EMPLOYEES' RETIREMENT SYSTEM

City of Baltimore, Maryland

Lexington Street circa 1925

ERS
EMPLOYEES' RETIREMENT SYSTEM
of the CITY OF BALTIMORE

Annual Comprehensive Financial Report

Year Ended June 30, 2023

Pension Trust of the City of Baltimore

EMPLOYEES' RETIREMENT SYSTEM

City of Baltimore, Maryland

Lexington Street circa 1925

Annual Comprehensive Financial Report

Year Ended June 30, 2023

Pension Trust of the City of Baltimore

PREPARED BY

DAVID A. RANDALL, *Executive Director*

NICHELLE LASHLEY, *Deputy Executive Director*

ADETUTU TALABI, *Senior Investment Manager*

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Employees' Retirement System

Mission Statement

The System is committed to protecting and prudently investing member assets and providing accurate and timely retirement benefits with quality service to members and beneficiaries. ERS will continually apply the principles of responsible investing and strive to balance social responsibility with its fiduciary duty to provide strong long-term investment results to the System.

Standards of Conduct

As Trustees and Staff, we are committed to:

Safeguard the members' assets.

Strive for continuous improvement.

Maintain confidentiality as appropriate.

Effectively communicate accurate information.

Provide accountable and proactive leadership.

Conduct all business in a fair and respectful manner.

Foster an atmosphere of cooperation and teamwork.

Value members as clients and advocate on their behalf.

Comply with the System's plan provisions, policies and guidelines.

Work efficiently, simplify procedures, and minimize bureaucratic hurdles.

Form alliances and partnerships to benefit the membership and the System.

Balance Environmental, Social and Governance (ESG) investing with fiduciary duty to obtain strong long-term investment results.

We expect all who interact with us to adhere to these standards of conduct.

Employees' Retirement System
City of Baltimore, Maryland
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INTRODUCTORY SECTION

Baltimore, Maryland, circa 1873, looking northeast

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Employees' Retirement System
City of Baltimore, Maryland

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2022

Christopher P. Morrill

Executive Director/CEO

CITY OF BALTIMORE

BRANDON M. SCOTT, Mayor

EMPLOYEE'S RETIREMENT SYSTEM,
ELECTED OFFICIALS' RETIREMENT SYSTEM
and RETIREMENT SAVINGS PLAN

DAVID A. RANDALL, Executive Director
7 E. Redwood Street
11th,12th and 13th Floors
Baltimore, Maryland 21202

November 21, 2023

The Board of Trustees and
Members of the Employees' Retirement System
Baltimore, Maryland

I am pleased to present the Annual Comprehensive Financial Report (ACFR) of the Employees' Retirement System of the City of Baltimore, Maryland (ERS), a pension trust of the City of Baltimore, Maryland, for the fiscal year ended June 30, 2023. Responsibility for the accuracy of the data and the completeness of the presentation, including all disclosures, rests with the management. We believe this report is accurate in all material respects and reported in a manner designed to present fairly the financial position and results of ERS' operations.

For financial reporting purposes, the System adheres to accounting principles generally accepted in the United States, which requires that management provide a narrative introduction, overview, and analysis of the financial statements of the System in the form of a Management Discussion and Analysis (MD&A). The System applies all applicable pronouncements of the Governmental Accounting Standards Board (GASB). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The MD&A can be found immediately following the Independent Auditor's Report in the Financial Section, on page 18.

Profile of the Plan

The ERS is a defined benefit contributory plan established January 1, 1926, by legislation, for eligible members who are employed in the general administrative service of the City and for certain non-teacher employees of the Baltimore City Public School System. All System-related administrative and benefit provisions are established by City Ordinance, as contained in Article 22 of the Baltimore City Code and are amended only by the Mayor and City Council. A summary of Plan provisions is presented on pages 72 through 81. The number of active, retired, and deferred members, as well as beneficiaries of the Plan can be found in the Notes to Basic Financial Statements starting on page 24.

Major Initiatives

Accounting System: During the fiscal year, we transitioned our accounting system to a new cloud-based ERP system. The new system is a user-friendly system that helps our telework initiative as staff members can securely access key data anytime, anywhere. The conversion has been seamless, and we continued to enjoy the support of our implementation consultants.

Fossil Fuel Divestment: The implementation of ordinance 21-043 that was signed into law continued through the year. The law required at least a 20% divestment incrementally every June 1 for 5 years. All our investment managers complied with the law and a total of 40% has been divested so far.

Information Technology: During fiscal year 2023, we continued with the strengthening of our IT systems by replacing all devices that manufacturers were discontinuing support from and upgraded our network configurations into subnets to increase security and efficiency. These improvements have the benefit of reducing maintenance costs and driving operational efficiencies.

Retirement Services Portal: Since the onset of Covid-19, our members have had the opportunity to apply for retirement electronically using the mail system and emails. During fiscal year 2023, we expanded the services to include secure digital upload portal for members applying for retirement and/or disability. Our members are now able to submit documents containing sensitive information securely without the fear of interception and the documents falling into the wrong hands.

System Integrations: During fiscal year 2023, we continued to improve the new ERP system integrations with the system's employers. Baltimore City implemented the Workday system in 2020 and we have been part of the implementation and control teams working through the kinks. Our second employer, Baltimore City Public Schools, is also in the process of implementing a new ERP system and talks are ongoing for us to be included. Our participation with these implementations is to ensure that members information data are received timely and accurately.

Document Management System: The multi-year project continued through 2023. During the fiscal year, we completed the conversion of members' physical files into digital format and added to our document imaging system.

Investment Summary

The System's investment objective is to earn or exceed the actuarial assumption rate of 7.0% and to outperform its policy benchmark. The Board of Trustees (Board) who serves as fiduciary is responsible for investment of the System's assets in accordance with the approved asset allocation. Asset allocation for investment of the Plan's assets is comprised of 18% fixed income, 22% US equity, 15% non-US equity, 7% defensive equity,15% real estate, 4% low volatility equity, 4% private debt and 15% private equity. The Board is also responsible for establishing reasonable investment objectives and policy guidelines, selecting investment managers, and evaluating performance results; and ensuring adherence to guidelines, as well as achievement of the System's objectives. The Board has a fiduciary duty to exercise its investment authority prudently and solely in the interest of the System's participants and beneficiaries.

For the fiscal year ended June 30,2023, ERS posted an overall return of 6.4%, outperformed its policy benchmark return of 6.0% by a margin of 0.4%, but underperformed the actuarial assumption rate of 7.00% by 0.6%. Current investment performance for the three-, five- and ten-year periods are strong with annualized returns of 9.6%, 7.2% and 8.0%, respectively. The Board utilizes external portfolio managers in active and passive strategies for investment of the System's assets. The managers are monitored and evaluated by the Board and the Investment Consultants. Further analysis is available in the investment section beginning on page 45 of this report.

Actuarial and Funding Results

Government Finance Officers Association (GFOA) recommends that an actuarial experience study be performed at least every five years. The system's board of trustees, however, adopted a policy to perform experience study every four years. An experience study is a review of demographic and economic assumptions. The study reviews the last four actuarial valuations, anticipates broader economic changes, and proposes adjustments to the actuarial assumptions to be used for future valuations. The system conducted an actuarial study at the end of fiscal year 2022, as a result, some assumptions were changed. The salary increase rate was changed to salary scale by age and as a result, there were increases for most ages. The mortality rates assumption was also changed for actives, retirees, and disabled members. The mortality assumptions remained Pub-2010(B) but the percentages were changed. The scale also changed to 2026 projection using scale MP-2021. The changes resulted in an increase in the system's cost from 20.32% to 20.89% of pay. An increase of 0.57%.

An actuarial valuation report is prepared annually by the Board's Actuary, Cheiron Inc., to apply appropriate assumptions and determine funding requirements. As of June 30, 2023, ERS fair value of assets increased from $1.97 billion to $2.03 billion, a 3% increase over the fiscal year 2022 net value of assets. The Total Pension Liability (TPL) on June 30, 2023, was $2.67 billion. Compared with the fair value of assets of $2.03 billion, there is a Net Pension Liability (NPL) of $0.64 billion as provided on page 34. This represents an increase of $9.60 million in NPL from fiscal year 2022. The main reasons for the increase are the salary rate increase and mortality assumption changes. The NPL is the Total Pension Liabilities (TPL) less the Plan Fiduciary Net Position (FNP). All data related to GASB 67 is provided in the required supplemental section and in the notes to the basic financial statements.

For funding purposes, the actuarial liability of $2.67 billion was based on a discount rate assumption of 7.0% for active members and 6.5% for retired members. The actuarial value of assets, which is a smoothed asset value used for funding purposes was $2.14 billion as of June 30, 2023. When compared to the actuarial liability, there was an unfunded actuarial liability of $0.53 billion. The System's actuarial funded ratio, which is the ratio of actuarial assets to actuarial liability, increased from 79.9% last year to 80.0%. This increase is due to the funding policy adopted by the board, which provides for the unfunded actuarial liability to be amortized over a period of 20 years.

Normal cost, which is the cost for earning an additional year of pension service increased from 7.38% to 7.69%. The board's adopted policy of a fixed 20-year amortization period to achieve 100% funding was scheduled through the plan year ending June 30, 2031, but a one-year, one-time extension was adopted as of June 30, 2019. There are now 9 years of amortization periods remaining and 100% funding target is June 30, 2032.

The required employer contribution is determined actuarially, based on the normal cost of accrual of benefits and amortization of the unfunded actuarial liability offset by employee contributions. The recommended net lump sum City contribution increased by $6.00 million from $92,637,051 in fiscal year 2021 to $98,640,176 for fiscal year 2022. The employer's contribution decreased by $3.85 million to $94,788,090 for the fiscal year 2023. Overall, this represents an increase as a percentage of payroll from 20.35% to 22.45% in fiscal year 2022 and then a decrease to 20.67% in fiscal year 2023.

Accounting Systems and Internal Control

This report has been prepared in accordance with the principles of governmental accounting and reporting promulgated by GASB. The accrual basis of accounting is used to record assets and liabilities, and revenues and expenses. Revenues for the ERS are recorded when earned regardless of the date of collection, and expenses are recorded when liabilities are incurred regardless of when payment is made.

The System's administration assumes full responsibility for establishing and maintaining adequate internal controls and for the financial information contained in this report. Proper internal accounting and control exists to provide reasonable, but not absolute, assurance regarding the security of assets and the fair presentation of the financial statements and supporting schedules. Documented procedures, use of control cycles of work duties and other internal control policies are available for major job functions and operating processes. They are implemented thoughtfully and consistently. Management also understands that executing reasonable assurance of an internal control framework, the cost of control should not exceed the anticipated benefits, and that the reasonable cost benefit framework requires management to make some estimates and/ or justifications.

Other Information

Independent Auditor: The Baltimore City Code requires that the City's Board of Estimates select an independent auditor for the Retirement System, and that the auditor report findings annually to the Board of Estimates and to the Board of Trustees. The Board of Estimates elected to have UHY, LLP render an opinion as to the fairness of the System's financial statements. The auditor's report is contained in the Financial Section of this report.

Professional Services: The Board appoints consultants and investment managers, subject to approval by the City's Board of Estimates. These professionals are chosen based on their ability to provide services that are essential to the effective and efficient operation of the System. Trustees are also required to monitor and terminate investment managers as necessary for underperformance, or for other material reasons as determined by the Board. All the professionals that provide services to the Board are listed on pages 13 and 56 through 57 in the Introductory and Investment Sections of this report.

Awards and Acknowledgements

The Government Finance Officers Association of the United States and Canada (GFOA) awarded ERS a Certificate of Achievement for Excellence in Financial Reporting by for its Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022. That was the 40th consecutive year (fiscal years 1983-2022) that the ERS has received this prestigious award. A Certificate of Achievement is valid for a period of one year only. We believe that our current annual financial report meets the Certificate of Achievement Program's requirements, and we are submitting it to the GFOA to determine its eligibility for another certificate.

This annual report was prepared by the System 's staff, with contributions from our investment consultants and actuary. It is intended to provide complete and reliable information as a basis for making management decisions, and as a means of determining compliance with legal provisions.

Copies of this report are provided to the City's Elected Officials, Agency Heads, and other interested parties. Copies are also filed with the Baltimore City Office of Legislative Reference. Other interested parties may obtain the report through the ERS website located at www.bcers.org.

Finally, my appreciation goes to the Board of Trustees, employees of ERS and advisors for their significant contributions in overseeing the successful management of the System.

Respectfully submitted,

David A. Randall

David A. Randall
Executive Director

CITY OF BALTIMORE
BRANDON M. SCOTT, Mayor

EMPLOYEE'S RETIREMENT SYSTEM,
ELECTED OFFICIALS' RETIREMENT SYSTEM
and RETIREMENT SAVINGS PLAN
DAVID A. RANDALL, Executive Director
7 E. Redwood Street
11th,12th and 13th Floors
Baltimore, Maryland 21202

December 31, 2023

To: All Members, Retirees and Beneficiaries of the

City of Baltimore Employees' Retirement System (ERS)

After a bleak year for returns in fiscal year 2022, the ERS rebounded in fiscal year 2023. The ERS's return was 6.4%. The ERS outperformed its policy benchmark return of 6.0% and had a very good relative peer group ranking in the top fourth in a universe of over 300 public pension funds. Over the past ten years, ERS has returned 8.0% and ranked 37th. The market value funded ratio for ERS is now 76.2%.

All eligible ERS retirees received their customary annual COLA of 1.5% for members and beneficiaries under age 65 and 2.0% for members and beneficiaries aged 65 and older.

During this year, we again continued to navigate through the volatile economy, and continued to defy the expectation of a recession. We witnessed all asset classes post gains, albeit Real Estate. Also in FY 2023, value-oriented managers that had strong performances in FY 2022 were replaced by the strong performances of growth managers. We are committed to growing our investments in infrastructure and alternative asset classes and to achieving greater diversification. The Board continues to be dedicated to our mission to serve our members, retirees and beneficiaries and protect and grow the fund's assets.

We could not accomplish the goals of the agency without the diligence and expertise of the Retirement Systems' staff. Every day our team approaches the work of the agency with integrity, empathy, and precision. The staff understands that what we do impacts the real lives of our members and beneficiaries. On behalf of the Board of Trustees, I extend my sincere thanks for a job well done.

In closing, as we approach the end of the year 2023, I would like to announce a few upcoming changes to the Board's composition. After much reflection, three Board of Trustees members have decided not to seek reelection for a new term. Those Board members include Rosemary H. Atkinson (retired representative since 2015), Dorothy L. Bryant (active representative since 2004), and me (active representative since 1996). I speak for myself and my esteemed colleagues that it has been an absolute honor and privilege to serve the Retirement Systems. Together we have successfully navigated variable market conditions, legislative updates, and pension reforms, enhanced operational efficiencies, and are ending our terms with the Retirement Systems in a strong position poised for continued success. Thank you to our members for entrusting us to execute the agency's mission and values.

Sincerely,

Deborah Moore-Carter

Deborah Moore-Carter
Chair, Board of Trustees

Employees' Retirement System
City of Baltimore, Maryland
BOARD OF TRUSTEES

LEGAL COUNSEL, GENERAL COUNSEL, ACTUARY, AND INDEPENDENT AUDITOR

LEGAL COUNSEL

City of Baltimore
Law Department
Ebony M. Thompson, Esq.

GENERAL COUNSEL

City of Baltimore
Employees' Retirement System
Etzion Brand, Esq.

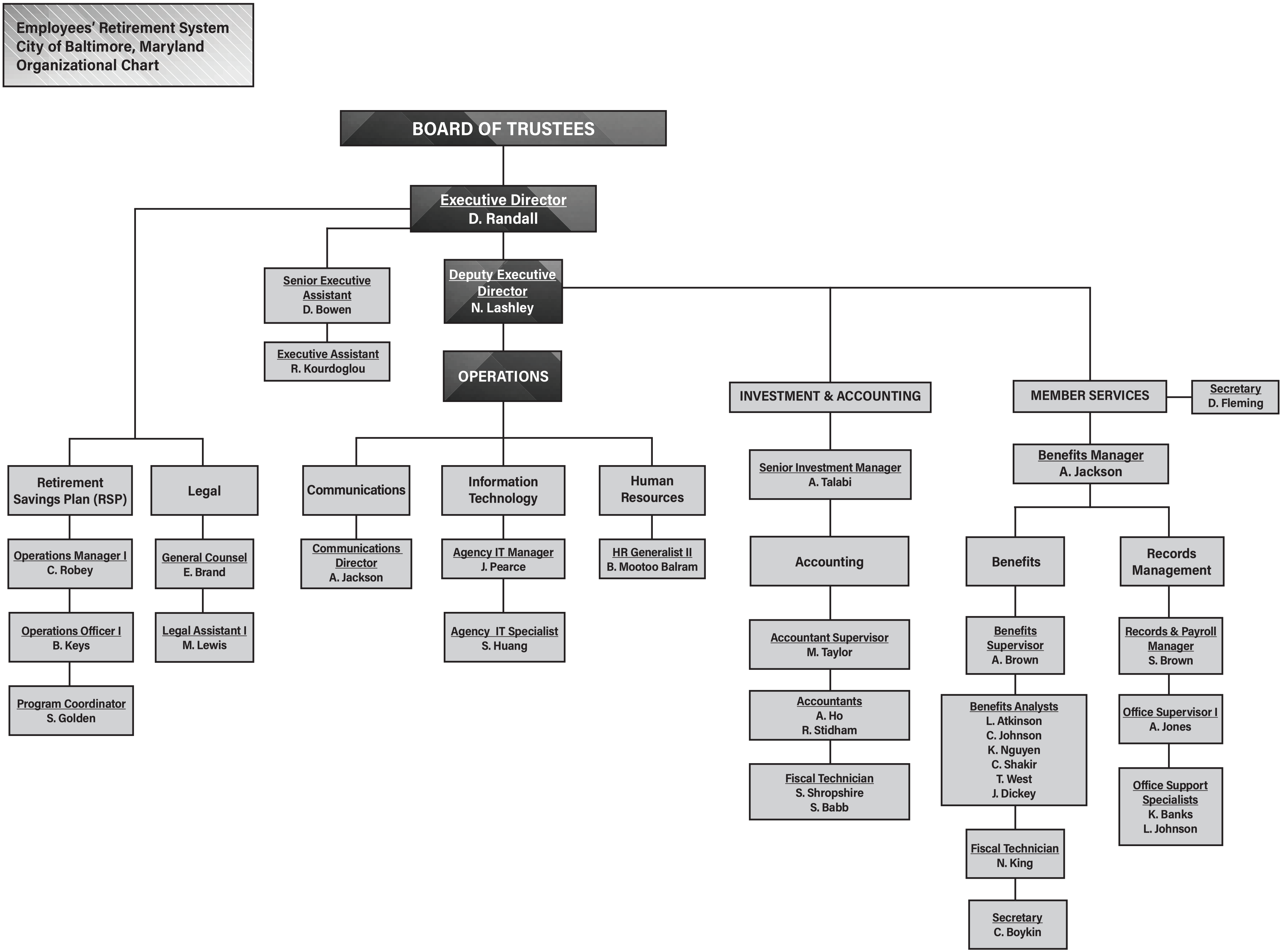
ACTUARY

Cheiron, Inc.
Anu Patel, FSA, MAAA, EA
Matt Deveney, FSA, MAAA, EA
McLean, Virginia

INDEPENDENT AUDITOR

UHY, LLP
Jason Ostroski, CPA

See pages 56 to 57 in the Investment Section for a list of investment professionals.
Schedule of fees on page 45.


Employees' Retirement System
City of Baltimore, Maryland
Organizational Chart
BOARD OF TRUSTEES
Executive Director
D. Randall
Senior Executive Assistant
D. Bowen
Executive Assistant
R. Kourdoglou
Deputy Executive Director
N. Lashley
OPERATIONS
INVESTMENT & ACCOUNTING
MEMBER SERVICES
Secretary
D. Fleming
Retirement Savings Plan (RSP)
Operations Manager I
C. Robey
Operations Officer I
B. Keys
Program Coordinator
S. Golden
Legal
General Counsel
E. Brand
Legal Assistant I
M. Lewis
Communications
Communications Director
A. Jackson
Information Technology
Agency IT Manager
J. Pearce
Agency IT Specialist
S. Huang
Human Resources
HR Generalist II
B. Mootoo Balram
Senior Investment Manager
A. Talabi
Accounting
Accountant Supervisor
M. Taylor
Accountants
A. Ho
R. Stidham
Fiscal Technician
S. Shropshire
S. Babb
Benefits Manager
A. Jackson
Benefits
Benefits Supervisor
A. Brown
Benefits Analysts
L. Atkinson
C. Johnson
K. Nguyen
C. Shakir
T. West
J. Dickey
Fiscal Technician
N. King
Secretary
C. Boykin
Records Management
Records & Payroll Manager
S. Brown
Office Supervisor I
A. Jones
Office Support Specialists
K. Banks
L. Johnson

FINANCIAL SECTION

Chamber of Commerce Building at Holliday and 2nd Street, circa 1900

INDEPENDENT AUDITOR'S REPORT

The Honorable Bill Henry, Comptroller
Other Members of the Board of Estimates of the
City of Baltimore and the Board of Trustees of
the Employees' Retirement System
Baltimore, Maryland

Opinion

We have audited the accompanying financial statements of the Employees' Retirement System of the City of Baltimore (the System), which comprise of the statement of fiduciary net position as of June 30, 2023, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of June 30, 2023, and the respective changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. 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.

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 generally accepted 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 and the schedule of changes in net pension liability and related ratios, employer contributions and investment returns and related notes, as listed in the table of contents, 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 opinion on the financial statements that collectively comprise the System's basic financial statements. The schedules of administrative expenses, investment expenses and payments to consultants (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 GAAS. 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

Management is responsible for the other information included in the Annual Comprehensive Financial Report. The other information comprises the introductory, investment, actuarial and statistical sections, as listed in the table of contents, but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 21, 2023 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the result of that testing and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

UHY LLP

Columbia, Maryland
November 21, 2023

Employees' Retirement System
City of Baltimore, Maryland
MANAGEMENT'S DISCUSSION AND ANALYSIS

We are pleased to provide this overview of the financial activities of the Employees' Retirement System (ERS) for the fiscal years ended June 30, 2023, and 2022. ERS is the administrator of a cost-sharing, multiple employers, defined benefit, local government retirement plan (the Plan). Readers are encouraged to consider the information presented here in conjunction with additional information furnished in the transmittal letter, which begins on page 7 of this report.

Financial Highlights

- The net position restricted for pensions at the close of the fiscal year 2023 was $2.03 billion. The net position is available to meet the Plan's ongoing obligations to plan participants and their beneficiaries.

- The Plan's total net position restricted for pensions increased by $59.59 million during fiscal year 2023. The increase was due to positive and improved investment returns from all asset classes except real estate that was negative and private equity that was lower than 2022. The negative return from real estate was due to elevated interest rates, lower transaction volumes, and slowed down rent growth.

- Revenues (Additions to Fiduciary Net Position) for the year were $237.92 million. Revenues include employer contributions of $94.79 million, plan member contributions of $22.14 million, net investment income of $120.79 million, and net securities lending income of $0.21 million.

- Expenses (Deductions from Fiduciary Net Position) were $178.34 million. Expenses include retirement allowances, refund of member contributions, death benefits and lump sum payments totaling $173.27 million as well as administrative expenses of $5.07 million.

- The time-weighted rate of return for the fiscal year ended June 30, 2023, was 6.40% compared to the fiscal year ended June 30, 2021, return of -3.3%. The 9.7% increase from 2022 is attributable to the reasons highlighted above.

- The Plan's funding objective is to meet long-term benefit obligations through contributions and investment income. As of June 30, 2023, the System's funded ratios are 80.0% and 76.2%, based on actuarial and fair values of assets, respectively. When compared with their June 30, 2022, values, the funded ratio based on actuarial value of assets increased by 0.1% due to the plan's 20-year plan to reach 100% funding by year 2032; the funded ratio based on fair value also increased by 0.3% due to positive investment returns. The plan's net position as a percentage of the total pension liability of 76.2% indicates that the Plan has approximately $0.76 of assets to cover every dollar of benefits due.

Overview of Financial Statements

The following discussion and analysis are intended to serve as an introduction to the Plan's financial statements and the financial section of this report.

The **Statement of Fiduciary Net Position** presents the Plan's assets and liabilities and the net position restricted for pensions on June 30, 2023. The assets comprise cash and cash equivalents, receivables (mainly from investment activities), investments at fair value, securities lending collateral and net capital assets; while the liabilities comprise of payables, also mainly from investment activities.

The **Statement of Changes in Fiduciary Net Position** presents information showing how the Plan's net position changed during the year. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when a formal commitment has been made by the City to provide the contributions. All investment gains and losses are shown at the trade date. Both realized and unrealized gains and losses are reported in investments. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

The **Notes to Basic Financial Statements** provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes are an integral part of the financial statements and include detailed information not readily evident in the basic financial statements.

The statements and the notes are in conformity with the accounting principles generally accepted in the United States. These principles require certain financial statement presentations and disclosures including the use of the accrual basis of accounting to record assets and liabilities, as well as revenues and expenses.

The **Statement of Fiduciary Net Position** and the **Statement of Changes in Fiduciary Net Position** are on pages 22 and 23 of this report.

The **Required Supplementary Information** that follows immediately after the notes to the basic financial statements includes the Schedules of Changes in Net Pension Liability and Related Ratios, Employer Contributions, Investment Returns and Notes to Required Supplementary Information. See the Required Supplementary Information beginning on page 37 of this report. The remaining supplemental schedules provide additional detailed information concerning administrative expenses, investment expenses and payments to consultants. All this information is considered useful in understanding and evaluating the financial activities of the Plan.

Financial Analysis

Net position may serve overtime as a useful indicator of the Plan's financial position. As of June 30, 2023, assets exceeded liabilities by $2.03 billion. The net position is available to meet the Plan's ongoing obligation to Plan participants and their beneficiaries. As of June 30, 2023, total net position increased by 3% from $1.97 billion to $2.03 billion. The increase in total net position when compared with last fiscal year ended June 30, 2022, is mainly due to positive and improved returns on investments. Management believes that the Plan remains in a strong financial position to meet its obligations to the members, retirees, and their beneficiaries.

Fiduciary Net Position	Fiscal Year 2023	Fiscal Year 2022	Increase / (Decrease)	Percentage Change
Cash and Receivables	$74,461,003	$76,687,738	($2,226,735)	-3%
Investments	1,992,478,515	1,962,765,228	29,713,287	2%
Securities Lending	43,880,992	52,923,003	(9,042,011)	-17%
Capital Assets	336,401	358,660	(22,259)	-6%
Total assets	2,111,156,911	2,092,734,629	18,422,282	1%
Total liabilities	77,259,457	118,431,485	(41,172,028)	-35%
Total net position	$2,033,897,454	$1,974,303,144	$59,594,310	3%

Investment Assets

ERS is a long-term investor and manages the Plan's assets with long-term objectives in mind. A primary element of the Plan's investment philosophy is to employ diversification of assets as the best possible way to achieve its goals. After conducting an asset-liability study with the Plan's investment consultant, the Board of Trustees established an asset allocation plan considering the risk associated with each asset class as well as the financial objectives of the Plan. Investments are stated at fair value rather than at cost and include the recognition of unrealized gains and losses in the current period.

The rate of return on investments for the year ended June 30, 2023, was 6.4%, an increase of 9.7% compared to the fiscal year 2022 rate of return of -3.3%. The positive but lower than policy investment return is attributable to all asset classes that performed better than 2022 apart from real estate and private equity. The U.S equity, international equity and real estate portfolios all underperformed their respective benchmarks. The annualized rate of return for the last three-, five- and ten-year periods ended June 30, 2023, were 9.6%, 7.2% and 8.0%, respectively. The Plan's long-term actuarial investment return assumption was reduced to 7.0% beginning fiscal year 2019 in line with the City's Ordinance 16-488.

The Investment Section beginning on page 45 gives detailed information on the Plan's Investment Policies. See page 52 of this report for charts showing the asset allocation targets established by the Board of Trustees and the actual asset allocation of System assets on June 30, 2023.

Liabilities

The liabilities are payables incurred by the transaction activity of the investment assets, securities lending, the retirement benefit expenses, and administrative expenses of the Plan.

Changes in Fiduciary Net Position	Fiscal Year 2023	Fiscal Year 2022	Increase / (Decrease)
Additions			
Employer contribution	$94,788,090	$98,640,176	($3,852,086)
Employee contribution	22,144,404	18,493,368	3,651,036
Net investment income	120,788,368	(75,899,163)	196,687,531
Net Securities Lending Income	211,475	163,356	48,119
Total additions	237,932,337	41,397,737	196,486,481
Deductions			
Retirement allowances	170,579,131	165,289,884	5,289,247
Administrative expenses	5,068,850	4,460,410	608,440
Refund of member's contribution	1,770,228	1,346,673	423,555
Death benefits	870,469	1,507,307	(636,838)
Lump Sum cash payments	49,349	15,300	34,049
Total deductions	178,338,027	172,619,574	5,718,453
Net increases (decreases)	$59,594,310	($131,221,837)	$190,816,147

Contributions and Investment Income

Net investment income increased by $196.69 million, due to an economy that has continued to defy economist expectations of an impending recession. Net investment income includes investment expenses as a deduction. Investment expenses were $19.23 million for fiscal year 2023, lower than fiscal year 2022 by $6.06 million. Employer contributions also decreased by $3.85 million over last year's contributions. The employer's contributions are determined by the actuary and are calculated two fiscal years in advance. Plan member contributions increased by $3.65 million.

Retirement Benefits and Administrative Expenses

The Plan was created to provide lifetime service retirement benefits, survivor benefits and disability benefits to eligible members and their beneficiaries. The cost of such programs includes recurring benefit payments, lump sum death benefits, payments to terminated members, and the administrative expenses of the Plan. The primary source of expense during fiscal year 2023 was for the payment of continuing retirement benefits totaling $170.58 million, compared to $165.29 million for fiscal year 2022. Retirement allowances increased $5.29 million due to the annual cost of living adjustment of 1.5% for participants under age 65 and 2.0% for participants aged 65 and over.

Requests for Information

This financial report is designed to provide a general overview of the Plan's financial activities. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

David A. Randall
Executive Director,
Employees' Retirement System,
7 E. Redwood Street, 12th Floor,
Baltimore, Maryland 21202.

Employees' Retirement System
City of Baltimore, Maryland
STATEMENT OF FIDUCIARY NET POSITION
June 30, 2023

Assets		
Cash and cash equivalents		$ 40,870,374
Receivables and other assets:		
Prepayments	$ 14,491,807	
Foreign currency contracts	12,448,696	
Contribution and other receivables	3,345,894	
Accrued income	3,138,736	
Investments sold	165,496	
Total receivables and other assets		33,590,629
Investments:		
Domestic equities	473,564,867	
Private equities	429,183,331	
Domestic fixed income	366,292,081	
International equities	304,301,819	
Real estate	273,959,159	
Defensive equities	145,177,258	
Total investments		1,992,478,515
Securities lending collateral		43,880,992
Capital assets	2,879,286	
Accumulated depreciation of capital assets	(2,542,885)	
Net capital assets		336,401
Total assets		2,111,156,911
Liabilities		
Obligations under securities lending	43,880,992	
Investments purchased	16,001,419	
Foreign currency contracts	12,448,696	
Administrative expenses payable	2,787,829	
Other accounts payable	1,090,904	
Investment management fees payable	1,049,617	
Total liabilities		77,259,457
Net position restricted for pensions		$ 2,033,897,454

The notes to the basic financial statements are an integral part of this statement.

Employees' Retirement System
City of Baltimore, Maryland
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
For the Year Ended June 30, 2023

Additions		
Contributions:		
Employers	94,788,090	
Plan members	22,144,404	
Total contributions		$116,932,494
Investment income:		
Net appreciation in value of investments	86,086,878	
Interest & dividend income	26,880,949	
Defensive equity income	16,541,533	
Real estate income	7,118,318	
Private equity income	3,389,010	
Other Income	1,445	
Less: Investment expenses	(19,229,765)	
Net investment Income		120,788,368
Securities lending income	302,044	
Less: Securities lending fees	(90,569)	
Net securities lending income		211,475
Total additions		237,932,337
Deductions		
Retirement allowances	170,579,131	
Adminstrative expenses	5,068,850	
Refund of members contributions	1,770,228	
Death benefits	870,469	
Lump sum cash payments	49,349	
Total deductions		178,338,027
Net increase		59,594,310
Net position restricted for pensions		
Beginning of year		1,974,303,144
End of year		$2,033,897,454

The notes to the basic financial statements are an intergral part of this statement.

1. Plan Description:

The Employees' Retirement System of the City of Baltimore (ERS) is the administrator of a cost-sharing multiple employers defined benefit local government retirement plan (the Plan). Established January 1, 1926, the Plan covers City employees and the Baltimore City Public School System's employees except for those required to join the Maryland State Retirement System, or the two other Baltimore City retirement systems, the Fire and Police Employees' Retirement System and the Elected Officials' Retirement System. Based on criteria established by the Governmental Accounting Standards Board, the ERS is a pension trust of the City of Baltimore and is included in the City's financial report as a Public Employees' Retirement System (PERS).

On June 30, 2023, the ERS membership consisted of:

Membership Status as of June 30, 2023	Classes A&B	Class C	Class D	Total
Active Plan Members	4	4,369	3,161	**7,534**
Retirees and Beneficiaries (currently receiving benefits	292	8,869	24	**9,185**
Terminated Plan members (entitled but not yet receiving benefits)	-	1,146	46	**1,192**
Total	**296**	**14,384**	**3,231**	**17,911**

The Plan provides service retirement benefits as well as death and disability benefits in accordance with the Plan Provisions, Article 22 of the Baltimore City Code. Only the Mayor and City Council may amend the Plan Provisions. The reduction of benefits is precluded by the City Code. The ERS Plan is divided into three Classes: A, C, and D for amendments of membership and benefit changes of the Plan Provisions.

The Class "A" contributory plan consists of all members hired prior to July 1, 1979, who did not elect to transfer to Class C, the non-contributory class at the time it was created. Membership was mandatory on the member's second anniversary of employment. However, the members could voluntarily enroll within the first two years of employment.

The Class "C" Plan consists of all employees hired on or after July 1, 1979, who automatically become members on the first anniversary of employment, and all members hired prior to July 1, 1979, who elected to transfer from the Class "A" contributory class. Effective July 1, 2013, Ordinance 13-144 was enacted by the Mayor and City Council introducing contributions for active ERS non-contributory members and eliminating the post retirement variable benefit increase. The Ordinance provides that effective July 1, 2013, members will contribute 1% of pay, to continue each year at 1% increments provided that 2% compensation is received for each year of contribution until employee contributions reaches 5% of compensation. The ERS defined benefit class "C" Plan was closed to new members on June 30, 2014, to establish the City of Baltimore's Retirement Savings Plan (RSP).

The Retirement Savings Plan (RSP) consists of a 401a contributory non-hybrid and a hybrid contributory defined benefit "D" Plan. The Class "D" Plan consists of all employees hired on or after July 1, 2014. The waiting period of entry for the contributory non-hybrid plan is 180 days. The hybrid contributory defined benefit Plan's waiting period is one year. Employees hired as of July 1, 2014, have 150 days of employment to select between the two Plans. Employees who do not select a Plan after 150 days of employment automatically default into the hybrid contributory defined benefit "D" plan. The mandatory contribution to each of the Plan's is 5%.

All Members in any of the City's Plan have an option to contribute to the City of Baltimore's 457 Deferred Compensation Plan. However, only non-hybrid members get a match of 50% subject to a maximum of 1% on their contributions to the 457 plans.

2. Summary of Significant Accounting Policies:

Basis of Presentation:
For accounting and financial reporting purposes, the Plan conforms with accounting principles generally accepted in the United States and reporting standards as promulgated by the Governmental Accounting Standards Board, which designates accounting principles and financial reporting standards applicable to PERS (Public Employee Retirement System). This report includes solely the accounts of the Plan, a pension trust of the City of Baltimore. There are no component units of the Plan based on the nature of operational or financial relationships.

Basis of Accounting:
These financial statements have been prepared using the economic resources measurement focus and accrual basis of accounting, whereby revenues are recorded when they are earned, expenses are recorded when they are incurred, and investment purchases and sales are recorded as of their trade date. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

Method Used to Value Investments:
Investments are reported at fair value. Securities traded on national or international exchanges are valued at the last reported sales price at the current exchange rates. The real estate holdings are based on the most recent appraisal (either internal to the manager or third party) as then presently available. For alternative investments, which include private equity, hedge, and risk parity funds, where no readily ascertainable fair value exists, management, in consultation with the general partner and investment advisors, has determined these investments be measured at net asset value per share. The values for these investments are determined by the Plan's proportionate share of the partnership’s most recent available financial information. Foreign exchange contracts are marked-to-fair value daily based on published fair value prices and quotations from national securities exchanges or securities pricing services. The changes in fair value are recognized as part of net appreciation/depreciation in the value of investments. Initial margin requirements for such financial instruments are provided by investment securities pledged as collateral or by cash.

Net investment income consists of realized and unrealized appreciation (depreciation) in the value of investments, interest and dividend income earned, less investment expenses. Interest income is recorded on the accrual basis and dividends are recorded on the ex-dividend date. Securities and securities transactions are reflected in the financial statements on a trade-date basis.

Tax Status:
The System is a tax-exempt governmental plan qualified under Section 401 and exempt under Section 501(a) of the Internal Revenue Code. IRS qualification letters have been received.

Use of Estimates in Preparing Financial Statements:
The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the Board to make estimates and assumptions that affect the reported amounts of assets, liabilities, additions, and deductions to net position held in trust for pension benefits and disclosure of contingent assets and liabilities at the date of the financial statements and during the reporting period. Actual results could differ from those estimates.

3. Contributions:

Article 22 of the Baltimore City Code grants the authority to establish and amend the contributions of the active plan members to the Mayor and City Council of Baltimore.

The contributions required by the Plan provisions for each membership class are as follows:

Membership class	Percentage of compensation
A	4.0%
C	5.0%
D	5.0%

The employer contributions are determined through an actuarial valuation. The valuation method is stipulated in the Plan provisions.

All contributions are transferred to BNY Mellon, the ERS custodian for safekeeping and investment.

4. Post retirement increases:

Post-retirement benefit increases are granted each year to eligible retirees and beneficiaries in pay status for 12 months as at year end. The minimum guaranteed benefit increase is 1.50% for participants in pay status under age 65 and 2.00% for participants in pay status age 65 and over, effective June 22, 2010. Eligible retired members and beneficiaries with a pension entry date on or before June 30, 2022, will receive the minimum guaranteed benefit increase and is payable on January 1, 2024.

5. Cash and Investments:

The Plan's cash deposits are always covered up to statutory limits by the federal depository insurance. Custodial Credit Risk for Deposits is the risk that in the event of a bank failure, the systems' deposits may not be returned. The deposits are held in a financial institution with an insured balance of $250,000. Deposits in the bank of more than $250,000 are uninsured and uncollateralized. The system classifies cash on deposit in the custodian institution, BNY Mellon, as well as the cash management pool held by BNY Mellon as cash and cash equivalents. The system also classifies certain short-term highly liquid securities as cash equivalents if the maturity date is three months or less from the date of acquisition.

The Board of Trustees (the Board) is authorized by the Baltimore City Code to make investments in accordance with the guidelines and limitations set forth in the Code. The Board accomplishes the daily management of the Plan's investments through external investment advisors who act as fiduciaries for the Plan and through external investment managers. The Board invests the assets of the Plan using the "prudent person standard" which allows the Board to consider the probable safety of investments, avoid speculative investments, and invest as people of prudence, discretion, and intelligence would in a similar situation. The Board has adopted an investment policy and guidelines to formally document its investment objectives and responsibilities. Investments in the Plan are held under custodial agreement with BNY Mellon Financial Corporation.

ERS Plan investments as of June 30, 2023, are listed below:

Investment type	
Debt Securities:	
Commingled fixed income	$ 224,932,313
Corporate Bonds	66,962,640
U.S. Quasi and Foreign Government	53,599,405
US Treasury	20,797,723
Total Debt Securities	366,292,081
Domestic equities	473,564,867
Private equities	429,183,331
Real estate	273,959,159
International equities	304,301,819
Defensive equities	145,177,258
Sub-total	1,626,186,434
Total Investments	$ 1,992,478,515

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rate of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2023, are summarized in the following table:

Assets Class	Asset Allocation	Long-Term Expected Real rate of Return
Domestic Equity	22%	6.9%
Fixed Income	18%	4.8%
International Equity	15%	7.5%
Private Equity	15%	11.1%
Real Estate	15%	6.5%
Defensive Equity	7%	6.3%
Low Volatility	4%	6.6%
Private Debt	4%	9.7%
	100%	

Rate of Return

For the year ended June 30, 2023, the annual money-weighted rate of return of the Plan was 6.1%. The money-weighted rate of return expresses the Plan's investment performance, net of investment expense, adjusted for the changing amounts invested.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of investments. The Plan has selected the duration method to disclose the debt securities exposure to changes in interest rates for all debt securities. The Plan fixed income interest rate policy limits the average duration of the portfolio to within one to two years of the Barclay's Capital Bond index benchmark.

Investment Type	*Fair Value*	*Option Adjusted Duration (in years)*
Debt Securities:		
Pacific Asset Management Bank Loan Fund	$ 84,659,637	0.36
BNYM Mellon DB SL Aggregate Bond Index	75,077,648	6.34
Corporate Bonds	66,962,640	6.38
Emerging Markets Bond CIT-Class B	65,195,028	3.82
US Quasi and Foreign Government	53,599,405	5.72
US Treasury	20,797,723	8.94
Total Debt Securities	$ 366,292,081	

Credit Risk by Quality

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. The Board has not adopted a formal policy to limit credit risk. ERS-rated debt investments as of June 30, 2023, were rated by Standard & Poor's (S&P) and for securities with no S&P rating, the Moody's quality ratings were used.

Investments at Fair Value / Credit Risk by Quality Rating

Investment Type	*AAA-A*	*BBB-B*	*CCC-C*	*Not Rated*	*Total*
Pacific Asset Management Bank Loan Fund	$ 1,388,418	$ 71,258,017	$ 8,008,802	$ 4,004,400	$ 84,659,637
BNYM Mellon DB SL Aggregate Bond Index	65,655,403	9,422,245	-	-	75,077,648
Corporate Bonds	31,486,090	22,033,708	-	13,442,842	66,962,640
Emerging Markets Bond CIT-Class B	11,083,155	48,896,271	5,215,602	-	65,195,028
US Quasi and Foreign Government	42,578,551	1,057,433	-	9,963,421	53,599,405
US Treasury	20,797,723	-	-	-	20,797,723
Total Debt Securities	$ 172,989,340	$ 152,667,674	$ 13,224,404	$ 27,410,663	$ 366,292,081

Foreign Currency Exposure Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. On June 30, 2023, the Employees' Retirement System did not hold any hedging foreign investment positions. ERS does not have a formal policy to limit foreign currency risk.

ERS' foreign currency risk as of June 30, 2023, is presented in the following table:

	Domestic Fixed Income	International Equity	Real Estate	Total Foreign Currency Exposure
Australian Dollar	$ -	$ 9,933,401	$ -	$ 9,933,401
Brazil Real	-	4,374,091	-	4,374,091
Canadian Dollar	(217)	13,340,025	18,640	13,358,448
Chinese Yuan Renminbi	-	977,814	-	977,814
Danish Krone	-	1,236,738	-	1,236,738
Euro Currency Unit	12,101	50,838,219	-	50,850,320
Hong Kong Dollar	-	10,565,446	-	10,565,446
Indonesian Rupiah	-	1,049,361	-	1,049,361
Israeli Shekel	-	1,032,624	-	1,032,624
Japanese Yen	8,202	30,168,034	-	30,176,236
Mexican Peso	(3,451)	1,010,445	-	1,006,994
New Taiwan Dollar	-	2,192,561	-	2,192,561
New Zealand Dollar	-	1,269,770	-	1,269,770
Norwegian Krone	-	300,642	-	300,642
Polish Zloty	-	480,031	-	480,031
Pound Sterling	3,543	33,145,284	-	33,148,827
Russian Ruble (New)	-	203,327	-	203,327
Singapore Dollar	-	4,763,801	-	4,763,801
South Korean Won	-	3,921,261	-	3,921,261
Swedish Krona	-	5,295,303	-	5,295,303
Swiss Franc	-	9,222,739	-	9,222,739
Thailand Baht	-	610,708	-	610,708
UAE Dirham	-	724,499	-	724,499
	$ 20,178	$ 186,656,124	$ 18,640	$ 186,694,942

Fair Value Measurements

The Plan categorizes their fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

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

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The Plan's assessment of the significance of inputs to these fair value measurements require judgment and considers factors specific to each asset. The table on page 30 shows the fair value leveling on the investments for the Plan.

Equity securities classified in Level 1 are valued using prices quoted in active markets for those securities. Debt securities classified in Level 1 and Level 2 are valued using either a bid evaluation, mid evaluation, last trade or official close. Bid evaluations are an estimated price at which a dealer would pay for security. Mid evaluations are when a bid and ask evaluation are both present. Last trade is the most recent trade price of a security at market close time. Official close is the closing price as defined by the exchange.

The Employees' Retirement System's invested assets measured at fair value as of June 30, 2023, are presented below:

Investments by fair value level	Base Amount	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Debt securities				
Corporate Bonds	$ 66,962,640	$ -	$ 66,931,956	$ 30,684
U.S. Quasi and Foreign Government	53,599,405	-	53,599,405	-
US Treasury	20,797,723	20,797,723	-	-
Total debt securities at fair value level	$ 141,359,768	$ 20,797,723	$ 120,531,361	$ 30,684
Equity securities				
Domestic equities	$ 359,138,034	$ 359,138,034	$ -	$ -
International equities	201,139,626	201,139,626	-	-
Total equity securities at fair value level	$ 560,277,660	$ 560,277,660	$ -	$ -
Total investments by fair value level	$ 701,637,428	$ 581,075,383	$ 120,531,361	$ 30,684
Investments measured at the net asset value (NAV)				
Private equity	$ 429,183,331			
Real estate	273,959,159			
Commingled fixed income	224,932,313			
Defensive Equity	145,177,258			
Domestic equities	114,426,833			
International equities	103,162,193			
Total investments measured at the NAV	$ 1,290,841,087			
Total investments	$ 1,992,478,515			
Investment derivative instruments				
Foreign currency contract receivable	$ 12,314,875	$ 12,314,875	$ -	$ -
Foreign currency contract payable	(12,375,309)	(12,375,309)	-	-
Total investment derivative instruments	$ (60,434)	$ (60,434)	$ -	$ -

The valuation method for investments measured at the net asset value (NAV) per share, or equivalent, is presented in the table below:

Investment Measured at the NAV	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Private equity	$ 429,183,331	$ 310,300,000	Not eligible	N/A
Real estate	273,959,159	-	Quarterly	90-100 days
Commingled fixed income	224,932,313	-	Daily, weekly & monthly	0 - 30 days
Defensive Equity	145,177,258	-	Quarterly	90-100 days
Domestic equities	114,426,833	-	Daily, weekly & monthly	0 - 30 days
International equities	103,162,193	-	Daily, weekly & monthly	0 - 30 days
Total investments measured at the NAV	$ 1,290,841,087	$ 310,300,000		

(1) The System's private equity investments are in managers that are invested in Diversified, Venture Capital, Distressed Debt, Buyouts, International and Special Situations strategies. These investments are considered illiquid as redemptions are restricted over the life of the investment.

(2) The System's real estate investments are in core, partnerships, and closed-end commingled funds. Partnerships consist of non-core, value added and opportunistic strategies, which are often illiquid, and redemptions are restricted. The core funds are liquid, and the redemption frequency is quarterly with a 90-100 days' notice period. The closed-end commingled fund seeks to invest in a mix of core, value-add and opportunistic assets.

(3) Commingled fixed income Fund is in three funds. The first investment is in high quality corporate bond securities with long durations in line with the profile of invested funds; a fundamentals-based, quantitative credit modeling process is used to screen out riskier securities and determine credit quality. The second investment is in a fund whose philosophy is to participate in the upside while seeking to mitigate downside risk through a selective approach focused on the larger issuers. The last fund was added in fiscal year 2019 and it targets a 150bp alpha above the EMBI Global Diversified over a market cycle.

(4) Defensive equity investment is in a fund that seeks long-term growth of capital. The fund employs a strategy of writing collateralized put options on the S&P 500 Index. The collateral generally consists of short duration, high quality fixed income positions with a focus on U.S. Treasuries

(5) Domestic Equity investments include actively managed as well commingled funds. The active accounts invest in stocks of small, mid, and large capitalizations while seeking to outperform the S&P 500 index, maintaining a similar level of market risk over the long term. The commingled funds invest in high growth and index funds.

(6) International equity investments are in actively managed funds. About half of the investments are in securities where rigorous dividend discount analysis is used to identify value in terms of long-term flow of income. The other half of the investments are in funds which employ strategy that seeks to outperform the MSCI World index (half-hedged) while maintaining a similar level of market risk over the long term.

6. Securities Lending:

The Plan's Securities Lending Authorization Agreement with BNY Mellon Bank (the Custodian) was revised during fiscal year 2018. Cash collateral received by the custodian is held and maintained in a separately managed cash collateral account. The cash collateral account is operated on a cost basis and the Plan assumes responsibility for the risk of loss arising from the difference between the cost and fair value of securities in the collateral account.

Approved Investments:

- Obligations of the U.S. treasury as well as agencies and instrumentalities and establishments of the U.S. Government.
- Repurchase transactions (including tri-party repurchase transactions). Collateralized at 102% or greater at the time of purchase and marked to market on each business day.
- Obligations issued by the central government of any OECD country and any of their respective agencies, instrumentalities, or establishments.
- Obligations issued by supranational organizations.
- Commercial paper, notes, bonds, and other debt obligations, whether registered under the Securities Act of 1933, as amended.
- Certificates of deposit, time deposits and other bank obligations.
- Asset-backed securities, including asset-backed commercial paper.
- Shares of money market funds registered with the Securities and Exchange Act of 1940, including affiliated funds of the Bank.
- Units of unregistered, collective investment vehicles sponsored or advised by the lending agent or an affiliate of the lending agent.

All approved investments may have fixed or floating interest rate provisions. Floating rate notes will reset no less frequently than quarterly. Cash collateral may be deposited at a central bank at the prevailing overnight interest rate (which may be negative or zero).

Credit Quality: The new guidelines as of 2018 provide that repurchase transaction counterparties must have executed a written agreement with a custodian and will be limited to those counterparties on the custodian's approved repo counterparty list. Obligations of supranational organizations should be rated minimum AAA by at least one NRSRO. Asset-Backed securities must be rated AAA by at least one NRSRO, if rated by more than one NRSRO the rating must AAA, Aaa, or aaa by two Short-term ratings must be A-1, P-1, or F1 or equivalent by an NRSRO or two of these ratings if rated by more than one NRSRO.

All other obligations must have short-term ratings of A-1, P-1, or F1 or equivalent by an NRSRO or two of these ratings if rated by more than one NRSRO and long-term ratings of A, A2, or A or equivalent by an NRSRO or two of these ratings if rated by more than one NRSRO.
U.S Government Securities do not require a rating by NRSRO and registered money market funds must be rated in the highest category available.

Concentration guidelines: Concentration of any approved investment in the cash collateral account does not exceed 5% per issuer except for U.S Government securities, repurchase agreements, shares of money market funds and collective investment vehicles.

Maturity: Investments have a maximum final maturity of 397 days except U.S Government securities that have maturity not to exceed 762 days. The weighted average of investments in cash collateral account for shorter maturities does not exceed 60 days while longer maturity does not exceed 120 days.

Liquidity: All approved investments are deemed to be liquid at the time of purchase with the exception of time deposits and repurchase agreements with maturity greater than 7 days, which are deemed illiquid. Illiquid approved investments do not exceed 5% of the total amount of approved investments in the cash collateral account.

The following table presents the fair values of the underlying loaned securities, and the fair value of collateral pledged on June 30, 2023.

Securities Lent	Fair Value of Loaned Securities	Collateral Fair value	Collateral Percentage %
Lent for cash collateral:			
Domestic Equity	$ 28,431,824	$ 29,093,517	102
U.S. Notes and Bonds	5,440,050	5,554,041	102
International Equity	8,759,471	9,233,434	105
Total Cash Collateral	42,631,345	43,880,992	
Lent for non cash collateral:			
Equity	4,757,006	4,868,077	103
U.S. Notes and Bonds	138,545	141,384	102
International Equity	2,421,269	3,068,177	127
Total non cash collateral	7,316,820	8,077,638	
Total Securities on Loan	$ 49,948,165	$ 51,958,630	

7. Derivatives Instruments:

A derivative is a unique and often complex financial arrangement entered into with another party, typically a private-sector financial firm. The value or cash flows of a derivative are determined by how the fair value prices of the hedged item change. The System has classified the following as hedging investment instruments.

The System enters forward currency contracts to manage exposure to fluctuations in foreign currency exchange rates on portfolio holdings. The System also enters forward exchange contracts to settle future obligations. A forward exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. A contract is classified as forward contract when the settlement date is more than two days after the contract date. Risk associated with such contracts includes movement in the value of a foreign currency relative to the U.S. dollar. The contracts are valued at forward exchange rates and include net appreciation/depreciation in the statement of plan position. The realized gain or loss on forward currency contracts is the difference between the original contract and the closing value of such contract and is included in the statement of changes in fiduciary net position.

The table below summarizes the fair value of foreign currency contracts as of June 30, 2023:

Currency	Receivable at Cost	Receivable at Fair Value	Payable at Cost	Payable at Fair Value	Net Unrealized Gain/(Loss)
Euro Currency Unit	$ 6,346,793	$ 6,237,726	$ (6,346,793)	$ (6,253,831)	$ (16,105)
U.S. Dollar	4,547,510	4,568,628	(4,547,510)	(4,547,510)	21,118
Pound Sterling	1,277,974	1,232,101	(1,277,974)	(1,299,885)	(67,784)
Swiss Franc	185,282	185,282	(185,282)	(182,634)	2,648
Danish Krone	64,165	64,165	(64,165)	(64,513)	(348)
Japanese Yen	23,032	23,032	(23,032)	(23,007)	25
Brazil Real	1,984	1,984	(1,984)	(1,965)	19
Canadian Dollar	1,916	1,916	(1,916)	(1,923)	(7)
Hong Kong Dollar	41	41	(41)	(41)	-
Grand Total	$ 12,448,697	$ 12,314,875	$ (12,448,697)	$ (12,375,309)	$ (60,434)

8. Net Pension Liability:

The following schedules include the Net Pension Liability (NPL) as of June 30, 2023, and the sensitivity of the NPL to the discount rate.

The components of the net pension liability of the Plan on June 30, 2023, were as follows:

Total Pension Liability	$ 2,669,719,349
Less: Plan Fiduciary Net Position	2,033,897,454
Net Pension Liability	$ 635,821,895
Plan Fiduciary Net Position as a percentage of Total Pension Liability	76.2%

The discount rates used to measure the total pension liability were 7.0% and 6.50%, for active and retired members, respectively. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the contribution rate and that Employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The sensitivity of the pension liability schedule presents the net pension liability of the Plan calculated using the discount rate 7.0% for active participants and 6.5% for retired participants as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.0 percent) or 1-percentage-point higher (8.0 percent) than these current discount rates.

Sensitivity of the pension liability to changes in the discount rate.

	1% Decrease	Current Discount Rate	1% Increase
Discount Rate - Active Participants	6.0%	7.0%	8.0%
Discount Rate - Retired Participants	5.5%	6.5%	7.5%
Plan's Net Pension Liability	$926,031,643	$635,821,895	$389,476,468
Plan fiduciary net position as a percentage of total pension liability	68.7%	76.2%	83.9%

The actuarial methods and assumptions presented below are determined as part of the actuarial valuation dated June 30, 2023.

Actuarial funding method:	Entry Age Normal Method.	
Actuarial assumptions date:	Effective 7/1/1989, Revised 6/30/2019.	
Discount Rate	7.00%	Pre-Retirement
	6.50%	post-retirement
	6.72%	Weighted

Projected salary increases:	Assumed to vary with age.
Cost-of-living adjustments:	1.5% for participants in pay status under age 65 and 2.0% for participants in pay status age 65 and over.
Pre-Retirement Mortality:	1. Non-line-of-Duty - Pub-2010 Total General Employee Below-Median mortality tables adjusted by 130% for males and 140% for females with future mortality improvement through 2026 using SOA scale MP-2021. (effective 6/30/2023) 2. Line-of-Duty - 0.005% at all ages (effective 6/30/1999).
Post-Retirement Mortality:	1. Retirees and Beneficiaries – Pub-2010 General Retiree Below-Median Weighted mortality tables adjusted by 130% for males and 129% for females with future mortality improvement through 2026 using SOA's Scale MP-2021. 2. Disabled members - Pub-2010 General Disabled Annuitant mortality tables adjusted by 183% for males and 120% for females with future mortality improvement through 2026 using SOA's Scale MP-2021.

The last actuarial experience study covered the period 7/1/2018 through 6/30/2022. Generally, an experience study is conducted every four years, unless requested by the ERS Board of Trustees.

9. Capital Assets:

The capital assets purchased as of the fiscal year ending June 30, 2023, consist of leasehold improvements, office equipment and office furniture. All capital assets are recorded at cost less accumulated depreciation.

Capital Assets	July 1, 2022 Balance	Capital Acquisitions	Capital Dispositions	June 30, 2023 Balance
Leasehold Improvements	$ 1,680,014	$ 34,425	$ -	$ 1,714,439
Office Furniture	523,028	-	-	523,028
Office Equipment	610,403	21,828	-	632,231
Computer & Computer Equipment	9,588	-	-	9,588
Totals	$ 2,823,033	$ 56,253	$ -	$ 2,879,286

Accumulated Depreciation	July 1, 2022 Balance	Increases	Decreases	June 30, 2023 Balance
Leasehold Improvements	$ 1,543,775	$ 23,934	$ -	$ 1,567,709
Office Furniture	450,884	19,401	-	470,285
Office Equipment	460,126	35,177	-	495,303
Computer & Computer Equipment	9,588	-	-	9,588
Totals	$ 2,464,373	$ 78,512	-	$ 2,542,885

Net Capital Assets	$ 358,660	$ (22,259)	$ -	$ 336,401

10. Subsequent Events:

The Plan evaluated subsequent events through November 21, 2023, the date the financial statements were available to be issued. Events or transactions occurring after June 30, 2023, but prior to November 21, 2023, that provided additional evidence about conditions that existed on June 30, 2023, have been recognized in the financial statements for the year ended June 30, 2023. Events or transactions that provided evidence about conditions that did not exist on June 30, 2023, but arose before the financial statements were available to be issued have not been recognized in the financial statements for the year ended June 30, 2023.

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REQUIRED SUPPLEMENTARY INFORMATION AND SUPPORTING SCHEDULES

Baltimore Street between St. Paul and Calvert Street, circa 1878

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
For the year Ended June 30

	2023	2022	2021	2020	2019
Total Pension Liability					
Service cost (MOY)	$ 27,907,784	$ 29,193,160	$ 29,653,748	$ 28,902,345	$ 26,666,815
Interest (includes interest on service cost)	170,432,751	170,400,560	167,804,129	165,446,336	163,000,392
Changes of benefit terms	-	-	-	-	-
Difference between expected and actual experience	36,072,286	(24,334,005)	(8,388,368)	16,472,199	4,243,214
Changes of assumptions	8,054,963	-	-	-	65,481,090
Benefit payments, including refund of members contributions	(173,269,177)	(168,159,164)	(163,047,946)	(158,559,647)	(154,868,174)
Net change in pension liability	69,198,607	7,100,551	26,021,563	52,261,233	104,523,337
Total pension liability - beginning	**2,600,520,742**	**2,593,420,191**	**2,567,398,628**	**2,515,137,395**	**2,410,614,058**
Total pension liability - ending	**$ 2,669,719,349**	**$ 2,600,520,742**	**$ 2,593,420,191**	**$ 2,567,398,628**	**$ 2,515,137,395**
Plan fiduciary net position					
Contributions - employer	$ 94,788,090	$ 98,640,176	$ 92,637,051	$ 86,953,801	$ 89,866,171
Contributions - members	22,144,404	18,493,368	18,493,824	17,787,416	17,246,258
Net investment income	120,999,843	(75,735,807)	452,684,732	11,872,983	92,814,972
Benefit payments, including refund of member contributions	(173,269,177)	(168,159,164)	(163,047,946)	(158,559,647)	(154,868,174)
Administrative expense	(5,068,850)	(4,460,410)	(4,397,413)	(4,495,405)	(3,716,362)
Net change in plan fiduciary net position	$ 59,594,310	$ (131,221,837)	$ 396,370,248	$ (46,440,852)	$ 41,342,865
Plan fiduciary net position - beginning	**1,974,303,144**	**2,105,524,981**	**1,709,154,733**	**1,755,595,585**	**1,714,252,720**
Plan fiduciary net position - ending	**2,033,897,454**	**1,974,303,144**	**2,105,524,981**	**1,709,154,733**	**1,755,595,585**
Net pension liability - ending	**$ 635,821,895**	**$ 626,217,598**	**$ 487,895,210**	**$ 858,243,895**	**$ 759,541,810**
Plan fiduciary net postion as a percentage of the total pension liability	76.20%	75.90%	81.20%	66.57%	69.80%
Covered payroll	$ 458,637,682	$ 439,326,244	$ 455,219,365	$ 437,242,419	$ 419,686,035
Net pension liability as a percentage of covered payroll	138.60%	142.50%	107.20%	196.29%	180.98%

	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost (MOY)	$ 28,939,927	$ 25,736,202	$ 25,507,759	$ 26,107,551	$ 26,483,854
Interest (includes interest on service cost)	159,875,336	157,784,730	155,822,464	152,621,503	148,861,690
Changes of benefit terms	-	-	-	-	(1,001,048)
Difference between expected and actual experience	11,347,778	(6,869,329)	11,578,209	2,052,377	13,956,452
Changes of assumptions	-	-	20,850,001	(3,828,646)	-
Benefit payments, including refund of members contributions	(149,154,499)	(144,608,910)	(139,197,716)	(134,270,657)	(129,973,970)
Net change in pension liability	51,008,542	32,042,693	74,560,717	42,682,128	58,326,978
Total pension liability - beginning	**2,359,605,516**	**2,327,562,823**	**2,253,002,106**	**2,210,319,978**	**2,151,993,000**
Total pension liability - ending	**$ 2,410,614,058**	**$ 2,359,605,516**	**$ 2,327,562,823**	**$ 2,253,002,106**	**$ 2,210,319,978**
Plan fiduciary net position					
Contributions - employer	$ 87,541,882	$ 84,474,451	$ 77,100,573	$ 97,170,796	$ 94,917,886
Contributions - members	12,942,622	10,656,243	10,350,709	6,728,131	3,623,467
Net investment income	139,512,271	163,156,838	40,260,042	66,818,040	209,647,169
Benefit payments, including refund of member contributions	(149,154,499)	(144,608,910)	(139,197,716)	(134,270,658)	(129,973,970)
Administrative expense	(3,616,054)	(3,584,506)	(3,515,492)	(3,748,434)	(3,711,975)
Net change in plan fiduciary net position	$ 87,226,222	$ 110,094,116	$ (15,001,884)	$ 32,697,875	$ 174,502,577
Plan fiduciary net position - beginning	**1,627,026,498**	**1,516,932,382**	**1,531,934,266**	**1,499,236,391**	**1,324,733,814**
Plan fiduciary net position - ending	**1,714,252,720**	**1,627,026,498**	**1,516,932,382**	**1,531,934,266**	**1,499,236,391**
Net pension liability - ending	**$ 696,361,338**	**$ 732,579,018**	**$ 810,630,441**	**$ 721,067,840**	**$ 711,083,587**
Plan fiduciary net postion as a percentage of the total pension liability	71.10%	68.95%	65.17%	68.00%	67.83%
Covered payroll	$ 403,454,892	$ 391,121,606	$ 399,465,753	$ 408,095,216	$ 401,291,783
Net pension liability as a percentage of covered payroll	172.60%	187.30%	202.93%	176.69%	177.20%

Employees' Retirement System
City of Baltimore, Maryland
Required Supplementary Information
SCHEDULE OF EMPLOYER CONTRIBUTIONS AND INVESTMENT RETURNS
Year ended June 30

	2023	2022	2021	2020	2019
Actuarial determined contribution	$ 94,788,090	$ 98,640,176	$ 92,637,051	$ 86,953,801	$ 89,866,171
Contributions in relations to actuarially determined contribution	94,788,090	98,640,176	92,637,051	86,953,801	89,866,171
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 458,637,682	$ 439,326,244	$ 455,219,365	$ 437,242,419	$ 419,686,035
Contributions as a percentage of payroll	20.67%	22.45%	20.35%	19.89%	21.41%

	2018	2017	2016	2015	2014
Actuarial determined contribution	$ 87,541,882	$ 84,474,451	$ 75,862,000	$ 90,489,000	$ 91,286,000
Contributions in relations to actuarially	87,541,882	84,474,451	77,100,573	97,170,796	94,917,886
Contribution deficiency (excess)	$ -	$ -	$ (1,238,573)	$ (6,681,796)	$ (3,631,886)
Covered payroll	$ 403,454,892	$ 391,121,606	$ 399,465,753	$ 408,095,216	$ 401,291,783
Contributions as a percentage of payroll	21.70%	21.60%	19.30%	23.81%	23.65%

	2023	2022	2021	2020	2019
Annual money-weighted rate of return, net of investment expense	6.1%	-4.1%	27.4%	0.9%	5.7%

	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	8.1%	11.7%	2.7%	4.6%	15.2%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

1. The total recommended contribution increased by 2.4% from $94,917,886 for fiscal year 2014 to $97,170,796 for fiscal year 2015 as a reflection of the prior years’ experience and increased unfunded actuarial liability as of June 30, 2013. Fiscal year 2013 contributions were paid in two installments. Interest receivable on the installments will be calculated with the actuarial results.
   Ordinance 13-144 was enacted by the Mayor and City Council introducing contributions for active ERS members and eliminating the post retirement variable benefit increase. The Ordinance provides that effective July 1, 2013, members will contribute 1% of pay, to continue each year at 1% increments provided that 2% compensation is received for each year of contribution until employee contributions reach 5% of compensation.

2. Plan C member contributions were contingent upon increases in pay which were yet to be negotiated at the time the July 1, 2013, valuation was completed and when the City made the contribution for fiscal year 2014, the City contribution was not offset for Plan C member contributions. To account for member contributions and credits to the city funding requirement, the fiscal year 2015 contribution of $97,170,796 previously calculated as of July 1, 2013, valuation was adjusted to account for expected Plan C member contributions of 2% of pay resulting in a net City contribution of 90,489,236. The city contribution is further reduced for payments made more than required contribution after adjusting for member contributions received. This resulted in a net recommended City contribution of $86,857,159 for FYE 2015.

3. The actuarial value of assets is offset by the normal cost reserve from plan change, due to the continued recognition of prior year’s investment losses; the rate of return is below expectation with an actual rate of return for the year of 6.10%, which is compared to the expected investment return of 7.75% for the prior year. As of June 30, 2016, previous investment losses are partially being recognized and further offset by investment gains, which are being deferred for recognition in the future.

4. The unfunded actuarial liability (Actuarial Liability minus Actuarial Assets) decreased from $670.38 million on June 30, 2016, to $644.11 million on June 30, 2017. This decrease is primarily attributable to contributions toward the unfunded actuarial liability of $70.6 million and the liability gain of $11.3 million offset by the asset loss of $14interest (based on actuarial assets) and interest’s costs of the unfunded. The total recommended contribution for FYE 2018 was revised from $87,541,882 to $90,743,732 because the expected member contribution rate increases of 1% did not occur since the City did not increase pay by the required 2%. This resulted in a shortfall of contributions of $3.2 million for FYE 2018.
   The revision represents an increase in cost as a percent of pay from 21.91% to 22.72% for FYE 2018.

5. The unfunded actuarial liability (Actuarial Liability minus Actuarial Assets) decreased from $644.11 million on June 30, 2017, to $625.26 million on June 30, 2018. This decrease is primarily attributable to contributions being paid into the system to pay down the unfunded liability. The total recommended contributions decreased from $89,866,171 for FYE 2019 to $86,953,791 for FYE 2020. This represents a decrease in cost as a percentage of payroll from 22.98% to 21.55% for FYE 2020.

6. The unfunded actuarial liability (Actuarial Liability minus Actuarial Assets) increased from $625.26 million on June 30, 2018, to $679.98 million on June 30, 2019. The increase is primarily attributable to changes in actuarial assumptions including the reduction in the pre-commencement Regular Interest Rate. The total recommended contribution increased from $86,953,791 for FYE 2020 to $92,637,053 for FYE 2021. This represents an increase in cost as a percent of payroll from 21.55% to 22.07% for FYE 2021.

7. The unfunded actuarial liability increased from $679.98 million on June 30, 2019, to $686.06 million on June 30, 2020. The increase is primarily attributed to the lower-than-expected investment returns and pay increases that were higher than expected. The total recommended contribution increased from $92,637,053 for FYE 2021 to $98,640,175 for FYE 2022. This represents an increase in cost as a percentage of payroll from 22.07% to 22.56% for FYE 2022.

8. The total recommended contribution decreased from $98,640,175 for FYE 2022 to $94,788,090 for FYE 2023. This represents a decrease in cost as a percentage of payroll from 22.56% to 20.82% for FYE 2023. The expected employee contribution rate for active plan C and plan D members used to offset the City's cost is 5% of pay.

9. The total recommended contribution decreased from $94,788,090 for FYE 2023 to $89,287,690 for FYE 2024. This represents a decrease in cost as a percentage of payroll from 20.82% to 20.32% for FYE 2024. The expected employee contribution rate for active Plan C and Plan D members used to offset the City's cost is 5% of pay.

10. The total recommended contribution increased from $89,287,690 for FYE 2024 to $98,471,636 for FYE 2025. This represents an increase in cost as a percent of payroll from 20.32% to 21.47% for FYE 2025. The expected employee contribution rate for active Plan C and Plan D members used to offset the City's cost is 5% of pay.

11. The actuarially determined contribution rates in the schedule of employer contributions are calculated as of June 30, 2023. The following actuarial methods and assumptions were used to determine the contribution rates reported in the schedule:

Valuation Date	June 30, 2021
Timing	Actuarial determined contribution rates are calculated based on the actuarial valuation two years prior to the end of the fiscal year.

<u>Key methods and assumptions used to determine contribution rates:</u>

Actuarial cost method	Entry Age
Asset valuation method	Fair Value adjusted for 20% of the five-year aggregate. investment surpluses and deficits
Amortization method	Level percent of pay closed period with 11 years remaining as of June 30, 2021
Discount rate	7.00% until retirement, 6.5% after retirement.
Investment return	7.00%
Social Security Wage Base	3.00%
Inflation	2.55%
Post-Retirement Increases	1.5% until age 65 and 2% thereafter.
Salary increases	Age based salary scale.
Mortality	Healthy annuitants: Pub-2010 General Retiree Below-Median Weighted mortality tables adjusted by 115% for males and 125% for females with future mortality improvement through 2022 using SOA's Scale MP-2018 Disabled annuitants: Pub-2010 General Disabled Annuitant mortality tables adjusted by 163% for males and 145% for females with future mortality improvement through 2022 using SOA's Scale MP-2018

A complete description of the methods and assumptions used to determine contribution rates for the fiscal year ending June 30, 2023, can be found on June 30, 2021, actuarial valuation report.

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF ADMINISTRATIVE EXPENSES
For the Year Ended June 30, 2023

Salaries and wages:		
Permanent full-time salaries	$ 2,847,015	
Total salaries and wages		$ 2,847,015
Other personnel costs:		
Medical insurance and health care	543,973	
Social security	75,350	
Total other personnel costs		619,323
Contractual services:		
IT Support and supplies	423,972	
Office lease payments	290,904	
Retirement payroll processing	246,684	
Actuarial services	126,049	
Professional services	124,666	
Printing and postage	75,820	
Pension systems support	70,500	
Audit Fees	39,600	
Telephone systems	35,870	
Dues and Subscriptions	13,511	
Legal Fees	6,175	
Total contractual services		1,453,750
Others:		
Depreciation expense	78,513	
Trustee Education and meetings	36,044	
Maintenance and repairs	12,874	
Staff education and conferences	10,966	
Office Supplies	8,814	
Miscellaneous	1,551	
		148,762
Total administrative expenses		$ 5,068,850

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF INVESTMENT EXPENSES
SCHEDULE OF PAYMENTS TO CONSULTANTS
For the Year Ended June 30, 2023

Schedule of Investment Expenses

Investment expenses:	**Fees**
Investment management fees	$ 18,678,562
Investment consultant fees	455,707
Custodial fees	95,496
Subtotal	19,229,765
Securities lending fees	90,569
Total investment expenses	**$ 19,320,334**

Schedule of Payments to Consultants

Firm	**Fees**	**Nature of Service**
Corsica Technologies	$ 263,988	Computer Network Services
Magothy Technology LLC	195,530	IT Consulting and Document Management
Cheiron, Inc.	126,049	Actuarial Services
Pension Technology, Inc.	70,500	Benefits Adminstration System
Robert Half International	62,057	Temporary Staff
UHY, LLP	39,600	Financial Audit
RSM US Product Sales	30,623	Accounting System Ugrade and Maintenance
Diligent Corporation	18,377	Board meeting reports
Applied Forensics	8,000	Legal Services
Believe Wireless	5,050	Internet Service Provider
LifeStatus 360	4,307	Death Notification
Total of payments to consultants	**$ 824,081**	

Note: A schedule of fees and commissions is also illustrated in the Investment Section on page 55.

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INVESTMENT SECTION

Charles Street, north of Mt. Royal Avenue, circa 1925

INVESTMENT CONSULTANT'S REPORT

Introduction

This report, prepared for the City of Baltimore Employees' Retirement System (ERS) by Marquette Associates, Inc. is based on information supplied by the System's custodian, Mellon Bank, N.A (Mellon). Mellon provides Marquette Associates, Inc. with beginning and ending market values, cash flows, transactions, and positions for the ERS as well as each manager, where applicable. Mellon audits the information contained in its accounting reports monthly. The rates of return are calculated using a time-weighted rate of return methodology based upon market values. The returns are reported on both net of fees and gross of fees to provide comparisons with the appropriate benchmarks. Investment information is reported to the greatest degree possible in conformance with the presentation standards of Global Performance Investment Standards (GIPS) formerly known as AIMR.

Distinction of Responsibilities

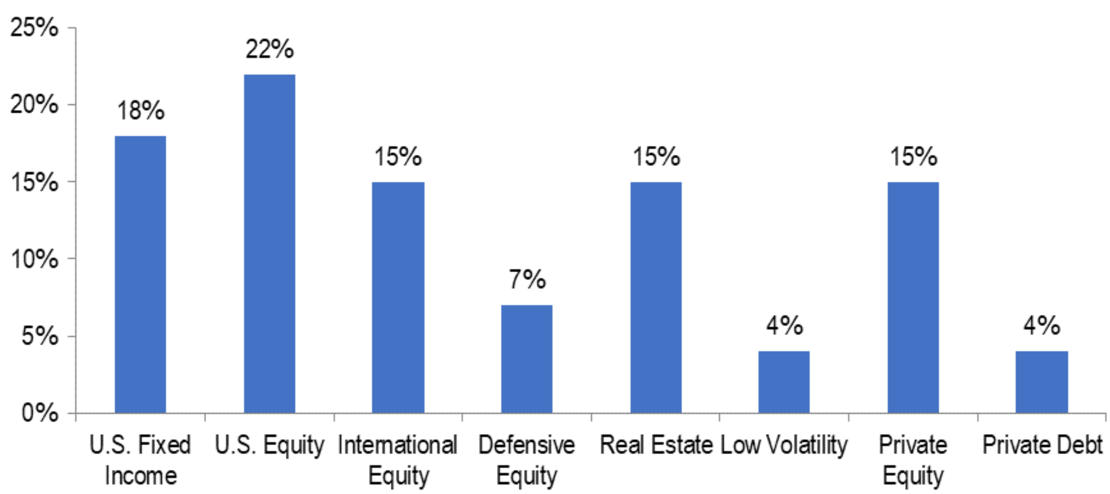
In recognition of the importance of prudent investment of System assets to both the City and the System's members, the Board, as primary fiduciary of the System, shall periodically review the asset management and actuarial characteristics of the System to ensure that investments are managed in a manner that is consistent with the retirement objectives of the System's members. These responsibilities are detailed in the Investment Guidelines.

The primary investment objectives of the System are to preserve the capital value of the System assets adjusted for inflation, to ensure adequate liquidity to meet benefit liabilities as they fall due, to meet the actuarial interest rate assumptions, and without unduly jeopardizing the above objectives, to exceed the investment return objective by the astute management of System assets.

The investment managers appointed to execute the policy will invest ERS assets in accordance with the policy guidelines and with their judgment concerning relative investment values. In particular, the investment managers are accorded full discretion to: (1) select individual securities, (2) make periodic strategic adjustments to the mix of the common stock and fixed income securities, where applicable and (3) diversify their portfolios.

Investment Asset Allocation Structure

The goal of the asset allocation structure is to provide a favorable rate of return coupled with a prudent level of risk. The System conducted an asset allocation analysis and added exposure to private credit investments in order to achieve long term return objectives while reducing risk and diversify the portfolio. The following table outlines the ERS's investment policy targets:



Investment Objective

The investment return is evaluated against a policy benchmark consisting of a pro rata representation of the asset allocation utilizing indices outlined in the Investment Policy. In addition, the ERS's performance is evaluated relative to the Investment Metrics Public Fund Universe, a universe representing the performance of 64 Public Funds with greater than $1 Billion in assets. Marquette utilizes the InvestorForce Performance Reporting network, an advanced and comprehensive analysis and performance management platform, comprised of over 100 different investment consulting firms located throughout the United States.

Market Overview

The economy has continued to defy economist expectations of an impending recession. Interest-rate sensitive sectors (housing, autos, etc.) weighed on the economy in late 2022 and early 2023, but steadied in the last months of the fiscal year amid the stabilization in interest rates. Consumer spending, meanwhile, remained resilient, despite the Q2 slowdown as excess savings accumulated during the pandemic and a tight labor market continues to generate nominal wage growth that is well above its average level seen over the past couple of decades. In this environment, global equities rallied in 2023 on the back of stronger-than-expected economic growth and a respite from U.S. banking concerns. U.S equities topped their international developed and emerging markets counterparts with double digit gains of 19% for the U.S. stock market and 13% for the international stocks. Fixed income markets were mixed, with investment-grade bonds in the red due to higher rates across the yield curve. Sub-investment grade debt, on the other hand, posted gains, with bank loans outperforming high-yield debt given their floating-rate characteristics. Elevated interest rates, lower transaction volume, and slowing rent growth are weighed on real estate valuations during the year, as the core real estate market posted a negative -10% return.

Investment Performance

For the fiscal year ending June 30, 2023, the System posted a positive gain of 6.4% return which outperformed the policy benchmark of 6.0% but lagged in the peer group During a period of negative fixed income returns and rising interest rates, exposure to floating rate debt added value to returns. International equity investment strategies also outpaced their respective benchmarks over the fiscal year. Value oriented managers that contributed to strong performance in the prior fiscal year, detracted from returns as growth oriented investments led.

The market value of the ERS assets increased from the prior year to finish at $2,018.4 million. The Total Fund market value for this report included both capital appreciation and cash flow activity. At the end of fiscal year 2023, the System's assets were allocated as follows:

			Fiscal Year Rate of Return	
	Fair Value (in millions)	Percent of Total	ERS	Benchmark
U.S. Equity	$403.7	20.0%	14.5%	19.0%
International Equity	$311.3	15.4%	12.3%	13.1%
U.S. Fixed Income	$366.6	18.2%	3.9%	-0.9%
Real Estate	$272.9	13.5%	-9.5%	-10.0%
Defensive Equity	$145.2	7.2%	13.2%	12.1%
Private Equity*	$429.3	21.3%	5.8%	-1.5%
Low Volatility Equity	$77.5	3.8%	5.7%	3.9%
Cash Equivalents	$11.9	0.6%	---	---
Total Fund	$2,018.4	100.0%	6.4%	6.0%

*Private Equity returns are one year through March 31, 2023.

Nichole Roman-Bhatty

Nichole Roman-Bhatty
Managing Director
Marquette Associates, Inc.

Prepared by Marquette Associates, Inc.

Employees' Retirement System
City of Baltimore, Maryland
OUTLINE OF INVESTMENT OBJECTIVES AND POLICIES

Investment Objectives

The primary investment objectives of the Employees' Retirement System (the Plan) are set forth below. It is recognized that maximizing any one objective may compromise the achievement of other objectives. For example, maximizing liquidity may reduce investment return; seeking maximum investment return may subject capital preservation to higher risk. Accordingly, the following investment objectives are given in descending order of priority:

1. To preserve the capital value of the Plan adjusted for inflation.
2. To ensure adequate Plan liquidity to meet benefit liabilities as they fall due.
3. To meet the actuarial interest rate assumptions.
4. Without unduly jeopardizing the above objectives, to exceed the investment return objective by the astute management of funds.

General Investment Policy

The Employees' Retirement System must comply with investment restrictions imposed by the laws of the City of Baltimore and any other State or Federal laws dealing with investment of public retirement plan assets. The Plan's investment managers are expected to familiarize themselves with these laws.

Investment policy for the Plan relates to the portfolio of all assets that comprise the total holdings of the Plan. The Board of Trustees (Board) recognizes that the objective of a sound and prudent policy is to produce investment results that will preserve the assets of the Plan, as well as to maximize earnings of the Plan consistent with its long-term needs. These long-term needs have been ascertained through various studies performed on behalf of the Board by its actuary and its investment advisor. Investment policy and the long-term average allocation of plan assets to which they refer are deemed to be consistent with the projected pattern of cash flows to the Plan and its projected benefit payments. Should the projected finances of the Plan change significantly, the applicable Federal or State statutes be amended, or changes in the Plan's asset valuation methods be adopted, these policies and average asset allocations will be reviewed and modified by the action of the Board, if appropriate.

In general, the Board recognizes that large pools of assets must be diversified over several different security classifications to reduce risk. The following asset allocation has been established as an overall objective for the total holdings of the Plan:

Asset Category	Target Allocation
Domestic equity	22%
Fixed Income	18%
International equity	15%
Private Equity	15%
Real Estate	15%
Defensive equity	7%
Low Volatility	4%
Private Debt	4%

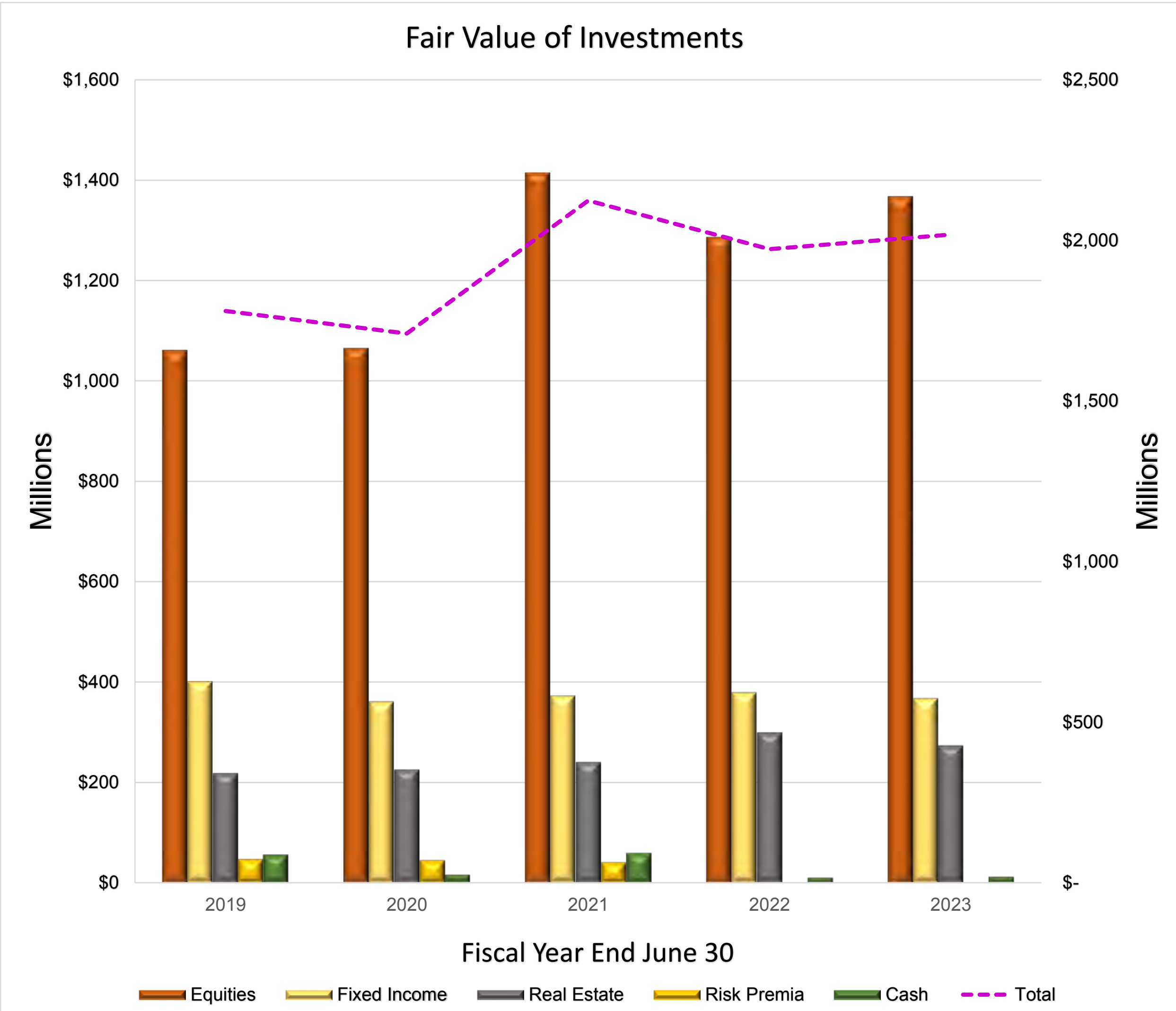
Within each major security classification, investments should be diversified and excessive concentration in any particular security, company or industry is to be avoided. Detailed guidelines in this regard have been supplied to each of the Plan's investment managers. Additionally, each is expected to be familiar with the investment provisions in Article 22 of the Baltimore City Code. Subject to these objectives and guidelines, and the Plan laws referenced herein, the investment managers shall have full discretion of investment decisions. Managers are advised to notify the Board in writing if these objectives cannot be met or if the guidelines constrict performance and are encouraged to suggest changes to these guidelines at any time.

Proxy Voting

Pursuant to a U.S. Department of Labor directive, the Board of Trustees has a long-standing policy that, when solicitations of proxies with respect to securities are received by an investment manager, the decisions as to whether and how to vote such proxies are delegated to that investment manager.

The Board also recognizes, however, that the investment manager's decisions must be made in accordance with applicable legal standards and that the Board has an obligation to ensure that those standards are being observed. Therefore, the Board requests that annually (June 30) each management firm furnish the Plan with a written statement of their policy and practices with respect to the voting of securities held in their employee benefit plan asset portfolios, together with their written assurance that such policies and practices are being followed. These statements and assurances will be included, and will be given appropriate weight, in the Board's continuing evaluation of each manager's overall investment performance.

Employees' Retirement System
City of Baltimore, Maryland
PORTFOLIO COMPOSITION



(amounts expressed in millions)

	2019		2020		2021		2022		2023	
Equities	$ 1,061	60%	$ 1,065	62%	$ 1,414	67%	$ 1,286	65%	$ 1,367	68%
Fixed Income	400	22%	360	21%	372	18%	378	19%	367	18%
Real Estate	218	12%	225	13%	240	11%	299	15%	273	13%
Risk Premia	46	3%	44	3%	40	2%	0	0%	0	0%
Cash	55	3%	16	1%	58	3%	10	1%	12	1%
Total	$ 1,780	100%	$ 1,710	100%	$ 2,124	100%	$ 1,973	100%	$ 2,018	100%

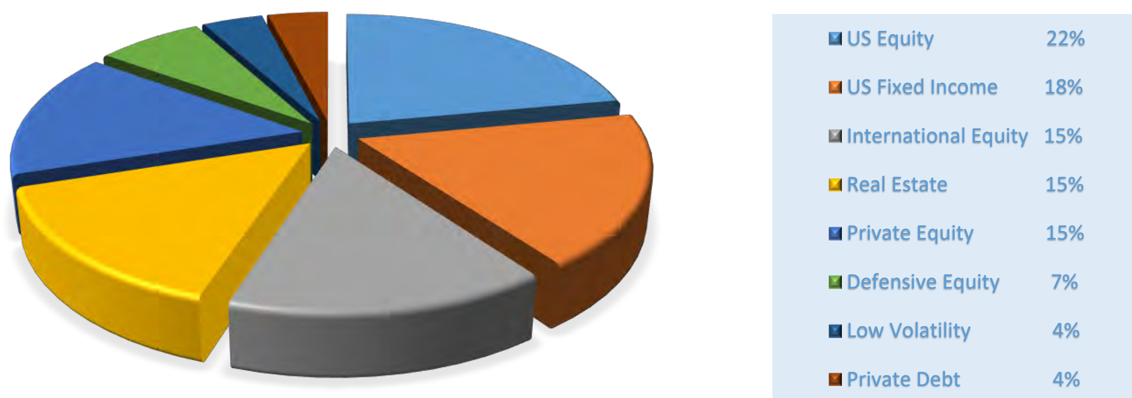
Employees' Retirement System
City of Baltimore, Maryland
INVESTMENT RESULTS
TIME WEIGHTED RATE OF RETURN, CURRENT VALUE BASIS

		Annualized		
	FY 2023	**3 Years**	**5 Years**	**10 Years**
TOTAL PORTFOLIO	6.4 %	9.6 %	7.2 %	8.0 %
Median Public Pension Fund	6.0	7.6	6.0	7.1
Target Rate of Return 7%	7.0	7.0	7.0	7.0
DOMESTIC EQUITIES	14.5	11.9	8.9	10.8
Russell 3000	19.0	13.9	11.4	12.3
DEFENSIVE EQUITIES	13.2	10.8	8.0	-
CBOE Put Write Index	12.1	13.6	6.3	7.1
50% S&P 500/50% 91 Day T-Bill	11.9	8.2	7.2	7.0
INTERNATIONAL EQUITIES	11.1	7.9	4.2	6.0
MSCI ACWI ex-US	13.3	7.7	4.0	5.2
FIXED INCOME	3.9	(1.0)	1.8	2.3
Bloomberg US Aggregate	(0.9)	(4.0)	0.8	1.5
REAL ESTATE	(11.1)	6.5	6.2	8.3
NFI-ODCE	(10.0)	8.0	6.5	8.7
CPI + 5%	8.1	11.0	9.1	7.8
PRIVATE EQUITY COMPOSITE	5.8	29.6	21.0	17.6
Cambridge Associates All PE	(1.5)	22.1	16.3	15.5
CPI + 6%	6.4	11.6	10.1	8.8
XPONANCE	15.9	9.4	4.4	6.7
Xponance Benchmark	12.7	7.2	3.4	6.1
Low Volatility Composite	5.7	8.7	-	-
S&P 500 Low Volatility	3.9	10.6	8.3	10.0

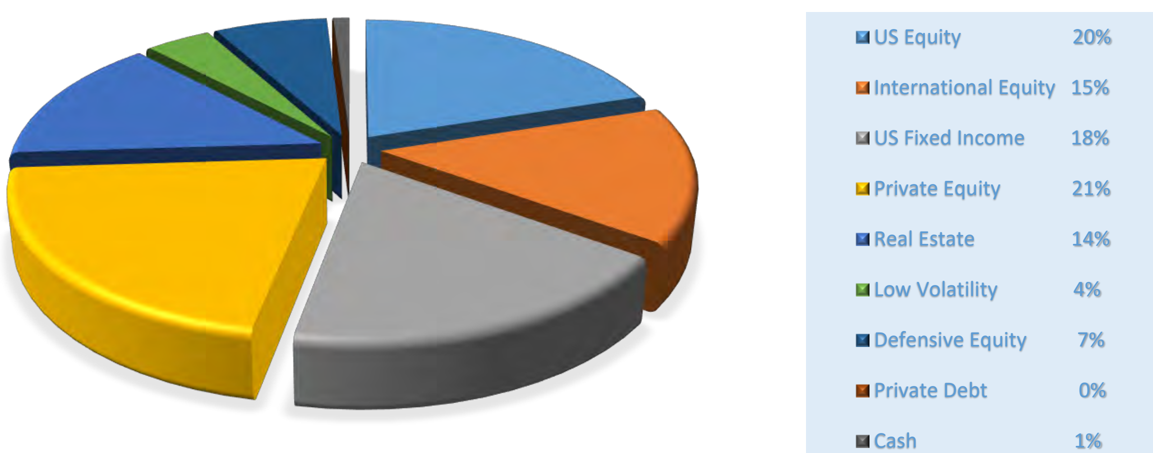
Note: The calculations above were prepared by the Employees' Retirement System's investment advisor, Marquette Associates, Inc. using a time weighted rate of return, based on market rate of return. The performance shown for the Total Portfolio does not include "Other Assets" dedicated to the payment of post-retirement benefit increases. The Median Public Pension Fund exhibits the overall rate of return for the average Public Pension Plan as measured by the Investorforce Public Universe.

Employees' Retirement System
City of Baltimore, Maryland
ASSET ALLOCATION - ACTIVELY MANAGED ACCOUNTS
June 30, 2023

TARGET ASSET ALLOCATION



ACTUAL ASSET ALLOCATION



Employees' Retirement System
City of Baltimore, Maryland
TOP EQUITY AND FIXED INCOME HOLDINGS BY FAIR VALUE
June 30, 2023

		Shares	Fair Value
TOP TEN DOMESTIC EQUITY HOLDINGS			
1	Fedex Corp	21,300	5,280,270
2	Verizon Communications Inc	107,800	4,009,082
3	Dow Inc	75,000	3,994,500
4	General Dynamics Corp	17,950	3,861,943
5	Chevron Corp	21,100	3,320,085
6	Walgreens Boots Alliance Inc	116,300	3,313,387
7	Cisco Systems Inc	63,200	3,269,968
8	CVS Health Corp	42,404	2,931,389
9	Amgen Inc	13,200	2,930,664
10	JP Morgan Chase & Co	19,700	2,865,168
	Total		35,776,456
TOP TEN INTERNATIONAL EQUITY HOLDINGS			
1	Deutsche Boerse Ag	21,004	3,874,988
2	Roche Holding Ag	11,101	3,393,644
3	Baidu Inc	24,073	3,295,834
4	Koninklijke Ahold Delhaize Nv	77,240	2,634,244
5	Cie Generale Des Etablissement	86,626	2,557,413
6	Endesa Sa	118,412	2,538,534
7	Gsk Plc	133,700	2,360,675
8	Philip Morris International In	24,056	2,348,347
9	Diploma Plc	49,842	1,890,860
10	Credicorp Ltd	12,743	1,881,377
	Total		26,775,916
TOP TEN DOMESTIC FIXED INCOME HOLDINGS			
1	U S Treasury Note	9,125,000	8,608,217
2	Commit To Pur FNMA Sf Mtg	7,618,000	6,569,692
3	Commit To Pur GNMA II Jumbos	3,310,000	2,957,286
4	FNMA Pool #0MA4398	2,586,237	2,115,335
5	FNMA Pool #0FS2041	2,184,413	1,786,850
6	FNMA Pool #0MA4600	1,836,940	1,674,628
7	GNMA II Pool #0MA8200	1,494,090	1,413,513
8	FNMA Pool #0MA4562	1,719,908	1,404,133
9	FNMA Pool #0MA4761	1,423,862	1,396,880
10	FNMA Pool #0MA4700	1,481,147	1,390,190
	Total		29,316,724

A complete list of portfolio holdings is available on request.

Employees' Retirement System
City of Baltimore, Maryland
INVESTMENT SUMMARY
June 30, 2023

		Fair Value	Percentage of Fair Value	Percentage of Total Fair Value
Equities - Corporate Stock				
Science and Technology	$	121,686,489	9.0%	
Financial		88,717,172	6.6%	
Consumer and Capital Goods		80,869,994	6.0%	
Health Care and Pharmateuticals		58,939,042	4.4%	
Energy		49,221,450	3.6%	
Industrial and Machinery		34,696,193	2.6%	
Transportation		24,648,214	1.8%	
Commercial Services		22,224,670	1.6%	
Engineering & Construction		18,876,897	1.4%	
Aerospace/Defense		16,419,502	1.2%	
Telecommunications		14,667,927	1.1%	
Media and Entertainment		12,287,639	0.9%	
Agriculture		11,014,667	0.8%	
Others		6,008,168	0.4%	
Total Equties - Corporate Stocks		560,278,024	41.4%	
Others				
Private Equity		429,183,331	31.7%	
Defensive Equity		145,177,258	10.7%	
Commingled Domestic Equity		114,426,833	8.5%	
Commingled International Equity		103,161,829	7.6%	
Total Others		791,949,251	58.6%	
Total equities		**1,352,227,275**	100.0%	**67.9%**
Fixed Income:				
US Quasi and Foreign Government		53,599,405	14.6%	
U.S. Treasury		20,797,723	5.7%	
		74,397,128	20.3%	
Corporate:				
Financial		53,017,526	14.5%	
Industrial and Machinery		4,627,748	1.3%	
Health Care and Pharmateuticals		2,615,783	0.7%	
Energy		1,871,642	0.5%	
Consumer and Capital Goods		1,565,655	0.4%	
Science and Technology		1,232,306	0.3%	
Aerospace/Defense		590,838	0.2%	
Transportation		499,129	0.1%	
Telecommunications		459,346	0.1%	
Commercial Services		335,812	0.1%	
Media and Entertainment		146,855	0.0%	
Total corporate		66,962,640	18.3%	
Commingled Fixed Income		224,932,313	61.4%	
Total fixed income		**366,292,081**	**100.0%**	**18.4%**
Other investments:				
Real estate		273,959,159	100.0%	
Total other investments		**273,959,159**	**100.0%**	**13.7%**
Total investments	**$**	**1,992,478,515**		**100.0%**

Employees' Retirement System
City of Baltimore, Maryland
SUMMARY SCHEDULE OF FEES AND COMMISSIONS
For the Year Ended June 30, 2023

Investment managers' fees	**Assets Under Management**	**FY 2023**
Private Equities	$ 429,183,331	$ 11,533,928
Real Estate	273,959,159	3,237,641
International Equities	304,301,819	1,799,036
Domestic Equities	473,564,867	1,323,571
Domestic Fixed Income	366,292,081	729,196
Mutual Funds		55,190
Total investment managers' fees		**$ 18,678,562**
Other investment service fees:		
Investment consultant fees		$ 455,707
Custodial fees		95,496
Securities Lending Collateral		90,569
Total other investment service fees		**$ 641,772**

Brokerage Fees

Broker's fees on investment transactions for the year ended June 30, 2023 amounted to $195,460. The highest 30 paid brokers are listed below.

Brokerage Firms	**Amount of Commissions**	**Number of Shares Traded**	**Commission per Share**	**Brokerage Firms**	**Amount of Commissions**	**Number of Shares Traded**	**Commission per Share**
BNY Capital Markets Inc, New York	$ 20,320	552,903	$ 0.0368	Cap Instl Svcs Inc - Equities, New York	$ 3,405	97,289	$ 0.0350
Intl Trading Inc, New York	10,359	345,284	0.0300	Credit Lyonnais Secs (Asia), Hong Kong	3,348	3,838,357	0.0009
Raymond James & Assoc Inc, St Petersburg	9,210	342,228	0.0269	Jefferies & Co Ltd, London	3,315	3,319,074	0.0010
Piper Jaffray & Co., Jersey City	8,232	1,378,517	0.0060	Jonestrading Inst Svcs LLC, New York	3,057	89,178	0.0343
Liquidnet Inc, New York	7,519	279,315	0.0269	Goldman Sachs & Co, NY	2,872	118,470	0.0243
Loop Capital Markets, Jersey City	6,082	256,448	0.0237	Baird, Robert W & Co Inc, Milwaukee	2,842	109,576	0.0259
Pershing LLC, Jersey City	5,220	261,474	0.0200	Security Capital Brokerage, Jersey City	2,791	126,041	0.0221
Jefferies & Co Inc, New York	5,150	222,650	0.0231	Exane, Paris (Exanfrpp)	2,673	301,608	0.0089
Cabrera Capital Markets, Chicago	5,094	210,530	0.0242	Keybanc Capital Markets Inc, New York	2,566	89,780	0.0286
Instinet Europe Limited, London	4,729	589,691	0.0080	Keefe Bruyette + Woods Inc, New York	2,558	88,883	0.0288
RBC Capital Markets LLC, New York	3,949	133,559	0.0226	Btig LLC, New York	2,391	478,116	0.0050
Williams Capital Group LP, Jersey City	3,885	166,041	0.0234	Stifel Nicolaus	2,311	90,402	0.0256
Merrill Lynch Intl London Equities	3,824	1,041,913	0.0037	Morgan Stanley And Co., LLC, New York	2,281	295,938	0.0077
Percival Finl Partners Ltd,Lake Success	3,771	125,700	0.0300	Smbc Nikko Capital Markets Ltd, London	2,193	165,421	0.0133
Northern Tr Secs, Chicago	3,705	123,500	0.0300	J.P Morgan Securities Inc, New York	2,037	74,336	0.0274

Brokerage Commissions

Because of the highly visible nature of the Employees' Retirement System, it is important that the investment managers have as a primary objective in investment transactions to obtain the best execution in all cases. While the investment managers are permitted to direct a portion of commissions for research, it is expected that each manager will receive commission discounts which are commensurate with current discount practice. Investment managers are expected to give first preference whenever possible to brokerage firms with offices located in the Baltimore Metropolitan Area. However, the managers are expected to negotiate commission rates, and local brokerage firms should be given preference only when commission rates and transaction services are competitive with those available from other firms.

Employees' Retirement System
City of Baltimore, Maryland
INVESTMENT PROFESSIONALS

EQUITY MANAGERS

Analytic Investors
Sonya Y. Rorie, CFA, CPA
Baltimore, Maryland

DF Dent
Mike Morrill
Baltimore, Maryland

Channing Capital
Richard Turnley, III .
Atlanta, Georgia

Earnest Partners
Jeffrey Jackson
Atlanta, Georgia

The Edgar Lomax Company
Randall Eley
Springfield, Virginia

Rhumbline Advisers
Denise A. D'Entremont
Boston, Massachusetts

DEFENSIVE EQUITY MANAGER

Neuberger Berman
Carter Reynolds
New York, New York

INTERNATIONAL EQUITY MANAGERS

Ariel Capital Management
Gary L. Rozier
New York, New York

Harding Loevner, LP
Alec Walsh, CFA
Bridgewater, New Jersey

Mondrian Investment Partners
Laura Conlon
Philadelphia, Pennsylvania

SSGA Emerging SC
Rocky Granahan
Boston, Massachusetts

Xponance (formerly FIS Group)
Tina Byles Williams
Philadelphia, Pennsylvania

FIXED INCOME MANAGERS

Pacific Asset Management
Michael Spitler
Newport Beach, California

Payden & Rydel
Elizabeth Westvold
Boston, Massachusetts

Pugh Capital
Deanna Hobson
Seattle, Washington

Medalist Partners (Formerly Semper)
Thomas Mandel
New York, New York

REAL ESTATE MANAGERS

American Realty Advisors
Stanley Lezman
Glendale, California

Barings Real Estate Advisors
Pamela McKoin
Hartford, Connecticut

Basis Investment Group
Tammy Jones
New York, New York

Artemis Real Estate Partners
Rachel Salerno
Chevy Cha

Thor Urban
Joseph J. Sitt
New York, New York

PRIVATE EQUITY MANAGERS

Abbott Capital Management
Kathryn Stokel
New York, New York

Adams Street Partners, LLC
Michael Lucarelli
New York, New York

Avance Investment Partners
David Perez
New York, New York

BlackRock Global
Cathleen M. Ellsworth
Greenwich, Connecticut

Chicago Pacific Founders
Matthew P. Doyle
Chicago, Illinois

GenNx360
Carmen Rojas
Clifton, New Jersey

I Squared Capital
David Velasquez
New York, New York

Landmark Partners
Francisco L. Borger
Simsbury, Connecticut

Lightspeed Ventures
Kathleen Forte
Menlo Park, California

Oaktree Capital Management
Jason Oberg
New York, New York

RCP Advisors. LLP
Michael Feinglass
Chicago, Illinois

Reverence Capital Partners
David Pollack
New York, New York

RLJ Equity Partners, II
Rufus H. Rivers
Bethesda, Maryland

Siris Partners, IV
Phillip Lo
New York, New York

Stellex Capital
Courtney Mehrotra
New York, New York

Summit Partners
Adam Hennessey
Boston, Massachusetts

Tailwater Energy Fund, IV
Lindsay Grider
Dallas, Texas

Vivo Capital Fund, IX, L.P.
Cinthia Sheu
Palo Alto, California

The Vistria Group
Gennell Jeferson
Chicago, Illinois

Vitruvian Investment
Enno Marcard
London

Warburg Pincus
James W. Wilson, CFA
New York, New York

SECURITIES LENDING

BNY Mellon Global Securities Lending
Michael McDermott
Pittsburgh, Pennsylvania

PASSIVE MANAGEMENT

Mellon Capital Management Corp.
Brian Hock
Pittsburgh, Pennsylvania

GLOBAL CUSTODIAN

BNY Mellon Asset Servicing
Sarah Baulch
Pittsburgh, Pennsylvania

INVESTMENT ADVISORS

Marquette Associates, Inc.
Nichole Roman-Bhatty
Chicago, Illinois

Meketa Investment Group
Judy Chambers
New York, New York

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ACTUARIAL SECTION

Canton Company row houses, circa 1905

November 2, 2023

Board of Trustees
Employees' Retirement System
7 East Redwood Street, 12th Floor
Baltimore, Maryland 21202-3470

Re: 2023 Annual Comprehensive Financial Report
The Employees' Retirement System of the City of Baltimore

Honorable Members of the Board of Trustees:

Cheiron Inc. performs an actuarial valuation of the System at the end of each fiscal year. The most recent valuation, as of June 30, 2023, determined the employer's contribution for the plan year beginning June 30, 2024. The contribution is determined for the following year and therefore, it is our understanding the contribution plus interest is historically made during the fiscal year ending 2025.

The Employees' Retirement System's funding objective is to meet long-term benefit promises through contributions which spread the cost over the employees' service base. If the contributions to the System are soundly executed, the System will pay all promised benefits when due – the ultimate test of financial soundness.

The funding method used in the annual valuation is the Entry Age Normal Cost method. This method tends to compute level contributions as a percentage of pay over the entire working lifetime of the plan participant. The employer's contribution is increased or decreased to amortize the difference between the actuarial value of assets and the actuarial accrued liability as a level dollar amount over 20 years as of July 1, 2011. The Board of Trustees adopted a one-time change to the amortization period by adding a one-year extension to the period for the June 30, 2019 valuation, targeting 100% funding by the fiscal year ending 2033.

The valuation is based on a closed group of membership; no new hires are assumed. The actuarial value of assets for this disclosure is equal to the market value adjusted for investment performance above or below the assumed rate of return. Such gains or losses are aggregated and recognized at the rate of 20% each year. Membership data used for the actuarial valuation is supplied by the Retirement System. The data is examined by the actuary for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23. Asset information is provided on an unaudited basis.

The valuation is based on actuarial assumptions recommended by the Actuary and approved by the Board of Trustees and are subject to formal review every five years. The assumptions and methods used for funding purposes meet the parameters set forth in the disclosures presented in the financial section by Governmental Accounting Standards Board (GASB) Statement No. 67 and the Actuarial Standards of Practice. Some actuarial assumptions are incorporated into Article 22 of the Baltimore City Code. The City Code requires a periodic review of the assumptions by the Actuary. The most recent review examined experience from 2018 to 2022 and resulted in changes that were incorporated in the June 30, 2023 valuation. The current assumptions are a reasonable estimate of the anticipated experience of the System.

The assumptions and methods used in determining the assets, liabilities, and the annual required contributions of the employer as defined by the Governmental Accounting Standards Board meet the parameters set by GASB Statement No. 67, *Financial Reporting for Pension Plans.* The supporting schedules that were prepared by Cheiron and reviewed by the System include Actuarial Funding Methods and Actuarial Assumptions, Schedule of Active Member Valuation Data, Schedule of Retirees and Beneficiaries Removed from Rolls, Solvency Test, Analysis of Financial Experience in the Actuarial Section and the Schedule of Employer Contributions and the Schedule of Funding Progress in the Financial Section. The undersigned meet the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained in this letter and the actuarial report.

These results were prepared solely for the Employees' Retirement System of the City of Baltimore for the purposes described herein, except that the plan auditor may rely on these results solely for the purpose of completing an audit related to the matters herein. Other users of these results are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

The exhibits that make up the actuarial section of this report and its contents, including the methods and assumptions used for funding purposes, when taken in context with our full valuation report as of June 30, 2023, have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

Sincerely,
Cheiron

Anu Patel

Anu Patel, FSA, MAAA, EA
Principal Consulting Actuary

Matt Deveney, FSA, MAAA, EA
Principal Consulting Actuary

Attachments

ACTUARIAL FUNDING METHODS AND ACTUARIAL ASSUMPTIONS

Actuarial Funding Method

Method of Funding: (Effective 7/1/1989, Revised 6/30/2019)	Liabilities and contributions shown in this report are computed using the Entry Age Normal method of funding. The Plan's normal cost is computed as the level percentage of pay required to fund the retirement benefits between each member's date of hire and assumed retirement plus administrative expenses. The actuarial accrued liability is the difference between the present value of future benefits and the present value of future normal cost. The current Unfunded Actuarial Liability, which is the difference between the actuarial liability and the actuarial value of assets, is amortized as a level dollar amount over 20 years initially plus a one-year extension approved by the Board for the June 30, 2019 valuation. The 20-year period decreases each year (with the exception of 2019) from 2011 until 2032, at which time the unfunded liability will be fully paid each year.
Asset Valuation: (Effective 6/30/1982, Revised 6/30/2011)	The actuarial value of assets is equal to the market value, adjusted for investment surpluses and deficits over a five-year period. The actuarial value of assets is the market value less cumulative unallocated earnings. Any contribution receivable for the upcoming fiscal year (as determined in the prior year's valuation) is added to the result. The actuarial value of assets will not be greater than 120% nor less than 80% of the market value of assets as of the valuation date.

Valuation Software:	Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.
Post Retirement Benefit Increases: (Effective 6/30/2011)	Annual post-retirement benefit increases are 1.5% for retirees under age 65 and 2.0% for retirees over age 65.

Actuarial Assumptions

Interest: (Effective 6/30/2019)	7.00% compounded annually until retirement except employee accumulations; 6.50% compounded annually after retirement.
Expenses: (Effective 6/30/2015)	Administrative expenses are expected to be equal to the prior years' actual expenses rounded up to the next hundred thousand dollars and added as part of the annual normal cost for the year. Investment expenses are assumed to be paid out of investment earnings.
Investment Return:	A liability weighted return on assets is expected on the basis that a 7.00% return is achieved on the portion of assets attributable to active participants, and a 6.50% return is assumed for non-active based assets. The weighted expected return this year is 6.72%. The liability weighted return on assets for next year's valuation will be based on the rates listed in the interest rate section above.

ACTUARIAL FUNDING METHODS AND ACTUARIAL ASSUMPTIONS

Salary Scale:
(Effective 6/30/2023)

Salary increases are assumed to vary with age. Sample rates are as follows:

Age	Annual Rate of Salary Increase
20	0.0590
25	0.0650
30	0.0570
35	0.0500
40	0.0450
45	0.0420
50	0.0400
55	0.0370
60	0.0360
65	0.0330

The interest rate and salary assumptions are based on an inflation rate of approximately 2.55% (Effective 6/30/2019).

Social Security:
(Effective 6/30/2011)

3.00% per year compounded annually.

Additional Assumptions:

Inflation: (Effective 6/30/2019)	2.55%
Cost of Living Adjustment: (Effective 7/1/2010)	1.50% for current retirees under age 65 and 2.0% for current retirees over age 65
Percent Married: (Effective 7/1/2011)	Males 90%, Females 80%
Spouse Age:	A husband is assumed to be 4 years older than his wife.
Remarriage rates:	None
Job Elimination Benefit:	A liability load of 1.75% is applied to active retirement benefits
Inactive Liabilities:	A liability reduction of 5.00% is applied to inactive benefits to account for the election rate of joint and survivor forms of payments when compared to actual experience (effective 6/30/2019).
New Entrant Assumption:	A liability load of 0.5% is applied to active benefits for future new entrants who may have previous service restored or transferred into the System (effective 6/30/2015)

ACTUARIAL FUNDING METHODS AND ACTUARIAL ASSUMPTIONS

Active decrements and service retirement rates are the same as presented in the June 30, 2023 actuarial valuation report. (Effective 6/30/2023) Sample rates follow:

Rates of Retirement

AGE	< 30 yos	30 yos	30 + yos
45 -49	0.00	0.00	0.05
50	0.00	0.10	0.05
51	0.00	0.10	0.05
52	0.00	0.10	0.10
53	0.00	0.10	0.10
54	0.00	0.20	0.10
55	0.04	0.20	0.05
56	0.04	0.05	0.05
57	0.04	0.05	0.05
58	0.04	0.20	0.05
59	0.04	0.20	0.05
60	0.05	0.20	0.05
61	0.06	0.10	0.10
62	0.10	0.10	0.15
63	0.10	0.10	0.10
64	0.10	0.10	0.15
65	0.15	0.25	0.20
66	0.20	0.25	0.20
67	0.15	0.25	0.15
68	0.15	0.25	0.15
69	0.15	0.25	0.15
70	1.00	1.00	1.00

Withdrawals

Service	Rate
0	0.1650
1	0.1500
2	0.1350
3	0.1050
4	0.0900
5	0.0900
6	0.0850
7	0.0800
8	0.0625
9	0.0525
10	0.0525
11	0.0550
12	0.0400
13	0.0400
14	0.0400
15+	0.0275

Mortality and Disablity Rates

AGE	Non-Line-of-Duty Disability	Line-of Duty Disability	Non-Line-of-Duty Death Male	Non-Line-of-Duty Death Female	Line-of Duty Death
25	0.00040	0.00005	0.000624	0.000205	0.00005
30	0.00050	0.00004	0.000949	0.000369	0.00005
35	0.00090	0.00011	0.001361	0.000597	0.00005
40	0.00075	0.00003	0.001740	0.000798	0.00005
45	0.00189	0.00016	0.002069	0.000985	0.00005
50	0.00409	0.00016	0.002681	0.001339	0.00005
55	0.00578	0.00042	0.003883	0.002093	0.00005
60	0.00662	0.00068	0.006019	0.003333	0.00005
65	0.00216	0.00033	0.008705	0.004949	0.00005
69	0.00068	0.00007	0.011278	0.006866	0.00005

Mortality Rates for Retired and Disabled Members and Beneficiaries

1. Retirees and Beneficiaries – Pub-2010 General Retiree Below-Median Weighted mortality tables adjusted by 130% for males and 129% for females with future mortality improvement through 2026 using SOA's Scale MP-2021.
2. Disabled Members – Pub-2010 General Disabled Annuitant mortality tables adjusted by 183% for males and 120% for females with future mortality improvement through 2026 using SOA's Scale MP-2021.

	Retirees and Beneficiaries		Disabled Members	
AGE	**Male**	**Female**	**Male**	**Female**
55	0.010932	0.005773	0.036107	0.019903
60	0.013989	0.006878	0.045513	0.023482
65	0.016696	0.008340	0.054696	0.025184
70	0.024587	0.013126	0.064725	0.029392
75	0.039131	0.022760	0.082231	0.040785
80	0.066602	0.041584	0.116626	0.063524

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	Annual Average	% Increase/ (Decrease) in Average Pay
6/30/2012	9,107	$390,557,576	$42,885	2.5%
6/30/2013	9,004	392,868,271	43,633	1.7
6/30/2014	8,904	401,291,783	45,069	3.3
6/30/2015	8,673	408,095,216	47,054	4.4
6/30/2016	8,274	399,465,753	48,280	2.6
6/30/2017	8,043	391,121,606	48,629	0.7
6/30/2018	8,013	403,454,892	50,350	3.5
6/30/2019	8,204	419,686,035	51,156	1.6
6/30/2020	8,204	437,242,419	53,296	4.2
6/30/2021	8,332	455,219,365	54,635	2.5
6/30/2022	7,725	439,326,244	56,871	4.1
6/30/2023	7,534	458,637,682	60,876	7.0

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

	Added to Rolls		Removed from Rolls		Rolls - End of Year		% Increase in	Average
		Annual		Annual		Annual	Annual	Annual
Year Ended	No.	Allowances*	No.	Allowances*	No.	Allowances*	Allowances	Allowances
6/30/2012	497	$10,860,356	451	$4,339,871	8,739	$120,972,909	5.7%	$13,843
6/30/2013	501	10,216,250	432	5,192,731	8,808	125,996,428	4.2	14,305
6/30/2014	421	10,499,144	336	5,588,634	8,893	130,906,938	3.9	14,720
6/30/2015	393	10,089,809	388	6,224,773	8,898	134,771,974	3.0	15,146
6/30/2016	477	11,100,024	368	5,525,068	9,007	140,346,930	4.1	15,582
6/30/2017	436	10,896,681	299	5,283,016	9,144	145,960,595	4.0	15,962
6/30/2018	417	10,795,452	358	5,807,090	9,203	150,948,957	3.4	16,402
6/30/2019	481	11,869,460	417	7,598,990	9,267	155,219,427	2.8	16,750
6/30/2020	355	10,741,069	360	5,981,984	9,262	159,978,512	3.1	17,272
6/30/2021	334	11,013,835	402	7,914,464	9,194	163,077,883	1.9	17,736
6/30/2022	406	13,241,421	393	7,625,569	9,207	168,693,735	3.4	18,321
6/30/2023	352	11,201,804	374	6,821,602	9,185	173,073,937	2.6	18,842

* Includes post-retirement adjustments.

SCHEDULE OF FUNDED LIABILITIES BY TYPE

The Employees' Retirement System's funding objective is to meet long-term benefit promises through contributions which spread the cost over the employees' service base. If the contributions to the System are soundly executed, the System will pay all promised benefits when due – the ultimate test of financial soundness.

A short-term solvency test is one means of examining progress under its funding program. In a short-term solvency test, the plan's present assets are compared with: 1) Active member contributions on deposit; 2) The liabilities for future benefits to present retired lives; 3) The liabilities for future benefits to terminated vested members; and 4) The liabilities for service already rendered by active members. In a system which has been following the discipline of allocating cost on a consistent basis to valuation years, the liabilities for active member contributions on deposit (liability 1), the liabilities for future benefits to present retired lives (liability 2), and the liabilities for future benefits to terminated vested members (liability 3) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (liability 4) will be partially covered by the remainder of present assets. Generally, the funded portion of liability 4 will increase over time.

The schedule below illustrates the System's history of liabilities 1 through 4.

	Aggregate Accrued Liabilities For					Portion of Accrued Liabilities Covered by Report Assets			
	(1)	(2)	(3)	(4)					
Valuation Date	Active Member Contributions	Retirees and Beneficiaries	Terminated Vested Members	Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)	(4)
6/30/2012	$2,977,938	$1,228,202,331	$44,829,153	$835,268,747	$1,429,666,081	100%	100%	100%	18.4%
6/30/2013	2,688,948	1,270,442,197	44,651,885	834,209,969	1,465,943,503	100	100	100	17.8
6/30/2014	5,070,338	1,312,440,514	52,060,082	840,749,044	1,540,327,375	100	100	100	20.3
6/30/2015	10,682,704	1,356,302,147	48,799,252	837,218,003	1,615,537,148	100	100	100	23.9
6/30/2016	19,415,031	1,408,689,345	48,210,458	851,247,989	1,657,187,748	100	100	100	21.2
6/30/2017	27,652,436	1,449,436,246	52,505,622	830,011,213	1,715,495,626	100	100	100	22.4
6/30/2018	38,220,223	1,484,169,320	52,340,433	835,884,082	1,785,356,033	100	100	100	25.2
6/30/2019	51,543,962	1,512,876,082	60,716,983	890,000,367	1,835,157,423	100	100	100	23.6
6/30/2020	65,720,855	1,543,692,888	63,491,933	894,492,953	1,881,338,075	100	100	100	23.3
6/30/2021	79,774,773	1,560,647,213	68,833,756	884,164,449	1,998,676,321	100	100	100	32.7
6/30/2022	89,859,720	1,602,929,409	72,657,615	835,073,998	2,076,981,256	100	100	100	37.3
6/30/2023	101,493,635	1,633,201,230	82,387,223	852,637,261	2,137,101,031	100	100	100	37.5

SCHEDULE OF FUNDING PROGRESS

	a	b	b-a	(a/b)	c	(b-a)/c
Valuation Date	Actuarial Value of Assets	Actuarial Liability	Unfunded Actuarial Liability	Funded Ratio	Covered Payroll	Excess of
6/30/2012	$ 1,429,666,081	$ 2,111,278,169	$ 681,612,088	67.7%	$ 390,557,576	174.5%
6/30/2013	1,465,943,503	2,151,993,000	686,049,497	68.1%	392,868,271	174.6%
6/30/2014	1,540,327,375	2,210,319,978	669,992,603	69.7%	401,291,783	167.0%
6/30/2015	1,615,537,148	2,253,002,106	637,464,958	71.7%	408,095,216	156.2%
6/30/2016	1,657,187,748	2,327,562,823	670,375,075	71.2%	399,465,753	167.8%
6/30/2017	1,715,495,626	2,359,605,516	644,109,890	72.7%	391,121,606	164.7%
6/30/2018	1,785,356,033	2,410,614,058	625,258,025	74.1%	403,454,892	155.0%
6/30/2019	1,835,157,423	2,515,137,395	679,979,972	73.0%	419,686,035	162.0%
6/30/2020	1,881,338,075	2,567,398,628	686,060,553	73.3%	437,242,419	156.9%
6/30/2021	1,998,676,321	2,593,420,191	594,743,870	77.1%	455,219,365	130.6%
6/30/2022	2,076,981,256	2,600,520,742	523,539,486	79.9%	439,326,244	119.2%
6/30/2023	2,137,101,031	2,669,719,349	532,618,318	80.0%	458,637,682	116.1%

ANALYSIS OF FINANCIAL EXPERIENCE

Gains and Losses in Accrued Liabilities During Fiscal Year Resulting from Differences Between Assumed Experience and Actual Experience

Type of Activity	Gain/(Loss) for Year 2022	Gain/(Loss) for Year 2023
Age and Service Retirements If members retire at older ages or with lower final average pay than assumed, there is a gain. If younger ages or higher pays, a loss.	$ (1,216,000)	$ (4,154,000)
Disability Retirements If disability claims are less than assumed, there is a gain. If more claims, a loss.	580,000	543,000
Death-in-Service Benefits If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	(2,636,000)	(2,476,000)
Withdrawal from Employment If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	2,603,000	(1,557,000)
Pay Increases If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	8,235,000	(33,683,000)
Investment Income If there is greater investment income than assumed, there is a gain. If less, a loss.	(7,718,000)	(25,124,000)
Death After Retirement If retirees live longer than assumed, there is a loss. If not as long, a gain. (includes PuBF G/(L))	12,319,000	2,819,000
New Entrants New entrants create a loss because they were not assumed in the previous evaluation.	1,672,000	2,052,000
Plan Changes or Increase in Periodic Pension Plan changes or one time increase in the periodic benefit payments	0	0
Assumption, Method and Plan Changes Changes due to assumption changes and/or changes in accounting and liability.	0	(8,055,000)
Other Miscellaneous gains and losses resulting from data adjustments, timing of financial transactions, valuation methods, etc.	2,777,000	383,000
Gain or (Loss) During Year from Financial Experience	$ 16,616,000	$ (69,252,000)

1. **EFFECTIVE DATE:**

The Employees’ Retirement System was established by City Ordinance, effective January 1, 1926, and has been amended periodically.

2. **ELIGIBILITY:**

Any regular and permanent officer, agent, or employee of the City except for those required to join the Maryland State or other Retirement System will become a Class C member until June 30, 2014, and thereafter a Class D member of the Employees' Retirement System upon completion of one year of employment. The Board of Estimates may authorize prospective membership for any class of part-time employees. There are three classes of members as follows:

Class A - Members who were hired before July 1, 1979, and entered membership on or after January 1, 1954, or who were employed and elected prior to April 1, 1954, to contribute at the higher-Class A rate.

Class B - Members as of January 1, 1954, who did not elect Class A membership. Any Class B member may elect to become a Class A member by bringing his accumulated contributions and interest up to what they would be if he had elected Class A membership on January 1, 1954.

Class C - Members who were hired on or after July 1, 1979, and before July 1, 2014, or any other members who may have elected to transfer during various open transfer periods to Class C membership.

Class D - Members who were hired or rehired on or after July 1, 2014 and are Retirement Savings Plan "hybrid members".

3. **MEMBER CONTRIBUTIONS:**

Class C members make the following pre-tax contributions as a percentage of earnable compensation:

July 1, 2013 -- June 30, 2014	1%
July 1, 2014 -- June 30, 2015	2%
July 1, 2015 ---June 30, 2016	3%
July 1, 2016 -- June 30, 2017	4%
July 1, 2017 – Date	5%

Year-to-year increases in the contribution rate are conditioned on members' receiving a raise of at least 2%.

Class A and Class B members contribute 4% of earnable compensation. Class A and Class B contributions are not required upon attaining age 60 and completing 35 years of service.

Class D members contribute 5% of the earnable compensation.

4. **COMPENSATION:**

Earnable compensation is the annual salary authorized for the member, not including overtime, differential pay, environmental pay, hazardous duty pays for conversion of leave or other fringe benefits, or any additional payment.

Average final compensation is the average of the member's annual earnable compensation on January 1 for the three successive years of service when the member's earnable compensation is the highest or, if the member is in service on January 1 for less than three successive years, then the average during total service.

Covered compensation (for Class C members only) is the average of the FICA wage base for the 35-year period ending with the calendar year which ends immediately prior to the earlier of: (1) January 1, which is one year prior to January 1 of the calendar year in which member terminates employment; or (2) January 1 of the calendar year in which the member attains age 65.

5. **MILITARY SERVICE CREDIT:**

(A) **Classes A and B**

(1) **Military Service Prior to Employment:** A maximum of three years' service credit is granted provided the member has acquired:

(a) 10 years of service and has reached the age of 60; or
(b) 20 years of service, regardless of age.

(2) **Military Service Within Employment:** Upon retirement or death, any member who had a break in employment due to military duty, will receive service credit for the period of absence as provided by the Veterans' Reemployment Rights Act and the Uniformed Services Employment and Reemployment Rights Act of 1994.

(B) **Classes C** and D

(1) **Military Service Prior to Employment:** A maximum of three years' service credit is granted provided the member has acquired:

(a) 10 years of service and has reached the age of 62; or

(b) 20 years of service, regardless of age.

(2) **Military Service Within Employment:** Upon retirement or death, any member who had a break in employment due to military duty, will receive service credit for the period of absence as provided by the Veterans' Re-Employment Rights Act and the Uniformed Services Employment and Reemployment Rights Act of 1994. For members reemployed after military service, the City will pay their member contributions for the period of military service. If the member terminates City employment before becoming eligible for a retirement benefit or deferred vested benefit, the member will not receive the contributions made by the City for the period of military service.

6. **SERVICE RETIREMENT:**

(A) **Classes A and B**

(1) **Eligibility Requirements:**

(a) Age 60 with five years of service; or

(b) 30 years of membership service, regardless of age.

(2) **Benefit Amount:** The sum of:

(a) an annuity of the actuarial equivalent of a member's accumulated contributions; plus

(b) a pension, which together with the annuity will be equal to 1.935% for Class A members and 1.785% for Class B members for each year of service, times the member's average final compensation.

(B) **Class C**

(1) **Eligibility Requirements:**

(a) Age 65 with five years of service;

(b) 30 years of service, regardless of age; or

(c) Age 55 with five years of service, payable at age 65 or reduced for payment before age 65.

(2) **Benefit Amount:** The sum of:

(a) a pension of 1.60% for each year of service (not to exceed 30), times the member's average final compensation; plus

(b) .25% for each year of service not to exceed 30, times member's average final compensation more than covered compensation; plus

(c) 1.85% for each year of service more than 30, times the member's average final compensation.

If a member elects to have his maximum or optional pension commence prior to normal retirement date, age 65 with less than 30 years, the amount of his pension will be reduced 6.667% for each of the first five years (prorated for shorter periods) and 3.333% for each of the next five years (prorated for shorter periods) by which the commencement of his pension precedes his normal retirement age 65.

(C) **Class D**

(1) **Eligibility Requirements:**

(a) Age 65 with five years of service;

(b) 30 years of service, regardless of age; or

(c) Age 55 with five years of service, payable at age 65 or reduced for payment before age 65.

(2) **Benefit Amount:**

(a) 1.0% for each year of service times the member's average final compensation.

(b) For members who retire at age 62 with at least 20 years of service, 1.1% for each year of service times the member's average final compensation.

If a member elects to have his maximum or optional pension commence prior to normal retirement date, age 65 with less than 30 years, the amount of his pension will be reduced 6.667% for each of the first five years (prorated for shorter periods) and 3.333% for each of the next five years (prorated for shorter periods) by which the commencement of his pension precedes his normal retirement age 65.

7. **NON-LINE-OF-DUTY DISABILITY RETIREMENT:**

(A) **Classes A and B**

(1) **Eligibility Requirements:** Five years of service and determined by a hearing examiner to be mentally or physically incapacitated for the performance of duty, and that the incapacity is likely to be permanent.

(2) **Benefit Amount:** The sum of:

(a) an annuity of the actuarial equivalent of a member's accumulated contributions; plus

(b) a pension which, together with the annuity will equal 1.90% for Class A members and 1.75% for Class B members for each year of service, times the member's average final compensation.

The member will receive, as a minimum, the benefit as stated above or 25% of the member's average final compensation.

(3) **Offset to Retirement Allowance:** This benefit is offset by:

(a) workers' compensation; and

(b) earnings more than base amount (current earnable compensation in same job grade and step adjusted for longevity) with a $1 reduction for each $2 of the first $5,000 of excess and a $2 reduction for each $5 of additional excess earnings.

(B) **Classes C and D**

(1) **Eligibility Requirements:** Five years of service and determination by a hearing examiner to be mentally or physically incapacitated for the performance of duty, and that the incapacity is likely to be permanent.

(2) **Benefit Amount:** The non-line-of-duty disability pension will be the greater of:

(a) a pension equal to the member's accrued service retirement benefit; or

(b) 15% of the member's average final compensation.

(3) **Offset to Retirement Allowance:** This benefit is offset by workers' compensation.

8. **LINE-OF-DUTY DISABILITY RETIREMENT:**

(A) **Classes A and B**

(1) **Eligibility Requirements:** Immediate eligibility upon membership in the System and determined by a hearing examiner to be incapacitated for the further performance of duty, and the incapacity resulted from an accident occurring while in the actual performance of duty without willful negligence.

(2) **Benefit Amount:** The sum of:

(a) an annuity of the actuarial equivalent of the member's accumulated contributions; plus

(b) a pension equal to 66.667% of the member's average final compensation.

(3) **Offset to Retirement Allowance:** This benefit is offset by workers' compensation.

(B) **Classes C and D**

(1) **Eligibility Requirements:** Immediate eligibility upon membership in the System and determination by a hearing examiner to be incapacitated for the further performance of duty, and the incapacity resulted from an accident occurring while in the actual performance of duty without willful negligence.

(2) **Benefit Amount:** A pension equal to 66.667% of the member's average final compensation.

(3) **Offset to Retirement Allowance:** This benefit is offset by wokers' compensation.

9. **DISMEMBERMENT DISABILITY RETIREMENT (Classes C and D only):**

(A) **Eligibility Requirement:** Immediate eligibility upon membership in the System and determination by a hearing examiner that the loss of any two or more of hands, feet, sight of eye(s), or combination thereof, was a direct result of bodily injury from an accident that occurred while in the actual performance of duty.

(B) **Benefit Amount:** A pension equal to 100% of the member's average final compensation.

(C) **Offset to Retirement Allowance:** This benefit is offset by workers' compensation.

10. **TERMINATION OF EMPLOYMENT:**

(A) **Classes A and B**

(1) **Eligibility Requirement:**

(a) For a termination retirement allowance deferred to age 60, the completion of:

(i) 15 years of service; or

(ii) Five years of service, if removed from a position without fault or if an elected or appointed official not re-elected or re-appointed.

(b) For a termination retirement allowance payable immediately without reduction for age, the completion of 20 years of service, if removed from a position without fault or if an elected or appointed official not re-elected or re-appointed.

(c) Eligible for a refund of accumulated contributions if not eligible for any other benefits.

(2) **Benefit Amount:**

(a) Deferred Payment: Determined the same as for service retirement but based on membership service and average final compensation at the time of termination.

(b) Immediate Payment: Determined the same as if the member had retired with a non-line-of-duty disability retirement allowance.

(B) **Class C**

(1) **Eligibility Requirement:**

(a) For a termination retirement allowance deferred to age 65, completion of:

(i) 10 years of service; or

(ii) Five years of service, if removed from a position without fault or if an appointed official not re-appointed.

(b) For a termination retirement allowance payable immediately without reduction for age, the completion of 20 years of service, if removed from a position without fault or if an appointed official not re-appointed.

(c) Eligible for a refund of accumulated contributions if not eligible for any other benefits.

(2) **Benefit Amount:**

(a) Deferred Payment: Determined the same as for service retirement but based on membership service and average final compensation at the time of termination.

(C) **Class D**

(1) **Eligibility Requirement:**

(a) For a termination retirement allowance deferred to age 65, completion of 10 years of service.

(b) Eligible for a refund of accumulated contributions if not eligible for any other benefits.

(2) **Benefit Amount:**

Determined the same as for service retirement but based on membership service and average final compensation at the time of termination.

11. **MAXIMUM ALLOWANCE AND OPTIONAL METHODS OF RECEIVING BENEFIT PAYMENTS:**

(A) **Lump Sum:** Under $12,500 or as adjusted by the Board of Trustees.

(B) **Maximum Allowance:** Upon retiree’s death, 40% of retiree’s maximum allowance to unremarried spouse or dependent children until the last dies or attains age 18 (age 22 if a full-time student). All other options result in a lesser amount paid.

(C) **Reserve Guarantee Option:** Upon retiree’s death, a cash refund to retiree's designated beneficiary based on present value of allowance at retirement less payments made.

(D) **100% Joint and Survivor Option:** Upon retiree's death, 100% of retiree's allowance to continue to designated beneficiary.

(E) **50% Joint and Survivor Option:** Upon retiree's death, 50% of retiree's allowance to continue to designated beneficiary.

(F) **50% Pop-Up:** Upon retiree's death 50% of retiree's allowance to continue to designated beneficiary.
If designated beneficiary predeceases member, member receives Maximum and no survivorship benefit is paid.

(G) **100% Pop-Up:** Upon retiree's death 100% of retiree's allowance to continue to designated beneficiary. If designated beneficiary predeceases member, member receives Maximum and no survivorship benefit is paid.

(H) **Specific Benefit Option:** Upon the retiree's death and subject to the approval of the Board of Trustees, the member's designated beneficiary will receive:

(1) a specific lump sum amount; or

(2) a specific periodic allowance.

These options are available for service, termination, non-line-of-duty disability, and line of duty disability retirement. Any option and/or beneficiary may be changed by the retired member within 30 days after retirement.

12. **NON-LINE-OF-DUTY DEATH BENEFITS:**

(A) **Classes A and B**

(1) **Lump Sum Benefit:**

(a) **Eligibility Requirements:** Member who

(i) dies while actively employed; and

(ii) whose death does not qualify as a line-of-duty death.

(b) **Benefit Amount:** The designated beneficiary is paid:

(i) the member's accumulated contributions; plus
(ii) if member has one or more years of membership service, 50% of the greater of the member's average final compensation or current annual earnable compensation.

(2) **100% Survivorship Benefit:**

(a) **Eligibility Requirements:** This benefit is paid to the member's designated beneficiary spouse to whom he/she has been married for at least five years or his/her parent(s), provided the Member:

(i) is eligible for service retirement at the time of death; or

(ii) would have become eligible for service retirement within 90 days of the date of death; or

(iii) retired on account of service, non line of duty disability, or line of duty disability and dies within 30 days of retirement; or

(iv) is entitled to a deferred allowance at age 60 and dies anytime between the effective retirement date at age 60 and no later than 30 days following the attainment of age 60.

(b) **Benefit Amount:** The eligible beneficiary may elect in lieu of the Lump Sum Benefit or the 40% Survivorship Benefit, an allowance equal to the amount that would have been paid under the Service Retirement 100% Joint and Survivor Option.

(3) **40% Survivorship Benefit:**

(a) **Eligibility Requirements:** This benefit is paid to the member's designated beneficiary spouse with whom he has been married for at least one year prior to the date of death or to the member's unmarried children if less than age 18 (or age 22 if students), provided the Member:

(i) died in active service; and

(ii) had more than 20 years of service as of the date of death.

(b) **Benefit Amount:** The eligible beneficiary spouse or children may elect in lieu of the Lump Sum Benefit or the 100% Survivorship Benefit, an allowance equal to 40% of the member's accrued service retirement benefit.

(4) **Offset to Death Benefits:** These benefits are offset by any pension benefits paid before the members' death.

(B) **Classes C and D**

(1) Lump Sum Benefit:

(a) **Eligibility Requirements:** Member who:

(i) dies while actively employed; and

(ii) has one or more years of membership service, but whose death does not qualify as a line-of-duty death.

(b) **Benefit Amount:** The designated beneficiary is paid:

(i) the member's accumulated contributions, if any; plus

(ii) one-time payment of 50% of the greater of the member's average final compensation or current annual earnable compensation.

(2) 100% Survivorship Benefit:

(a) **Eligibility Requirements:** This benefit is paid to the member's designated beneficiary spouse to whom he/she was married for at least 5 years or his parent(s), provided the member:

(i) is eligible for service retirement at the time of death; or

(ii) would have become eligible for service retirement within 90 days of the date of death; or

(iii) retired on account of service, non line of duty disability, or line of duty disability and dies within 30 days of retirement; or

(iv) is entitled to a deferred allowance at age 65 and dies anytime between the effective retirement date at age 65 and no later than 30 days following the attainment of age 65.

(b) **Benefit Amount:** The eligible beneficiary may elect in lieu of the Lump Sum Benefit or the 40% Survivorship Benefit, an allowance equal to the amount that would have been paid under the Service Retirement 100% Joint and Survivor Option.

(3) 40% Survivorship Benefit:

(a) **Eligibility Requirements:** This benefit is paid to the member's designated beneficiary spouse to whom he has been married for at least one year prior to the date of death or to the member's unmarried children if less than age 18 (or age 22 if students), provided the member:

(i) died in active service; and

(ii) had more than 20 years of service as of the date of death.

(b) **Benefit Amount:** The eligible beneficiary spouse or eligible children may elect in lieu of the Lump Sum Benefit or the 100% Survivorship Benefit, an allowance equal to 40% of the member's accrued service retirement benefit.

(4) Offset to Death Benefits: These benefits are offset by workers' compensation.

13. **LINE-OF-DUTY DEATH BENEFITS:**

(A) **Eligibility Requirements:** A determination by a hearing examiner that the death of a member was:

(1) the direct result of bodily injury though accidental means independent of any pre-existing physical or medical conditions;

(2) occurring while in the actual performance of duty; and

(3) not caused by willful negligence on the part of the member.

(B) **Benefit Amount:** The sum of:

(1) the member's accumulated contributions (if any); plus

(2) an annual pension of 100% of current earnable compensation, payable to:

(a) the spouse during widow(er)hood, provided: (1) there is no voluntary separation agreement renouncing rights of inheritance; and (2) the member has not designated his children as beneficiaries;

(b) if no eligible spouse, or if the spouse dies or remarries, the child or children, equally, until age 18 (age 22 if a full-time student);

(c) if no eligible spouse or child surviving, then to the deceased's father and/or mother equally, or to the survivor;

(d) for Classes A and B, any member who retires and dies within 30 days after the effective date of accidental disability retirement will receive the above benefits if death is the result of injuries in the line-of-duty.

If no beneficiary and if intestate without heirs, then contributions will remain part of the System, and no death benefit is paid.

(C) **Offset to Retirement Allowance:** This benefit is offset by workers' compensation, net of legal and medical fees.

14. **POST-RETIREMENT BENEFIT INCREASES:**

(A) **Eligibility Requirements;**

Only retirees and their beneficiaries, who have been receiving periodic benefit payments as of the June 30th determination date, and members who have been retired for a minimum of 12 months, are eligible for the increase. The increase is payable commencing in the January after the June 30th determination date.

(B) **Amount:**

(1) **Classes A, B and C**

1.5% for participants in pay status under age 65 and 2.0% for participants in pay status age 65 and over.

(2) **Class D**

(a) In pay status under age 65:

1.5% if Class D funded status is 85% or more.

1.0% if Class D funded status is at least 70% but less than 85%.

No increase if Class D funded status is less than 70%.

(b) In pay status age 65 or older:

2.0% if Class D funded status is 85% or more.

1.0% if Class D funded status is at least 70% but less than 85%.

No increase if Class D funded status is less than 70%.

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STATISTICAL SECTION

Baltimore Sun Building, circa 1904

STATISTICAL SECTION SUMMARY

The statistical section of the Employees' Retirement System's (System) annual comprehensive financial report presents detailed information as a context for helping the readers understand the information in the financial statements, notes disclosures, required supplementary information, and the System's overall financial health for the last ten fiscal years. The different reports contained in this section are listed below.

Financial Trends

Changes of Plan Net Position schedules detail the System's financial performance from year to year.

Revenue Capacity

The Revenue by Source schedule lists the different income streams of the System.

Expenses Capacity

The Expense by Type schedule contains information about the major costs of the System.

Demographic Information

The demographic schedules consist of various membership information used by the Actuary to determine or monitor the demographic assumptions. The tables which are used to compare current assumptions with actual experience to determine recommended assumption changes include:

- The Schedule of Active Members by Years of Service, which provides active membership information including the average service credit and member's age for each fiscal year.
- The Schedule of Retirees by Attained Age and Type of Retirement, provides the number of retirees by age and the type of retirement, and
- The Schedule of Beneficiaries By attained Age and Type of Retirement that provides membership information on beneficiaries by age and type of the member's retirement.

Benefit Expenses by Type: is a report of benefit related expenses by the type of retirement and payment for each year of service.

Average Monthly Benefit Payments: is a schedule of monthly benefit payments based on years of credited service. For each year, the schedule provides the average monthly benefit payment, Average – average Final Compensation and number of retirees grouped in years of credited service.

Employees' Retirement System
City of Baltimore, Maryland
Statement of Changes in Fiduciary Net Position

	2014	2015	2016	2017	2018
Additions					
Contributions					
Employer	$ 94,917,886	$ 97,170,796	$ 77,100,573	$ 84,474,451	$ 87,541,882
Plan members	3,623,467	6,728,131	10,350,709	10,656,243	12,942,622
Total contributions	$ 98,541,353	$ 103,898,927	$ 87,451,282	$ 95,130,694	$ 100,484,504
Investment Income					
Net appreciation in fair value of investments	$ 192,951,419	$ (14,411,263)	$ 437,788	$ 72,380,195	$ 106,021,152
Interest, dividends, and real estate income	24,639,052	90,342,747	48,604,366	99,449,978	41,710,664
Less: investment expenses	(8,117,367)	(9,321,676)	(9,138,196)	(8,914,009)	(8,639,822)
Net investment income	$ 209,473,104	$ 66,609,808	$ 39,903,958	$ 162,916,164	$ 139,091,994
Securities lending income	$ 788,486	$ 297,447	$ 496,519	$ 340,857	$ 580,304
Securities lending fees	(614,421)	(89,215)	(140,435)	(100,183)	(160,027)
Net securities lending income	$ 174,065	$ 208,232	$ 356,084	$ 240,674	$ 420,277
Total additions	$ 308,188,522	$ 170,716,967	$ 127,711,324	$ 258,287,532	$ 239,996,775
Deductions					
Retirement allowances	$ 129,205,776	$ 133,129,502	$ 138,184,417	$ 142,957,078	$ 148,219,211
Adminstrative expenses	3,711,975	3,748,434	3,515,492	3,584,506	3,616,054
Death benefits	699,991	943,540	652,743	1,225,559	497,011
Lump cash payments	63,979	125,608	124,748	77,861	28,088
Refund of Contributions	4,224	72,008	235,808	348,412	410,189
Total deductions	$ 133,685,945	$ 138,019,092	$ 142,713,208	$ 148,193,416	$ 152,770,553
Net increases / (decreases)	$ 174,502,577	$ 32,697,875	$ (15,001,884)	$ 110,094,116	$ 87,226,222
Net position held in trust for pension benefits					
Beginning Balance	$1,324,733,814	$ 1,499,236,391	$ 1,531,934,266	$ 1,516,932,382	$ 1,627,026,498
Ending Balance	$ 1,499,236,391	$ 1,531,934,266	$ 1,516,932,382	$ 1,627,026,498	$ 1,714,252,720

	2019	2020	2021	2022	2023
Additions					
Contributions					
Employer	$ 89,866,171	$ 86,953,801	$ 92,637,051	$ 98,640,176	$ 94,788,090
Plan members	17,246,258	17,787,416	18,493,824	18,493,368	22,144,404
Total contributions	$ 107,112,429	$ 104,741,217	$ 111,130,875	$ 117,133,544	$ 116,932,494
Investment Income					
Net appreciation in fair value of investments	$ 64,633,338	$ (19,610,392)	$ 419,654,110	$ (84,958,475)	$ 86,086,878
Interest, dividends, and real estate income	37,296,385	43,738,937	50,449,914	34,352,835	53,931,255
Less: investment expenses	(9,649,367)	(12,544,879)	(17,613,349)	(25,293,523)	(19,229,765)
Net investment income	$ 92,280,356	$ 11,583,666	$ 452,490,675	$ (75,899,163)	$ 120,788,368
Securities lending income	$ 733,012	$ 402,867	$ 274,823	$ 233,311	$ 302,044
Securities lending fees	(198,396)	(113,550)	(80,766)	(69,955)	(90,569)
Net securities lending income	$ 534,616	$ 289,317	$ 194,057	$ 163,356	$ 211,475
Total additions	$ 199,927,401	$ 116,614,200	$ 563,815,607	$ 41,397,737	$ 237,932,337
Deductions					
Retirement allowances	$ 152,947,832	$ 157,251,536	$ 160,689,579	$ 165,289,884	$ 170,579,131
Adminstrative expenses	3,716,362	4,495,405	4,397,413	4,460,410	5,068,850
Death benefits	988,038	446,328	1,469,242	1,507,307	870,469
Lump cash payments	116,910	24,243	15,293	15,300	49,349
Refund of Contributions	815,394	837,540	873,832	1,346,673	1,770,228
Total deductions	$ 158,584,536	$ 163,055,052	$ 167,445,359	$ 172,619,574	$ 178,338,027
Net increases / (decreases)	$ 41,342,865	$ (46,440,852)	$ 396,370,248	$ (131,221,837)	$ 59,594,310
Net position held in trust for pension benefits					
Beginning Balance	$ 1,714,252,720	$ 1,755,595,585	$ 1,709,154,733	$ 2,105,524,981	$ 1,974,303,144
Ending Balance	$ 1,755,595,585	$ 1,709,154,733	$ 2,105,524,981	$ 1,974,303,144	$ 2,033,897,454

Employees' Retirement System
City of Baltimore, Maryland
REVENUES BY SOURCE

		Employer Contributions			
Fiscal Year	Net Investment Income (Loss)	Amount	% of Covered Payroll	Member Contributions	Total Income (Loss)
2014	209,647,169	94,917,886	23.7	3,623,467	308,188,522
2015	66,818,039	97,170,796	23.8	6,728,131	170,716,966
2016	40,260,042	77,100,573	19.3	10,350,709	127,711,324
2017	163,156,838	84,474,451	21.6	10,656,243	258,287,532
2018	139,512,271	87,541,882	21.7	12,942,622	239,996,775
2019	92,814,972	89,866,171	21.4	17,246,258	199,927,401
2020	11,872,983	86,953,801	19.9	17,787,416	116,614,200
2021	452,684,732	92,637,051	20.3	18,493,824	563,815,607
2022	(75,735,807)	98,640,176	22.4	18,493,368	41,397,737
2023	120,999,843	94,788,090	20.7	22,144,404	237,932,337

Note: Employer contributions were made in accordance with actuarially determined contribution requirements.

Employees' Retirement System
City of Baltimore, Maryland
EXPENSES BY TYPE

Fiscal Year	Benefits	Refunds	Administrative Expenses	Total
2014	129,969,746	4,224	3,711,975	133,685,945
2015	134,198,650	72,007	3,748,433	138,019,090
2016	138,961,908	235,808	3,515,492	142,713,208
2017	144,260,498	348,412	3,584,506	148,193,416
2018	148,744,310	410,189	3,616,054	152,770,553
2019	154,052,780	815,394	3,716,362	158,584,536
2020	157,722,107	837,540	4,495,405	163,055,052
2021	162,174,114	873,832	4,397,413	167,445,359
2022	166,812,491	1,346,673	4,460,410	172,619,574
2023	171,498,949	1,770,228	5,068,850	178,338,027

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF ACTIVE MEMBERS BY YEARS OF SERVICE

Years of Credited Service	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
0-4	1,766	1,800	1,678	1,723	1,833	2,241	2,392	2,586	2,243	2,142
5-9	2,215	2,026	1,778	1,523	1,323	1,216	1,184	1,274	1,285	1,356
10-14	1,430	1,451	1,446	1,458	1,538	1,543	1,468	1,310	1,131	913
15-19	1,054	1,034	1,059	1,072	1,045	1,020	1,031	1,053	1,043	1,129
20-24	550	519	547	623	747	764	755	779	781	748
25-29	992	968	887	705	526	407	384	400	437	536
30+	897	875	879	939	1,001	1,013	990	930	805	710
Total Members	8,904	8,673	8,274	8,043	8,013	8,204	8,204	8,332	7,725	7,534
Average Service Credit	13.83	13.88	14.30	14.34	14.16	13.46	13.29	12.98	13.30	13.26
Average Age	49.89	50.10	50.54	50.66	50.57	50.17	50.16	50.06	50.65	50.81

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF RETIREES BY ATTAINED AGE AND TYPE OF RETIREMENT
June 30, 2023

Age	Number of Recipients	TYPE OF RETIREMENT* 0	1	2	3	4
0-29	0	0	0	0	0	0
30-39	4	0	0	0	4	0
40-44	5	0	0	0	5	0
45-49	18	1	0	0	16	1
50-54	48	12	0	5	30	1
55-59	308	105	114	12	74	3
60-64	813	287	307	54	156	9
65-69	1,644	823	474	142	196	9
70-74	1,872	1,137	426	182	120	7
75-79	1,273	798	286	132	54	3
80-84	821	474	227	81	32	7
85 and up	830	448	254	94	29	5
Totals	7,636	4,085	2,088	702	716	45
Average Annual Benefit	$20,661	$27,849	$8,377	$25,213	$10,670	$26,115

*Type of Retirement
0 - Normal retirement for age and service
1 - Early retirement
2 - Discontinued service retirement
3 - Non-line of duty disability
4 - Line of duty disability

Employees' Retirement System
City of Baltimore, Maryland
SCHEDULE OF BENEFICIARIES BY ATTAINED AGE AND TYPE OF RETIREMENT
June 30, 2023

		TYPE OF RETIREMENT*						
Age	Number of Recipients	0	1	2	3	4	5	8
0-24	12	4	1	0	4	0	0	3
25-29	0	0	0	0	0	0	0	0
30-34	1	1	0	0	0	0	0	0
35-39	1	0	0	0	1	0	0	0
40-44	2	1	0	0	1	0	0	0
45-49	5	1	2	0	0	0	0	2
50-54	19	3	0	2	9	0	5	0
55-59	43	11	8	1	14	1	8	0
60-64	124	46	27	6	30	1	14	0
65-69	207	88	40	13	37	2	27	0
70-74	284	133	54	17	62	0	18	0
75-79	249	140	39	30	27	3	10	0
80-84	255	130	50	28	33	2	11	1
85 and up	347	192	79	24	35	5	12	0
Totals	1,549	750	300	121	253	14	105	6
Average Annual Benefit	$9,871	$11,888	$4,750	$12,006	$5,954	$13,478	$15,911	$21,910

*Type of Retirement
0 - Normal retirement for age and service
1 - Early retirement
2 - Discontinued service retirement
3 - Non-line of duty disability
4 - Line of duty disability
5 - Non-line of duty death, member eligible for service retirement at death
8 - Line of duty death

Employees' Retirement System
City of Baltimore, Maryland
BENEFIT EXPENSES BY TYPE

Year	Age and Service Benefits			Death Benefits			Disability Benefits			
							Retirees			
Ending	Retirees	Beneficiaries	Lump Sum	Duty	Non-Duty	Lump Sum	Duty	Non-Duty	Beneficiaries	Total
2014	107,713,150	9,102,520	63,979	404,560	1,236,993	699,991	1,498,018	7,721,421	1,529,114	129,969,746
2015	110,984,187	9,378,946	125,608	416,846	1,274,558	943,540	1,543,510	7,955,905	1,575,550	134,198,650
2016	130,663,656	7,161,289	124,748	270,961	1,059,257	652,743	1,286,253	395,782	1,098,518	142,713,208
2017	122,699,096	7,476,618	77,861	296,229	1,450,454	1,225,559	1,572,777	8,124,459	1,337,445	144,260,498
2018	127,566,983	7,721,573	28,088	235,608	1,547,785	497,011	1,474,081	8,446,982	1,226,199	148,744,310
2019	131,087,119	8,329,413	116,910	164,254	2,017,814	988,038	1,518,204	8,426,878	1,404,150	154,052,780
2020	135,538,549	8,610,774	24,243	149,659	1,880,737	446,328	1,481,181	8,380,806	1,209,830	157,722,107
2021	137,510,687	10,104,623	15,293	186,723	2,089,683	1,469,242	1,425,589	8,115,487	1,256,787	162,174,114
2022	142,042,079	8,629,683	15,300	246,198	2,090,035	1,507,307	1,666,377	9,318,734	1,296,778	166,812,491
2023	147,576,117	10,000,112	49,349	186,906	2,331,313	870,469	1,327,511	7,702,683	1,454,489	171,498,949

Employees' Retirement System
City of Baltimore, Maryland
AVERAGE MONTHLY BENEFIT PAYMENTS - NEW RETIREES

Retirement Effective Dates	Years of Credited Service					
	0-10	11-15	16-20	21-25	26-30	31+
Period 7/1/13 to 6/30/14						
Average-Average Final Compensation	$ 5,936	$ 8,205	$ 11,546	$ 16,582	$ 25,970	$ 33,129
Average Monthly Benefit	495	684	962	1,382	2,164	2,761
Total No. of Retirees	58	60	33	52	45	121
Period 7/1/14 to 6/30/15						
Average-Average Final Compensation	$ 8,313	$ 7,996	$ 13,066	$ 15,316	$ 26,667	$ 30,413
Average Monthly Benefit	693	666	1,089	1,276	2,222	2,534
Total No. of Retirees	67	45	43	30	54	100
Period 7/1/15 to 6/30/16						
Average-Average Final Compensation	$ 7,033	$ 8,100	$ 11,374	$ 14,283	$ 23,511	$ 33,051
Average Monthly Benefit	586	675	947	1,190	1,959	2,754
Total No. of Retirees	76	66	53	36	67	124
Period 7/1/16 to 6/30/17						
Average-Average Final Compensation	$ 8,516	$ 9,634	$ 12,085	$ 21,271	$ 23,791	$ 39,905
Average Monthly Benefit	710	803	1,007	1,773	1,983	3,325
Total No. of Retirees	88	76	54	23	65	80
Period 7/1/17 to 6/30/18						
Average-Average Final Compensation	$ 6,082	$ 9,156	$ 13,655	$ 16,206	$ 24,780	$ 40,442
Average Monthly Benefit	507	763	1,138	1,350	2,065	3,370
Total No. of Retirees	62	81	62	37	67	71

Employees' Retirement System
City of Baltimore, Maryland
AVERAGE MONTHLY BENEFIT PAYMENTS - NEW RETIREES

Retirement Effective Dates	Years of Credited Service					
	0-10	11-15	16-20	21-25	26-30	31+
Period 7/1/18 to 6/30/19						
Average-Average Final Compensation	$ 6,243	$ 9,717	$ 13,177	$ 18,939	$ 25,253	$ 35,154
Average Monthly Benefit	520	810	1,098	1,578	2,104	2,929
Total No. of Retirees	71	77	46	41	62	110
Period 7/1/19 to 6/30/20						
Average-Average Final Compensation	$ 6,838	$ 8,449	$ 10,523	$ 18,592	$ 26,778	$ 35,736
Average Monthly Benefit	570	704	877	1,549	2,231	2,978
Total No. of Retirees	52	66	60	36	43	116
Period 7/1/20 to 6/30/21						
Average-Average Final Compensation	$ 6,156	$ 8,986	$ 21,213	$ 21,773	$ 25,591	$ 29,152
Average Monthly Benefit	513	749	1,768	1,814	2,133	3,263
Total No. of Retirees	31	43	39	34	24	119
Period 7/1/21 to 6/30/22						
Average-Average Final Compensation	$ 8,784	$ 9,569	$ 14,549	$ 19,678	$ 27,272	$ 36,568
Average Monthly Benefit	732	797	1,212	1,640	2,273	3,047
Total No. of Retirees	45	44	61	60	34	157
Period 7/1/22 to 6/30/23						
Average-Average Final Compensation	$ 5,782	$ 10,854	$ 12,198	$ 18,300	$ 25,186	$ 39,870
Average Monthly Benefit	482	905	1,016	1,525	2,099	3,322
Total No. of Retirees	48	59	45	37	30	111

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EMPLOYEES' RETIREMENT SYSTEM

City of Baltimore, Maryland

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EMPLOYEES' RETIREMENT SYSTEM
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