of July 1, 2016 (Legacy Liability). The Legacy Liability payment is amortized over 30 years, beginning on July 1, 2017 and grows at 2.75% per year regardless of the actual payroll growth rate.

In fiscal year 2020, the City Contribution Rate was 8.32% of payroll, and the City Contribution Amount was $130,945,824. In fiscal year 2019, the City Contribution Rate was 8.27% of payroll and the City Contribution Amount was $127,441,192. In fiscal year 2018 the required city contribution was 8.17% of payroll and the City Contribution Amount was $124,030,357.

Also, SB 2190 required a one-time payment of $250 million to the System in Pension Obligation Bond proceeds during fiscal year 2018.

Historical contribution trend information is provided as required supplementary information on page 52.

NOTE 4 – NET PENSION LIABILITY

The Total Pension Liability as of June 30, 2020 is based on the actuarial valuation date of July 1, 2019, and rolled-forward using generally accepted actuarial principles. The net pension liability is measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of asset.

The Schedule of Net Pension Liability presents multi-year trend information (beginning with fiscal year 2014) about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. In addition to the table below, this information is presented as a required schedule in the Required Supplemental Information section beginning on page 50.

FY Ending June 30	Total Pension Liability	Fiduciary Net Position	Net Pension Liability	Fiduciary Net Position as a % of Pension Liability
2014	$ 4,366,635,542	$ 2,464,438,877	$ 1,902,196,665	56.44%
2015	4,531,179,075	2,456,543,559	2,074,635,516	54.21%
2016	5,034,389,959	2,400,023,240	2,634,366,719	47.67%
2017	4,959,510,179	2,602,664,718	2,356,845,461	52.48%
2018	5,113,358,193	2,988,864,278	2,124,493,915	58.45%
2019	5,236,133,181	3,100,999,065	2,135,134,116	59.22%
2020	5,332,865,091	2,881,787,520	2,451,077,571	54.04%

Actuarial valuation of the System involves estimates and assumptions about events in the future. Amounts determined regarding the net pension liability are subject to revision as actual results are compared with past expectations and new estimates are made regarding the future. The last experience study was performed in 2015 based on the July 1, 2014 valuation. Several assumptions were statutorily changed under SB 2190, effective July 1, 2017. A summary of the actuarial assumptions as of the latest actuarial valuation is shown on the next page.

VALUATION DATE: JULY 1, 2019

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	5 year smoothed market, direct offset of deferred gains or losses
Inflation	2.25%
Salary Increases	3.00% to 5.25% including inflation
Investment Rate of Return	7.00%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2015 valuation pursuant to an experience study of the period 2009 – 2014.
Mortality	RP-2000 Mortality Table scaled by 125% for males and 112% for females. The rates are then projected on a fully generational basis by scale BB.
Note	The actuarially determined contribution includes the Legacy Liability payment as specified by the January 1, 2017 Risk Sharing Valuation and a calculated employer rate equal to the normal cost and the amortization of any new unfunded liabilities over a closed 30 year period from the valuation date the liability base was created

SENSITIVITY OF NET PENSION LIABILITY TO THE SINGLE DISCOUNT RATE ASSUMPTION

A single discount rate of 7.0% was used to measure the total pension liability. This single discount rate was based on the statutory rate of return of 7.0% under SB 2190. This rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The table below illustrates the sensitivity of the net pension liability to changes in the discount rate. In particular, the table presents the plan's net pension liability if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage point higher than the single discount rate.

1% Decrease *6.00%*	Current Single Rate Assumption *7.00%*	1% Increase *8.00%*
$ 3,016,679,260	$ 2,451,077,571	$ 1,977,636,745

NOTE 5 – DEFERRED RETIREMENT OPTION PLAN (DROP) BALANCES

The DROP provides that a monthly amount (monthly DROP credit) will be credited to a notional account (DROP Account) for eligible DROP participants. A DROP Benefit is subject to approval by the System's Board. The DROP Benefit is not available to a DROP participant until such participant's employment with the City or the System has terminated and the participant has made a DROP distribution election. For a more detailed description of DROP terms, see Note 1.

DROP balances for all active and inactive participants totaled $656.2 million in fiscal year 2020, and $621.5 million in fiscal year 2019.

NOTE 6 – CASH AND CASH EQUIVALENTS

For cash deposits and cash equivalents, Custodial Credit Risk is the risk that in the event of a bank failure, the System's deposits may not be returned to it. The System's deposits are held by State Street Bank and Trust Company. As of June 30, 2020 and 2019, the System had fair value cash balances of $4,527,610 and $11,556,462, respectively. Management believes that the System's credit risk exposure is mitigated by the financial strength of the banking institution in which the deposits are held.

NOTE 7 – DEFERRED COMPENSATION PLAN

The System offers its employees a deferred compensation plan (DCP) created in accordance with Internal Revenue Code Section 457. The DCP, available to all full-time employees of the System, permits employees to defer a portion of their salary until future years. Distributions from the DCP are not available to employees until termination, retirement, death or unforeseeable emergency. The DCP has a third party administrator, Empower Retirement, and the cost of administration and funding is borne by the

DCP participants. Amounts deferred are held in trust by Empower Retirement and, since the System has no fiduciary responsibility for the DCP, these amounts are not reflected in the accompanying financial statements in accordance with GASB Statement No. 32, *Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans.*

NOTE 8 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)

GENERAL INFORMATION ABOUT THE OPEB

The OPEB Trust is a single employer plan and is administered by the System.

Sec. 3(f) of the Pension Statute, authorizes the pension board to establish and amend employee benefit terms and financing requirements.

The OPEB Trust was established during FY 2019.

BENEFITS PROVIDED

Retired employees of the System are eligible to receive full retiree health care benefits, which include medical, prescription, dental and life insurance. An eligible retired employee is a person who has at least five (5) years of full-time service with the System and meets at least one of the conditions:

- Has retired due to disability.
- Age 62 or greater.
- Years of full-time service plus age is greater than or equal to 70.
- Employee is eligible to begin receiving a retirement pension within 5 years after the employee's termination of employment.

Spouses of retired employees are eligible to receive retiree health care benefits. Surviving spouses of deceased retired members have the option to elect COBRA coverage for up to 36 months.

Eligible children of retired System employees may receive retiree health care benefits. Eligible children include a natural child, a stepchild, an adopted child, a foster child or a child recognized under a medical child support order. The child must be under age 26 (except in the case of a disabled child).For the Preferred Provider Organization plan (PPO), the eligible retiree pays 25% of the retiree health insurance premium and the System pays the remaining 75% of retiree health care coverage. For the High Deductible Health Plan (HDHP), the retiree pays the lesser of: (1) the HDHP premium minus the net cost to the System of the PPO premium (PPO premium – PPO retiree contribution); or (2) 12.5% of the HDHP premium.

If an employee does not enter retirement directly after termination, the employee must be eligible to begin receiving a retirement pension within five (5) years of termination of System employment in order to be eligible for retiree health insurance. If the employee elects to continue coverage as a retiree within the 5-year window prior to receiving a retirement pension, the employee must pay 100% of the total premium owed until the earlier of the date the retiree reaches normal retirement eligibility or the date the retiree discontinues coverage.

System employees and dependents retiring with retiree health care benefits are eligible for dental benefits.

Retired employees are insured for up to $5,000 of Life Insurance. All other insurance under the policy, including Dependent Life Insurance, if any, ends on the last day of active employment.

Retirees can continue coverage under the System's Plan until covered by Medicare, when the System's Plan becomes secondary. The premium for coverage continues at the same level as pre- Medicare.

SUMMARY OF MEMBERSHIP INFORMATION

The following table provides a summary of the number of participants in the plan as of June 30, 2019:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	14
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	0
Active Plan Members	25
Total Plan Members	39

CONTRIBUTIONS

The employer contributions are established by the System. The System's current intention is to contribute the plan's normal cost plus an amount necessary to amortize any unfunded actuarial accrued liability (UAAL) over a period of 10 years. Employees are not required to contribute to the plan.

OPEB TRUST INVESTMENTS

All OPEB Trust investments are held in the Public Agencies Retirement Services (PARS) Post- Retirement Health Care Plan Trust by its trustee, US Bank. The Trustee is contracted to manage the portfolio in accordance with the Trust documents as approved by the Board. The trust investment strategy mandates a diversified portfolio in real estate, fixed income securities, and equity securities.

Custodial Credit Risk. As of June 30, 2020, all investments are registered in the name of the Houston Municipal Employees Pension System PARS Post-Retirement Health Care Plan Trust under a master trust custodial agreement.

Credit Risk of Debt Securities. The OPEB Trust investments as of June 30, 2020 are shown below:

	NAV	Rating	Percentage of OPEB Plan Fiduciary Net Position
Fixed Income Mutual Funds			
Ishares Core US Agg Bond	$ 2,720,367	N/A	33.3%
Vanguard ST Invt Grade	511,598	N/A	6.2%
	$ 3,231,965		
Equity Mutual Funds			
Ishares Core SP 500	$ 1,866,192	N/A	22.8%
Ishares SP 500 Growth	618,320	N/A	7.6%
Ishares SP 500 Value	587,797	N/A	7.2%
Ishares MSCI EAFE	606,509	N/A	7.4%
Vanguard FTSE Emerging Markets	362,709	N/A	4.4%
Other Equity Mutual Funds[1]	905,875	N/A	11.1%
	$ 4,947,402		
Total	$ 8,179,367		

1 *No individual holding exceeds 5% of Fiduciary Net Position.*

The fair values of these mutual fund investments have been determined using the Net Asset Value (NAV) provided by the administrator. They may have active or passive strategies in publicly traded income securities. Mutual funds usually have higher liquidity than other investment strategies valued at NAV.

Concentration of Credit Risk. As of June 30, 2020, the OPEB Trust's investments were all registered in the Trust's name.

I*nterest Rate Risk*. The OPEB Trust does not have a formal policy limiting investment maturities.

NET OPEB LIABILITY

The System's net OPEB Liability was measured as of June 30, 2020, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of that date.

ACTUARIAL ASSUMPTIONS AND METHODS

Valuation Date:	June 30, 2019
Methods and Assumptions:	
Actuarial Cost Method	Individual Entry Age Normal
Discount Rate	6.00% as of June 30, 2019
Inflation	2.25%
Salary Increases	3.00% to 5.25%, including inflation
Demographic Assumptions	Based on the experience study covering the five-year period ending June 30, 2014 as conducted for the pension plan.
Mortality	Gender-distinct RP-2000 Combined Healthy Mortality Tables with Blue Collar Adjustment. Male rates are multiplied by 125% and female rates are multiplied by 112%. The rates are projected on a fully generational basis by Scale BB to account for future mortality improvements.
Health Care Trend Rates	Initial rate of 7.10% declining to an ultimate rate of 4.00% after 15 years.
Participation Rate	It was assumed that 100% of eligible retirees would choose to maintain their retiree health care benefits through HMEPS. Furthermore, 70% were assumed to elect two-person coverage.
Other Information: Notes:	Assumption changes – The liability associated with the "Cadillac Tax" on high-cost employer health plans was removed.

The long-term expected rate of return on OPEB trust investments was determined using a building-block method in which best-estimate ranges of future real rates of return 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. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

ASSET ALLOCATION

Asset Class	*Target Allocation*	*Long-Term Expected Real Rate of Return*
Domestic Equity - Large Cap	32.00%	4.95%
Domestic Equity - Small/Mid Cap	15.00%	5.71%
Non-US Equity - Developed	7.00%	5.24%
Non-US Equity - Emerging	4.00%	6.35%
US Corporate Bonds - Core	33.75%	1.99%
US Corporate Bonds - High Yield	1.25%	3.35%
US Treasuries (Cash Equivalents)	5.00%	0.58%
Real Estate	2.00%	4.19%
Total	100.00%	

Discount Rate. Projected benefit payments are required to be discounted to their actuarial present values using a Discount Rate that reflects (1) a long-term expected rate of return on OPEB trust investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For purposes of this valuation, the expected rate of return on OPEB trust investments is 6.00%; the municipal bond rate is 2.45% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA Index"); and the resulting Single Discount Rate is 6.00%.

SCHEDULE OF CHANGES IN NET OPEB LIABILITY FISCAL YEAR ENDING JUNE 30, 2020

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability (Asset)
Beginning balance	$ 6,639,107	$ 8,391,529	$ (1,752,422)
Service cost	169,765	-	169,765
Interest on the total OPEB liability	397,308	-	397,308
Changes of benefit terms	-	-	-
Difference between expected and actual experience	(4,597)	-	(4,597)
Changes of assumptions	(639,768)	-	(639,768)
Employer contributions	-	169,765	(169,765)
Net investment income	-	262,978	(262,978)
Benefit payments	(204,375)	(204,375)	-
Administrative expense	-	-	-
Other	-	(5,094)	5,094
Net changes	(281,667)	223,274	(504,941)
Ending balance	$ 6,357,440	$ 8,614,803	$ (2,257,363)

Ending balances are as of the measurement date, June 30, 2020.

Sensitivity of Net OPEB Liability to the Single Discount Rate Assumption. Regarding the sensitivity of the net OPEB liability to changes in the Single Discount Rate, the following presents the trust's net OPEB liability, calculated using a Single Discount Rate of 6.00%, as well as what the trust's net OPEB liability would be if it were calculated using a Single Discount Rate that is one percent lower or one percent higher:

1% Decrease *5.00%*	Current Single Discount Rate Assumption *6.00%*	1% Increase *7.00%*
($ 1,355,385)	($ 2,257,363)	($ 2,995,748)

Sensitivity of Net OPEB Liability to the Healthcare Cost Trend Rate Assumption. Regarding the sensitivity of the net OPEB liability to changes in the healthcare cost trend rates, the following presents the trust's net OPEB liability, calculated using the assumed trend rates as well as what the trust's net OPEB liability would be if it were calculated using a trend rate that is one percent lower or one percent higher:

1% Decrease *5.00%*	Current Healthcare Cost *6.00%*	1% Increase *7.00%*
($ 3,123,571)	($ 2,257,363)	($ 1,177,590)

BALANCES OF DEFERRED OUTFLOWS AND DEFERRED INFLOWS OF RESOURCES RELATED TO OPEB

	Deferred Outflows	Deferred Inflows
Difference between expected and actual experience, liability	$ 78,836	$ 11,603
Changes in assumptions	-	2,023,640
Difference between expected and actual experience, assets	147,908	-
Total	$ 226,744	$ 2,035,243

DEFERRED OUTFLOWS AND DEFERRED INFLOWS TO BE RECOGNIZED IN FUTURE OPEB EXPENSE

Year Ending June 30	Net Deferred Outflows (Inflows)
2021	(424,081)
2022	(424,081)
2023	(424,080)
2024	(402,198)
2025	$ (127,404)
Thereafter	(6,655)
Total	$ (1,808,499)

NOTE 9 – INVESTMENTS

Portions of the System's investments are classified as security investments. A security is a transferable financial instrument that evidences ownership or creditorship. Investments in commingled funds, limited partnerships, real estate trusts, and loans and mortgages are investments that are evidenced by contracts rather than securities. The fair values of the System's investments at June 30 are presented by type:

	2020	2019
Short-term investment funds	$ 34,311,312	$ 44,271,926
Government securities	46,656,593	100,318,852
Corporate bonds	211,420,667	198,302,026
Capital stocks	602,367,728	805,238,023
Commingled funds	608,647,710	646,384,175
Real estate	322,647,945	259,725,223
Alternative investments	1,034,098,032	1,019,691,808
Total investments	$ 2,860,149,987	$ 3,073,932,033

RATE OF RETURN

For the fiscal year ended June 30, 2020, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was -3.7% vs. 6.2% at June 30, 2019. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. In comparison to the money-weighted rate of return of -3.7% the gross time-weighted return is -0.9% and appears in Table 1 on page 19. The two approaches are slightly different methods of calculating investment returns.

INVESTMENT POLICY

The Board has the authority to establish the investment policy and the asset allocation policy. The general investment objective is to obtain a reasonable long-term total return consistent with the degree of risk assumed while emphasizing the preservation of capital. The allocation is 32.5% to Global Equity, 10.0% to Fixed Income, 12.5% to Real Estate, 15.0% to Inflation Linked, 17.0% to Private Equity, 8.0% to Absolute Return and 5.0% to Private Credit. For the System's actual allocation, see the table on page 19.

THE MASTER CUSTODIAN

The System's Board, in accordance with the power and authority conferred under the Texas Statutes, engaged State Street Bank and Trust Company (Custodian) as custodian of the assets of the System, and in said capacity, the Custodian is a fiduciary of the System's assets with respect to its discretionary duties including safekeeping of the System's assets. The Custodian has established and maintains a custodial account to hold, or direct its agents to hold, for the account of the System all assets that the Board shall from time to time deposit with the Custodian. All rights, title and interest in and to the System's assets shall at all times be vested in the System.

In holding System assets, the Custodian shall act with the same care, skill, prudence and diligence under the prevailing circumstances that a prudent person acting in like capacity and familiar with matters of this type would use in the conduct of an enterprise with a like character and with like aims.

Further, the Custodian shall hold, manage and administer the System's assets for the exclusive purpose of providing the benefits to the members and the qualified beneficiaries of the System.

The Board shall manage the investment program of the System in compliance with all applicable Federal and State statutes and regulations concerning the investment of pension assets. The Board has adopted an Investment Policy Statement to set forth the factors involved in the management of investment assets for the System and which is made part of every investment management agreement.

CUSTODIAL RISK

For an investment, custodial risk is the risk that, in the event of the failure of the counterparty, the System 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 System, and are held by either the counterparty or the counterparty's trust department or agent but not in the System's name.

CONCENTRATION RISK

The allocation of assets among various asset classes is set by the Board. For major asset classes (e.g., global equity, fixed income, real estate, private equity, inflation-linked, absolute return and private credit), the System will further diversify by employing managers with demonstrated skills in complementary areas of expertise. The managers retained will utilize varied investment approaches, but, when combined will exhibit characteristics that are similar, but not identical, to the asset class proxy utilized in the strategic asset allocation plan. The Investment Policy Statement of the System provides that no public market investment manager shall have more than 20.0% (at market value) of the System's assets.

REPRESENTATIVE GUIDELINES BY TYPE OF INVESTMENT ARE AS FOLLOWS:

US Equity Managers

- A manager's portfolio shall contain a minimum of twenty-five issues.
- No more than 5.0% of the manager's portfolio at market shall be invested in American Depository Receipts (ADRs).
- No individual holding in a manager's portfolio may constitute more than 5.0% of the outstanding shares of an issuer.
- No individual holding may constitute more than 5.0% of a manager's portfolio at cost or 10.0% at market.
- Short sales, purchases on margin, non-negotiable or otherwise restricted securities are prohibited, other than where expressly permitted.
- While there are no restrictions on cash, a manager must notify the System if the cash position exceeds 10.0%.

International Equity Managers

- No more than 5.0% at cost and 10.0% at market value of a manager's portfolio shall be invested in the securities of any one issuer.
- No more than 30.0% of the assets of a manager's portfolio (at market value) shall be invested in any one country with the exception of Japan.
- While there are no restrictions on cash, a manager must notify the System if the cash position exceeds 10.0%.
- Forward foreign currency exchange contracts will be limited as follows:

a) Forward and future exchange contracts of any currency may be used to hedge up to 100.0% of the currency exposure of the portfolio in aggregate or the currency exposure to any single country,

b) Foreign exchange contracts with a maturity exceeding 12 months may not be made, and

c) Currency options may be entered into in lieu of or in conjunction with forward sales of currencies. The same effective limitations specified in (a) and (b) above will apply to currency options.

Fixed Income Managers

- No more than 10.0% of a manager's portfolio at market shall be invested in the securities of any single issuer, with the exception of the U.S. government and its agencies.

As of June 30, 2020, across all asset classes, the System held two securities with a market value over 5.0% of the System's fiduciary net position. One security, BlackRock MSCI ACWI Minimum Volatility Index, had a fair value of $219 million, representing 7.6% of the System's portfolio as of June 30, 2020. This investment also exceeded the 5% threshold last year. The second security, Blackrock Equity Index Fund A, had a fair value of $153 million, representing 5.4% of the portfolio.

INTEREST RATE RISK

The System invests in fixed income securities including, but not limited to, investments representing instruments with an obligated fixed rate of interest including public and private debentures, mortgages, investments in life insurance general accounts and guaranteed investment contracts, with maturities greater than one year, and options/futures. Instruments may have an investment grade or non-investment grade rating. Purchases and sales, investment selection and implementation of investment strategies are delegated to the discretion of the investment manager, subject to compliance with its management agreement and the Investment Policy Statement.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the investment. Duration is a measure of a debt investment's exposure to fair value changes arising from changes in interest rates. It uses the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates and vice-versa. Duration is the measure of a bond price's sensitivity to a 100-basis point change in interest rates. The duration of the System's debt securities is managed by the active managers.

At June 30, 2020, the following table shows the System's investments by type, amount and the effective duration rate.

	Effective Duration	Domestic	International	Fair Value
Collateralized mortgage obligations	9.1	$ 10,527,588	$ -	$ 10,527,588
Convertible bonds	5.4	2,230,968	-	2,230,968
Corporate bonds	5.9	138,082,395	18,616,354	156,698,749
GNMA/FNMA/FHLMC	1.6	27,662,017	-	27,662,017
Municipal	7.1	800,995	-	800,995
Government issues	10.7	18,193,581		18,193,581
Misc. receivable (auto/credit card)	1.3	8,116,379	-	8,116,379
Other Asset Backed Securities	4.4	2,120,881	-	2,120,881
Bank Loan[1]	N/A	31,726,102	-	31,726,102
Total		$ 239,460,906	$ 18,616,354	$ 258,077,260

1 The bank loan market, or "leveraged loan" market as it is sometimes known, comprises debt with below investment grade credit ratings. Bank loans generally rank senior to the company's other debt, and offer higher credit ratings, and less risk than high yield bonds. Bank loans typically use floating rather than fixed interest rates. Companies often access this market to fund leveraged buyouts.

At June 30, 2019, the following table shows the System's investments by type, amount and the effective duration rate.

	Effective Duration	Domestic	International	Fair Value
Collateralized mortgage obligations	5.3	$ 9,811,982	$ -	$ 9,811,982
Convertible bonds	4.1	4,532,655	-	4,532,655
Corporate bonds	5.1	127,176,103	13,826,440	141,002,543
GNMA/FNMA/FHLMC	3.4	36,152,524	-	36,152,524
Municipal	6.4	2,431,904	-	2,431,904
Government issues	5.7	49,080,501	12,653,923	61,734,424
Misc. receivable (auto/credit card)	1.6	10,123,212	-	10,123,212
Other Asset Backed Securities	2.5	2,244,740	-	2,244,740
Bank Loan[1]	N/A	30,586,891	-	30,586,891
Total		$ 272,140,512	$ 26,480,363	$ 298,620,875

CREDIT RISK

The quality ratings of investments in fixed income securities are set forth in the Investment Policy Statement as follows:

- All issues purchased by investment grade fixed income managers must be of investment grade quality Baa (Moody's) or BBB (S&P) unless expressly authorized by the Board, in which case a minimum B rating shall apply, with a maximum limit of non-investment grade credits of 20.0% at market.
- For global opportunistic fixed income/high yield securities, more than 50.0% of a manager's portfolio at market shall be invested in non-investment grade fixed income securities, i.e. those with ratings of BA1 (Moody's), BB+ (Standard & Poor's), or lower, or unrated bonds, including but not limited to corporate bonds, convertible bonds, and preferred stocks.

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at June 30, 2020 are as follows:

QUALITY RATING	ASSET BACKED SECURITIES	CORP BONDS & BANK LOANS	CMO	US GOV'T AGENCIES	GOV'T ISSUES	MUNICIPALS	TOTAL	% OF HOLDINGS
AAA	$ 7,213,355	$ -	$ 22,930	$ -	$ -	$ 459,985	$ 7,696,270	0.27%
AA	-	-	-	-		341,010	341,010	0.01%
A	-	10,357,024	-	-	-	-	10,357,024	0.36%
BBB	-	38,023,606	-	-	-	-	38,023,606	1.33%
BB	-	40,825,151	-	-	-	-	40,825,151	1.43%
B	-	38,178,487	-	-	-	-	38,178,487	1.33%
CCC	-	22,543,574	-	-	-	-	22,543,574	0.79%
CC		1,586,875					1,586,875	0.06%
C	-	220,575	-	-	-	-	220,575	0.01%
D	-	180,909	-	-	-	-	180,909	0.01%
NA*	3,023,906	38,739,617	10,504,658	27,662,017	18,193,581	-	98,123,779	3.43%
TOTAL FIXED INCOME SECURITIES	$ 10,237,261	$ 190,655,818	$ 10,527,588	$ 27,662,017	$ 18,193,581	$ 800,995	$ 258,077,260	9.03%
OTHER INVESTMENTS							$ 2,602,072,727	90.97%
TOTAL INVESTMENTS							$ 2,860,149,987	100.00%

*NA = Not Available

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at June 30, 2019 are as follows:

QUALITY RATING	ASSET BACKED SECURITIES	CORP BONDS & BANK LOANS	CMO	US GOV'T AGENCIES	GOV'T ISSUES	MUNICIPALS	TOTAL	% OF HOLDINGS
AAA	$ 6,216,960	$ -	$ 1,375,061	$ -	$ 204,960	$ 1,512,192	$ 9,309,173	0.30%
AA	866,983	-	-	-	997,286	919,712	2,783,981	0.09%
A	202,318	16,936,221	-	-	2,314,931	-	19,453,470	0.63%
BBB	-	37,597,855	-	-	-	-	37,597,855	1.22%
BB	-	27,077,574	-	-	-	-	27,077,574	0.88%
B	-	27,845,346	-	-	-	-	27,845,346	0.91%
CCC	-	24,516,015	-	-	-	-	24,516,015	0.80%
CC	-	2,210,300	-	-	-	-	2,210,300	0.07%
C	-	102,350	-	-	-	-	102,350	0.00%
NA*	5,081,691	39,836,428	8,436,921	36,152,524	58,217,247	-	147,724,811	4.81%
TOTAL FIXED INCOME SECURITIES	$ 12,367,952	$ 176,122,089	$ 9,811,982	$ 36,152,524	$ 61,734,424	$ 2,431,904	$ 298,620,875	9.71%
OTHER INVESTMENTS							$ 2,775,311,158	90.29%
TOTAL INVESTMENTS							$ 3,073,932,033	100.00%

*NA = Not Available

FOREIGN CURRENCY RISK

International securities investment managers are expected to maintain diversified portfolios by sector and by issuer using the System's Investment Policy Statement.

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The System has an indirect exposure to foreign currency fluctuation as of June 30, 2020 and June 30, 2019 as follows on the next page

	2020 Fair Value	2019 Fair Value
Australian Dollar	$ 9,521,947	$ 11,456,152
Brazilian Real	1,362,131	1,524,828
Canadian Dollar	9,064,015	12,041,517
Chilean	332,605	-
Danish Krone	2,857,447	3,432,444
Euro Currency	102,018,566	102,071,240
Hong Kong Dollar	16,091,743	14,414,580
Hungarian Forint	141,587	467,026
Indonesian Rupiah	1,523,531	1,723,091
Japanese Yen	43,308,014	40,949,958
Malaysian Ringgit	-	754,700
Mexican Peso	828,308	1,973,101
New Israeli Sheqel	58,909	319,498
New Taiwan Dollar	5,614,730	654,218
Norwegian Krone	219,468	307,338
Philippine Peso	298,614	284,071
Polish Zloty	435,129	338,146
Pound Sterling	28,527,832	30,587,326
Singapore Dollar	1,662,459	1,842,899
South African Rand	4,292,229	5,655,662
South Korean Won	4,813,875	2,786,437
Swedish Krona	12,047,706	9,871,169
Swiss Franc	15,392,412	20,590,302
Thailand Baht	(1,656)	1,638,860
Turkish Lira	1,098,216	69,447
	$ 261,509,817	$ 265,754,009

Schedule 10 on page 61 lists the System's investment and professional service providers.

SECURITIES LENDING

The System is authorized under its Investment Policy Statement to participate in a securities lending program through its agent and Custodian. Under this program, for an agreed upon fee, System-owned investments are loaned to a borrowing financial institution. During the years ended June 30, 2020 and 2019, the Custodian lent the System's securities and received cash and securities issued or guaranteed by the United States government as collateral. The cash collateral received on each loan is invested together with the cash collateral of other lenders, in a collective investment pool comprised of a liquidity pool and a duration pool. As of June 30, 2020, and June 30, 2019, the liquidity pool had an average duration for USD collateral of 26.81 and 22.56 days, and an average weighted final maturity of 70.20 and 105.37 days, respectively. As of June 30, 2020 and 2019, the duration pool for USD collateral had an average duration of 18.22 and 19.89 days, respectively, and an average weighted final maturity of 1,602 and 1,696 days, respectively. Because the loans were terminable at will, their duration did not generally match the duration of the investments made with cash collateral.

Borrowers are required to deliver collateral for each loan equal to: (i) in the case of loaned securities denominated in United States dollars or whose primary trading market was located in the United States or sovereign debt issued by foreign governments, 102.0% of the market value of the loaned securities;

and (ii) in the case of loaned securities not denominated in United States dollars or whose primary trading market was not located in the United States, 105.0% of the market value of the loaned securities. The Custodian does not have the ability to pledge or sell securities delivered for collateral, absent a borrower's default. The Board and the borrowers maintained the right to terminate all securities lending transactions on demand.

On March 26, 2009, the Board amended its securities lending agreement with its Custodian to clarify responsibilities regarding borrower defaults. The amendment requires that if at the time of a default by a borrower, the Custodian shall indemnify the System against the failure of the borrower to return the loaned securities by purchasing a number of replacement securities equal to the number of such unreturned loaned securities, to the extent that such replacement securities are available on the open market. To the extent that such proceeds are insufficient or the collateral is unavailable, the purchase of replacement securities shall be made at the Custodian's expense. If replacement securities are unavailable, the Custodian will credit to the System's account an amount equal to the market value of the unreturned loaned securities for which replacement securities are not purchased. The Board also limited the System's securities lending program utilization level (on-loan balance as a percentage of lendable assets) at 33.5%.

At year-end, the System had no credit risk exposure to borrowers because the amount of collateral received exceeded the value of securities on loan. The cash collateral held and the fair value of securities on loan as of June 30, 2020 (USD) was $13,246,010 and $16,329,869. As of June 30, 2019 it was $60,245,598 and $69,845,210 respectively.

The fair values of the underlying securities lent as of June 30, are as follows:

	2020				2019			
	Collateral Received			Fair Value of Cash and Securities on Loan	Collateral Received			Fair Value of Cash and Securities on Loan
	Cash	Securities	Total		Cash	Securities	Total	
Domestic Bond and Equities	$ 13,030,333	$ 3,541,719	$ 16,572,052	$ 16,009,000	$ 56,319,504	$ 11,008,330	$ 67,327,834	$ 63,321,606
International Equities	215,677	-	215,677	320,869	3,926,094	-	3,926,094	6,523,604
Total	$ 13,246,010	$ 3,541,719	$ 16,787,729	$ 16,329,869	$ 60,245,598	$ 11,008,330	$ 71,253,928	$ 69,845,210

Because the Custodian does not have the ability to pledge or sell securities delivered for collateral, absent a borrower's default, the securities collateral received are not shown on the Statements of Fiduciary Net Position.

DERIVATIVE INVESTING

The System's investment managers may invest in derivatives if permitted by the guidelines established by the System's Board. Derivatives are generally defined as contracts whose values depend on, or are derived from, the value of an underlying asset, reference rate or index. Short options positions will generally be hedged with cash, cash equivalents, current portfolio security holdings, or other options or futures positions.

During fiscal year 2020, the System recognized a loss of $13,655 compared to a 2019 recognized loss of $1,472 related to derivatives.

The System's investment guidelines allow fixed income managers to hold stock rights and warrants acquired as a result of reorganization. Domestic equity managers may use index futures as a cash flow hedge. During 2020, one domestic investment manager held rights and warrants on behalf of the System and none during fiscal year 2019.

Four of the System's international investment managers during fiscal year 2020, and two in fiscal year 2019, held foreign exchange forwards and stock rights and warrants to mitigate the risk associated with the investments.

As of June 30, 2020 and 2019, the System held derivatives with a notional value of $445,814 and $384,428 and a fair value of $496,991 and $489,596, respectively.

The following is a summary of derivatives held directly by the System:

FAIR VALUE

Investment Derivatives	Classification	2020 Amount	2020 Notional	2019 Amount	2019 Notional
FX Forwards	Long Term Instruments	$ 723	$ 390,372	$ (2,356)	$ 351,154
Rights	Common Stock	17,319	30,442	13,003	8,274
Warrants	Common Stock	478,949	25,000	478,949	25,000
	Totals	$ 496,991	$ 445,814	$ 489,596	$ 384,428

CHANGES IN FAIR VALUE

Investment Derivatives	Classification	2020	2019
FX Forwards	Investment Revenue	$ (10,775)	$ (894)
Rights	Investment Revenue	(2,880)	(578)
Totals		$ (13,655)	$ (1,472)

In addition to the above, the System has exposure to derivatives through its investments in hedge funds, reported in alternative investments in the financial statements.

FORWARD FOREIGN EXCHANGE CONTRACTS

A currency forward is a contractual agreement between two parties to pay or receive specific amounts of foreign currency at a future date in exchange for another currency at an agreed upon exchange rate. Forward commitments are not standardized and carry credit risk due to the possible nonperformance by one of the counter-parties. The maximum potential loss is the aggregate face value in U.S. dollars at the time the contract was opened; however, the likelihood of such loss is remote. No such losses occurred during fiscal years 2020 and 2019. Forwards are usually traded over-the-counter. These transactions are entered into in order to hedge risks from exposure to foreign currency rate fluctuation and to facilitate trade settlement of foreign security transactions.

Forwards carry market risk resulting from adverse fluctuations in foreign exchange rates. Recognition of realized gain or loss depends on whether the currency exchange rate has moved favorably or unfavorably to the contract holder upon termination of the contract. Prior to termination of the contract, the System records the unrealized currency transaction gain or loss based on the applicable forward exchange rates.

MORTGAGE-BACKED SECURITIES

A mortgage-backed security depends on the underlying pool of mortgage loans to provide the cash flow to make principal and interest payments on the security. A decline in interest rates can result in prepayments, called contraction risk. This risk occurs as mortgages are pre-paid or refinanced which reduces the expected return of the security. If interest rates rise, the likelihood of prepayments decreases, resulting in extension risk. Since loans in a pool underlying a security are being prepaid at a slower rate, investors are unable to capitalize on higher interest rates because their investments are locked in at a lower rate for a longer period of time. A collateralized mortgage obligation (CMO) is a type of mortgage-backed security that creates separate pools of pass-through rates for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

The System may invest in mortgage-backed securities to enhance fixed-income returns. The mortgage-backed securities are subject to credit risk, in that the borrower may be unable to meet its obligations.

FAIR VALUE MEASUREMENT

GASB Statement No. 72, *Fair Value Measurement and Application*, specifies a hierarchy of valuation classifications based on whether the inputs to the valuation techniques used in each valuation classification are observable or unobservable. These classifications are summarized in three broad levels listed below:

- Level 1: Unadjusted quoted prices for identical instruments in active markets.
- Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value-drivers are observable.
- Level 3: Valuations derived from valuation techniques in which significant inputs or significant value-drivers are unobservable.

Inputs used to measure fair value might fall in different levels of the fair value hierarchy, in which case the System defaults to the lowest level input that is significant to the fair value measurement in its entirety. These levels are not necessarily an indication of the risk or liquidity associated with the investments.

The following table presents fair value measurements as of June 30, 2020 (in thousands of dollars), as further explained below:

	Level 1	Level 2	Level 3	Total
Equities				
Limited Partnership Units	$ 64,033	$ -	$ -	$ 64,033
Common Stock	502,445	-	2,538	504,983
Other	32,824	-	49	32,873
Fixed Income				
Corporate Bonds	-	153,937	2,761	156,698
Other	-	96,482	4,897	101,379
Warrants	-	-	479	479
Total	$ 599,302	$ 250,419	$ 10,724	$ 860,445
Short Term Investment Funds measured at amortized cost				34,311
Investments Held at NAV				1,965,394
Total Investments				$ 2,860,150

The following table presents fair value measurements as of June 30, 2019 (in thousands of dollars), as further explained below:

	Level 1	Level 2	Level 3	Total
Equities				
Limited Partnership Units	$ 137,357	$ -	$ -	$ 137,357
Common Stock	623,610	-	4,720	628,330
Other	40,645	-	104	40,749
Fixed Income				
Corporate Bonds	-	138,403	2,600	141,003
Other	-	152,835	4,783	157,618
Warrants	-	-	479	479
Total	$ 801,612	$ 291,238	$ 12,686	$ 1,105,536
Short Term Investment Funds measured at amortized cost				44,272
Investments held at NAV				1,924,124
Total Investments				$ 3,073,932

Level 1 Limited Partnership investments consist of Master Limited Partnerships that are publicly traded and listed on a national securities exchange.

Level 1 Common Stock investments are valued using exchange listed prices or broker quotes in active markets.

Level 1 "Other" Equity investments are valued using exchange listed prices or broker quotes in active markets.

Level 2 Corporate Bonds are valued using evaluated prices which are based on a compilation of primarily observable market information or a broker quote in an inactive market.

Level 2 "Other" Fixed Income investments are valued using evaluated prices which are based on a compilation of primarily observable market information or a broker quote in an inactive market. The valuation of convertible securities may be imputed based on the conversion ratio or other security specific information or broker quotes in a non-active market.

Level 3 investments in all categories are securities in which no indications are available, and the company's financials and other market indicators are used to calculate valuation. These include common stocks and bonds of companies undergoing reorganization, tradable bank loans and similar instruments.

The following table presents investments measured at Net Asset Value as of June 30, 2020 (in thousands of dollars):

	NAV	***Unfunded Commitments***	***Redemption Frequency***	***Redemption Notice Period***
Real Estate Limited Partnerships	$ 322,648	$ 299,530	Not Applicable	Not Applicable
Event Driven Hedge Funds	13,838	-	Quarterly	65 Days
Global Macro Hedge Funds	34,773	-	Quarterly or Monthly	30-60 Days
Equity Long / Short Hedge Funds	23,946	-	Semiannually	60 Days
Credit Hedge Funds	25,333	-	Quarterly or Annually	60-90 Days
Multi-Strategy Hedge Funds	34,741	-	Annually	45-90 Days
Private Equity Funds	901,467	576,066	Not Applicable	Not Applicable
Common Collective Trusts	608,648	-	Typically Daily	Less than 1 month
TOTAL	$ 1,965,394	$ 875,596		

The following table presents investments measured at Net Asset Value as of June 30, 2019 (in thousands of dollars):

	NAV	***Unfunded Commitments***	***Redemption Frequency***	***Redemption Notice Period***
Real Estate Limited Partnerships	$ 259,725	$ 333,257	Not Applicable	Not Applicable
Event Driven Hedge Funds	14,066	-	Quarterly	65-90 Days
Global Macro Hedge Funds	34,963	-	Quarterly or Monthly	30-90 Days
Equity Long / Short Hedge Funds	33,453	-	Quarterly or Semiannually	45-90 Days
Credit Hedge Funds	27,797	-	Quarterly or Annually	60-90 Days
Multi-Strategy Hedge Funds	36,157	-	Annually	45-90 Days
Private Equity Funds	873,255	626,278	Not Applicable	Not Applicable
Common Collective Trusts	644,708	-	Typically Daily	Less than 1 month
TOTAL	$ 1,924,124	$ 959,535		

Real Estate Limited Partnerships. This category includes investments in 42 limited partnerships that own direct real estate and real estate related debt instruments. Investments in Real Estate Limited Partnerships are diversified by property type, geographic location, and capital structure. The fair values of Real Estate Limited Partnership investments have been determined using the NAV of the System's interest in the partnership provided by the General Partner. Real Estate Limited Partnerships cannot be redeemed because they are private market investments. Distributions from Real Estate Limited Partnerships are determined by the General Partner. Real Estate Limited Partnerships typically have 10-year terms.

Event Driven Hedge Funds. This category consists of one hedge fund. Event Driven Hedge Funds seek to add value by exploiting pricing inefficiencies that may occur before or after a corporate event such as a bankruptcy, merger, acquisition or spinoff. Event Driven managers may invest in announced corporate events, or the manager may anticipate a corporate event and position the portfolio accordingly. Event Driven Hedge Fund managers may invest in either debt or equity positions, and often hedge out market risk. The fair values of Event Driven Hedge Fund investments have been determined using the NAV provided by the administrator of the hedge fund. The System's Event Driven Hedge fund has quarterly liquidity.

Global Macro Hedge Funds. This category includes investments in four hedge funds. Global Macro Hedge Funds invest in long and short positions in a wide variety of assets including equities, fixed income, currencies, commodities, and futures. Global Macro Hedge Fund managers seek to add value by accurately anticipating overall macroeconomic trends in various countries. The fair values of Global Macro Hedge Fund investments have been determined using the NAV provided by the administrator of the hedge fund. One of HMEPS' Global Macro managers has monthly liquidity, and one has quarterly liquidity.

Equity Long / Short Hedge Funds. This category includes investments in one hedge fund. Equity Long / Short Hedge Funds employ a strategy that involves taking long positions in stocks that are expected to increase in value and short positions in stocks that are expected to decrease in value. Equity Long / Short Hedge Funds will often short stock market indexes in order to lessen total market risk. The fair values of Equity Long / Short Hedge Fund investments have been determined using the NAV provided by the administrator of the hedge fund. HMEPS' Equity Long / Short managers has semiannual liquidity.

Credit Hedge Funds. This category includes investments in four hedge funds. Credit Hedge Fund managers look for relative value between senior and junior securities of the same issuer. They will also trade securities of equivalent credit quality from different corporate issues, or different tranches in complex capital structures such as mortgage-backed securities or collateralized loan obligations. Credit Hedge Funds typically focus on credit rather than interest rates. Many managers will sell short interest rate futures or Treasury bonds to hedge their interest rate exposure. The fair values of Credit Hedge Fund investments have been determined using the NAV provided by the administrator of the hedge fund. One of the System's credit hedge funds has quarterly liquidity; the others have annual liquidity.

Multi Strategy Hedge Funds. This category includes investments in two hedge funds. Multi Strategy Hedge Funds may employ any combination of the hedge fund strategies listed above. The fair values of Multi Strategy Hedge Fund investments have been determined using the NAV provided by the administrator of the hedge fund. Both of HMEPS' Multi Strategy fund investments have annual liquidity.

Private Equity Limited Partnerships. This category includes investments in 112 limited partnerships that own equity in privately held companies including equity in energy and commodity investments. Investments in Private Equity Limited Partnerships are diversified by industry sector, geographic location, and capital structure. The fair values of the Private Equity Limited Partnership investments have been determined using the NAV of the System's interest in the partnership provided by the General Partner. Private Equity Limited Partnerships cannot be redeemed because they are private market investments. Distributions from Private Equity Limited Partnerships are determined by the General Partner. Private Equity Limited Partnerships typically have at least 10-year terms.

Common Collective Trusts. This category includes investments in 9 common collective trusts. Common Collective Trusts may have active or passive strategies in publicly traded equity and fixed income securities. The fair values of Common Collective Trust investments have been determined using the NAV provided by the administrator of the common collective trust. Common Collective Trusts usually have higher liquidity than other investment strategies valued at NAV.

NOTE 10 – FURNITURE, FIXTURES AND EQUIPMENT

Furniture, fixtures and equipment are comprised as follows at June 30:

	2020	2019
Office furniture and equipment	$ 74,392	$ 74,392
Computer equipment	1,076,028	923,088
Leasehold improvements	163,234	163,234
	1,313,654	1,160,714
Less: Accumulated depreciation and amortization	(1,006,849)	(975,994)
	$ 306,805	$ 184,720

Depreciation expense for fiscal years 2020 and 2019 are $30,855 and $27,997, respectively.

NOTE 11 – COMMITMENTS

As described in Note 1, certain participants of the System are eligible to receive, upon request, a refund of their accumulated contributions, without interest, upon termination of employment with the City or System prior to being eligible for pension benefits. As of June 30, 2020 and 2019, aggregate contributions for these eligible participants of the System were $208,920,404 and $193,322,756, respectively. In addition, terminated Group D members who have contributed to the Group D Cash Balance Plan are eligible to receive, upon request, the balance in their Cash Balance account. The Cash Balance account distribution includes interest if the member had paid into the Cash Balance account for at least one year.

The System's investments in limited partnerships and real estate trusts are included in the first table appearing in Note 9. In connection with those investments, the System has remaining commitments as of June 30, 2020 and 2019 of approximately $876 million and $960 million, respectively, pursuant to terms of the respective limited partnerships and real estate trusts.

The System leased office facilities under a five-year lease ended October 31, 2016, and extended the term of the lease by ten years, ending October 31, 2026. This lease agreement began with a base rent of $14 per square foot for the first eighteen months. Subsequently, the rent is $23.50 per square foot for 12 months, increasing by $0.50 per square foot per year for the remainder of the term.

The payments under the lease will be:

Year Ending June 30,	Amount
2021	476,849
2022	486,261
2023	495,672
2024	505,084
2025	514,495
Thereafter	699,589
Total	$ 3,177,950

Additional amounts are assessed for use of common areas, utilities and maintenance. Total rental expense, including these assessments, amounted to approximately $749,894 and $728,414 during the years ended June 30, 2020 and 2019, respectively.

The System has other annual and/or monthly lease services for copiers, miscellaneous office equipment, and offsite storage totaling approximately $58,093 and $53,265 for fiscal years 2020 and 2019, respectively. Each of these contracts contains a cancellation provision.

NOTE 12 – RISKS AND UNCERTAINTIES

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

The City's contribution rates are made, and the actuarial information included in the Notes and Schedules 1, 2 and 3 are based, on certain assumptions pertaining to interest rates, inflation rates and participant demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term could be material to the basic financial statements.

NOTE 13 – CONTINGENCIES

On March 20, 2015, the Texas Supreme Court in the Klumb v. Houston Municipal Employees Pension System case issued a decision confirming the authority of HMEPS's Board to determine that persons employed by Houston First Corporation ("HFC"), Houston First Foundation ("HFF"), and CCSI, Inc. ("CCSI") constitute employees of the City of Houston for purposes of membership in HMEPS's pension plan. Following unsuccessful attempts by HMEPS to obtain compliance by the City with the Texas Supreme Court's ruling and its statutory duties to provide information and pay contributions into the plan for HFC, HFF, and CCSI employees, HMEPS filed Houston Municipal Employees Pension System v. City of Houston et al., No. 2016-35252, in the 333rd Judicial District Court of Harris County, Texas against the City and its representatives. The lawsuit seeks, among other things, writs of mandamus compelling the City and its representatives to provide payroll and other information regarding the HFC, HFF, and CCSI employees and to make the contributions and pick up payments owed for those employees. On September 17, 2015, the City filed a counterclaim and third-party claim against HMEPS and its Board alleging breach of agreement, violation of unspecified statutory provisions, and inverse condemnation. The City also subsequently filed a Plea to Jurisdiction, alleging that the court does not have jurisdiction to hear HMEPS's causes of action. HMEPS and its Board deny the City has any viable claims and believe that such claims are barred by, among other things, the Klumb decision. On October 9, 2015, a hearing was held in the 333rd District Court on the City's Plea to the Jurisdiction and HMEPS's motions for summary judgment. Following arguments of counsel, the court denied the City's Plea to the Jurisdiction. The City immediately appealed before the court could hear HMEPS's motions for summary judgment. The appeal was assigned to the Fourteenth Court of Appeals.

On November 22, 2016, the Fourteenth Court of Appeals reversed and rendered in part, remanded in part, and affirmed in part the trial court's denial of the Plea to the Jurisdiction. The court of appeals reversed that the City representatives are legally obligated under an ultra vires cause of action to make contributions different than the Statute as modified by the Meet and Confer Agreement between HMEPS and the City. HMEPS filed a Motion for Rehearing on the last point. The City also filed a Motion for Rehearing on the court of appeals' decision. The Court of Appeals denied both motions for rehearing.

HMEPS filed a Petition for Review with the Texas Supreme Court on whether HMEPS can maintain an ultra vires action against the City and its officials for their failure to pay pension contributions according to the rates and groups specified by the Meet and Confer Agreement. The City filed its own Petition for Review seeking reversal of the court of appeals' ruling that the City is subject to ultra vires actions for making contributions and providing employee information under the Statute and for enforcement of the Texas Public Information Act. The Texas Supreme Court granted the dueling Petitions for Review and then heard oral arguments on March 20, 2018. On June 8, 2018, the Court affirmed the Court of Appeals rulings in denying the City's review and reversed the Court of Appeals as to HMEPS ability to bring ultra vires claims against the City for its failure to make contribution payments for the HFC, HFF, and CCSI employees. The Court also Found the City is not immune as to these claims. The City did not seek rehearing.

Upon remand to the trial court, HMEPS and its Board updated and re-filed a motion for summary judgment. The City then filed a second plea to the jurisdiction. On October 12, 2018, the trial court denied the City and its officials' second plea to the jurisdiction, rendered judgment for HMEPS on its mandamus claims compelling the City and its officials to provide pension payments and information for the HFC, HFF, and CCSI employees, and severed HMEPS's claim for attorneys' fees into a separate lawsuit. The City and its officials filed a notice of appeal appealing the trial court's rulings, including the severance, which was assigned to the Fourteenth Court of Appeals (the "Original Action"). The City and its officials then filed a petition for mandamus, seeking review of the severance; this petition was also assigned to the Fourteenth Court of Appeals (the "Mandamus Action"). The parties partially settled the dispute, which resulted in the dismissal of the severed action in the trial court and the Mandamus Action. The parties have completed briefing on the Original Action and are awaiting notice from the Fourteenth Court of Appeals regarding a hearing or decision.

NOTE 14 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through October 22, 2020, the date the financial statements were available to be issued.

Required Supplemental Information (Unaudited)

SCHEDULE 1: SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Fiscal year ending June 30,	*2020*	*2019*	*2018*	*2017*
Total Pension Liability				
Service Cost	$ 77,819,448	$ 77,175,080	$ 78,148,819	$ 75,960,564
Interest on the Total Pension Liability	356,429,609	349,592,612	341,276,247	331,166,519
Benefit Changes	-	-	-	(724,683,000)
Difference between Expected and Actual Experience	(28,865,542)	(11,538,432)	19,157,801	(38,387,084)
Assumption Changes	-	-	-	562,237,000
Benefit Payments	(308,002,053)	291,060,500)	(283,928,131)	(280,455,603)
Refunds	(649,551)	(1,393,772)	(806,722)	(718,176)
Net Change in Total Pension Liability	96,731,911	122,774,988	153,848,014	(74,879,780)
Total Pension Liability - Beginning	5,236,133,181	5,113,358,193	4,959,510,179	5,034,389,959
Total Pension Liability - Ending (a)	$ 5,332,865,092	$ 5,236,133,181	$ 5,113,358,193	$ 4,959,510,179
Plan Fiduciary Net Position				
Employer Contributions	$ 176,430,316	$ 176,261,043	$ 421,561,725	$ 182,557,829
Employee Contributions	32,581,955	32,536,529	27,904,931	15,901,600
Pension Plan net Investment Income	(115,165,538)	200,444,575	231,815,128	290,910,717
Benefit Payments	(308,002,053)	(291,060,500)	(283,928,131)	(280,455,603)
Refunds	(649,551)	(1,393,772)	(806,722)	(718,176)
Pension Plan Administrative Expense	(4,891,025)	(5,362,929)	(6,441,960)	(6,826,559)
Other	484,351	709,841	(3,905,411)	1,271,670
Net Change in Plan Fiduciary Net Position	(219,211,545)	112,134,787	386,199,560	202,641,478
Plan Fiduciary Net Position - Beginning	3,100,999,065	2,988,864,278	2,602,664,718	2,400,023,240
Plan Fiduciary Net Position - Ending (b)	$ 2,881,787,520	$ 3,100,999,065	$ 2,988,864,278	$ 2,602,664,718
Net Pension Liability - Ending (a) - (b)	2,451,077,571	2,135,134,116	2,124,493,915	2,356,845,461
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	54.04%	59.22%	58.45%	52.48%
Covered Payroll	$ 625,055,807	$ 614,451,273	$ 611,493,104	$ 604,895,264
Net Pension Liability as a Percentage of Covered Payroll	392.14%	347.49%	347.43%	389.63%

See accompanying independent auditor's report.

See accompanying note to required supplemental schedules.

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

SCHEDULE 1: SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS CONTINUED

Fiscal year ending June 30,	2016	2015	2014
Total Pension Liability			
Service Cost	$ 68,968,481	$ 59,465,512	$ 61,480,204
Interest on the Total Pension Liability	379,781,300	363,639,884	348,418,895
Benefit Changes	-	-	-
Difference between Expected and Actual Experience	(16,194,133)	(22,057,834)	-
Assumption Changes	324,938,905	-	-
Benefit Payments	(253,178,363)	(234,954,625)	(221,925,083)
Refunds	(1,105,306)	(1,549,404)	(1,213,474)
Net Change in Total Pension Liability	503,210,884	164,543,533	186,760,542
Total Pension Liability - Beginning	4,531,179,075	4,366,635,542	4,179,875,000
Total Pension Liability - Ending (a)	$ 5,034,389,959	$ 4,531,179,075	$ 4,366,635,542
Plan Fiduciary Net Position			
Employer Contributions	$ 159,958,607	$ 145,007,059	$ 128,274,419
Employee Contributions	15,873,664	16,198,216	16,579,600
Pension Plan net Investment Income	27,639,567	73,370,310	352,522,858
Benefit Payments	(253,178,363)	(234,954,625)	(221,925,083)
Refunds	(1,105,306)	(1,549,404)	(1,213,474)
Pension Plan Administrative Expense	(7,360,139)	(7,007,422)	(6,414,668)
Other	1,651,651	1,040,548	-
Net Change in Plan Fiduciary Net Position	(56,520,319)	(7,895,318)	267,823,652
Plan Fiduciary Net Position - Beginning	2,456,543,559	2,464,438,877	2,196,615,225
Plan Fiduciary Net Position - Ending (b)	$ 2,400,023,240	$ 2,456,543,559	$ 2,464,438,877
Net Pension Liability - Ending (a) - (b)	2,634,366,719	2,074,635,516	1,902,196,665
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	47.67%	54.21%	56.44%
Covered Payroll	$ 640,528,652	$ 624,205,549	$ 598,245,952
Net Pension Liability as a Percentage of Covered Payroll	411.28%	332.36%	317.96%

See accompanying independent auditor's report.

See accompanying note to required supplemental schedules.

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

SCHEDULE 2: SCHEDULE OF NET PENSION LIABILITY

FY Ending June 30	Total Pension Liability	Fiduciary Net Position	Net Pension Liability	Fiduciary Net Position as a % of Pension Liability	Covered Payroll[1]	Net Pension Liability as a % of Covered Payroll
2014	$ 4,366,635,542	$ 2,464,438,877	$ 1,902,196,665	56.44%	$ 598,245,952	317.96%
2015	4,531,179,075	2,456,543,559	2,074,635,516	54.21%	624,205,549	332.36%
2016	5,034,389,959	2,400,023,240	2,634,366,719	47.67%	640,528,652	411.28%
2017	4,959,510,179	2,602,664,718	2,356,845,461	52.48%	604,895,264	386.63%
2018	5,113,358,193	2,988,864,278	2,124,496,915	58.45%	611,493,104	347.43%
2019	5,236,133,181	3,100,999,065	2,135,134,116	59.22%	614,451,273	347.49%
2020	5,332,865,091	2,881,787,520	2,451,077,571	54.04%	625,055,807	392.14%

1 *The covered payroll reported prior to fiscal year 2014 is based on pensionable pay. With the adoption of GASB Statement No. 67, GASB changed the definition of Covered Payroll to be total gross compensation. The Covered Payroll for fiscal year 2014- 2016 used this new definition. In 2017, GASB amended GASB 67/68 to change the definition of covered payroll to pensionable pay. Therefore, beginning in fiscal year 2017 the covered payroll shown is pensionable pay.*

See accompanying independent auditor's report.

See accompanying note to required supplemental schedules.

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

SCHEDULE 3: SCHEDULE OF CONTRIBUTIONS

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll[1]	Actual Contribution as a % of Covered Payroll[2]
2007	$ 106,568,897	$ 70,264,721	$ 36,304,176	$ 448,925,000	15.65%
2008	116,281,212	73,271,799	43,009,413	483,815,000	15.14%
2009	102,257,047	76,837,216	25,419,831	539,023,000	14.25%
2010	107,535,744	82,052,013	25,483,731	550,709,000	14.90%
2011	107,472,679	87,284,737	20,187,942	544,665,000	16.03%
2012	122,465,396	97,161,723	25,303,673	534,394,000	18.18%
2013	124,317,102	111,858,885	12,458,217	549,971,000	20.34%
2014	144,953,327	128,274,419	16,678,908	598,245,952	21.44%
2015	155,299,296	145,007,059	10,292,237	624,205,549	23.23%
2016	162,229,984	159,958,607	2,271,377	640,528,652	24.97%
2017	184,732,840	182,557,829	2,175,011	604,895,264	30.18%
2018	423,989,344[3]	421,561,725[3]	2,427,619	611,493,104	68.94%
2019	178,256,312	176,261,043	1,995,269	614,451,273	28.69%
2020	182,950,467	176,430,316	6,520,151	625,055,807	28.23%

1 The covered payroll reported prior to fiscal year 2014 is based on pensionable pay. With the adoption of GASB 67/68, GASB changed the definition of Covered Payroll to be total gross compensation. The Covered Payroll for fiscal year 2014-2016 used this definition. In 2017, GASB amended GASB 67/68 to change the definition of Covered Payroll to pensionable pay. Therefore, beginning fiscal year 2017 the Covered Payroll shown is pensionable pay.

2 The Actual Contribution as a % of Covered Payroll did not correspond to the funding requirements of the Amended and Restated Meet and Confer Agreement in effect through June 30, 2017, and was not be used for funding purposes.

3 The Actuarially Determined Contribution, the Actual Contribution and the Actual Contribution as a % of Covered Payroll calculation includes the Pension Obligation Bond proceeds of $250 million.

See accompanying note to required supplemental schedules.

See independent auditor's report.

Notes to Required Supplemental Information for Schedules 1, 2 and 3 (Unaudited)

Note to Schedules 1 and 2 – The total pension liability contained in this schedule was provided by the System's retained actuary, Gabriel, Roeder, Smith & Company. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the System.

Note to Schedule 3 – The required employer contributions and percent of those contributions actually made are presented in the schedule. The information presented was used in the actuarial valuation for purposes of determining the actuarially determined contribution rate. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board. Additional information as of the latest actuarial valuation is presented in the table below.

Valuation Date: July 1, 2019

Notes: Actuarially determined contribution rates are calculated as of July 1, which is 12 months prior to the beginning of the fiscal year in which they are contributed. The assumptions shown below apply to the Actuarially Determined Employer Contribution for fiscal year 2020 which was determined by the July 1, 2018 actuarial valuation. These assumptions are the same as those used to determine the Net Pension Liability as of June 30, 2020.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Percentage of Payroll, Open (see notes)
Remaining amortization period	28 years
Asset valuation method	5 Year smoothed market, direct offset of deferred gains and losses
Inflation	2.25%
Salary increases	3.00% to 5.25% including inflation
Investment rate of return	7.00%
Retirement age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2015 valuation pursuant to an experience study of the period 2009 – 2014.
Mortality	RP-2000 Mortality Table scaled by 125% for males and 112% for females. The rates are then projected on a fully generational basis by scale BB.
Other Information:	
Note:	The actuarially determined contribution includes the Legacy Liability payment as specified by the January 1, 2017 Risk Sharing Valuation and a calculated employer rate equal to the normal cost and the amortization of any new unfunded liabilities over a closed 30 year period from the valuation date the liability base was created.

SCHEDULE 4: SCHEDULE OF INVESTMENT RETURNS

FY Ending June 30,	***Annual Return[1]***
2014	16.42%
2015	3.47%
2016	0.90%
2017	12.18%
2018	8.72%
2019	6.20%
2020	-3.72%

1 Annual money-weighted rate of return, net of investment fees.

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

See accompanying independent auditor's report.

SCHEDULE 5: SCHEDULE OF CHANGES IN TOTAL OPEB LIABILITY AND RELATED RATIOS

Fiscal Year Ending June 30,	***2020***	***2019***	***2018***
Total OPEB liability			
Service cost	$ 169,765	$ 300,656	$ 358,166
Interest on the total OPEB liability	397,308	301,552	283,797
Changes of benefit terms	-	-	-
Difference between expected and actual experience	(4,597)	117,646	(14,484)
Changes of assumptions	(639,768)	(2,162,853)	(74,720)
Benefit payments	(204,375)	(195,451)	(135,914)
Net change in total OPEB liability (asset)	(281,667)	(1,638,450)	416,845
Total OPEB liability - beginning	6,639,107	8,277,557	7,860,712
Total OPEB liability - ending (a)	$ 6,357,440	$ 6,639,107	$ 8,277,557
Plan fiduciary net position			
Employer contributions	$ 169,765	$ 8,473,008	$ 135,914
Non employer contributing entities contributions	-	-	-
Employee contributions	-	-	-
OPEB plan net investment income	262,978	113,972	-
Benefit payments	(204,375)	(195,451)	(135,914)
OPEB plan administrative expense	-	-	-
Other	(5,094)	-	-
Net change in plan fiduciary net position	223,274	8,391,529	-
Plan fiduciary net position - beginning	8,391,529	-	-
Plan fiduciary net position - ending (b)	$ 8,614,803	$ 8,391,529	$ -
Net OPEB liability (asset) - ending (a) - (b)	$ (2,257,363)	$ (1,752,422)	$ 8,277,557
Plan fiduciary net position as a percentage of total OPEB liability	135.51%	126.40%	N/A
Covered-employee payroll	$ 2,202,448	$ 1,968,659	$ 2,104,735
Net OPEB liability (asset) as a percentage of covered-employee payroll	(102.49%)	(89.02)%	393.28%

Notes to Schedule:

FYE20 - "Changes of assumptions" reflect the removal of the liability associated with the "Cadillac Tax".

FYE19 - "Changes of assumptions" reflect the change in the discount rate from 3.62% to 6.00% and a slightly updated healthcare trend assumption.

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

See accompanying independent auditor's report.

SCHEDULE 6 : SCHEDULE OF CONTRIBUTIONS - OPEB TRUST

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered-employee payroll	Actual Contribution as a % of Covered Payroll
2019	n/a *	-	-	-	-
2020	-	169,765	(169,765)	2,202,448	7.71%

NOTES TO SCHEDULE OF OPEB CONTRIBUTIONS

Valuation Date: June 30, 2019

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Dollar
Amortization Period	Open, 10 year period
Amortization Value	Market Value
Investment Rate of Return	6.00%, net of investment expenses, including inflation
Inflation	2.25%
Salary Increases	0.00% to 2.25%, not including wage inflation of 3.00%
Demographic Assumptions	Based on the experience study covering the five year period ending June 30, 2014 as conducted for the pension plan.
Mortality	Gender-district RP-2000 Combined Healthy Mortality Tables with Blue Collar Adjustment. Male rates are multiplied by 125% and female rates are multiplied by 112%. The rates are projected on a fully generational basis by Scale BB to account for future mortality improvements.
Healthcare Cost Trend Rates	Initial rate of 7.20% declining to an ultimate rate of 4.00% after 15 years.
Participation Rates	It was assumed that 100% of eligible retirees would choose to maintain their retiree health care benefits through HMEPS. Furthermore, 70% were assumed to elect two-person coverage.

** The OPEB trust was established in the fiscal year ending June 30, 2019. No formal Actuarially Determined Contribution (ADC) was developed for FYE 2019.*

See accompanying independent auditor's report.

SCHEDULE 7: SCHEDULE OF INVESTMENT RETURNS - OPEB TRUST

FY Ending June 30,	Annual money-weighted rate of return[1]
2019	N/A *
2020	3.62%

1 Annual money-weighted rate of return, net of investment fees.

** Because the initial trust deposit was made in June 2019, no annual rate of return was calculated. Annualizing the returns for a partial month would not provide a reasonable representation of the annual return associated with the investment policy.*

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

See accompanying independent auditor's report.

Other Supplemental Information

SCHEDULE 8: INVESTMENT SUMMARY

	June 30, 2020		
	Cost	**Fair Value**	**Unrealized Appreciation (Depreciation)**
Fixed income:			
Government securities	$ 44,808,353	$ 46,656,593	$ 1,848,240
Corporate bonds	219,752,431	211,420,667	(8,331,764)
Total fixed income	264,560,784	258,077,260	(6,483,524)
Short-term investment funds	34,311,312	34,311,312	-
Capital stocks	629,796,664	602,367,728	(27,428,936)
Commingled funds	482,503,284	608,647,710	126,144,426
Real assets	242,439,217	322,647,945	80,208,728
Alternative investments	750,901,015	1,034,098,032	283,197,017
Total investments	$ 2,404,512,276	$ 2,860,149,987	$ 455,637,711

	June 30, 2019		
	Cost	**Fair Value**	**Unrealized Appreciation (Depreciation)**
Fixed income:			
Government securities	$ 99,061,759	$ 100,318,852	$ 1,257,093
Corporate bonds	198,015,107	198,302,026	286,919
Total fixed income	297,076,866	298,620,878	1,544,012
Short-term investment funds	44,271,926	44,271,926	-
Capital stocks	757,977,131	805,238,023	47,260,892
Commingled funds	467,371,303	646,384,175	179,012,872
Real assets	182,622,179	259,725,223	77,103,044
Alternative investments	685,149,661	1,019,691,808	334,542,147
Total investments	$ 2,434,469,066	$ 3,073,932,033	$ 639,462,967

Space and cost restrictions make it impractical to print the entire investment portfolio in this report. A portfolio listing is available for review at the System's office by appointment, upon request.

See accompanying independent auditor's report.

SCHEDULE 9: INVESTMENT EXPENSES, PROFESSIONAL SERVICES, AND ADMINISTRATION EXPENSES

	2020	2019
Investment Expenses:		
Custodial services*	$ 570,685	$ 368,000
Investment management services*	5,497,593	5,699,195
Consulting services*	834,000	834,000
Legal services*	49,764	69,525
Other investment expenses	1,458,111	1,048,227
Total investment expenses	$ 8,410,153	$ 8,018,947
Professional services:		
Actuarial services*	$ 112,448	$ 90,988
Auditing and professional services*	50,520	50,250
Legal services*	85,845	118,721
Medical services*	9,000	12,000
Other professional services*	377,863	391,675
Total professional services	$ 635,676	$ 663,634
Administration expenses:		
Office costs	$675,077	$ 658,373
Insurance costs	199,144	194,415
Costs of staff and benefits	2,664,220	3,113,155
Costs of equipment and supplies	655,453	615,779
Depreciation and amortization	30,855	27,997
Costs of continuing education	30,600	89,576
Total administration expenses	$ 4,255,349	$ 4,699,295

See details on the next page.

See accompanying independent auditor's report.

SCHEDULE 10: SUMMARY OF COSTS OF INVESTMENT AND PROFESSIONAL SERVICES

Years Ended June 30, 2020 and 2019

Investment Expenses

	2020	2019
Investment Manager Fees		
Ariel Investments, LLC	$ 218,315	$ 227,565
Baillie Gifford Overseas Ltd.	410,312	100,036
BlackRock (formerly Barclays)	268,957	334,035
Cohen & Steers Capital Management, Inc.	106,166	126,674
DDJ Capital Management, LLC	422,346	430,581
DePrince, Race and Zollo, Inc.	290,866	289,454
Enhanced Investment (INTECH)	-	250,751
Global Forest Partners, LP/UBS Timber Investors	55,443	56,267
Globeflex Capital, LP	248,397	57,153
Loomis, Sayles and Company, LP	415,196	409,019
Neumeier Investment Counsel, LLC	662,497	693,924
OFI Institutional (Now Invesco)	429,006	564,260
Panagora Asset Management	(5,936)	171,142
Pugh Capital Management	215,729	185,562
Salient Capital Advisors, LLC	455,034	488,932
Smith Graham & Company	109,456	227,809
State Street Global Advisors	191,407	244,856
T. Rowe Price Associates, Inc	453,237	96,962
Tortoise Capital Advisors	551,145	744,213
	$ 5,497,593	$ 5,699,195
Custodial Services		
State Street Bank and Trust Company	$ 570,685	$ 368,000
Investment Consulting Fees		
Wilshire Associates, Incorporated	$ 284,000	$ 284,000
Cliffwater LLC	550,000	550,000
	$ 834,000	$ 834,000
Legal Services (Investment)		
DLA Piper LLP	$ 9,727	$ 7,793
Jackson Walker LLP	15,331	-
Locke Lord LLP	24,706	61,732
	$ 49,764	$ 69,525

Professional Services

	2020	2019
Actuary		
Gabriel, Roeder, Smith & Co.	$ 112,448	$ 90,988
Auditing and Professional Services		
McConnell & Jones, LLP	$ 50,520	$ 50,250
Legal Services		
Baker Botts, LLP	$ 84,841	$ 116,373
Jackson Walker LLP	1,004	2,114
Smyser Kaplan & Veselka, LLP	-	234
	$ 85,845	$ 118,721
Medical Services		
Charles Schumacher, M.D.	$ 9,000	$ 12,000
Other Professional Services		
Harris Law Firm	$ 36,000	$ 24,000
HillCo Partners, LLC	101,863	102,000
KLM Public Affairs, LLC	30,000	15,000
Locke Lord LLP	210,000	210,000
LT Communications	-	24,000
Pearl Meyer & Partners	-	16,675
	$ 377,863	$ 391,675

See accompanying independent auditor's report.