# FINANCIAL

- SECTION 2 -

# SHARED VISION

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HMEPS
HOUSTON MUNICIPAL EMPLOYEES PENSION SYSTEM

MOSSADAMS

# REPORT OF INDEPENDENT AUDITORS

The Board of Trustees
Houston Municipal Employees Pension System

## REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

### *OPINIONS*

We have audited the financial statements of the pension plan and HMEPS OBEB trust of the Houston Municipal Employees Pension System (the System) as of and for the years ended June 30, 2023 and 2022, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the pension plan and HMEPS OBEB trust of the Houston Municipal Employees Pension System as of June 30, 2023 and 2022, and the respective changes in financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

### *BASIS FOR OPINIONS*

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in ***Government Auditing Standards (Government Auditing Standards)***, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

### *EMPHASIS OF MATTER*

As discussed in Note 1, the financial statements of Houston Municipal Employees Pension System present the fiduciary net position and changes in fiduciary net position of the City of Houston that are attributable to the transactions of the System. The financial statements do not present fairly the financial position of the entire City of Houston as of June 30, 2023, the changes in its financial position, and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

### *RESPONSIBILITIES OF MANAGEMENT FOR THE FINANCIAL STATEMENTS*

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

### *AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS*

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and ***Government Auditing Standards*** will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and Government Auditing Standards, we

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control–related matters that we identified during the audit.



### *REQUIRED SUPPLEMENTARY INFORMATION*

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

### *SUPPLEMENTARY INFORMATION*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Houston Municipal Employees Pension System's basic financial statements. The investment summary; investment expenses, professional services, and administration expenses; and summary of cost of investment and professional services (collectively, the supplementary information) are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the 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 supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

### *OTHER INFORMATION*

The introductory, investment, actuarial, and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements of the System. Such additional information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Moss Adams LLP

Houston, Texas
October 24, 2023

# MANAGEMENT'S DISCUSSION AND ANALYSIS

# HOUSTON MUNICIPAL EMPLOYEES PENSION SYSTEM
## *(A Component Unit of City of Houston, Texas)*
## *Management Discussion and Analysis*

The Board of Trustees (the Board) of the Houston Municipal Employees Pension System (the System or HMEPS) is pleased to provide this overview and analysis of the financial performance and activities of the System for the fiscal years ended June 30, 2023 and 2022. We encourage the readers to consider the information presented here in conjunction with the basic financial statements.

This report is prepared in accordance with the principles of governmental accounting and reporting promulgated by the Governmental Accounting Standards Board (GASB). Investments are stated at fair value, and revenues include the recognition of unrealized gains and losses. The accrual basis of accounting is used to record assets, liabilities, revenues, and expenses. Revenue recognition occurs when earned without regard to the date of collection. Expense recognition occurs when the corresponding liabilities are incurred, regardless of payment date.

## OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the System's financial statements.

### *SYSTEM'S BASIC FINANCIAL STATEMENTS*

There are two basic financial statements presented herewith. The Statements of Fiduciary Net Position as of June 30, 2023 and 2022 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, 2023 and 2022 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.

### *REQUIRED SUPPLEMENTARY INFORMATION*

The required supplementary information (the RSI) 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 System'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 Contributions – Pension Plan –*** Details the actuarially determined contribution calculated for employers, actual contributions, covered payroll, and actual contributions as a percentage of payroll.

***Schedule 3 – Schedule of Investment Returns – Pension Plan –*** A comparative schedule presenting the annual money-weighted rate of return on System investments for each fiscal year.

***Schedule 4 – 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 other postemployment benefits (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 5 – Schedule of Contributions – HMEPS OPEB Trust –*** Details the actuarially determined contribution calculated for employers, actual contributions, covered payroll, and actual contributions as a percentage of payroll.

***Schedule 6 – Schedule of Investment Returns – HMEPS OPEB Trust –*** A comparative schedule presenting the annual money-weighted rate of return on OPEB trust investments for each fiscal year.

### *SUPPLEMENTARY INFORMATION*

Supplementary information consists of:

***Schedule 7 – Investment Summary –*** This lists the System's investments by type presented both at cost and fair value.

***Schedule 8 – Investment Expenses, Professional Services and Administrative Expenses –*** This provides additional information for purposes of a more detailed analysis.

***Schedule 9 – Details of Investment Expenses 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 the fiduciary net position restricted for benefits:

| | JUNE 30, | | |
|---|---|---|---|
| | 2023 | 2022 | 2021 |
| **ASSETS** | | | |
| Cash and cash equivalents | $ 46,109,119 | $ 13,277,957 | $ 11,776,797 |
| Receivables | 14,420,644 | 25,829,987 | 19,853,160 |
| Investments | 4,090,612,586 | 3,970,544,295 | 3,875,363,537 |
| Net OPEB asset | 5,088,212 | 4,239,681 | 6,034,930 |
| Capital assets, net | 1,636,074 | 2,056,778 | 311,507 |
| Total assets | 4,157,866,635 | 4,015,948,698 | 3,913,339,931 |
| Deferred outflows of resources | 569,267 | 766,507 | 59,431 |
| **LIABILITIES** | | | |
| Investment purchases and foreign exchange payables | $ 7,758,769 | $ 12,413,039 | $ 4,528,493 |
| Accrued and other liabilities | 67,549,732 | 41,499,878 | 28,167,093 |
| Total liabilities | 75,308,501 | 53,912,917 | 32,695,586 |
| Deferred inflows of resources | 1,382,481 | 1,352,777 | 3,041,212 |
| **Fiduciary net position restricted for benefits** | $ 4,081,744,920 | $ 3,961,449,511 | $ 3,877,662,564 |

Below is a comparative summary of changes in fiduciary net position restricted for benefits.

| | YEAR ENDED JUNE 30, | | |
|---|---|---|---|
| | 2023 | 2022 | 2021 |
| **ADDITIONS** | | | |
| Contributions | $ 239,494,796 | $ 229,995,123 | $ 218,261,736 |
| Net investment income | 221,974,563 | 188,202,700 | 1,086,450,877 |
| Other income | 619,545 | 465,948 | 486,744 |
| Total additions | 462,088,904 | 418,663,771 | 1,305,199,357 |
| **DEDUCTIONS** | | | |
| Benefits paid and contributions refunded | 336,108,749 | 329,139,530 | 314,778,067 |
| Administrative expenses and professional fees | 5,684,746 | 5,737,294 | 3,161,049 |
| Total deductions | 341,793,495 | 334,876,824 | 317,939,116 |
| Net increase in net position | 120,295,409 | 83,786,947 | 987,260,241 |
| **Fiduciary net position restricted for benefits** **Beginning of year** | 3,961,449,511 | 3,877,662,564 | 2,890,402,323 |
| **End of year** | $ 4,081,744,920 | $ 3,961,449,511 | $ 3,877,662,564 |

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

## FINANCIAL ANALYSIS

Fiduciary net position may serve as a useful indicator of a plan's financial position. The System's fiduciary net position as of June 30, 2023 was $4.08 billion, an increase of $120.30 million or 3% over the prior fiscal year. The System's fiduciary net position as of June 30, 2022 was $3.96 billion, an increase of $83.79 million or 2% over the prior fiscal year.

The System received cash contributions from the City of Houston (the City) of $204.90 million, $197.34 million and $184.94 million for fiscal years 2023, 2022, and 2021, respectively. Participant contributions were $34.60 million, $32.65 million and $33.32 million for fiscal years 2023, 2022 and 2021 respectively.

Net investment income was $222.17 million for the year ended June 30, 2023, an increase of $33.91 million from the prior fiscal year. Net investment income was $188.20 million for the year ended June 30, 2022, a decrease of $898.25 million from the prior fiscal year.

Total benefit payments were $335.12 million, $328.01 million and $314.38 million for fiscal years 2023, 2022, and 2021, respectively. This represented increases in total benefit payments for these years of 2.2%, 4.3%, and 2.0%, respectively.

Total benefit payments exceeded total employee and employer contributions by $95.62 million in fiscal year 2023, $98.01 million in fiscal year 2022, and $96.11 million in fiscal year 2021.

Costs of administering the System, including professional fees, were $5.63 million, $5.68 million, and $3.16 million for fiscal years 2023, 2022, and 2021, respectively. Administration fees for the 2023 fiscal year were in line with the prior year, dropping by approximately 1%. The increase seen in 2022 from the prior year are mainly due to changes in OPEB investment income, which is aggregated in the administration expenses figure. The outsized investment income recorded in 2021 reduced the System's expenses for that year.



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 for the pension plan as of the last actuarial report, July 1, 2022, is 65.8% compared to 62.8% on July 1, 2021, and 59.2% on July 1, 2020. As of July 1, 2022, the System's unfunded actuarial accrued liability was $1.86 billion.

Capital assets, net of accumulated depreciation and amortization, at the end of fiscal years 2023, 2022, and 2021 were $1.67 million, $2.06 million, and $312 thousand, respectively. The large increase in 2022 is due to the adoption of GASB No. 87 *Leases*, which required the System to recognize a right-to-use asset for lease arrangements.

## CURRENTLY KNOWN FACTS, CONDITIONS, OR DECISIONS

The System's gross rate of return during fiscal year 2023 was 6.2% compared with the fiscal year 2022 rate of return of 5.2%. Volatility continued to affect financial markets in fiscal year 2023. In the first quarter of the fiscal year, global markets generally declined due to geopolitical risks resulting from the prolonged Russian Federation invasion of Ukraine. Market performance was also influenced by the highest inflation and interest rates observed in several years. The Federal Reserve raised the Federal Funds Rate seven times during the 12-month period, rising from a target range of 1.50-1.75% at the beginning of the fiscal year to 5.00-5.25% by June 30, 2023. These rate hikes helped moderate the inflation rate from a high of 9.1% at the beginning of the fiscal year to 3.0% by June 30, 2023.

- U.S. equity markets had a weak start to the fiscal year, with the benchmark Wilshire 5000 index declining 4.4% for the quarter ending September 30, 2022. As equity markets began responding to declining inflation rates, the trend reversed. For the entire fiscal year ending June 30, 2023, the Wilshire 5000 index had a strong 19.1% return. Large cap stocks outperformed smaller cap stocks, and growth equities outperformed value equities, but all styles and capitalization sizes posted positive returns for the period.
- International equities followed a similar pattern to U.S. stocks with the MSCI ACWI ex-U.S. (net) Index struggling at the beginning of the fiscal year. International stocks were more sensitive to the war in Eastern Europe, with the MSCI ACWI ex-US (net) index declining 9.9% in the quarter ending September

30, 2022. International equities also rebounded for the remainder of the year with the MSCI ACWI ex-US (net) index gaining 12.7% during fiscal year 2023.

- Investment grade fixed income securities declined in fiscal year 2023, generally due to rising interest rates. Investment grade bonds as represented by the Barclay's U.S. Aggregate Bond index posted a return of -0.9% for the fiscal year. High yield bonds as represented by the Merrill Lynch High Yield Master Trust II Index performed better, buoyed by higher coupons, and returned 8.9% for the fiscal year. HMEPS' Private Credit portfolio had a positive return of 11.7% for the fiscal year as many of the loans in the asset class have floating rates that benefit from rising interest rates.
- Among the alternative asset classes, Real Estate and Private Equity returned 5.4% and -5.3% respectively in fiscal year 2023. The Inflation-Linked asset class was among the best performing asset classes of the portfolio, increasing 17.3% as the energy sector, particularly midstream assets, increased in value even though oil and gas prices fell from multi-year highs at the beginning of the fiscal year.

Through the efforts of the Board of Trustees, the System's investment portfolio is generally more broadly diversified than many other public pension plans and tends to perform well in most market environments. During the 10-year period ending June 30, 2023, the System's annualized return was 9.5%, a performance return that places the System in the top 5% of all public pension systems in the nationally recognized Wilshire TUCS database.

At June 30, 2023, the System's total pension liability was $5.70 billion. The System's Fiduciary Net Position was $4.07 billion, leaving a Net Pension Liability of $1.63 billion. The Plan's Fiduciary Net Position as a percentage of total pension liability was 71.46%. The Fiduciary Net Position of $4.08 billion increased by $120.30 million or 3% during fiscal year 2023. This compares to an increase of $83.79 million or 2% in the Fiduciary Net Position during fiscal year 2022.

## INVESTMENT REVIEW

The System's investment portfolio closed its 2023 fiscal year at $4.09 billion, up from $3.94 billion at the beginning of the fiscal year. The gross rate of return during fiscal year 2023 was 6.2%, compared with 5.2% during fiscal year 2022. The portfolio's strong relative performance for the fiscal year was largely driven by the System's alternative investment asset classes, including Inflation-Linked and Private Credit, which returned 17.3% and 11.7%, respectively for the period. The strong returns in the Inflation-Linked asset class were driven by a continued rise in commodity prices, including energy prices, due to continued geopolitical uncertainty and inflationary pressures experienced during the fiscal year. Additionally, Global Equity contributed positively to the total fund's performance, providing a 13.0% return for the year.

## 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.

# FINANCIAL STATEMENTS

## STATEMENTS OF FIDUCIARY NET POSITION

*June 30, 2023 and 2022 (in whole dollars)*

| | JUNE 30, 2023 | | | JUNE 30, 2022 | | |
|---|---|---|---|---|---|---|
| | PENSION PLAN | HMEPS OPEB TRUST | TOTAL | PENSION PLAN | HMEPS OPEB TRUST | TOTAL |
| ASSETS | | | | | | |
| Cash and cash equivalents | $ 45,679,225 | $ 429,894 | $ 46,109,119 | $ 12,718,204 | $ 559,753 | $ 13,277,957 |
| Receivables | | | | | | |
| Employer and employee contribution receivables | 5,464,395 | – | 5,464,395 | 14,098,511 | – | 14,098,511 |
| Investment sale proceeds and foreign exchange receivable | 3,860,487 | – | 3,860,487 | 6,818,965 | – | 6,818,965 |
| Dividend and interest receivables | 5,088,849 | 6,913 | 5,095,762 | 4,878,950 | 33,561 | 4,912,511 |
| Total receivables | 14,413,731 | 6,913 | 14,420,644 | 25,796,426 | 33,561 | 25,829,987 |
| Investments | | | | | | |
| Short-term investment funds | 115,072,237 | – | 115,072,237 | 177,418,509 | – | 177,418,509 |
| Global equity | 1,156,331,911 | 4,651,414 | 1,160,983,325 | 1,020,111,731 | 4,433,059 | 1,024,544,790 |
| Fixed income | 223,977,859 | 4,571,222 | 228,549,081 | 242,208,347 | 4,333,868 | 246,542,215 |
| Absolute return | 133,374,087 | – | 133,374,087 | 130,356,439 | – | 130,356,439 |
| Inflation-Linked | 681,144,478 | – | 681,144,478 | 592,120,405 | – | 592,120,405 |
| Private credit | 152,323,590 | – | 152,323,590 | 104,326,507 | – | 104,326,507 |
| Private equity | 1,151,362,803 | – | 1,151,362,803 | 1,238,474,767 | – | 1,238,474,767 |
| Real estate | 406,774,041 | – | 406,774,041 | 421,205,718 | – | 421,205,718 |
| Securities lending collateral arrangements | 61,028,944 | – | 61,028,944 | 35,554,945 | – | 35,554,945 |
| Total investments | 4,081,389,950 | 9,222,636 | 4,090,612,586 | 3,961,777,368 | 8,766,927 | 3,970,544,295 |
| Net OPEB asset | 5,088,212 | – | 5,088,212 | 4,239,681 | – | 4,239,681 |
| Capital assets, net | 1,636,074 | – | 1,636,074 | 2,056,778 | – | 2,056,778 |
| Total assets | 4,148,207,192 | 9,659,443 | 4,157,866,635 | 4,006,588,457 | 9,360,241 | 4,015,948,698 |
| DEFERRED OUTFLOWS OF RESOURCES - HMEPS OPEB | 569,267 | – | 569,267 | 766,507 | – | 766,507 |
| LIABILITIES | | | | | | |
| Investment purchases and foreign exchange payables | 7,758,769 | – | 7,758,769 | 12,413,039 | – | 12,413,039 |
| Accrued liabilities | 6,260,927 | 259,861 | 6,520,788 | 5,683,433 | 261,500 | 5,944,933 |
| Securities lending obligation arrangements | 61,028,944 | – | 61,028,944 | 35,554,945 | – | 35,554,945 |
| Total liabilities | 75,048,640 | 259,861 | 75,308,501 | 53,651,417 | 261,500 | 53,912,917 |
| DEFERRED INFLOWS OF RESOURCES - HMEPS OPEB | 1,382,481 | – | 1,382,481 | 1,352,777 | – | 1,352,777 |
| FIDUCIARY NET POSITION RESTRICTED FOR BENEFITS | $4,072,345,338 | $ 9,399,582 | $4,081,744,920 | $3,952,350,770 | $ 9,098,741 | $3,961,449,511 |

***See accompanying notes to these financial statements.***

## STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

*June 30, 2023 and 2022 (in whole dollars)*

| | YEAR ENDED JUNE 30, 2023 | | | YEAR ENDED JUNE 30, 2022 | | |
|---|---|---|---|---|---|---|
| | PENSION PLAN | HMEPS OPEB TRUST | TOTAL | PENSION PLAN | HMEPS OPEB TRUST | TOTAL |
| ADDITIONS | | | | | | |
| Contributions | | | | | | |
| Employer | $ 204,895,256 | $ – | $ 204,895,256 | $ 197,340,533 | $ – | $ 197,340,533 |
| Participant | 34,599,540 | – | 34,599,540 | 32,654,590 | – | 32,654,590 |
| Total contributions | 239,494,796 | – | 239,494,796 | 229,995,123 | – | 229,995,123 |
| Other income | 619,545 | – | 619,545 | 465,948 | – | 465,948 |
| Investment income (loss) | | | | | | |
| Interest on bonds and deposits | 14,844,970 | 15,799 | 14,860,769 | 11,169,992 | 481 | 11,170,473 |
| Dividends | 33,159,618 | 204,065 | 33,363,683 | 29,607,531 | 180,669 | 29,788,200 |
| Earnings from limited partnerships and real estate trusts | 10,238,593 | – | 10,238,593 | 4,828,207 | – | 4,828,207 |
| Net appreciation (depreciation) on investments | 172,912,847 | 391,040 | 173,303,887 | 152,875,956 | (1,368,116) | 151,507,840 |
| Net investment income (loss) | 231,156,028 | 610,904 | 231,766,932 | 198,481,686 | (1,186,966) | 197,294,720 |
| Proceeds from lending securities | 1,759,425 | – | 1,759,425 | 162,288 | – | 162,288 |
| Less costs of securities lending | (1,579,643) | – | (1,579,643) | (85,266) | – | (85,266) |
| Net proceeds from lending securities | 179,782 | – | 179,782 | 77,022 | – | 77,022 |
| Less investment expenses | (9,972,151) | – | (9,972,151) | (9,169,042) | – | (9,169,042) |
| Net investment income (loss) | 221,363,659 | 610,904 | 221,974,563 | 189,389,666 | (1,186,966) | 188,202,700 |
| Total additions | 461,478,000 | 610,904 | 462,088,904 | 419,850,737 | (1,186,966) | 418,663,771 |
| DEDUCTIONS | | | | | | |
| Benefits paid to participants | 334,858,915 | 259,861 | 335,118,776 | 327,772,923 | 233,825 | 328,006,748 |
| Contribution refunds to participants | 989,973 | – | 989,973 | 1,132,782 | – | 1,132,782 |
| Professional services | 1,222,569 | – | 1,222,569 | 1,056,206 | – | 1,056,206 |
| Administration expenses | 4,411,975 | 50,202 | 4,462,177 | 4,624,725 | 56,363 | 4,681,088 |
| Total deductions | 341,483,432 | 310,063 | 341,793,495 | 334,586,636 | 290,188 | 334,876,824 |
| NET INCREASE IN FIDUCIARY NET POSITION | 119,994,568 | 300,841 | 120,295,409 | 85,264,101 | (1,477,154) | 83,786,947 |
| FIDUCIARY NET POSITION RESTRICTED FOR BENEFITS | | | | | | |
| Beginning of year | 3,952,350,770 | 9,098,741 | 3,961,449,511 | 3,867,086,669 | 10,575,895 | 3,877,662,564 |
| End of year | $ 4,072,345,338 | $ 9,399,582 | $ 4,081,744,920 | $ 3,952,350,770 | $ 9,098,741 | $ 3,961,449,511 |

## 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 net position is used to pay benefits for eligible participants of Group A, Group B, and Group D.

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 June 30, 2023 and 2022:

| | 2023 | 2022 |
|---|---|---|
| Retirees and beneficiaries currently receiving benefits | 11,776 | 11,481 |
| Former employees - vested but not yet receiving benefits | 3,953 | 3,789 |
| Former employees - non-vested | 4,348 | 3,837 |
| Vested active participants | 7,420 | 7,700 |
| Non-vested active participants | 3,982 | 3,879 |
| TOTAL PARTICIPANTS | 31,479 | 30,686 |

### *RETIREMENT ELIGIBILITY*

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

- Normal retirement eligibility at age 62 with five 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 service 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 five 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 30 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 eligible date on a participant's fully executed DROP election that is accepted by the System is the DROP Election Date.

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.

DROP balances for all active and inactive participants totaled $779.8 million in fiscal year 2023 and $725.4 million in fiscal year 2022.

### *GROUP D CASH BALANCE COMPONENT*

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 credited bi-weekly and 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%, divided by 26.

### *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.

### *CONTRIBUTIONS AND FUNDING POLICY*

All active participants are required to contribute to the System. Effective July 2018, Group A participants contribute 8% of salary, Group B participants contribute 4% of salary, and Group D participants contribute 2% of salary. Group D participants also contribute an additional 1% of salary.

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.

For the year ended June 30, 2023, the City Contribution Rate was 8.44% of payroll and the City Contribution Amount was $142,048,661. In fiscal year 2022, City Contribution Rate was 8.41% of payroll and the City Contribution Amount was $138,246,872.

## NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### *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 Annual Comprehensive Financial Report.

### *BASIS OF ACCOUNTING*

The accompanying basic financial statements have been prepared on the accrual basis of accounting and in accordance with generally accepted accounting principles (GAAP). Participant and employer contributions are recognized as revenues in the period in which they are due pursuant to the Pension Statute and formal recommitments. Investment income is recognized as additions when earned. The net appreciation/(depreciation) in the fair value of investments is recorded as an increase/(decrease) to investment income based upon investment valuations, which includes both realized and unrealized gains and losses on investments. Benefits and refunds are recognized when due and payable in accordance with the terms of the Pension Statute. Expenses are recognized when the liability is incurred.

### *INVESTMENT VALUATION AND INVESTMENTS TRANSACTIONS*

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. As the information provided by the general partners is less timely than public market information, estimates of fair value of limited partnerships and other alternative investment holdings are generally based on information that is quarter-lagged and cash-adjusted using cash flows subsequent to the latest report available. Therefore, there could be differences between the valuation of the limited partnerships and real estate trusts reported by the respective general partners and the valuation included in the financial statements for these investments.

Sales of investments and foreign exchange contracts are recorded on the trade date. Receivables are recorded when the sale has occurred but are pending final settlement. Purchases of investments and foreign exchange contracts are recorded on the trade date. Payables are recorded when the sale has occurred but are pending final settlement.

### *CAPITAL ASSETS*

Capital assets 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.

Included in capital assets are the right-to-use assets from lease contracts entered into by the System. The System implemented GASB No. 87 *Leases* (GASB 87) as of July 1, 2021.

The System recognizes lease contracts or equivalents that have a term exceeding one year and the cumulative future payments on the contract exceed $100,000 that meet the definition of an other than short-term lease. The System uses a discount rate that is explicitly stated or implicit in the contract. When a readily determinable discount rate is not available, the discount rate is determined using the System's incremental borrowing rate at the start of the lease for a similar asset type and term length to the contract. Short-term lease payments are expensed when incurred.

### *USE OF ESTIMATES*

The preparation of financial statements in conformity with GAAP 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.

### *NEW ACCOUNTING PRONOUNCEMENTS*

GASB Statement No. 96, ***Subscription-Based Information Technology Arrangements***. The primary objective of this statement is to increase the usefulness of governments' financial statements by requiring recognition of certain subscription-based agreements to be recognized as an intangible asset with a corresponding liability that previously were classified as administration expenses and recognized as outflows of resources based on the payment provisions of the contract. This statement was effective for the year ended June 30, 2023 for the System. The System examined the impact of their information technology arrangements for applicability of this statement and determined that the agreements met the definition of a short term subscription based information technology arrangement. Therefore, no intangible asset or corresponding liability was recorded.

GASB Statement No. 99, ***Omnibus 2022***. This statement makes amendments to various GASB Statements. Amendments made to Statement Nos. 87 and 96 will impact the System. This statement waseffective for the year ended June 30, 2023 for the System. Management assessed the applicability of the statement to their lease contract and subscription agreements and determined that no change in accounting was necessary.

GASB Statement No. 101, ***Compensated Absences***. This statement requires that liabilities be recognized for (1) leave that has not been used and (2) leave that has been used but not yet paid in cash or settled through noncash means. In estimating the leave that is more likely than not to be used or otherwise paid or settled, relevant factors such as employment policies related to compensated absences and historical information about the use or payment of compensated absences should be considered. This statement is effective for the year ending June 30, 2025 for the System. Management does not expect a significant impact to their reporting of compensated absences.

## NOTE 3 – NET PENSION LIABILITY

The components of the net pension liability of the City are as follows:

| | | JUNE 30, 2023 | | JUNE 30, 2022 |
|---|---|---|---|---|
| Total pension liability | $ | 5,698,777,055 | $ | 5,562,145,984 |
| Fiduciary net position | | 4,072,345,338 | | 3,952,350,770 |
| City's net pension liability | $ | 1,626,431,717 | $ | 1,609,795,214 |
| Plan fiduciary net position as a percentage of the total pension liability | | 71.46% | | 71.06% |

The total pension liability as of June 30, 2023, was determined by an actuarial valuation as of July 1, 2022, and rolled-forward using generally accepted actuarial principles. 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. As of the end of fiscal year 2022, the last experience study was performed in 2021 based on the 5-year period ending June 30, 2020. The following are the actuarial assumptions used to determine the total pension liability:

### *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 | 3.25% to 5.50% 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 2011 valuation pursuant to an experience study of the period 2015 – 2020. |
| Mortality | PUB-2010 Mortality Table, Amount weighted, Below-Median Income, with a 2-year set forward. The rates are then projected on a fully generational basis by the long-term rates of improvement of scale MP-2020. |
| Note | The actuarially determined contribution includes the Legacy Liability payment as specified by the July 1, 2016 Risk Sharing Valuation Study 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. |

### *DISCOUNT RATE*

The discount rate used to measure the total pension liability was 7.0%. The projection of cash flows used to determine the discount rate assumed that the System's contributions will continue to follow the current funding policy. Based on the actuarial assumptions applied, the System's fiduciary net position is projected to be available to make all projected future benefit payments of current plan members for all future years and hence, the blended GASB discount rate is equal to the long-term rate of return of 7.0%. Therefore, the long-term expected rate of return on pension plan investments of 7.0% was applied to all periods of projected benefit payments to determine the total pension liability. The table below illustrates the sensitivity of the City's net pension liability to changes in the discount rate if it were calculated using a single discount rate that is one percentage-point lower or one percentage point higher than the single discount rate.

| JUNE 30 | 1% DECREASE 6.0% | CURRENT DISCOUNT RATE 7.0% | 1% INCREASE 8.0% |
|---|---|---|---|
| 2023 | $ 2,202,978,779 | $ 1,626,431,717 | $ 1,141,454,667 |
| 2022 | $ 2,180,571,979 | $ 1,609,795,214 | $ 1,129,984,396 |

## NOTE 4 – 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 and U.S. Bank. As of June 30, 2023 and 2022, the System had fair value cash balances of $46,102,552 and $13,618,072, respectively. Management believes that the System's credit risk exposure is mitigated by the financial strength of the banking institutions in which the deposits are held.



## NOTE 5 – INVESTMENTS

The System invests in global equities and fixed income securities. A security is a transferable financial instrument that evidences ownership or creditorship. Decisions as to individual equity security selection, security size and quality, number of industries and holdings, current income levels, turnover, and other tools employed by active managers are left to the managers' discretion, subject to the standards of fiduciary prudence, as set out in the respective manager's Investment Management Agreement. Additionally, the System invests in commingled funds, limited partnerships, real estate trusts, and loans and mortgages that are evidenced by contracts rather than securities and classified as absolute return, inflation linked, private credit, private equity and real estate on the Statement of Net Position. 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.

This objective is accomplished through the System's asset allocation policy, as follows for June 30, 2023:

| ASSETS | TARGET ALLOCATION | ACTUAL ALLOCATION |
|---|---|---|
| Global equity | 28.0% | 29.4% |
| Private equity | 17.0% | 27.9% |
| Fixed income | 10.0% | 5.2% |
| Real estate | 12.5% | 9.9% |
| Absolute return | 0.0% | 3.2% |
| Inflation linked | 20.0% | 17.2% |
| Private credit | 12.5% | 3.7% |
| Cash | 0.0% | 3.5% |
| TOTAL | 100.0% | 100.0% |

### *CREDIT RISK*

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation to the System. The quality ratings of investments in fixed income securities are set forth in the Investment Policy Statement. All issues purchased by investment grade fixed income managers must be of investment grade quality, unless expressly authorized by the Board. Fixed income investments should emphasize high-quality and reasonable diversification.

The quality ratings of investment in fixed income securities as described by nationally recognized statistical rating organizations at June 30, 2023 and 2022, are as follows:

| QUALITY RATING | 2023 | | | 2022 | | |
|---|---|---|---|---|---|---|
| | | FAIR VALUE | PERCENTAGE | | FAIR VALUE | PERCENTAGE |
| AAA | $ | 2,308,782 | 1.01% | $ | 1,479,052 | 0.60% |
| AA | | 2,046,073 | 0.90% | | 977,168 | 0.40% |
| A | | 6,583,136 | 2.88% | | 4,088,597 | 1.66% |
| BBB | | 19,620,466 | 8.58% | | 21,892,924 | 8.88% |
| BB | | 10,005,596 | 4.38% | | 25,146,022 | 10.20% |
| B | | 24,090,586 | 10.54% | | 28,778,200 | 11.67% |
| CCC | | 24,694,363 | 10.80% | | 21,906,136 | 8.89% |
| Commingled funds | | 33,723,957 | 14.76% | | 54,881,101 | 22.26% |
| Not available | | 105,476,122 | 46.15% | | 87,393,015 | 35.44% |
| TOTAL | $ | 228,549,081 | 100.00% | $ | 246,542,215 | 100.00% |



### *CUSTODIAL CREDIT RISK*

For an investment, custodial credit 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 OF CREDIT 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 portfolio as ofJune 30, 2023 and 2022, contained no concentration of investments in any one entity that represented 5% or more of the total investment portfolio, excluding passive index funds.

### *INTEREST RATE RISK*

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, 2023, the following table shows the System's investments by type, fair value and the effective duration rate.

| | DOMESTIC | INTERNATIONAL | TOTAL | EFFECTIVE DURATION |
|---|---|---|---|---|
| Collateralized mortgage obligations | $ 2,787,863 | $ – | $ 2,787,863 | 3.2 |
| Convertible bonds | 487,103 | – | 487,103 | 0 |
| Corporate bonds | 74,820,337 | 10,364,333 | 85,184,670 | 5.8 |
| GNMA/FNMA/FHLMC | 24,683,436 | – | 24,683,436 | 5.4 |
| Municipal | 200,771 | – | 200,771 | 8.7 |
| Government issues | 23,672,814 | 2,435,740 | 26,108,554 | 8.2 |
| Misc. receivable (auto/credit card) | 3,118,737 | – | 3,118,737 | 1.2 |
| Other asset backed securities | 614,281 | – | 614,281 | N/A |
| Bank loan | 46,775,588 | 292,900 | 47,068,488 | N/A |
| Commingled funds | 38,295,178 | – | 38,295,178 | N/A |
| TOTAL | $ 215,456,108 | $ 13,092,973 | $ 228,549,081 | |



At June 30, 2022, the following table shows the System's investments by type, fair value and the effective duration rate.

| | DOMESTIC | INTERNATIONAL | TOTAL | EFFECTIVE DURATION |
|---|---|---|---|---|
| Collateralized mortgage obligations | $ 4,617,309 | $ – | $ 4,617,309 | 3.3 |
| Convertible bonds | 3,446,361 | 56,280 | 3,502,641 | 0.8 |
| Corporate bonds | 88,629,818 | 15,556,677 | 104,186,495 | 5 |
| GNMA/FNMA/FHLMC | 20,090,494 | – | 20,090,494 | 5.3 |
| Municipal | 369,754 | – | 369,754 | 10.6 |
| Government issues | 28,946,959 | 644,648 | 29,591,607 | 7.8 |
| Misc. receivable (auto/credit card) | 3,331,733 | – | 3,331,733 | 1.4 |
| Other asset backed securities | 976,121 | – | 976,121 | N/A |
| Bank loan | 24,470,061 | 524,900 | 24,994,961 | N/A |
| Commingled funds | 54,881,100 | – | 54,881,100 | N/A |
| TOTAL | $ 229,759,710 | $ 16,782,505 | $ 246,542,215 | |

### *FOREIGN CURRENCY RISK*

International securities investment managers are expected to maintain diversified portfolios by sector and by issuer in accordance with 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 at June 30, 2023 and 2022 as follows:

| | | 2023 FAIR VALUE | | 2022 FAIR VALUE |
|---|---|---|---|---|
| Australian dollar | $ | 8,879,414 | $ | 5,904,825 |
| Brazilian real | | 5,407,565 | | 3,602,144 |
| Canadian dollar | | 30,362,845 | | 16,843,300 |
| Chilean peso | | – | | 3,962 |
| Czech koruna | | 190,969 | | 261,638 |
| Danish krone | | 7,287,771 | | 5,064,183 |
| Euro currency | | 143,100,540 | | 103,842,798 |
| Hong Kong dollar | | 14,512,679 | | 14,869,668 |
| Hungarian forint | | 334,870 | | 417,906 |
| Indonesian rupiah | | 2,347,099 | | 2,115,396 |
| Japanese yen | | 43,373,598 | | 39,926,667 |
| Mexican peso | | 2,156,895 | | 1,227,727 |
| New Israeli sheqel | | 315,167 | | 59,841 |
| New Taiwan dollar | | 5,881,684 | | 5,597,444 |
| New Zealand dollar | | 138,718 | | – |
| Norwegian krone | | 545,732 | | 1,344,406 |
| Philippine peso | | 814,434 | | 296,601 |
| Polish zloty | | – | | 108,984 |
| Pound sterling | | 46,792,186 | | 36,662,291 |
| Singapore dollar | | 2,760,463 | | 2,301,335 |
| South African rand | | 995,166 | | 843,158 |
| South Korean won | | 3,095,258 | | 4,784,718 |
| Swedish krona | | 13,437,540 | | 12,777,969 |
| Swiss franc | | 17,602,205 | | 14,283,034 |
| Turkish lira | | 794,942 | | 927,813 |
| TOTAL | $ | 351,127,740 | $ | 274,067,808 |

### *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, 2023 and 2022, 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, 2023 and 2022, the liquidity pool had an average duration for United States dollar (USD) collateral of 11.84 and 7.74 days and an average weighted final maturity of 145.67 and 88.62 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 USD or whose primary trading market was located in the United States or sovereign debt issued by foreign governments, 102% of the market value of the loaned securities; and (ii) in the case of loaned securities not denominated in USD or whose primary trading market was not located in the United States, 105% 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. The System's securities lending program utilization level (on-loan balance as a percentage of lendable assets) is 5.2%.

In the event of a default by a borrower, at that time 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 following tables show the fair value measurements of the securities lent, cash collateral received, and the reinvested cash collateral at June 30, 2023 and 2022.

| | 2023 | | |
|---|---|---|---|
| | FAIR VALUE OF UNDERLYING SECURITIES LENT | CASH COLLATERAL RECEIVED | COLLATERAL REINVESTMENT VALUE |
| Domestic bond and equities | $ 59,772,612 | $ 60,705,974 | $ 60,705,974 |
| International equities | 323,453 | 322,970 | 322,970 |
| TOTAL | $ 60,096,065 | $ 61,028,944 | $ 61,028,944 |

| | 2022 | | |
|---|---|---|---|
| | FAIR VALUE OF UNDERLYING SECURITIES LENT | CASH COLLATERAL RECEIVED | COLLATERAL REINVESTMENT VALUE |
| Domestic bond and equities | $ 34,493,643 | $ 35,385,863 | $ 35,385,863 |
| International equities | 156,964 | 169,082 | 169,082 |
| TOTAL | $ 34,650,607 | $ 35,554,945 | $ 35,554,945 |

The System also held securities collateral that cannot be pledged or sold absent a borrower's default totaling $8,756,589 and $1,015,336 at June 30, 2023 and 2022, respectively. The securities collateral consists of US Treasury Bills and US Agency Bonds. 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 Net Position.

## NOTE 6 – 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 –*** Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the System has the ability to access.

***Level 2 –*** The System uses the following to determine the fair value of level 2 investments: 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 are disclosed as level 3 investments if they don't meet the definition of NAV practical expedient.

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, 2023:

| | FAIR VALUE AT JUNE 30, 2023 | QUOTED PRICES IN ACTIVE MARKETS (LEVEL 1) | SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2) | SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3) |
|---|---|---|---|---|
| Global equity and inflation linked | | | | |
| Energy | $ 348,532,390 | $ 348,532,390 | $ – | $ – |
| Consumer spending | 135,666,721 | 134,188,327 | – | 1,478,394 |
| Information technology | 104,424,309 | 104,424,309 | – | – |
| Industrials | 133,198,909 | 133,198,909 | – | – |
| Health care | 76,496,691 | 76,496,691 | – | – |
| Financials | 69,983,524 | 69,983,524 | – | – |
| Materials and utilities | 36,389,293 | 36,389,293 | – | – |
| Real estate | 8,687,123 | 8,687,123 | – | – |
| Other | 13,158,004 | 8,949,179 | – | 4,208,825 |
| TOTAL GLOBAL EQUITY AND INFLATION LINKED | 926,536,964 | 920,849,745 | – | 5,687,219 |
| Fixed income | | | | |
| Corporate bonds | 76,924,223 | – | 76,924,223 | – |
| U.S. agencies | 30,938,683 | – | 30,938,683 | – |
| Asset backed securities | 31,204,317 | – | 31,204,317 | – |
| Bank loans | 47,068,488 | – | 43,371,280 | 3,697,208 |
| International | 2,435,740 | – | 2,435,740 | – |
| Municipal bonds | 200,771 | – | 200,771 | – |
| Other | 1,481,681 | – | 599,931 | 881,750 |
| TOTAL FIXED INCOME | 190,253,903 | – | 185,674,945 | 4,578,958 |
| Short-term investment funds | 115,072,237 | – | 115,072,237 | – |
| Securities lending collateral arrangements | 61,028,944 | 61,028,944 | – | – |
| | $ 1,292,892,048 | $ 981,878,689 | $ 300,747,182 | $ 10,266,177 |
| Investments measured at NAV practical expedient | | | | |
| Global equity collective trusts | 579,078,666 | | | |
| Inflation-Linked collective trusts | 89,018,308 | | | |
| Fixed income collective trusts | 38,295,179 | | | |
| Absolute return hedge funds | 133,374,087 | | | |
| Real estate collective trust | 134,399,439 | | | |
| Inflation-Linked limited partnerships | 247,493,864 | | | |
| Private equity limited partnerships | 1,151,362,803 | | | |
| Private credit limited partnerships | 152,323,590 | | | |
| Real estate limited partnerships | 272,374,602 | | | |
| TOTAL INVESTMENTS MEASURED AT NAV | 2,797,720,538 | | | |
| TOTAL INVESTMENTS, AT FAIR VALUE | $ 4,090,612,586 | | | |

The following table presents fair value measurements as of June 30, 2022:

| | FAIR VALUE AT JUNE 30, 2022 | QUOTED PRICES IN ACTIVE MARKETS (LEVEL 1) | SIGNIFICANT OTHER OBSERVABLE INPUTS (LEVEL 2) | SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3) |
|---|---|---|---|---|
| Global equity and inflation linked | | | | |
| Energy | $ 299,589,913 | $ 299,589,913 | $ – | $ – |
| Consumer spending | 123,609,395 | 121,781,157 | – | 1,828,238 |
| Information technology | 100,815,279 | 100,815,279 | – | – |
| Industrials | 92,244,277 | 92,244,277 | – | – |
| Health care | 66,185,474 | 66,185,474 | – | – |
| Financials | 64,818,071 | 64,818,071 | – | – |
| Materials and utilities | 33,182,730 | 33,182,730 | – | – |
| Real estate | 4,513,257 | 4,513,257 | – | – |
| Other | 7,007,338 | 2,559,527 | – | 4,447,811 |
| TOTAL GLOBAL EQUITY AND INFLATION LINKED | 791,965,734 | 785,689,685 | – | 6,276,049 |
| Fixed income | | | | |
| Corporate bonds | 88,477,138 | – | 88,298,826 | 178,312 |
| U.S. Agencies | 43,316,672 | – | 43,316,672 | – |
| Asset backed securities | 29,015,657 | – | 29,015,657 | – |
| Bank loans | 23,157,960 | – | 21,314,097 | 1,843,863 |
| Other | 5,856,686 | – | 4,972,436 | 884,250 |
| TOTAL FIXED INCOME | 189,824,113 | – | 186,917,688 | 2,906,425 |
| Short-term investment funds | 177,418,509 | – | 177,418,509 | – |
| Securities lending collateral arrangements | 35,554,945 | 35,554,945 | – | – |
| | $ 1,194,763,301 | $ 821,244,630 | $ 364,336,197 | $ 9,182,474 |
| Investments measured at NAV practical expedient | | | | |
| Global equity collective trusts | 518,765,118 | | | |
| Inflation linked collective trusts | 83,586,219 | | | |
| Fixed income collective trusts | 56,718,102 | | | |
| Absolute return hedge funds | 130,356,439 | | | |
| Real estate collective trust | 135,360,065 | | | |
| Inflation linked limited partnerships | 222,348,123 | | | |
| Private equity limited partnerships | 1,238,474,768 | | | |
| Private credit limited partnerships | 104,326,507 | | | |
| Real estate limited partnerships | 285,845,653 | | | |
| TOTAL INVESTMENTS MEASURED AT NAV | 2,775,780,994 | | | |
| TOTAL INVESTMENTS, AT FAIR VALUE | $ 3,970,544,295 | | | |

The following table presents investments measured at NAV practical expedient as of June 30, 2023:

| | NAV | UNFUNDED COMMITMENTS | REDEMPTION FREQUENCY | REDEMPTION NOTICE PERIOD |
|---|---|---|---|---|
| Global equity collective trusts | $ 579,078,666 | $ – | Typically daily | Less than 1 month |
| Inflation linked collective trusts | 89,018,308 | – | Typically daily | Less than 1 month |
| Fixed income collective trusts | 38,295,179 | – | Typically daily | Less than 1 month |
| Absolute return hedge funds | 133,374,087 | – | Monthly, Quarterly, Semiannually or Annually | 30-90 days |
| Real estate collective trust | 134,399,439 | – | Typically daily | Less than 1 month |
| Inflation linked limited partnerships | 247,493,864 | 145,629,000 | Not applicable | Not applicable |
| Private equity limited partnerships | 1,151,362,803 | 331,904,000 | Not applicable | Not applicable |
| Private credit limited partnerships | 152,323,590 | 238,216,000 | Not applicable | Not applicable |
| Real estate limited partnerships | 272,374,602 | 172,048,000 | Not applicable | Not applicable |
| TOTAL | $ 2,797,720,538 | $ 887,797,000 | | |

The following table presents investments measured at NAV practical expedient as of June 30, 2022:

| | NAV | UNFUNDED COMMITMENTS | REDEMPTION FREQUENCY | REDEMPTION NOTICE PERIOD |
|---|---|---|---|---|
| Global equity collective trusts | $ 518,765,118 | $ – | Typically daily | Less than 1 month |
| Inflation linked collective trusts | 83,586,219 | – | Typically daily | Less than 1 month |
| Fixed income collective trusts | 56,718,102 | – | Typically daily | Less than 1 month |
| Absolute return hedge funds | 130,356,439 | – | Monthly, Quarterly, Semiannually or Annually | 30-90 days |
| Real estate collective trust | 135,360,065 | – | Typically daily | Less than 1 month |
| Inflation linked limited partnerships | 222,348,123 | 129,042,000 | Not applicable | Not applicable |
| Private equity limited partnerships | 1,238,474,768 | 397,580,000 | Not applicable | Not applicable |
| Private credit limited partnerships | 104,326,507 | 167,687,000 | Not applicable | Not applicable |
| Real estate limited partnerships | 285,845,653 | 174,870,000 | Not applicable | Not applicable |
| TOTAL | $ 2,775,780,994 | $ 869,179,000 | | |

### *GLOBAL EQUITY COLLECTIVE TRUSTS*

This category includes investments in collective trusts whose strategy is focused on emerging markets, international developed markets and domestic index funds. The administrators report the fair values of these trusts using the NAV provided by the administrator of the common collective trust. The System can redeem these funds on a daily basis with redemption frequency of usually one month.

### *INFLATION LINKED COLLECTIVE TRUSTS*

The inflation linked collective trust manager focuses on natural resources. The fund reports its fair value based on NAV and the shares can be redeemed on a daily basis with a notice period of less than one month.

### *FIXED INCOME COLLECTIVE TRUSTS*

Fixed income collective trusts strategies focus on active or passive fixed income securities. The fair values of funds in this category are determined using the NAV. Redemption frequency is daily with notices of less than one month.

### ABSOLUTE RETURN HEDGE FUNDS

This category consists of several different strategies: event driven, global macro, equity long and short, credit focused and multi-strategies. The event driven 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. Global macro funds seek to add value by accurately anticipating overall macroeconomic trends in various countries. Equity long and short 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. Credit focused hedge fund managers look for relative value between senior and junior securities of the same issuer. They will also trade securities ofequivalent credit quality from different corporate issues, or different tranches in complex capital structures such as mortgage-backed securities or collateralized loan obligations. The fair values of these hedge fund investments have been determined using the NAV provided by the administrator of the hedge fund. The System's hedge fund managers have monthly, quarterly, semiannual, and annual redemption frequencies with notices varying from 30 to 90 days.

### REAL ESTATE COLLECTIVE TRUST

This category includes investments in one collective trust with a real estate focus. The manager deploys active or passive strategies in real estate focused assets. The fair value of this category is determined using the NAV provided by the administrator and has unrestricted liquidity.

### INFLATION LINKED LIMITED PARTNERSHIPS

Inflation linked limited partnerships consist of investments in limited partnerships that invest in private companies focused in energy and commodities. The fair values of these investments have been determined using the NAV of the System's interest in the partnership provided by the General Partner. These funds cannot be redeemed because they are private market investments and distributions are determined by the General Partner. Inflation linked limited partnerships typically have at least 10-year terms.



### PRIVATE EQUITY LIMITED PARTNERSHIPS

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

### PRIVATE CREDIT LIMITED PARTNERSHIPS

The System invests in private credit limited partnerships. These investments are diversified by industry sector and geographic location but focused on debt instruments made to privately held companies. Fair value is determined using the NAV of the System's interest in the partnership as provided by the General Partner. Distributions from private credit limited partnerships are determined by the General Partner. These limited partnership funds have up to a 10-year term.

### REAL ESTATE LIMITED PARTNERSHIPS

This category includes investments in 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.

## NOTE 7 – DERIVATIVE FINANCIAL INSTRUMENTS

The System uses derivative financial instruments primarily to manage portfolio risk. Forward contracts and rights are marked to market and reported at fair value. Forward agreements are subject to the creditworthiness of the counterparties, which are principally large financial institutions. The System did not hold any derivatives as of June 30, 2023 and 2022.

For the year ended June 30, 2023 and 2022, the System recognized a loss of $2,934 and a loss of $7,818 related to derivatives as follows:

| | CHANGES IN FAIR VALUE | | |
|---|---|---|---|
| Investment Derivatives | Classification | 2023 | 2022 |
| FX forwards | Investment revenue | $ (2,406) | $ (7,495) |
| Rights | Investment revenue | (529) | (323) |
| Warrants | Investment revenue | 1 | – |
| TOTAL | | $ (2,934) | $ (7,818) |

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

### *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.

## NOTE 8 – CAPITAL ASSETS

Capital asset balances and activity as of and for the year ended June 30, 2023 is as follows:

| | June 30, 2022 | Additions | Deletions | June 30, 2023 |
|---|---|---|---|---|
| Right-to-use office space | $ 2,432,651 | $ – | $ – | $ 2,432,651 |
| Computer equipment | 924,880 | 80,955 | – | 1,005,835 |
| Leasehold improvements | 163,234 | – | – | 163,234 |
| Office furniture and equipment | 74,392 | – | – | 74,392 |
| | 3,595,157 | 80,955 | – | 3,676,112 |
| Less: Accumulated depreciation and amortization | (1,538,379) | (501,659) | – | (2,040,038) |
| TOTAL | $ 2,056,778 | $ (420,704) | $ – | $ 1,636,074 |

Depreciation and amortization expense for 2023 is $501,659.

The System is a lessee for a noncancellable lease of office space with lease terms through 2026. There are no residual value guarantees included in the measurement of the System's lease liability nor recognized as an expense for the year ended June 30, 2023. The System does not have any commitments that were incurred at the commencement of the leases. The System is not subject to variable equipment usage payments. No termination penalties were incurred during the fiscal year as the System did not terminate any leases.

The future principal and interest lease payments for the office space as of June 30, 2023, were as follows:

| YEAR ENDING JUNE 30, | PRINCIPAL | INTEREST | TOTAL |
|---|---|---|---|
| 2024 | $ 448,977 | $ 56,107 | $ 505,084 |
| 2025 | 476,854 | 37,641 | 514,495 |
| 2026 | 505,869 | 18,038 | 523,907 |
| 2027 | 174,227 | 1,454 | 175,681 |
| | $ 1,605,927 | $ 113,240 | $ 1,719,167 |

## NOTE 9 – POST EMPLOYMENT BENEFITS OTHER THAN PENSIONS

### *GENERAL INFORMATION ABOUT THE POST-EMPLOYMENT BENEFITS OTHER THAN PENSIONS TRUST*

The Post-Employment Benefits Other Than Pensions Trust (HMEPS OPEB Trust) is a single employer plan and is administered by the System. It was established in 2019. Sec. 3(f) of the Pension Statute authorizes the pension board to establish and amend employee benefit terms and financing requirements. HMEPS OPEB Trust assets are held separate from the Pension Plan.

The long-term expected rate of return on HMEPS 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 CLASS | TARGET ALLOCATION | LONG-TERM EXPECTED REAL RATE OF RETURN |
|---|---|---|
| Domestic equity – large cap | 25.50% | 3.10% |
| Domestic equity – small/mid cap | 10.70% | 3.75% |
| Non–US equity – developed | 6.00% | 4.25% |
| Non–US equity – emerging | 3.70% | 4.50% |
| US corporate bonds – core | 36.30% | 2.60% |
| US corporate bonds – high yield | 1.00% | 3.95% |
| US corporate bonds – short term | 10.70% | 2.15% |
| Real estate | 1.60% | 3.65% |
| Cash | 4.50% | 1.60% |
| TOTAL | 100.00% | |

### *BENEFITS PROVIDED*

Retired employees of the System are eligible to receive 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 five years after the employee's termination of employment.

Spouses of retired employees are eligible to receive retiree health care benefits. HMEPS-paid coverage continues for surviving spouses of deceased retired members as provided under the health benefit plan until age 65.

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. Medicare retirees can elect coverage through a Medicare Supplemental plan that is fully-subsidized by HMEPS.

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.

Retired System employees and dependents 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*

As of June 30, 2023 and 2022, there were 15 and 16 retirees or beneficiaries receiving OPEB benefits, respectively. Active plan members were 22 and 24 as of June 30, 2023 and 2022, respectively.

### *CONTRIBUTIONS*

The employer contributions are established by the System. The System's current intention is to contribute the plan's normal cost plus, as recommended by the System's actuary, 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.

### *NET OPEB ASSET*

The System's net OPEB asset was measured as of June 30, 2023, and the total OPEB asset used to calculate the net OPEB asset was determined by an actuarial valuation as of June 30, 2023.

### ACTUARIAL ASSUMPTIONS AND METHODS

| | |
|---|---|
| Valuation Date | June 30, 2023 |
| Methods and Assumptions Actuarial Cost Method | Individual Entry Age Normal |
| Discount Rate | 5.50% |
| Inflation | 2.25% |
| Salary Increases | 3.25% to 5.50%, including inflation |
| Demographic Assumptions | Based on the 2021 HMEPS experience study conducted for the pension plan. |
| Mortality | For healthy retirees, the gender-distinct Pub-2010 Amount-Weighted, Below-Median Income, General Employee, Healthy Retiree mortality tables with a 2-year set-forward are used. The rates are projected on a fully generational basis using the ultimate mortality improvement rates in the MP tables published through 2020 to account for future mortality improvements. |
| Health Care Trend Rates | Pre-65: Initial rate of 7.00% declining to an ultimate rate of 4.00% after 15 years; Post-65: Initial rate of 6. 00% declining to an ultimate rate of 4.00% after 11 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 | The pre-65 health care trend rates were updated to better reflect the plan's anticipated experience. |



### 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 HMEPS OPEB Trust investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits), and (2) a 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 5.50%; the municipal bond rate is 3.86% (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 5.50%.

The schedule of changes in the net OPEB asset for the year ended June 30, 2023 is as follows:

| | Total OPEB Liability | HMEPS OPEB Trust Fiduciary Net Position | Net OPEB Liability (Asset) |
|---|---|---|---|
| Beginning balance | $ 4,859,060 | $ 9,098,741 | $ (4,239,681) |
| Changes for the year | | | |
| Service cost | 139,240 | – | 139,240 |
| Interest on the total OPEB liability | 263,931 | – | 263,931 |
| Difference between expected and actual experience | (732,521) | – | (732,521) |
| Changes of assumptions | 41,521 | – | 41,521 |
| Net investment income | – | 610,904 | (610,904) |
| Benefit payments | (259,861) | (259,861) | – |
| Administrative expense | – | (50,202) | 50,202 |
| Net changes | (547,690) | 300,841 | (848,531) |
| Ending balance | $ 4,311,370 | $ 9,399,582 | $ (5,088,212) |

### SENSITIVITY OF NET OPEB ASSET TO THE SINGLE DISCOUNT RATE ASSUMPTION

Regarding the sensitivity of the net OPEB asset to changes in the discount rate, the following presents the HMEPS OPEB Trust's net OPEB asset calculated using a discount rate of 5.50% in 2023 and 5.50% in 2022, as well as what the trust's net OPEB asset would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher:

| YEARS ENDED JUNE 30, | 1% DECREASE 4.50% | CURRENT SINGLE RATE ASSUMPTION 5.50% | 1% INCREASE 6.50% |
|---|---|---|---|
| 2023 | $ 4,562,835 | $ 5,088,212 | $ 5,529,956 |
| 2022 | 3,635,572 | 4,239,681 | 4,743,803 |

### SENSITIVITY OF NET OPEB ASSET TO THE HEALTHCARE COST TREND RATE ASSUMPTION

Regarding the sensitivity of the net OPEB asset to changes in the healthcare cost trend rates, the following presents the trust's net OPEB asset, calculated using the assumed trend rates as well as what the trust's net OPEB asset would be if it were calculated using a trend rate that is one percentage point lower or one percentage point higher:

| YEARS ENDED JUNE 30, | 1% DECREASE | HEALTHCARE COST TREND RATE ASSUMPTION | 1% INCREASE |
|---|---|---|---|
| 2023 | $ 5,589,003 | $ 5,088,212 | $ 4,479,900 |
| 2022 | 4,839,733 | 4,239,681 | 3,504,428 |



### OPEB INCOME AND DEFERRED INFLOWS AND OUTFLOWS OF RESOURCES RELATED TO OPEB

For the year ended June 30, 2023, the System recognized OPEB income of $621,587. At June 30, 2023, the System reported deferred outflows of resources and deferred inflows of resources related to the HMEPS OPEB Trust from the following sources:

| | DEFERRED OUTFLOWS | DEFERRED INFLOWS |
|---|---|---|
| Changes in assumptions | $ 127,276 | $ 602,132 |
| Differences between expected and actual experiences | 441,991 | 780,349 |
| TOTAL | $ 569,267 | $ 1,382,481 |

At June 30, 2022, the System reported deferred outflows of resources and deferred inflows of resources related to the HMEPS OPEB Trust from the following sources:

| | DEFERRED OUTFLOWS | DEFERRED INFLOWS |
|---|---|---|
| Changes in assumptions | $ 123,616 | $ 1,075,968 |
| Differences between expected and actual experiences | 642,891 | 276,809 |
| TOTAL | $ 766,507 | $ 1,352,777 |

Amounts reported as deferred outflows and inflows of resources related to the Trust will be recognized in OPEB income as follows:

| YEARS ENDING JUNE 30, | NET DEFERRED OUTFLOWS (INFLOWS) |
|---|---|
| 2024 | $ (561,174) |
| 2025 | (286,379) |
| 2026 | 220,214 |
| 2027 | (151,335) |
| 2028 | (34,540) |
| TOTAL | $ (813,214) |

## NOTE 10 – 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. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans—an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32.*

## 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, 2023 and 2022, aggregate contributions for these eligible participants of the System were $366,645,645 and $370,005,820, respectively. In addition, terminated Group D members who have contributed to the Group D Cash Balance account are eligible to receive, upon request, their balance. The Cash Balance account distribution includes interest if the member has paid into the Cash Balance account for at least one year.

## 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 amountsin the System's financial statements.

The City's contribution rates are made and the actuarial information disclosed 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.

# REQUIRED SUPPLEMENTARY INFORMATION

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

| | YEARS ENDED JUNE 30, | | | | |
|---|---|---|---|---|---|
| | 2023 | 2022 | 2021 | 2020 | 2019 |
| TOTAL PENSION LIABILITY | | | | | |
| Service cost | $ 85,184,373 | $ 82,080,381 | $ 78,564,476 | $ 77,819,448 | $ 77,175,080 |
| Interest on the total pension liability | 381,016,497 | 371,952,435 | 363,611,089 | 356,429,609 | 349,592,612 |
| Benefit changes | – | – | – | – | – |
| Difference between expected and actual experience | 6,279,089 | 26,472,897 | (20,427,373) | (28,865,542) | (11,538,432) |
| Assumption changes | – | (29,515,658) | – | – | – |
| Benefit payments | (334,858,915) | (327,772,924) | (314,149,632) | (308,002,053) | (291,060,500) |
| Refunds | (989,973) | (1,132,782) | (402,017) | (649,551) | (1,393,772) |
| NET CHANGE IN TOTAL PENSION LIABILITY | 136,631,071 | 122,084,349 | 107,196,543 | 96,731,911 | 122,774,988 |
| TOTAL PENSION LIABILITY, beginning | 5,562,145,984 | 5,440,061,635 | 5,332,865,092 | 5,236,133,181 | 5,113,358,193 |
| TOTAL PENSION LIABILITY, ending (a) | $ 5,698,777,055 | $ 5,562,145,984 | $ 5,440,061,635 | $ 5,332,865,092 | $ 5,236,133,181 |
| PLAN FIDUCIARY NET POSITION | | | | | |
| Employer contributions | $ 204,895,256 | $ 197,340,533 | $ 184,762,098 | $ 176,430,316 | $ 176,261,043 |
| Employee contributions | 34,599,540 | 32,654,590 | 33,324,738 | 32,581,955 | 32,536,529 |
| Net investment income (loss) | 221,363,659 | 189,389,667 | 1,084,387,848 | (115,165,538) | 200,444,575 |
| Benefit payments | (334,858,915) | (327,772,924) | (314,149,632) | (308,002,053) | (291,060,500) |
| Refunds | (989,973) | (1,132,782) | (402,017) | (649,551) | (1,393,772) |
| Administrative expenses | (5,634,544) | (5,680,931) | (3,110,719) | (4,891,025) | (5,362,929) |
| Other | 619,545 | 465,948 | 486,833 | 484,351 | 709,841 |
| NET CHANGE IN PLAN FIDUCIARY NET POSITION | 119,994,568 | 85,264,101 | 985,299,149 | (219,211,545) | 112,134,787 |
| PLAN FIDUCIARY NET POSITION, beginning | 3,952,350,770 | 3,867,086,669 | 2,881,787,520 | 3,100,999,065 | 2,988,864,278 |
| PLAN FIDUCIARY NET POSITION, ending (b) | $ 4,072,345,338 | $ 3,952,350,770 | $ 3,867,086,669 | $ 2,881,787,520 | $ 3,100,999,065 |
| CITY'S NET PENSION LIABILITY, ending (a) - (b) | $ 1,626,431,717 | $ 1,609,795,214 | $ 1,572,974,966 | $ 2,451,077,572 | $ 2,135,134,116 |
| PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF TOTAL PENSION LIABILITY | 71.46% | 71.06% | 71.09% | 54.04% | 59.22% |
| COVERED PAYROLL | $ 710,461,828 | $ 678,350,255 | $ 642,917,152 | $ 625,055,807 | $ 614,451,273 |
| CITY'S NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL | 228.93% | 237.31% | 244.66% | 392.14% | 347.49% |

2022 – The assumption changes consist of changes in the mortality tables used in the most recent actuarial valuation.

2017 – The assumption changes consist of changes in the investment rate of return from 8.00% in 2016 to 7.00% in 2017, and changes to the inflation rate and salary increases assumptions. Benefit changes consisted of spousal survivor benefits, adjustment to the cost-of-living calculation, DROP interest rates, and employee contribution rates.

2016 – The assumption changes consist of changes in the investment rate of return from 8.50% in 2015 to 8.00% in 2016, and changes to the inflation rate and salary increases assumptions.

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

| | YEARS ENDED JUNE 30, | | | | |
|---|---|---|---|---|---|
| | 2018 | 2017 | 2016 | 2015 | 2014 |
| TOTAL PENSION LIABILITY | | | | | |
| Service cost | $ 78,148,819 | $ 75,960,564 | $ 68,968,481 | $ 59,465,512 | $ 61,480,204 |
| Interest on the total pension liability | 341,276,247 | 331,166,519 | 379,781,300 | 363,639,884 | 348,418,895 |
| Benefit changes | – | (724,683,000) | – | – | – |
| Difference between expected and actual experience | 19,157,801 | (38,387,084) | (16,194,133) | (22,057,834) | – |
| Assumption changes | – | 562,237,000 | 324,938,905 | – | – |
| Benefit payments | (283,928,131) | (280,455,603) | (253,178,363) | (234,954,625) | (221,925,083) |
| Refunds | (806,722) | (718,176) | (1,105,306) | (1,549,404) | (1,213,474) |
| NET CHANGE IN TOTAL PENSION LIABILITY | 153,848,014 | (74,879,780) | 503,210,884 | 164,543,533 | 186,760,542 |
| TOTAL PENSION LIABILITY, beginning | 4,959,510,179 | 5,034,389,959 | 4,531,179,075 | 4,366,635,542 | 4,179,875,000 |
| TOTAL PENSION LIABILITY, ending (a) | $ 5,113,358,193 | $ 4,959,510,179 | $ 5,034,389,959 | $ 4,531,179,075 | $ 4,366,635,542 |
| PLAN FIDUCIARY NET POSITION | | | | | |
| Employer contributions | $ 421,561,725 | $ 182,557,829 | $ 159,958,607 | $ 145,007,059 | $ 128,274,419 |
| Employee contributions | 27,904,931 | 15,901,600 | 15,873,664 | 16,198,216 | 16,579,600 |
| Net investment income | 231,815,128 | 290,910,717 | 27,639,567 | 73,370,310 | 352,522,858 |
| Benefit payments | (283,928,131) | (280,455,603) | (253,178,363) | (234,954,625) | (221,925,083) |
| Refunds | (806,722) | (718,176) | (1,105,306) | (1,549,404) | (1,213,474) |
| Administrative expenses | (6,441,960) | (6,826,559) | (7,360,139) | (7,007,422) | (6,414,668) |
| Other | (3,905,411) | 1,271,670 | 1,651,651 | 1,040,548 | – |
| NET CHANGE IN PLAN FIDUCIARY NET POSITION | 386,199,560 | 202,641,478 | (56,520,319) | (7,895,318) | 267,823,652 |
| PLAN FIDUCIARY NET POSITION, beginning | 2,602,664,718 | 2,400,023,240 | 2,456,543,559 | 2,464,438,877 | 2,196,615,225 |
| PLAN FIDUCIARY NET POSITION, ending (b) | $ 2,988,864,278 | $ 2,602,664,718 | $ 2,400,023,240 | $ 2,456,543,559 | $ 2,464,438,877 |
| CITY'S NET PENSION LIABILITY, ending (a) - (b) | $ 2,124,493,915 | $ 2,356,845,461 | $ 2,634,366,719 | $ 2,074,635,516 | $ 1,902,196,665 |
| PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF TOTAL PENSION LIABILITY | 58.45% | 52.48% | 47.67% | 54.21% | 56.44% |
| COVERED PAYROLL | $ 611,493,104 | $ 604,895,264 | $ 640,528,652 | $ 624,205,549 | $ 598,245,952 |
| CITY'S NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL | 347.43% | 389.63% | 411.28% | 332.36% | 317.96% |

## SCHEDULE 2: SCHEDULE OF CONTRIBUTIONS – PENSION PLAN

| Years Ended June 30, | Actuarially Determined Contribution | Actual Contribution | Contribution Deficiency (Excess) | Covered Payroll | Actual Contribution as a % of Covered Payroll |
|---|---|---|---|---|---|
| 2023 | $ 202,011,640 | $ 204,895,256 | $ (2,883,616) | $ 710,461,828 | 28.84% |
| 2022 | 195,296,129 | 197,340,533 | (2,044,404) | 678,350,255 | 29.09% |
| 2021 | 188,294,708 | 184,762,098 | 3,532,610 | 642,917,152 | 28.74% |
| 2020 | 182,950,467 | 176,430,316 | 6,520,151 | 625,055,807 | 28.23% |
| 2019 | 178,256,312 | 176,261,043 | 1,995,269 | 614,451,273 | 28.69% |
| 2018 | 423,989,344* | 421,561,725* | 2,427,619 | 611,493,104 | 68.94% |
| 2017 | 184,732,840 | 182,557,829 | 2,175,011 | 604,895,264 | 30.18% |
| 2016 | 162,229,984 | 159,958,607 | 2,271,377 | 640,528,652 | 24.97% |
| 2015 | 155,299,296 | 145,007,059 | 10,292,237 | 224,205,549 | 23.23% |
| 2014 | 144,953,327 | 128,274,419 | 16,678,908 | 598,245,952 | 21.44% |



* The Actuarially Determined Contribution and the Actual Contribution includes the Pension Obligation Bond proceeds of $250 million.

## SCHEDULE 3: SCHEDULE OF INVESTMENT RETURNS – PENSION PLAN

| Years Ended June 30, | Annual Return |
|---|---|
| 2023 | 6.06% |
| 2022 | 5.03% |
| 2021 | 38.61% |
| 2020 | -3.72% |
| 2019 | 6.20% |
| 2018 | 8.72% |
| 2017 | 12.18% |
| 2016 | 0.90% |
| 2015 | 3.47% |
| 2014 | 16.42% |



The annual money-weighted rate of return is presented net of investment expenses.

# NOTES TO PENSION PLAN: REQUIRED SUPPLEMENTARY INFORMATION YEAR ENDED JUNE 30, 2023

The required employer contributions and percent of those contributions actually made are presented in Schedule 2. Additional information as of the latest actuarial valuation is presented in the table below.

Valuation Date: July 1, 2022

***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 2023 which was determined by the July 1, 2022 actuarial valuation. These assumptions are not the same as those used to determine the Net Pension Liability as of June 30, 2023.

### *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 | 25 Years |
| Asset Valuation Method | 5-year smoothed market, direct offset of deferred gains and losses |
| Inflation | 2.25% |
| Salary Increases | 3.25% to 5.50% including inflation |
| Investment Rate of Return | 7.00% |
| Retirement Age | Experience-based table of rates that are specific to the type ofeligibility condition. Last updated for the 2021 valuation pursuant to an experience study of the period 2015 – 2020. |
| Mortality | PUB-2010 Mortality Table, Amount weighted, Below-Median Income, with a 2-year set forward. The rates are then projected on a fully generational basis by the long-term rates of improvement of MP-2020. |
| Other Information | The actuarially determined contribution includes the Legacy Liability payment as specified by the July 1, 2016 Risk Sharing Valuation Study 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 CHANGES IN NET OPEB (ASSET) LIABILITY AND RELATED RATIOS

| | FISCAL YEARS ENDED JUNE 30, | | | | | |
|---|---|---|---|---|---|---|
| | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 |
| TOTAL OPEB LIABILITY | | | | | | |
| Service cost | $ 139,240 | $ 127,908 | $ 171,320 | $ 169,765 | $ 300,656 | $ 358,166 |
| Interest on the total OPEB liability | 263,931 | 269,280 | 379,793 | 397,308 | 301,552 | 283,797 |
| Changes of benefit terms | – | – | (1,696,364) | – | – | – |
| Difference between expected and actual experience | (732,521) | 1,144 | (444,806) | (4,597) | 117,646 | (14,484) |
| Changes of assumptions | 41,521 | 153,588 | – | (639,768) | (2,162,853) | (74,720) |
| Benefit payments | (259,861) | (233,825) | (226,418) | (204,375) | (195,451) | (135,914) |
| NET CHANGE IN TOTAL OPEB LIABILITY | (547,690) | 318,095 | (1,816,475) | (281,667) | (1,638,450) | 416,845 |
| TOTAL OPEB LIABILITY, beginning | 4,859,060 | 4,540,965 | 6,357,440 | 6,639,107 | 8,277,557 | 7,860,712 |
| TOTAL OPEB LIABILITY, ending (a) | $ 4,311,370 | $ 4,859,060 | $ 4,540,965 | $ 6,357,440 | $ 6,639,107 | $ 8,277,557 |
| PLAN FIDUCIARY NET POSITION | | | | | | |
| Employer contributions | $ – | $ – | $ 174,900 | $ 169,765 | $ 8,473,008 | $ 135,914 |
| Non-employer contributing entities contributions | – | – | – | – | – | – |
| Employee contributions | – | – | – | – | – | – |
| Net investment income (loss) | 610,904 | (1,186,966) | 2,063,029 | 262,978 | 113,972 | – |
| Benefit payments | (259,861) | (233,825) | (226,418) | (204,375) | (195,451) | (135,914) |
| Administrative expenses | (50,202) | (56,363) | (50,330) | – | – | – |
| Other | – | – | (89) | (5,094) | – | – |
| NET CHANGE IN PLAN FIDUCIARY NET POSITION | 300,841 | (1,477,154) | 1,961,092 | 223,274 | 8,391,529 | – |
| PLAN FIDUCIARY NET POSITION, beginning | 9,098,741 | 10,575,895 | 8,614,803 | 8,391,529 | – | – |
| PLAN FIDUCIARY NET POSITION, ending (b) | $ 9,399,582 | $ 9,098,741 | $ 10,575,895 | $ 8,614,803 | $ 8,391,529 | $ – |
| SYSTEM'S NET OPEB (ASSET) LIABILITY, ending (a) - (b) | $ (5,088,212) | $ (4,239,681) | $ (6,034,930) | $ (2,257,363) | $ (1,752,422) | $ 8,277,557 |
| PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF TOTAL OPEB LIABILITY | 218.02% | 187.25% | 232.90% | 135.51% | 126.40% | N/A |
| COVERED EMPLOYEE PAYROLL | $ 2,404,645 | $ 2,324,574 | $ 2,230,751 | $ 2,195,389 | $ 1,968,659 | $ 2,104,735 |
| SYSTEM'S NET OPEB (ASSET) LIABILITY AS A PERCENTAGE OF COVERED EMPLOYEE PAYROLL | -211.60% | -182.39% | -270.53% | -102.82% | -89.02% | 393.28% |

## *NOTES TO SCHEDULE:*

2023 – The pre-65 health care trend rates were updated to better reflect the plan's anticipated experience.

2022 – Changes of assumptions reflect the discount rate change from 6.00% as of June 30, 2021 to 5.50% as of June 30, 2022. Additionally, the demographic and salary increase assumptions were updated to reflect the 2021 HMEPS experience study.

2021 – Changes of benefit terms reflect offering a fully-subsidized Medicare Supplemental plan to eligible retirees.

2020 – Changes of assumptions reflect the removal of the liability associated with the "Cadillac Tax."

2019 – 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.

## SCHEDULE 5: SCHEDULE OF CONTRIBUTIONS – HMEPS OPEB TRUST

| Years Ended June 30, | Actuarially Determined Contribution | Actual Contribution | Contribution Deficiency (Excess) | Covered Employee Payroll | Actual Contribution as a % of Covered Payroll |
|---|---|---|---|---|---|
| 2023 | N/A* | $ – | $ – | $ 2,404,645 | 0.00% |
| 2022 | N/A* | – | – | 2,324,574 | 0.00% |
| 2021 | – | 174,900 | (174,900) | 2,230,751 | 7.84% |
| 2020 | – | 169,765 | (169,765) | 2,195,389 | 7.73% |
| 2019 | N/A** | – | – | – | 0.00% |

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

*Due to the size of the current asset surplus, the System's actuary recommended in the 2021 GASB74/75 report that no employer contributions be made for fiscal year 2023 and 2022.

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

**Valuation Date:** July 1, 2021

Notes The actuarially determined contribution for the fiscal year ending June 30, 2023 was developed in the June 30, 2021 valuation.

### *METHODS AND ASSUMPTIONS USED TO DETERMINE CONTRIBUTION RATES*



| | |
|---|---|
| Actuarial Cost Method | Individual Entry-Age Normal |
| Inflation | 2.25% |
| Investment Rate of Return | 6.00%, net of investment expenses, including inflation of 2.25% |
| Salary Increases | 3.25% to 5.50% 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 | For healthy retirees, the gender-distinct RP-2000 Combined Healthy Mortality Tables with Blue Collar Adjustment. Male rates are multiplied by 125% and female rates multiplied by 112%. The rates are projected on a fully generational basis by Scale BB toaccount for future mortality improvements. |
| Healthcare Cost Trend Rates | Pre-65: Initial rate of 6.80% declining to an ultimate rate of 4.00% after 13 years; Post-65: Initial rate of 6.20% declining to an ultimate rate of 4.00% after 13 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. |
| Other Information: | |
| Notes | The investment rate of return was lowered to 5.50% effective June 30, 2022. However, that will not impact the actuarially determined contribution until fiscal year 2025. |

The actuarial assumptions which are specific to the OPEB valuation are reviewed during each valuationand adjusted when deemed necessary. There were no assumption changes for this valuation.

## SCHEDULE 6: SCHEDULE OF INVESTMENT RETURNS – HMEPS OPEB TRUST

| Years Ended June 30, | Annual Money-Weighted Rate of Return |
|---|---|
| 2023 | 6.68% |
| 2022 | -11.22% |
| 2021 | 23.96% |
| 2020 | 3.62% |
| 2019 | N/A* |



The annual money-weighted rate of return is presented 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.

# SUPPLEMENTARY INFORMATION

# SCHEDULE 7: INVESTMENT SUMMARY

| | JUNE 30,2023 | | | | |
|---|---|---|---|---|---|
| | | COST | | FAIR VALUE | | UNREALIZED APPRECIATION (DEPRECIATION) |
| Absolute return | $ | 79,625,917 | $ | 133,374,087 | $ | 53,748,170 |
| Fixed income | | 233,604,602 | | 228,549,081 | | (5,055,521) |
| Global equity | | 856,481,249 | | 1,160,983,325 | | 304,502,076 |
| Inflation-Linked | | 477,857,376 | | 681,144,478 | | 203,287,102 |
| Private credit | | 104,406,447 | | 152,323,590 | | 47,917,143 |
| Private equity | | 471,235,419 | | 1,151,362,803 | | 680,127,384 |
| Real estate | | 281,697,050 | | 406,774,041 | | 125,076,991 |
| Securities lending collateral arrangements | | 61,028,944 | | 61,028,944 | | – |
| Short-term investments | | 115,072,237 | | 115,072,237 | | – |
| TOTAL INVESTMENTS | $ | 2,681,009,241 | $ | 4,090,612,586 | $ | 1,409,603,345 |

| | JUNE 30,2022 | | | | | |
|---|---|---|---|---|---|---|
| | | COST | | FAIR VALUE | | UNREALIZED APPRECIATION (DEPRECIATION) |
| Absolute return | $ | 84,728,706 | $ | 130,356,439 | $ | 45,627,733 |
| Fixed income | | 277,996,500 | | 246,542,215 | | (31,454,285) |
| Global equity | | 839,628,610 | | 1,024,544,790 | | 184,916,180 |
| Inflation-Linked | | 451,899,185 | | 592,120,405 | | 140,221,220 |
| Private credit | | 71,739,796 | | 104,326,507 | | 32,586,711 |
| Private equity | | 483,753,814 | | 1,238,474,767 | | 754,720,953 |
| Real estate | | 284,229,581 | | 421,205,718 | | 136,976,137 |
| Securities lending collateral arrangements | | 35,554,945 | | 35,554,945 | | – |
| Short-term investments | | 177,418,509 | | 177,418,509 | | – |
| TOTAL INVESTMENTS | $ | 2,706,949,646 | $ | 3,970,544,295 | $ | 1,263,594,649 |

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.

## SCHEDULE 8: INVESTMENT EXPENSES, PROFESSIONAL SERVICES, AND ADMINISTRATIVE EXPENSES

| | Year ended June 30, 2023 | 2022 |
|---|---|---|
| **INVESTMENT EXPENSE** | | |
| Custodial services* | $ 812,467 | $ 551,005 |
| Investment management services* | 6,947,718 | 6,587,556 |
| Consulting services* | 879,833 | 832,000 |
| Legal services* | 44,143 | 58,258 |
| Office and other operating costs | 97,660 | 86,452 |
| Other investment expenses | 1,190,330 | 1,053,771 |
| TOTAL INVESTMENT EXPENSES | $ 9,972,151 | $ 9,169,042 |
| | | |
| **PROFESSIONAL SERVICES** | | |
| Actuarial services* | $ 87,419 | $ 99,266 |
| Auditing* | 59,000 | 50,520 |
| Legal services* | 82,518 | 193,443 |
| Information technology consulting services* | 595,602 | 331,689 |
| Government representation* | 360,560 | 327,600 |
| Other professional services* | 37,470 | 53,688 |
| TOTAL PROFESSIONAL SERVICES | $ 1,222,569 | $ 1,056,206 |
| | | |
| **ADMINISTRATION EXPENSES** | | |
| Office and other operating costs | $ 890,168 | $ 1,540,766 |
| Insurance costs | 305,503 | 282,065 |
| Cost of staff and benefits | 3,837,891 | 3,404,056 |
| OPEB income | (621,587) | (602,162) |
| TOTAL ADMINISTRATION EXPENSES | $ 4,411,975 | $ 4,624,725 |

*See details on next page.

# SCHEDULE 9: SUMMARY OF COSTS OF INVESTMENT AND PROFESSIONAL SERVICES

| INVESTMENT EXPENSES | YEAR ENDED JUNE 30, 2023 | 2022 |
|---|---|---|
| **INVESTMENT MANAGER FEES** | | |
| Baillie Gifford International LLC | $ 184,330 | $ 56,232 |
| Baillie Gifford Overseas Ltd. | 528,578 | 525,195 |
| BlackRock | 210,017 | 231,594 |
| Cohen & Steers Capital Management, Inc. | 376,711 | 270,312 |
| DePrince, Race and Zollo, Inc. | 478,043 | 457,187 |
| Global Forest Partners, LP | – | 24,007 |
| Globeflex Capital, LP | 294,693 | 314,795 |
| Invesco | 574,631 | 525,925 |
| Loomis, Sayles and Company, LP | 35,917 | 260,598 |
| Loop Capital LLC | 145,453 | – |
| Neumeier Investment Counsel, LLC | 893,333 | 936,681 |
| Polen Capital Credit, LLC (formerly DDJ Capital) | 519,728 | 405,478 |
| Pugh Capital Management | 170,294 | 201,959 |
| Salient Capital Advisors, LLC | 311,082 | 591,137 |
| Schroder Investment Management | 211,888 | 160,625 |
| Smith Graham & Company | 111,423 | 190,968 |
| State Street Global Advisors | 388,412 | 358,566 |
| T. Rowe Price Associates, Inc. | 368,526 | 518,091 |
| Tortoise Capital Advisors | 798,259 | 558,206 |
| Westwood Management Corp. | 346,400 | – |
| TOTAL | $ 6,947,718 | $ 6,587,556 |
| **CUSTODIAL SERVICES** | | |
| State Street Bank and Trust Company | $ 812,467 | $ 551,005 |
| **INVESTMENT CONSULTING FEES** | | |
| Wilshire Associates, Incorporated | $ 284,000 | $ 282,000 |
| Cliffwater LLC | 595,833 | 550,000 |
| TOTAL | $ 879,833 | $ 832,000 |
| **LEGAL SERVICES (INVESTMENT)** | | |
| DLA Piper LLP | $ 369 | $ 12,873 |
| Jackson Walker LLP | – | 7,718 |
| Locke Lord LLP | 43,774 | 37,668 |
| TOTAL | $ 44,143 | $ 58,259 |

| PROFESSIONAL SERVICES | YEAR ENDED JUNE 30, 2023 | 2022 |
|---|---|---|
| **ACTUARY** | | |
| Gabriel, Roeder, Smith & Co. | $ 87,419 | $ 99,266 |
| **AUDITING** | | |
| Moss Adams LLP | $ 59,000 | $ – |
| Weaver and Tidwell LLP | – | 50,520 |
| TOTAL | $ 59,000 | $ 50,520 |
| **LEGAL SERVICES** | | |
| Baker Botts, LLP | $ 59,227 | $ 119,529 |
| Ice Miller, LLP | – | 59,754 |
| Jackson Walker, LLP | 17,531 | 14,160 |
| Locke Lord, LLP | 5,760 | – |
| TOTAL | $ 82,518 | $ 193,443 |
| **INFORMATION TECHNOLOGY SERVICES** | | |
| Segal Consulting | $ 595,602 | $ 331,689 |
| **GOVERNMENTAL REPRESENTATION** | | |
| HillCo Partners, LLC | $ 102,000 | 102,000 |
| Locke Lord LLP | 234,060 | 225,600 |
| Harris Law Firm | 24,500 | – |
| TOTAL | $ 360,560 | $ 327,600 |
| **OTHER PROFESSIONAL SERVICES** | | |
| Edge Accountants and Advisors, LC | $ 4,125 | $ – |
| Exam Coordinators Network | 845 | – |
| Hankinson, PLLC | – | 5,250 |
| KLM Public Affairs, LLC | 32,500 | 30,000 |
| Pearl Meyer & Partners, LLC | – | 18,438 |
| TOTAL | $ 37,470 | $ 53,688 |

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