Municipal Employees' and Officers' Annuity and Benefit Fund of Chicago

A Pension Trust Fund of the City of Chicago
Chicago, Illinois

2022

Annual Comprehensive Financial Report
For the Fiscal Years Ended December 31, 2022 and 2021

MEABF

Municipal Employees'
Annuity and Benefit Fund of Chicago

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Chicago, Illinois

2022

Annual Comprehensive Financial Report
For the Fiscal Years Ended December 31, 2022 and 2021

Prepared by Administrative Staff of the
Municipal Employees' and Officers' Annuity and Benefit Fund of Chicago
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Chicago, Illinois 60654

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Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Municipal Employees' Annuity and Benefit Fund of Chicago, Illinois

For its Annual Comprehensive Financial Report
For the Fiscal Year Ended

December 31, 2021

Christopher P. Morrill

Executive Director/CEO

RETIREMENT BOARD As of June 30, 2023

A five-member Retirement Board is the governing body of the Municipal Employees' Annuity and Benefit Fund of Chicago (MEABF). By statute, the Retirement Board shall consist of two ex-officio members, the City Comptroller and the City Treasurer, and three members who are employees and elected by the contributing members.

The Retirement Board is ultimately responsible for the operation, administration and management of all the activities of MEABF. Having oversight of the investment activities, the Retirement Board sets investment policies and objectives, hires investment managers and investment consultants and reviews investment performance. The Retirement Board also approves the MEABF operating budget and approves or denies benefit claims.

The Retirement Board appoints the Executive Director, and retains consultants for investment, actuarial, audit, legal and other provisional services necessary for the transaction of business.

The Retirement Board meets monthly and holds special meetings as needed. As members of the Retirement Board, they receive no compensation.

LETTER OF TRANSMITTAL

Municipal Employees' Annuity & Benefit Fund of Chicago

A Pension Trust Fund of the City of Chicago

321 N. Clark Street
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June 30, 2023

To the Retirement Board of the Municipal Employees' Annuity & Benefit Fund of Chicago

It is with great pleasure that we submit the Annual Comprehensive Financial Report (ACFR) for the Municipal Employees' and Officers Annuity and Benefit Fund of Chicago (MEABF or the Plan), a pension trust fund of the City of Chicago, for the fiscal years ended December 31, 2022, and 2021.

The ACFR provides an overview of the Plan, comprehensive accounting of Plan activities and operations, detailed financial and actuarial information, investment performance, statistical information and Plan stewardship. A full version of the report is available on the web at http://www.meabf.org/publications.php.

Calibre CPA Group, LLC has issued an unmodified ("clean") opinion on the Plan's financial statements as of December 31, 2022 and 2021. The independent auditor's report is located at the front of the Financial Section of this report.

Financial Reporting

Management Responsibility - Responsibility for the preparation, accuracy, completeness and fairness of the presentation, including all disclosures, made in this report rests with management. To the best of our knowledge and belief, the information contained in this report is complete; all disclosures necessary to enable the reader to gain an understanding of MEABF activities have been included.

Plan management is responsible for establishing and maintaining a system of internal controls. The system provides management with reasonable, but not absolute, assurance regarding the safeguarding of assets against loss, theft, or unauthorized disposition and the reliability of the financial records from which the financial reports are prepared. The concept of reasonable assurance recognizes that the cost of a control should not exceed anticipated benefits.

Accounting System – The Plan's financial statements have been prepared in accordance with generally accepted accounting principles applied on a consistent basis, in accordance with the standards and requirements of the Governmental Accounting Standards Board (GASB). The financial statements are prepared on the accrual basis of accounting.

Management's Discussion and Analysis – Management's discussion and analysis (MD&A), which immediately follows the Independent Auditor's Report in the Financial Section, provides an additional narrative introduction, and an overview and analysis of the basic financial statements. This transmittal is designed to complement the MD&A and should be read in conjunction with it.

Plan Administration

MEABF is administered under the direction of a Retirement Board responsible for the oversight, management and administration of the Plan. The Retirement Board is comprised of three elected members and two ex-officio members (the City Treasurer and the City Comptroller). The Retirement Board has a fiduciary duty to act solely in the best interests of the Plan members.

To help carry out their responsibilities, the Retirement Board appoints an Executive Director and retains consultants for investment, actuarial, audit, legal and other provisional services necessary for the transaction of business. The Executive Director oversees the administration of the Plan and reports to the Retirement Board.

Plan Profile

MEABF is a pension trust fund of the City of Chicago and is administered under Chapter 40, Act 5, Article 1,8 and 20 of the Illinois Compiled Statutes (Statutes). The Plan is a defined benefit single employer plan that was established in 1921 by the Illinois State legislature, which is the governing body that sets benefit levels, as well as employee and employer contribution levels for financing the Plan.

In accordance with the statutes, MEABF administers age and service retirement benefits, survivor benefits, post-retirement increases and duty and ordinary disability benefits to eligible members. As of December 31, 2022, MEABF served a total of 35,369 active members (14,376) Tier 1 members (41%), 6,462 Tier 2 members (18%) and 14,531 Tier 3 members (41%), 25,894 retirees and beneficiaries and 22,586 inactive members. For a more detailed description of the Plan, its membership, benefit provisions and eligibility requirements, please read Note 7 of the Notes to Financial Statements in the Financial Section.

Experience Study

Segal Consulting, the Plan's independent actuarial consultant, prepared an experience study based on census information provided by MEABF staff for the period from January 1, 2017 through December 31, 2021. The primary purpose of the study was to evaluate actuarial assumptions to be used in the annual actuarial valuation. Based on the results of the experience study, Segal recommended modifying some of the actuarial assumptions. For the year ended December 31, 2022 the Plan adopted the recommendations in the demographic assumptions and economic assumptions which included a change in the investment rate of return from 7.00% to 6.75% per year.

Actuarial Funding Status

An actuarial valuation of the Plan is conducted annually, and an experience review is performed and approved by the Retirement Board every five years. In the actuarial valuation as of December 31, 2022, performed by the Plan's independent actuary, Segal Consulting, the total actuarial accrued liability, actuarial value of assets and the total unfunded actuarial accrued liability of MEABF amounted to $18,759.6 million, $4,275.0 million, and $14,484.7 million, respectively. The total actuarial accrued liability and the total unfunded actuarial liability include $6.6 million of Other Postemployment Benefits (O*PEB)*. As of December 31, 2022, MEABF has a funded ratio of 22.8% (actuarial value of assets divided by actuarial liabilities).

GASB 67 requires certain disclosure requirements and the calculation of a blended discount rate that may differ from the discount rate used for funding purposes if a projection of the Plan's assets and future contributions are insufficient to pay benefits to current members. Public Act 100-0023 provides a funding mechanism that substantially increased projected employer contributions. However as of December 31,2022 the (GASB 67) blended discount rate calculation resulted in a lower discount rate than is used for funding purposes. This means the total pension liability for financial reporting is different from the actuarial liability for funding purposes. For 2022, utilizing the requirements of GASB 67, the total pension liability was $19,107.8 million, leaving a net pension liability of $15,156.1 million. In 2022, based on the requirements of GASB 68, the Plan Sponsor (City of Chicago) must reflect this liability on their financial statements. The 2022 net pension liability was an increase of 7.5% compared to 2021.

MEABF is funded by employer and member contributions in accordance with the funding policy specified under the Illinois Pension Code (40 ILCS 5/8). As of December 31, 2022, as mandated by state statute, member contributions are set at 8.5% of pensionable salary for Tier 1 and Tier 2 members and 11.5% of pensionable salary for Tier 3 members. Employer contribution is a specified payment amounts of $576 million in 2022. Fiscal year 2022 is the last payment year that employer contributions will be based on a specified amount. Starting in payment year 2023 employer contributions are calculated as the sum of the employer normal cost for that fiscal year plus an amount determined as a level of payroll sufficient to bring the total asset of the fund to 90% of the actuarial accrued liability by the end of 2058. The Plans actuary has calculated the expected employer contributions (by statute) payment amount to be $960 million in payment year 2023 and $976 million in payment year 2024. In January 2023 the Plan received a supplemental pension contribution of $101.6 million from the employer. This supplemental contribution was a result of an executive order signed by the Mayor in 2023. The statutory employer contributions have been less than the actuarially determined contributions for the past twenty years growing over time.

In the opinion of Segal Consulting, the Plan's Consulting Actuary, the Plan remains vulnerable to adverse experience. Due to the low funded ratio and the timing of employer contributions, the Plan is at risk of having to liquidate invested assets at inopportune times to pay monthly benefits. The Plan is still at risk of potential insolvency if an economic recession or investment market downturn were to occur in the near term. If the Plan becomes insolvent, the employer will be required to make contributions on a "pay as you go" basis, which means the employer would have to pay all benefits as they become due. Additional discussion relating to funding is provided in the Actuarial Section.

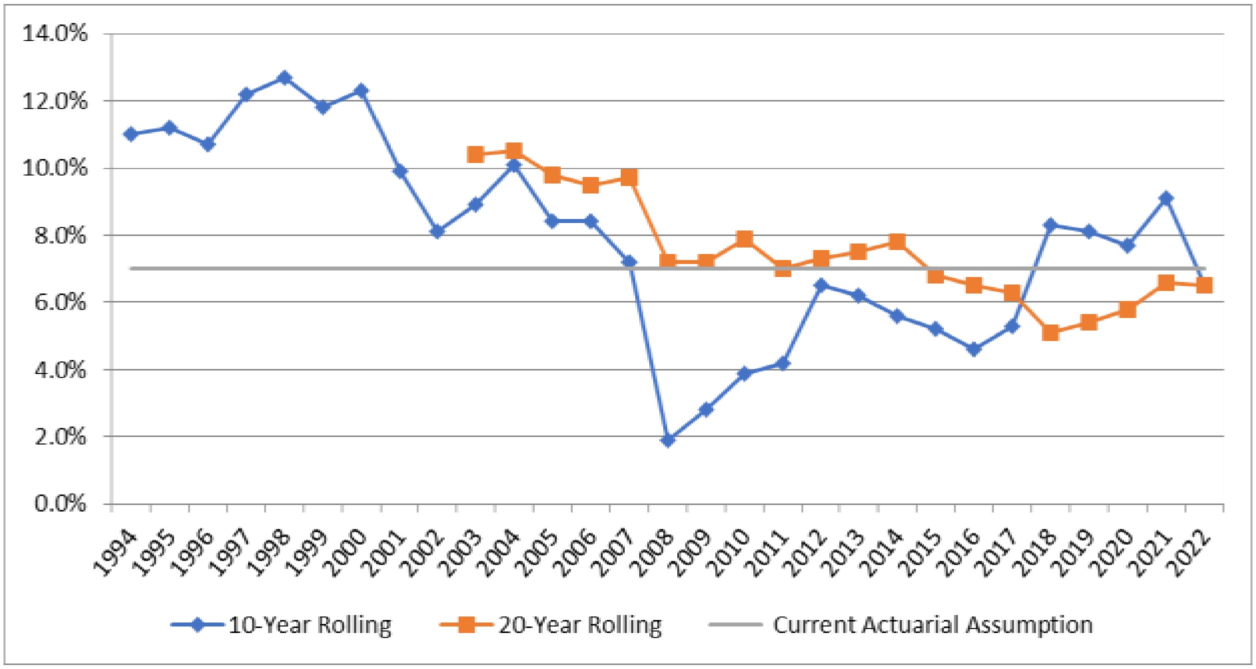
Investments

Plan assets are invested in accordance with the "Prudent Person Rule" for the sole purpose of providing benefits to Plan members. The Plan's portfolio is diversified globally amongst various asset classes, investment styles, and economic sectors in an effort to achieve optimal long-term return, at a pre-determined level of risk. As of December 2022, the Plan's Actuary assumes a long-term investment return of 7.00% (6.75 % effective January 2023) In 2022, the Plan's investment portfolio returned, net-of-fees, negative 11.4% compared to negative 12.1% of the policy benchmark. **Going forward, the Plan's ability to meet its return objective over the long term will continue to be challenged as invested assets are liquidated to pay monthly benefits**. During fiscal year 2022, approximately $110.0 million was liquidated to assist in meeting benefit payment obligations.

Economic Condition and Outlook

The main themes driving market performance were rising inflation and rising interest rates in 2022. The S&P 500 lost 18.1% for the year, reversing the recovery experienced in the prior two years. Inflation peaked over the summer, and the Federal Reserve has aggressively raised interest rates to help control the economy and bring inflation down towards its longer-term target. As a result, fixed income markets saw record negative returns, with the Bloomberg US Aggregate index returning negative 13.0% for the year. Looking ahead to 2023, inflation and interest rates are expected to remain the strongest drivers of global market performance.

The following chart compares ten and twenty-year rolling returns to the actuarially assumed rate of return. Over the long-term, MEABF has historically outperformed the assumed rate of return. However, the effects of the “Tech Bubble” (2000-2002) and the “Great Recession” (2008-2009) has been a drag on our performance. The negative returns in both equity and fixed income markets in 2022 drove the portfolio to a negative 11.4% return for the year, net of fees. The Retirement Board will continue to structure the portfolio in accordance with the target asset allocation mix, which minimize downside risk and maximize the risk adjusted return, to position the portfolio to achieve long-term performance goals and objectives.



The Investment Section contains a summary of the Retirement Board’s investment policy, including goals and objectives, and a comprehensive analysis of the Plan’s portfolio performance for the fiscal year 2022.

Plan Initiatives

Investments:

The Retirement Board took the following actions in 2022:

- Private Debt: The Board concluded its search for Private Debt strategies and voted to hire three investment managers for this new mandate focused on middle market direct lending. Commitments were made to these new managers in August and capital continues to be deployed over time.

- Total Portfolio: Investment staff worked with current service providers to find efficiencies and lower overall costs to the Plan. Staff was able to successfully negotiate lower fees with the Plans’ custodian bank and began to transition some investment managers to commingled funds while simultaneously lowering fees paid by the Plan.

Operations:

A search for a new executive director was conducted during 2023 and Ms. Tiffany Junkins was selected as the Plan's new Executive Director. Ms. Junkins took on the role as Executive Director in June 2023.

Certificate of Achievement for Excellence in Financial Reporting

The Plan was awarded a Certificate of Achievement for Excellence in Financial Reporting for its ACFR for the year ended December 31, 2021, by the Government Finance Officers Association of the United States and Canada (GFOA). The Plan has received this prestigious award in each of the last 33 years.

To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized ACFR that satisfies both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one-year only. We believe this report conforms to the program requirements and we are submitting it to the GFOA to determine its eligibility for award.

Acknowledgments

We extend our profound gratitude to the entire Retirement Board for their commitment, leadership and continued support and to the advisors and consultants. We thank the dedicated MEABF staff for their tireless efforts in serving the needs of members. We are grateful to all those who contributed to this project.

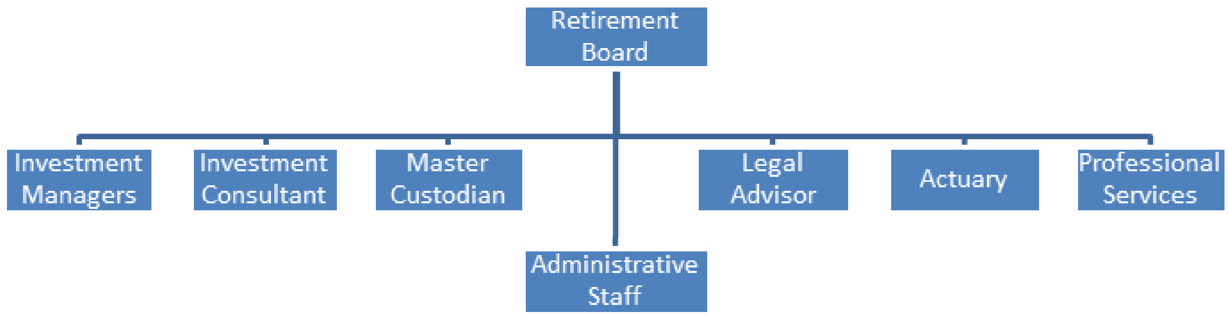
Respectively submitted,

Tiffany Junkins
Sandra Shelby

Tiffany Junkins
Executive Director

Sandra Shelby
Comptroller

ORGANIZATION CHART



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City Treasurer
Chicago, IL

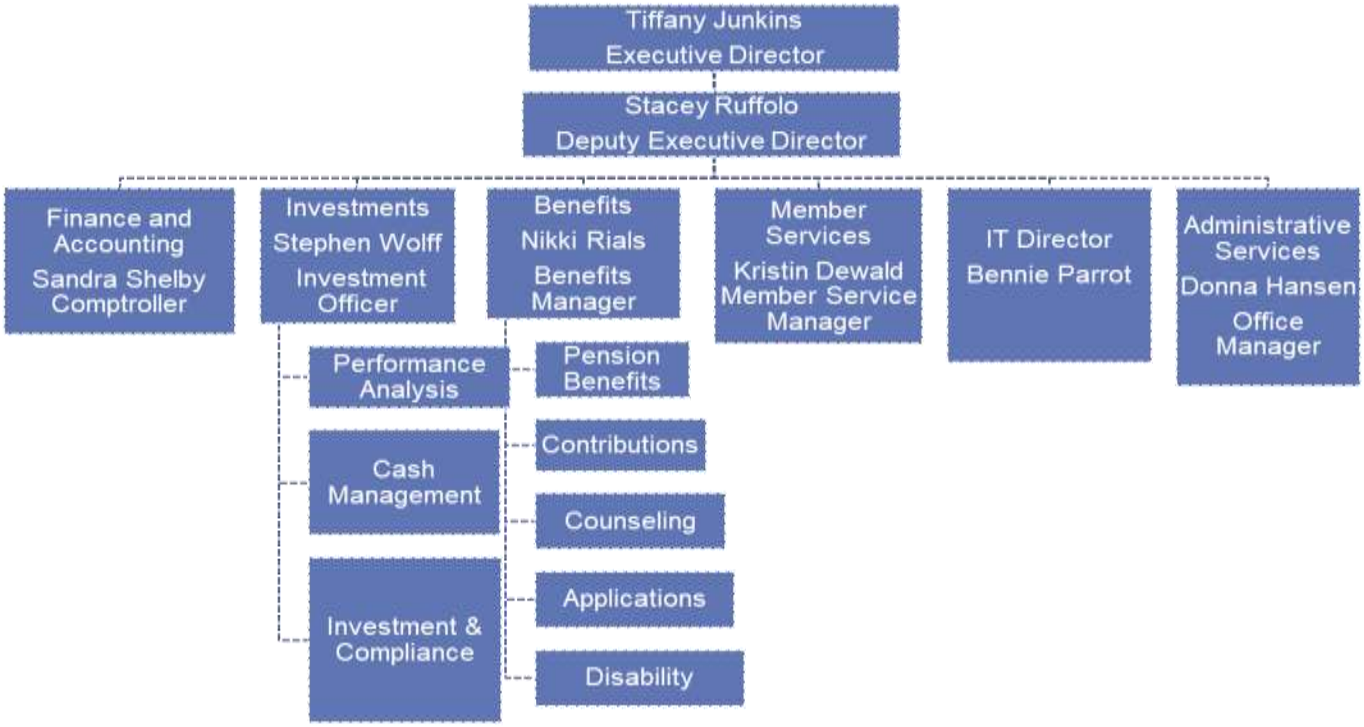
Legal Advisor
Mary Pat Burns
Burke, Burns & Pinelli, Ltd
Chicago, IL

Medical Advisor
Occupational Health Centers
Chicago, IL

Investment Managers and Investment Fees - are listed on pages 61-63; 71-72 and 85

Brokers used by Investment Managers - are listed on pages 83-84

Administrative Staff (As of June 30, 2023)



Appointed by the Retirement Board, the Executive Director and his staff are responsible for the day-to-day administration and operation. The administrative staff also implements the investment policies and decisions of the Retirement Board and the benefit provisions of the Plan. The administrative staff of Thirty-nine (39) full time employees serves 35,369 actively contributing members; 25,894 retirees and surviving beneficiaries; and 22,586 inactive members.

FINANCIAL

CALIBRE
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Report of Independent Auditors

The Retirement Board
Municipal Employees' and Officers' Annuity & Benefit Fund
of Chicago
Chicago, Illinois

Opinion

We have audited the accompanying financial statements of Municipal Employees' and Officers' Annuity & Benefit Fund of Chicago (the Plan), a Fiduciary Unit of the City of Chicago, which comprise the statements of fiduciary net position as of December 31, 2022 and 2021, and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements.

In our opinion, the financial statements referred to above, present fairly, in all material respects, the fiduciary net position of Municipal Employees' and Officers' Annuity & Benefit Fund of Chicago as of December 31, 2022 and 2021, and the changes in fiduciary net position for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). 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 Municipal Employees' and Officers' Annuity & Benefit Fund of Chicago, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibility of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of 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 the 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 Municipal Employees' and Officers' Annuity & Benefit Fund of Chicago'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.

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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 opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS 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, 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 including 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 Municipal Employees’ and Officers’ Annuity & Benefit Fund of Chicago’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 judgement, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Municipal Employees’ and Officers’ Annuity & Benefit Fund of Chicago’s ability to continue as a going concern for a reasonable period of time.

We are required to communicate to 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.

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Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 14 through 22, schedules of changes in employer's net pension liability, schedules of employer's net pension liability, schedule of employer contributions, notes to the schedule of employers contributions, schedule of investment returns, schedules of changes in employer's net OPEB liability, and schedules of employer's net OPEB liability on pages 56 through 59 be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not 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 inquires 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 audits 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 audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Municipal Employees' and Officers' Annuity & Benefit Fund of Chicago's basic financial statements. The supplementary information such as the schedules of administrative expenses, investment management compensation, and professional and consulting costs on pages 60 through 64 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 audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated in relation to the basic financial statements taken as a whole.

Calibre CPA Group, PLLC

Chicago, Illinois
May 17, 2023

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

This Management Discussion and Analysis (MD&A) of the Municipal Employees' and Officers' Annuity and Benefit Fund of Chicago ("MEABF" or the "Plan") provides a narrative overview and analysis of the financial activities of MEABF for the years ended December 31, 2022 and 2021. Readers are encouraged to read the MD&A in conjunction with the financial statements to better understand the financial condition and performance of MEABF during the year ended December 31, 2022. Information for fiscal years 2021 and 2020 is presented for comparative purposes.

Overview of the Financial Statements

This discussion and analysis are an introduction to the Plan's basic financial statements prepared on an accrual basis of accounting in accordance with Governmental Accounting Standards Board (GASB) pronouncements and reflect all financial activities. The Plan's basic financial statements include (1) statements of fiduciary net position, (2) statements of changes in fiduciary net position, and (3) notes to the financial statements. In addition to the basic financial statements, this financial report also contains required supplementary information and other supplementary schedules.

1. Basic Financial Statements: The *statements of fiduciary net position* restricted for pension benefits report Plan assets at fair value, liabilities, and the resulting fiduciary net position (assets - liabilities = fiduciary net position) at year-end. The *statements of changes in fiduciary net position* report the results of financial activities that occurred during the fiscal year, disclosing the additions to fiduciary net position, such as contributions and net investment income, and deductions from fiduciary net position such as benefit payments and administrative expenses. The resulting net increase (decrease) in fiduciary position (additions - deductions = net increase (decrease) in fiduciary position) reflects the change in net fiduciary position reported in the *statements of fiduciary net position.*

2. Notes to the Basic Financial Statements: The *notes to the financial statements* are an integral part of the financial statements and include additional information not readily evident in the financial statements themselves. The notes also include schedules to provide a better understanding of the data provided in the financial statements.

3. Required Supplementary Information: The required supplementary information following the notes to the financial statements is required by GASB. It provides historical information and additional details considered useful in evaluating the financial condition of the Plan. It includes schedules related to the net pension liability, contributions from employer, the annual money weighted rate of return on pension plan investments, and net OPEB liability.

4. Other Supplementary Schedules: Additional supplemental schedules include detailed information regarding administrative expenses, professional and consulting costs, and investment management fees.

FINANCIAL ANALYSIS

Fiduciary Net Position Restricted for Pension Benefits (in millions)

(As of December 31, 2022, 2021 and 2020)

	2022	2021	2020
Assets			
Cash, receivables and other assets	$ 798.9	$ 618.0	$ 478.2
Investments, at fair value	3,170.7	3,717.8	3,635.2
Invested securities lending collateral	226.4	250.9	184.0
Total assets	4,196.0	4,586.7	4,297.4
Liabilities			
Accrued expenses and other liabilities	16.6	27.5	23.2
Lease Liability	1.2	-	-
Securities lending collateral	226.4	250.9	184.0
Total liabilities	244.2	278.4	207.2
Fiduciary net position restricted for pension benefits	$ 3,951.8	$ 4,308.3	$ 4,090.2

Fiduciary net position restricted for pension benefits decreased by $356.5 million to $3,951.8 million in fiscal year 2022 from $4,308.3 million in fiscal year 2021. Comparatively net position restricted for pension benefits increased by $218.1 million to $4,308.3 million in fiscal year 2021 from $4,090.2 million in fiscal year 2020. Cash, receivable and other assets increased by $180.9 million to $798.9 million in fiscal year 2022 from $618.0 million in fiscal year 2021. Comparatively cash, receivable and other assets increased by $139.8 million to $618.0 million in fiscal year 2021 from $478.2 million in fiscal year 2020. The increase in both 2022 and 2021 were primarily due to the required increase in contributions recorded as a receivable from the employer as part of the Public Act 100-0023 funding structure. Invested assets at fair value decreased by $547.1 million to $3,170.7 in fiscal year 2022 from $3,717.8 million in fiscal year 2021. Comparatively invested assets at fair value increased by $82.6 million to $3,717.8 in fiscal year 2021 from $3,635.2 million in fiscal year 2020. The decrease in fiscal year 2022 was affected by the negative 11.4 percent rate of return compared to the increase in fiscal year 2021 being affected by a positive return of 13.6 percent. The Plan rate of return was negative 11.4 percent, positive 13.6 percent, and positive 10.0 percent for fiscal year 2022, 2021 and 2020 respectively.

Summary of Investments (in millions)

(As of December 31, 2022, 2021 and 2020)

	2022	2021	2020
Fixed income	$ 737.9	$ 792.4	$ 783.2
Domestic equity	880.3	1,110.7	1,006.1
International equity	513.1	677.6	718.9
Hedged equity	346.4	433.0	410.6
Real estate	320.4	337.6	346.5
Private equity	92.1	108.8	113.5
Private debt	13.1	-	-
Infrastructure	103.7	74.3	72.6
Short-term investments	163.7	183.4	183.8
	$ 3,170.7	$ 3,717.8	$ 3,635.2

The asset values reflected above fluctuate from year-to-year, both in aggregate and by asset class, based on the combination of factors such as investment performance, liquidations within certain asset classes, and rebalancing of assets within the overall portfolio.

Investment performance: For fiscal year 2022, the Plan's total investment portfolio returned a negative 11.4 percent net-of-fees, compared to a negative 12.1 percent return of the policy benchmark. 2022 returns were significantly below the 13.6 percent return net-of-fees generated in 2021. Only two asset classes outperformed their respective benchmarks for the fiscal year 2022. Fixed income and global equity performance were the highlights of the portfolio performing above their respective benchmarks for the year. Per asset class, domestic equity returned a negative 19.3 percent net-of-fees compared to a negative 19.0 percent return for Wilshire 5000 Total Market Index. International equity returned a negative 21.4 percent net-of-fees compared to a negative 16.6 percent return for the MSCI ACWI ex US. Global Equity returned a negative 8.6 percent net-of-fees compared to a negative 10.3 percent return for the MSCI ACWI Minimum Volatility Index. Hedged equity returned a negative 9.0 percent net-of-fees compared to a negative 3.2 percent return of the HFRX Equity Hedge Index. Fixed income returned a negative 7.4 percent net-of-fees compared to the Barclays Aggregate Bond Index return of negative 13.0 percent. Real estate generated a 3.9 percent return net-of-fees compared to a 5.5 percent return for the NCREIF Property Index. Lastly, Infrastructure generated a 3.4 percent return net-of-fees compared to 5.7 percent return for the benchmark of SOFR + 4%.

For fiscal year 2021, the Plan's total investment portfolio generated a positive 13.6 percent return net-of fees, compared to 13.0 percent of the policy benchmark. 2021 returns were above the positive 10.0 percent return net-of-fees generated in 2020. All asset classes outperformed their respective benchmarks for the fiscal year 2021. Fixed income and global equity performance were the highlights of the portfolio performing above their respective benchmarks for the year. Per asset class, domestic equity generated 27.1 percent net-of-fees compared to 26.7 percent for Wilshire 5000 Total Market Index. International equity generated 10.7 percent return net-of-fees compared to 8.5 percent for the MSCI ACWI ex US. Global Equity generated 16.4 percent return net-of-fees compared to 13.9 percent for the MSCI ACWI Minimum Volatility Index. Hedged equity generated 13.0 percent net-of-fees compared to 12.1 percent of HFRX Equity Hedge Index. Fixed income generated 1.5 percent return net-of-fees compared to the Barclays Aggregate Bond Index of negative 1.5 percent. Real estate generated a 19.5 percent return net-of-fees compared to 17.7 percent for the NCREIF Property Index. Lastly, Infrastructure generated a 5.7 percent return net-of-fees compared to 4.2 percent for the benchmark of LIBOR + 4%.

Liquidations within certain asset classes: Liquidations are due to the large operating cash flow deficits that the Plan faces as a result of the shortfall between inflows, in the form of contributions, and outflows, primarily comprised of retirement benefits and refunds required to pay by law. In total, MEABF had to liquidate approximately $110.0 million of investments to meet the Plan's cash flow needs for 2022 compared to $321.3 million in 2021. During 2022 liquidity came mainly from global equity, international equity, and defensive equity. During 2021 liquidity came mainly from domestic equity, international equity, and real estate.

Rebalancing of assets within the overall portfolio: In 2022, there was one new asset class added to the portfolio, Private Debt. In 2021, there were no new asset classes added to the portfolio. The regular sale of assets to meet the Plan's cash flow needs was done in accordance with aligning the Plan's investment portfolio with its target allocation.

Additions and Deductions to Fiduciary Net Position (in millions)
(As of December 31, 2022, 2021 and 2020)

	2022	2021	2020
Additions			
Employer contributions	$ 960.0	$ 573.7	$ 498.6
Member contributions	176.3	163.4	157.8
Total contributions	1,136.3	737.1	656.4
Net investment income (loss)	(430.6)	497.8	334.7
Net security lending income	0.7	0.5	0.7
Total additions	706.4	1,235.4	991.8
Deductions			
Annuity benefits	1,014.0	971.8	940.5
Disability benefits	10.2	10.4	9.5
Healthcare subsidy	0.4	0.5	1.6
Refunds of contributions	31.4	27.9	23.5
Administrative expense	6.9	6.7	7.1
Total deductions	1,062.9	1,017.3	982.2
Net change	(356.5)	218.1	9.6
Fiduciary net position restricted for pensions			
Beginning of year	4,308.3	4,090.2	4,080.6
End of year	$ 3,951.8	$ 4,308.3	$ 4,090.2

Additions

Total additions as reported in the statement of changes in fiduciary net positions decreased by $529.0 million or 42.8% to $706.4 million in fiscal year 2022 from $1,235.4 million in 2021. Comparatively total additions increased by $243.6 million or 24.6 percent to $1,235.4 million in fiscal year 2021 from $991.8 million in fiscal year 2020.

Additions from employer contributions increased by $386.3 million to $960.0 million in fiscal year 2022 from $573.7 million in fiscal year 2021. Comparatively, employer contributions increased by $75.1 million to $573.7 million in fiscal year 2021 from $498.6 million in fiscal year 2020. The net increase in 2022, and 2021 is due to the amendment of Public Act 100-0023 (new funding structure) that was put into law during 2017 that requires the employer to remit $960.0 million in 2023 for 2022 contributions and $576.0 million in 2022 for 2021 contributions. During 2022 the Employer advanced the Fund $234.0 million of the $960.0 million that was due in 2023. The advancement is reflected as a reduction in the receivable amount on the statement of fiduciary net position. For financial reporting purposes 2021 net employer contribution includes the required amount and adjustments. Funds allocated to the Plan's separate 415 Plan of $2.0 million along with a $.03 million adjustment from previous years are reflected as a reduction in 2021 contributions.

Additions (continued)

Additions from member contributions increased by $12.9 million to $176.3 million in fiscal year 2022 from $163.4 million in fiscal year 2021. Comparatively member contributions increased by $5.6 million to $163.4 million in fiscal year 2021, from $157.8 million in fiscal year 2020. The increase in 2022 is mainly due to increases of $9.6 million and $3.1 million in contributions from Board of Education members and the City of Chicago members, respectively. Comparatively the increase in 2021 is mainly due to a $5.0 million increase in contributions from Board of Education members. Details regarding active member contribution requirement can be found in Note 7 Pension and Other Postemployment Benefit-Related Note Disclosures.

Additions from investment income decreased by $928.4 million to negative $430.6 million in fiscal year 2022 from $497.8 million in fiscal year 2021. Comparatively additions from investment income increased by $163.1 million to $497.8 million in fiscal year 2021 from $334.7 million in fiscal year 2020. Investments earnings fluctuate primarily from the overall performance of the financial markets from year to year. The portfolio generated returns of negative 11.4 percent in 2022 compared to positive returns of 13.6 and 10.0 percent in 2021 and 2020.

MEABF can earn additional investment income by allowing a third-party provider to lend a portion of its securities to borrowers on its behalf. The borrower provides collateral on borrowed securities, which is invested in order to earn interest. Additions from securities lending activities increased by $0.2 million to $ 0.7 million in fiscal year 2022 from $0.5 million in fiscal year 2021. Comparatively, additions from securities lending activities decreased by $0.2 million to $0.5 million in fiscal year 2021 from $0.7 million is fiscal year 2020.

Deductions

MEABF's assets are primarily used to pay annuity benefits, disability benefits, refunds of contributions, and the costs of administering the Plan. Deductions from fiduciary net position increased by $45.6 million or 4.5 percent to $1,062.9 million in 2022 from $1,017.3 million in 2021. Comparatively deductions from fiduciary net position increased by $35.1 million or 3.6 percent to $1,017.3 million in 2021 from $982.2 million in 2020.

Benefits paid out exceed member and employer contributions by $109.9 million, $412.2 million, and $341.8 million in fiscal years 2022, 2021, and 2020, respectively. In order to supplement benefit payments, the Plan liquidated portfolio assets by approximately $110.0 million, $321.3 million, and $366.3 million in fiscal years 2022, 2021, and 2020, respectively.

Annuity benefits paid increased by $42.2 million or 4.3 percent to $1,014.0 million in 2022 from $971.8 million in 2021. Comparatively annuity benefits paid increased by $31.1million or 3.3 percent to $971.8 million in 2021 from $940.5 million in 2020. The net increase in 2022 and 2021 is primarily due to the compounded annual 3.0 percent adjustment for eligible annuitants. The average annual employee annuity benefit increased to $44,719 in 2022 from $43,390 in 2021. Comparatively In fiscal year 2021 the average annual employee annuity benefit increased to $43,390 in fiscal year 2021 from $42,053 in fiscal years 2020.

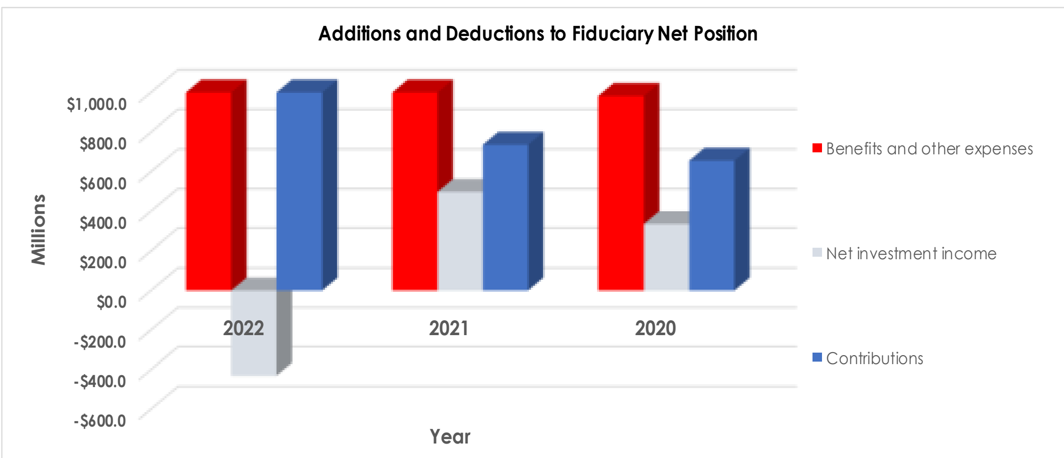
The number of new employee annuitants decreased in 2022 to 1,420 from 1,433 in 2021. Comparatively the number of new employee annuitants increased in 2021 to 1,433 from 1,207 in 2020. There were 25,894 retirees and beneficiaries at year-end December 31, 2022 compared to 25,683 at the beginning of the year. Comparatively there were 25,683 retirees and beneficiaries at year-end December 31, 2021, compared to 25,471 at the beginning of the year.

Deductions (continued)

Disability benefits paid decreased by $0.2 million or 1.9 percent to $10.2 million in 2022 from $10.4 million paid in 2021. Comparatively disability benefits paid increased by $0.9 million or 9.5 percent to $10.4 million in 2021 from $9.5 million paid in 2020. The net decrease in 2022 is attributable to a decrease in the number of participants and a decrease in the number of days in which participants were paid for disability benefits. Comparatively the net increase in 2021 is attributable to an increase in the number of days in which participants were paid for disability benefits. There were 232 participants on disability at year-end December 31, 2022, compared to 273 at the beginning of the year. Comparatively there were 273 participants on disability at year-end December 31, 2021, compared to 276 at the beginning of the year.

Refunds of contributions increased by $3.5 million to $31.4 million in 2022 from $27.9 million in 2021. Comparatively refunds of contribution increased by $4.4 million to $27.9 million in 2021 from $23.5 million in 2020. For 2022, the net increase is mainly due to an increase in other refund of contribution distributed to employees not eligible for annuities. The increase in 2021 is mainly due to an increase in refunds of spousal contributions.

Administrative expenses increased slightly by $0.2 million to $6.9 million in 2022 from $6.7 million in 2021. Comparatively administrative expense decreased slightly by $0.4 million to $6.7 million in 2021 from $7.1 million in 2020. Detail relating to administrative expenses can be found in the schedule of administrative expenses located under supplementary information.



Total Pension Liability (TPL) and Net Pension Liability (NPL)

The total pension liability (TPL) determines the total obligation for the Plan's pension benefits related to costs incurred as a result of years of service, changes in benefit terms, changes in actuarial assumptions, and any differences between the actuarial assumptions and actual experience. The Plan's fiduciary net position (FNP) determines the assets available for future pension payment stream. Analogous to the unfunded actuarial accrued liability, net pension liability (NPL) is the total pension liability (TPL), net of the Plan's fiduciary net position (FNP).

Total Pension Liability (TPL) and Net Pension Liability (NPL) (continued)

At December 31, 2022, 2021 and 2020, the components of the net pension liability of the employer were as follows (in millions):

	2022	2021	2020
Total pension liability	$ 19,107.9	$ 18,401.6	$ 17,814.8
Plan fiduciary net position	3,951.8	4,308.3	4,090.2
Employer's net pension liability	$ 15,156.1	$ 14,093.3	$ 13,724.6
Plan fiduciary net position as a percentage of total pension liability	20.68%	23.41%	22.96%

Total OPEB Liability and Net OPEB Liability

The total OPEB liability determines the total obligation for the Plan's postemployment healthcare benefits related to costs incurred as a result of years of service, changes in benefit terms, changes in actuarial assumptions, and any differences between the actuarial assumptions and actual experience. The Plan's fiduciary net position determines the assets available for future postemployment healthcare benefit payment stream. Analogous to the unfunded actuarial accrued liability, net OPEB liability is the total OPEB liability, net of the Plan's fiduciary net position.

At December 31, 2022, 2021 and 2020, the components of the OPEB liability of the employer were as follows (in millions):

	2022	2021	2020
Total OPEB liability	$ 6.6	$ 16.4	$ 32.4
Plan fiduciary net position	-	-	-
Employer's net OPEB liability	$ 6.6	$ 16.4	$ 32.4
Plan fiduciary net position as a percentage of total OPEB liability	0.00%	0.00%	0.00%

Funding Status

The Plan, since inception, has been funded by utilizing a static multiple of employee contributions. This structure has led to significant underfunding of the Plan which continues to reduce assets as benefits paid far exceed contributions received.

Over the last few years, attempts to change the funding mechanism for the Plan to ensure the long-term solvency have been declared unconstitutional due to changes made to the existing benefit structure. On July 6, 2017, a new funding structure was included in Public Act 100-0023 to increase employer contributions from the City of Chicago.

Public Act 100-0023 requires contributions from the City of Chicago to be equal to $266 million in payment year 2018; $344 million in payment year 2019; $421 million in payment year 2020; $499 million in payment year 2021, and $576 million in payment year 2022. For payment years 2023 through 2058, the City of Chicago is required to make contributions on an actuarial calculated funding plan that is projected to bring the Fund to 90% funding by 2058. The Plan's actuary has calculated the employer contributions (by statute) for 2022 (payable in 2023) to be $960 million.

Request for Information

Additional information is available on our website www.meabf.org or by request. Please direct your request to:

Ms. Sarah Boeckman
Interim Executive Director
Municipal Employees' and Officers'
Annuity and Benefit Fund of Chicago
321 N. Clark Street, Suite 700
Chicago, IL 60654

Statements of Fiduciary Net Position
(December 31, 2022 and 2021)

	2022	2021
Assets		
Cash	$ 400	$ 400
Receivables		
Contributions from the City of Chicago	764,778,889	581,145,813
Member contributions	14,528,847	10,336,396
Interest and dividends	10,028,223	9,847,429
Due from broker	6,405,565	14,571,449
Miscellaneous	1,918,745	1,619,939
Total receivables	797,660,269	617,521,026
Investments, at fair value		
Fixed income	737,917,253	792,421,371
Hedged equity	346,417,140	432,986,981
Domestic and international equity	1,393,398,854	1,788,302,921
Real estate	320,367,589	337,610,569
Private equity	92,117,931	108,765,054
Private debt	13,111,779	-
Infrastructure	103,702,869	74,303,752
Short-term investments	163,635,342	183,400,584
Total investments	3,170,668,757	3,717,791,232
Invested securities lending collateral	226,402,857	250,946,224
Property and equipment, net of accumulated depreciation and amortization of $706,286 in 2022 and $271,464 in 2021	1,255,296	462,304
Total assets	4,195,987,579	4,586,721,186
Liabilities		
Due to broker	6,023,439	17,521,036
Accounts payable and accrued expenses	10,610,641	9,984,902
Lease liability	1,162,603	-
Securities lending collateral	226,402,857	250,946,224
Total liabilities	244,199,540	278,452,162
Net position restricted for pension benefits	$ 3,951,788,039	$ 4,308,269,024

See accompanying notes to financial statements

Statements of Changes in Fiduciary Net Position

Years ended December 31, 2022 and 2021

	2022	2021
Additions		
Contributions from the City of Chicago	$ 959,999,000	$ 573,701,021
Member contributions	176,338,741	163,410,877
Total contributions	1,136,337,741	737,111,898
Investment income		
Net (depreciation) appreciation in fair value of investments	(487,766,656)	450,551,681
Interest	30,876,767	18,937,705
Dividends	33,973,306	36,958,659
Income from real estate investments	7,769,147	7,687,579
	(415,147,436)	514,135,624
Less investment expenses	(15,418,372)	(16,349,259)
Net income (loss) from investing activities	(430,565,808)	497,786,365
Security lending activities		
Securities lending income	4,440,984	638,294
Borrower rebates	(3,624,129)	2,540
Bank fees	(163,195)	(128,039)
Net income from securities lending activities	653,660	512,795
Total additions	706,425,593	1,235,411,058
Deductions		
Benefits		
Annuity payments	1,014,031,467	971,820,479
Disability benefits	10,150,649	10,427,376
Post-employment healthcare subsidies	448,508	502,375
Total benefits	1,024,630,624	982,750,230
Refund of member contributions	31,402,425	27,943,549
Administrative expenses	6,873,529	6,687,339
Total deductions	1,062,906,578	1,017,381,118
Net change	(356,480,985)	218,029,940
Net position restricted for pension benefits		
Beginning of year	4,308,269,024	4,090,239,084
End of year	$ 3,951,788,039	$ 4,308,269,024

See accompanying notes to financial statements

Note 1 – Summary of Significant Accounting Policies

Reporting Entity - As defined by U.S. generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB), the financial reporting entity consists of a primary government, as well as its component units, which are legally separate organizations for which the elected officials of the primary government are financially accountable. Financial accountability is defined as:

(1) Appointment of a voting majority of the component unit's board and either a) the ability to impose will by the primary government, or b) the possibility that the component unit will provide a financial benefit to or impose a financial burden on the primary government; or

(2) Fiscal dependency on the primary government.

Based upon the required criteria, the Plan has no component units. The Plan is considered a fiduciary unit fund of the City of Chicago and, as such, is included in the City of Chicago's financial statements as a pension trust fund. Accordingly, these financial statements present only Municipal Employees' and Officers' Annuity & Benefit Fund of Chicago ("MEABF" or the "Plan") and are not intended to present fairly the financial position of the City of Chicago and the result of its operations in conformity with U.S. generally accepted accounting principles.

Basis of Accounting - The financial statements are prepared using the accrual basis of accounting. Employee and employer contributions are recognized in the period when due, pursuant to formal commitments as well as statutory or contractual requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

Use of Estimates - The preparation of financial statements in accordance with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts and fiduciary net position at the date of the financial statements and the actuarial information included in the required supplementary information as of the valuation date, the changes in fiduciary net position during the reporting period and, when applicable, disclosures of the contingent assets and liabilities at the date of the financial statements. Actual results may differ from those estimates.

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

Investments - The Plan is authorized to invest in bonds, notes, and other obligations of the U.S. Government; corporate debentures and obligations; insured mortgage notes and loans; common and preferred stocks; stock options; real estate; and other investment vehicles as set forth in the Illinois Compiled Statutes. Income on all investments is recognized on the accrual basis. Gains and losses on sales and exchanges of investments are recognized on the transaction date of such sale or exchange. Dividend income is recognized based on dividends declared.

Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair values of marketable securities are based primarily on quotations from national security exchanges. Investments in short-term obligations are carried at cost which approximates fair value. Certain short-term obligations, such as United States Treasury Bills and discount paper, are carried at fair value. Fair values for bonds, stocks, forward contracts, future contracts, rights, and warrants are determined by quoted market prices. Fair values of hedged equity investments and fixed income funds are determined using quoted market prices of underlying funds, when available. If quoted market prices are not available, then fair value is determined by underlying fund managers. Fair values of real estate and infrastructure are based upon independent appraisals. Fair values of private equity and private debt investments are primarily based on the general partner determined fair value.

Note 1. Summary of Significant Accounting Policies (continued)

Administrative Expenses - Administrative expenses are budgeted and approved by MEABF's Board of Trustees (Board). Funding for these expenses is included in the employer contributions as mandated in the Illinois State Statutes Chapter 40, Pension Article 5/8-190.

Income Taxes - The Plan is exempt from federal and state income taxes and has received a favorable determination letter under Internal Revenue Code (IRC) section 401(a).

New Accounting Pronouncements - Effective for fiscal year 2022, GASB Statement No. 87, *Leases* establishes a single model for lease accounting based on the principle that leases are financings of the right to use an asset. There is no longer an operating versus capital classification. Lessees will recognize a lease liability and an intangible right-of-use asset, and lessors will recognize a lease receivable and a deferred inflow of resources. The Plan implemented the provisions of GASB 87 for the year ended December 31, 2022. This had an immaterial impact as further described in Note 9.

Issued Accounting Pronouncements Not Yet Effective - GASB has issued the following pronouncements that may affect future fiduciary net position, changes in fiduciary net position or financial presentation of the Plan upon implementation. The Plan is currently evaluating the impact of adopting the following GASB Statements.

GASB Statement No.	GASB Accounting Standard	Effective Fiscal Year
91	*Conduit Debt Obligations*	2023
94	*Public-Private and Public - Public Partnerships and Availability Payment Arrangements*	2023
96	*Subscription-Based Information Technology Arrangements*	2023
99	*Omnibus 2002*	2023 and 2024
100	*Accounting Changes and Error Corrections - an amendment of GASB Statement No. 62*	2024
100	*Compensated Absences*	2025

Note 2. Investment Policies, Asset Allocation and Money-Weighted Rate of Return

Investment Policy - The Plan's policy in regard to the allocation of invested assets is established and may be amended by the Board. It is the policy of the Board to pursue an investment strategy that reduces risk through prudent diversification of the portfolio across a broad selection of distinct asset classes. The Plan's investment policy discourages the use of cash equivalents, except to meet liquidity needs, and aims to refrain from dramatically shifting asset class allocations over the short term.

The following table represents the Board's adopted asset allocation policy as of December 31, 2022 and 2021:

Asset Class	2022 Target	2021 Target
Fixed income	22%	25%
Global equity	5%	5%
Domestic equity	26%	26%
International equity	17%	17%
Hedge funds	10%	10%
Private equity	4%	5%
Private debt	4%	0%
Real estate	9%	10%
Infrastructure	3%	2%
	100%	100%

Money-Weighted Rate of Return - For the years ended December 31, 2022 and 2021, the annual money-weighted rate of return on plan investments, net of investment expense, was negative 11.6 percent and positive14.0 percent, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Note 3. Deposits and Investments

Custodial credit risk is the risk that, in the event of a financial institution failure, the Plan will not be able to recover deposits or collateral securities that are in possession of an outside party. Deposits are exposed to custodial credit risk if they are not covered by deposit insurance and are (a) uncollateralized, (b) collateralized with securities held by the pledging financial institution, or (c) collateralized with securities held by the pledging financial institution's trust department or agent but not in the Plan's name. The Plan does not have a formal policy relating to custodial risk. As of December 31, 2022 and 2021 $3,753,487 and $3,881,516, respectively, of the Plan's deposits with its custodian Northern Trust were exposed to custodial credit risk.

Certain Plan investments are held by a bank administered trust fund. There were no individual investments representing 5% or more of the Plan's net position as of December 31, 2022 and 2021.

Note 3. Deposits and Investments (continued)

The Plan's investments are reported at fair value in the accompanying statements of fiduciary net position. The methods used to measure fair value may produce an amount that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Accounting standards provide the framework for measuring fair value which provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described as follows:

Level 1 - Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2 - Inputs to the valuation methodology include other significant observable inputs including:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability; and
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 - Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following are descriptions of the valuation methodologies used for investments measured at fair value. There have been no changes in the methodologies used at December 31, 2022 and 2021.

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

Equity and equity derivative securities classified in Level 1 are valued using prices quoted in active markets for those securities.

Debt securities and short-term investment securities classified in Level 2 are valued using matrix pricing techniques maintained by the various pricing vendors. Matrix pricing is used to value securities based on the securities relationship to a benchmark's quoted price. Equity securities classified in Level 2 are securities with a theoretical price calculated by applying a standardized formula to derive a price from a related security.

Equity securities and other assets classified in Level 3 are valued with last trade data having limited trading volume.

The valuation method for certain fixed income and alternative investments is based on the investments' NAV per share (or its equivalent), provided by the investment managers. The NAV is based on the fair value of the underlying investments held by the fixed income and alternative investment less their liabilities. This practical expedient is not used when it is determined to be probable that the Plan will sell the investment for an amount different than the reported NAV.

Note 3 – Deposits and Investments (continued)

The following table summarizes the valuation of MEABF investments by the fair value hierarchy levels as of December 31, 2022.

	December 31, 2022			
Description	Total	Quoted Market Prices for Asset (Level 1	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments measured at fair value				
Equity securities				
Common stock	$ 1,389,831,874	$ 1,386,211,927	$ 633	$ 3,619,314
Preferred stock	1,192,711	552,632	-	640,079
Stapled securities	1,255,734	1,255,734	-	-
Rights/warrants	771,827	1,877	642	769,308
Funds - equities ETF	115,263	115,263	-	-
Convertible equity	231,445	-	-	231,445
Total equity securities	1,393,398,854	1,388,137,433	1,275	5,260,146
Debt securities				
Government bonds	121,804,932	-	121,804,932	-
Government agencies	22,282,906	-	22,282,906	-
Municipal/provincial bonds	20,122,268	-	20,122,268	-
Corporate bonds	245,196,874	-	245,196,588	286
Corporate convertible bonds	911,254	-	911,254	-
Bank loans	15,146,981	-	14,396,195	750,786
Government mortgage-backed securities	98,052,150	-	98,052,150	-
Government-issued commercial mortgage-backed	7,841,429	-	7,841,429	-
Commercial mortgage-backed	4,198,046	-	4,198,046	-
Asset backed securities	14,887,636	-	14,887,636	-
Non-government backed CMO's	6,876,774	-	6,876,774	-
Total debt securities	557,321,250	-	556,570,178	751,072
Short-term investment securities				
Funds - short-term investment securities	163,635,342	-	163,609,454	25,888
Total investments measured by fair value levels	2,114,355,446	$ 1,388,137,433	$ 720,180,907	$ 6,037,106
Investments measured at NAV				
Commingled fixed income funds	180,596,003			
Commingled Infrastructure	103,702,869			
Hedge funds	346,417,140			
Private equity partnerships	92,117,931			
Private debt	13,111,779			
Real estate	320,367,589			
Total investments measured at NAV	1,056,313,311			
Total investments measured at fair value	$ 3,170,668,757			
Collateral from securities lending	$ 226,402,857		$ 226,402,857	
Liabilities				
Securities lending collateral	$ 226,402,857		$ 226,402,857	

Note 3 – Deposits and Investments (continued)

The following table summarizes the valuation of MEABF investments by the fair value hierarchy levels as of December 31, 2021.

	December 31, 2021			
Description	Total	Quoted Market Prices for Asset (Level 1	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments measured at fair value				
Equity securities				
Common stock	$ 1,782,670,617	$ 1,780,985,231	$ 647,530	$ 1,037,856
Preferred stock	3,088,260	2,392,636	-	695,624
Stapled securities	1,477,687	1,477,687	-	-
Rights/warrants	815,931	2,048	286	813,597
Funds - equities ETF	8,526	8,526	-	-
Convertible equity	241,900	-	-	241,900
Total equity securities	1,788,302,921	1,784,866,128	647,816	2,788,977
Debt securities				
Government bonds	122,463,125	-	122,463,125	-
Government agencies	19,421,756	-	19,421,756	-
Municipal/provincial bonds	23,731,381	-	23,731,381	-
Corporate bonds	294,443,045	-	294,442,381	664
Corporate convertible bonds	949,447	-	949,447	-
Bank loans	140,209,456	-	140,109,315	100,141
Government mortgage-backed securities	79,796,681	-	79,796,681	-
Government-issued commercial mortgage-backed	9,130,131	-	9,130,131	-
Commercial mortgage-backed	6,592,179	-	6,592,179	-
Asset backed securities	15,818,143	-	15,818,143	-
Non-government backed CMO's	6,833,600	-	6,833,600	-
Index linked government bonds	5,862,764	-	5,862,764	-
Total debt securities	725,251,708	-	725,150,903	100,805
Short-term investment securities				
Funds - short-term investment securities	183,400,584	-	183,332,176	68,408
Total investments measured by fair value levels	2,696,955,213	$ 1,784,866,128	$ 909,130,895	$ 2,958,190
Investments measured at NAV				
Commingled fixed income funds	67,169,663			
Commingled Infrastructure	74,303,752			
Hedge funds	432,986,981			
Private equity partnerships	108,765,054			
Real estate	337,610,569			
Total investments measured at NAV	1,020,836,019			
Total investments measured at fair value	$ 3,717,791,232			
Collateral from securities lending	$ 250,946,224		$ 250,946,224	
Liabilities				
Securities lending collateral	$ 250,946,224		$ 250,946,224	

Note 3 – Deposits and Investments (continued)

Investments measured at NAV for fair value are not subject to level classification. The Plan's investments in certain entities that are measured at the NAV per share (or its equivalent) is presented on the following tables.

2022	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Commingled fixed income funds	$ 180,596,003	$ -	Monthly, Quarterly	30 or 60 Days
Commingled infrastructure	103,702,869	-	Quarterly	45 Days
Hedge funds	346,417,140	-	Monthly, Quarterly	5, 7, 30,60, or 90 Days
Private equity funds	92,117,931	28,109,846	Not Eligible	N/A
Private debt	13,111,779	12,000,000	Quarterly, Not Eligible	180 days or N/A
Real estate funds	320,367,589	-	Quarterly, Annually - Open-end, Not Eligible - Closed - end	30 or 90 Days - Open-end
	$ 1,056,313,311	$ 40,109,846		

2021	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Commingled fixed income funds	$ 67,169,663	$ -	Quarterly	60 Days
Commingled infrastructure	74,303,752	-	Quarterly	45 Days
Hedge funds	432,986,981	-	Monthly, Quarterly	5, 7, 30,60, or 90 Days
Private equity funds	108,765,054	28,772,370	Not Eligible	N/A
Real estate funds	337,610,569	286,388	Quarterly, Annually - Open-end, Not Eligible - Closed - end	30 or 90 Days - Open-end
	$ 1,020,836,019	$ 29,058,758		

Commingled Fixed Income Funds - This type of investment consists of fixed income securities diversified in high yield, bank loans, and private debt securities.

Commingle Infrastructure - This type includes investment in open-end infrastructure fund. Investment in open-end funds have limited redemption availability as redemption opportunities are based on available liquidity.

Hedge Funds - This type of investment consists of multi-strategy and long/short equity hedge fund-of-funds.

Private Equity Funds - This type of investment includes limited partnerships. Generally, the types of partnership strategies included in these portfolios are venture capital, buyouts, special situations, mezzanine, and distressed debt. Private equity partnerships have an approximate life of 10-15 years and are considered illiquid. Redemptions are restricted over the life of the partnership. During the life of the partnerships, distributions are received as underlying investments are realized.

Note 3 – Deposits and Investments (continued)

Private Debt Funds - This type of investment includes limited partnerships. Generally, the types of partnership strategies included in these portfolios are both middle and lower-middle market direct lending. Private debt partnerships have an approximate life of 5-6 years and are considered illiquid. Redemptions are restricted over the life of the partnership. During the life of the partnerships, distributions are received as interest is paid and underlying loans mature.

Real Estate Funds - This type includes investments in open and closed-end real estate funds. Investments in open-end funds have limited redemption availability as redemption opportunities are based on available liquidity. Closed-end funds do not offer redemptions. Distributions from closed-end funds will be received as the underlying investments are liquidated.

Note 3 – Deposits and Investments (continued)

Foreign Currency Risk

Foreign currency risk is the risk that changes in currency exchange rates will adversely affect the fair value of an investment or a deposit. Forward currency contracts may be used to manage exposure to foreign currencies. The Plan has not adopted a formal policy related to foreign currency risk. The Plan's exposure to foreign currency risk at December 31, 2022 was as follows:

Currency	Equities *	Fixed Income	Short-term Investments	Total	Percentage
Australian dollar	$ 25,406,716	$ -	$ 375,072	$ 25,781,788	5.0%
Brazilian real	7,671,000	-	55,933	7,726,933	1.5%
British pound sterling	63,091,621	-	318,397	63,410,018	12.3%
Canadian dollar	21,554,094	-	227,395	21,781,489	4.2%
Chilean peso	105,738	-	22,151	127,889	0.0%
Chinese yuan renminbi	475,587	-	(44,977)	430,610	0.1%
Colombian peso	26,353	-	1,339	27,692	0.0%
Czech koruna	8,131	-	7,246	15,377	0.0%
Danish krone	14,113,416	-	312,937	14,426,353	2.8%
Egyptian pound	21,749	-	5,512	27,261	0.0%
Euro	105,008,145	-	488,051	105,496,196	20.4%
HK offshore Chinese yuan renminbi	8,951,653	-	163,152	9,114,805	1.8%
Hong Kong dollar	38,512,301	-	155,090	38,667,391	7.5%
Hungarian forint	90,593	-	26,637	117,230	0.0%
Indian rupee	21,047,645	-	208,638	21,256,283	4.1%
Indonesian rupiah	6,515,793	-	6,198	6,521,991	1.3%
Japanese yen	89,226,801	-	702,881	89,929,682	17.4%
Kenyan shilling	-	-	46,907	46,907	0.0%
Kuwaiti dinar	514,775	-	6,947	521,722	0.1%
Malaysian ringgit	1,856,157	-	1,058	1,857,215	0.4%
Mexican peso	3,910,025	-	27,770	3,937,795	0.8%
New Israeli shekel	5,143,715	-	56,874	5,200,589	1.0%
New Taiwan dollar	8,750,101	-	31,549	8,781,650	1.7%
New Zealand dollar	1,181,329	-	74,284	1,255,613	0.2%
Norwegian krone	11,607,864	-	141,712	11,749,576	2.3%
Philippine peso	1,434,943	-	6,511	1,441,454	0.3%
Polish zloty	3,604,267	-	16,292	3,620,559	0.7%
Qatari riyal	1,070,168	-	16,798	1,086,966	0.2%
Russian ruble	162,809	-	6,289	169,098	0.0%
Singapore dollar	8,932,332	-	8,851	8,941,183	1.7%
South African rand	4,509,525	-	5,032	4,514,557	0.9%
South Korean won	7,722,478	-	31,673	7,754,151	1.5%
Swedish krona	12,497,856	-	59,127	12,556,983	2.4%
Swiss franc	30,998,686	-	395,706	31,394,392	6.1%
Thai baht	3,036,038	-	746	3,036,784	0.6%
Turkish lira	952,470	-	56,676	1,009,146	0.2%
United Arab Emirates dirham	3,349,535	-	4,779	3,354,314	0.6%
Total held in foreign currency	$ 513,062,409	$ -	$ 4,027,233	$ 517,089,642	100.0%

* Includes forward contracts, rights and warrants.

Note 3 – Deposits and Investments (continued)

For comparative purposes, the Plan's exposure to foreign currency risk at December 31, 2021 was as follows:

Currency	Equities *	Fixed Income	Short-term Investments	Total	Percentage
Australian dollar	$ 27,284,832	$ -	$ 358,555	$ 27,643,387	4.1%
Brazilian real	6,696,230	-	82,075	6,778,305	1.0%
British pound sterling	90,862,532	-	627,831	91,490,363	13.4%
Canadian dollar	33,941,885	-	173,218	34,115,103	5.0%
Chilean peso	36,575	-	46,450	83,025	0.0%
Chinese yuan renminbi	703,048	-	(77,277)	625,771	0.1%
Colombian peso	39,572	-	26,175	65,747	0.0%
Czech koruna	26,998	-	(47)	26,951	0.0%
Danish krone	17,426,038	-	(15,482)	17,410,556	2.6%
Egyptian pound	174,852	-	9,955	184,807	0.0%
Euro	141,240,160	-	218,363	141,458,523	20.8%
HK offshore Chinese yuan renminbi	7,694,362	-	391,721	8,086,083	1.2%
Hong Kong dollar	48,618,347	-	176,215	48,794,562	7.2%
Hungarian forint	1,207,798	-	31,875	1,239,673	0.2%
Indian rupee	29,116,508	-	209,149	29,325,657	4.3%
Indonesian rupiah	3,972,341	-	6,770	3,979,111	0.6%
Japanese yen	110,764,880	-	346,104	111,110,984	16.3%
Kenyan shilling	256,193	-	-	256,193	0.0%
Kuwaiti dinar	137,898	-	4,026	141,924	0.0%
Malaysian ringgit	2,509,846	-	41,904	2,551,750	0.4%
Mexican peso	5,656,123	-	37,067	5,693,190	0.8%
New Israeli shekel	6,176,357	-	24,961	6,201,318	0.9%
New Taiwan dollar	28,279,128	-	139,117	28,418,245	4.2%
New Zealand dollar	586,961	-	23,440	610,401	0.1%
Norwegian krone	8,083,134	-	(366)	8,082,768	1.2%
Philippine peso	2,869,138	-	41,291	2,910,429	0.4%
Polish zloty	3,306,548	-	27,913	3,334,461	0.5%
Qatari riyal	196,415	-	29,543	225,958	0.0%
Russian ruble	362,400	-	-	362,400	0.1%
Singapore dollar	8,304,555	-	254,458	8,559,013	1.3%
South African rand	2,074,565	-	34,892	2,109,457	0.3%
South Korean won	18,377,333	-	26,087	18,403,420	2.7%
Swedish krona	21,057,846	-	91,529	21,149,375	3.1%
Swiss franc	47,691,345	-	229,350	47,920,695	7.0%
Thai baht	996,042	-	27,716	1,023,758	0.2%
Turkish lira	416,617	-	51,489	468,106	0.1%
United Arab Emirates dirham	482,692	-	6,679	489,371	0.1%
Total held in foreign currency	$ 677,628,094	$ -	$ 3,702,746	$ 681,330,840	100.0%

* Includes forward contracts, rights and warrants.

Note 3 – Deposits and Investments (continued)

Interest Rate Risk

As of December 31, 2022, the Plan had the following investments and maturities:

Investment Type	Total Fair Value	1 Year or Less	1 - 6 Years	6 - 10 Years	10 or More Years	Maturity not Determined
Asset backed	$ 14,887,636	$ -	$ 8,592,671	$ 2,437,608	$ 3,857,357	$ -
Bank loans	15,146,981	1,153,111	11,728,244	2,265,626	-	
Commercial mortgage backed	4,198,046	-	497,741	-	3,700,305	-
Corporate bonds	245,196,874	10,099,501	148,554,343	77,233,706	9,309,324	-
Corporate convertible bonds	911,254	-	911,254	-	-	-
Government agencies	22,282,906	2,883,003	16,320,013	3,079,890	-	-
Government bonds	121,804,932	3,809,173	44,182,951	54,437,306	19,375,502	-
Government mortgage backed	98,052,150	257	1,037,374	1,980,945	95,033,574	-
Government-issued commercial mortgage-backed	7,841,429	1,702,481	5,268,705	639,957	230,286	-
Index linked government bonds	-	-	-	-	-	-
Municipal / provincial bonds	20,122,268	716,877	13,132,685	243,231	6,029,475	-
Non-government backed CMO's	6,876,774	-	-	351,397	6,525,377	-
Other fixed incomes	180,596,003	2,312,380	99,043,064	14,539,611	116,815	64,584,133
Total	$737,917,253	$ 22,676,783	$349,269,045	$157,209,277	$144,178,015	$ 64,584,133

As of December 31, 2021, the Plan had the following investments and maturities:

Investment Type	Total Fair Value	1 Year or Less	1 - 6 Years	6 - 10 Years	10 or More Years	Maturity not Determined
Asset backed	$ 15,818,143	$ -	$ 6,262,827	$ 3,152,228	$ 6,403,088	$ -
Bank loans	140,209,456	1,046,222	97,472,127	41,596,157	-	94,950
Commercial mortgage backed	6,592,179	-	-	755,136	5,837,043	-
Corporate bonds	294,443,045	8,051,938	171,306,371	99,367,683	15,717,053	-
Corporate convertible bonds	949,447	-	949,447	-	-	-
Government agencies	19,421,756	-	16,578,910	2,842,846	-	-
Government bonds	122,463,125	12,785,193	56,257,743	36,785,281	16,634,908	-
Government mortgage backed	79,796,681	2,364	275,679	3,907,096	75,611,542	-
Government-issued commercial mortgage-backed	9,130,131	1,583,777	6,889,277	358,959	298,118	-
Index linked government bonds	5,862,764	-	1,253,409	4,609,355	-	-
Municipal / provincial bonds	23,731,381	-	12,292,658	966,006	10,472,717	-
Non-government backed CMO's	6,833,600	-	-	158,187	6,675,413	-
Other fixed incomes	67,169,663	-	-	-	-	67,169,663
Total	$792,421,371	$ 23,469,494	$369,538,448	$194,498,934	$137,649,882	$ 67,264,613

Note 3 – Deposits and Investments (continued)

Credit Risk

The following table reflects credit ratings of fixed income securities held by the Plan as of December 31, 2022:

S & P Credit Rating	Fair Value	Asset Backed Securities	Bank Loans	Commercial Mortgage Backed	Corporate Bonds	Corporate Convertible Bonds	Government Agencies	Government Bonds	Government Mortgage Backed	Government Issued Commercial Mortgage Backed	Index Linked Government Bonds	Municipal/ Provincial Bonds	Non-Government Backed CMO's	Other Fixed Income
U.S. Government	$230,581,513	$ -	$ -	$ -	$ -	$ -	$ 2,883,002	$121,804,932	$ 98,052,150	$ 7,841,429	$ -	$ -	$ -	$ -
AAA	14,678,914	6,539,257	-	615,753	750,246	-	1,737,792	-	-	-	-	4,072,808	963,058	-
AA	41,900,755	1,177,187	-	179,087	9,068,416	-	17,662,112	-	-	-	-	12,726,086	1,087,867	
A	59,458,488	727,502	-	-	55,819,178	-	-	-	-	-	-	2,078,668	833,140	
BBB	100,547,838	596,941	2,118,379	-	91,154,284	-	-	-	-	-	-	-	593,816	6,084,418
BB	82,590,310	158,922	3,632,534	-	47,655,308	-	-	-	-	-	-	-	208,403	30,935,143
B	102,220,858	214,813	3,865,231	-	30,334,810	-	-	-	-	-	-	-	357,030	67,448,974
CCC	15,233,524	-	1,573,699	-	5,259,135	848,414	-	-	-	-	-	-	-	7,552,276
CC	793,263	-	32,015	-	-	-	-	-	-	-	-	-	-	761,248
C	86,588	-	-	-	-	-	-	-	-	-	-	-	-	86,588
D	569,183	-	101,349	-	-	-	-	-	-	-	-	-	-	467,834
NR	89,256,019	5,473,014	3,823,774	3,403,206	5,155,497	62,840	-	-	-	-	-	1,244,706	2,833,460	67,259,522
Total	$737,917,253	$ 14,887,636	$ 15,146,981	$ 4,198,046	$245,196,874	$ 911,254	$ 22,282,906	$121,804,932	$ 98,052,150	$ 7,841,429	$ -	$ 20,122,268	$ 6,876,774	$180,596,003

The following table reflects credit ratings of fixed income securities held by the Plan as of December 31, 2021:

S & P Credit Rating	Fair Value	Asset Backed Securities	Bank Loans	Commercial Mortgage Backed	Corporate Bonds	Corporate Convertible Bonds	Government Agencies	Government Bonds	Government Mortgage Backed	Government Issued Commercial Mortgage Backed	Index Linked Government Bonds	Municipal/ Provincial Bonds	Non-Government Backed CMO's	Other Fixed Income
U.S. Government	$220,230,828	$ -	$ -	$ -	$ -	$ -	$ 2,978,127	$122,463,125	$ 79,796,681	$ 9,130,131	$ 5,862,764	$ -	$ -	$ -
AAA	13,263,225	4,774,655	-	913,654	906,535	-	1,950,562	-	-	-	-	4,717,819	-	-
AA	41,964,816	1,476,338	-	221,867	9,465,845	-	14,493,067	-	-	-	-	14,844,891	1,462,808	-
A	75,079,890	1,922,649	-	-	70,281,222	-	-	-	-	-	-	2,087,375	788,644	-
BBB	119,348,207	1,240,911	7,133,227	-	110,137,813	285,950	-	-	-	-	-	-	550,306	-
BB	92,518,983	180,373	33,239,890	-	58,808,995	-	-	-	-	-	-	-	289,725	-
B	100,855,335	89,449	65,728,315	-	34,474,227	-	-	-	-	-	-	-	563,344	-
CCC	14,441,680	286,445	9,201,461	-	4,290,277	663,497	-	-	-	-	-	-	-	-
CC	732,151	-	732,151	-	-	-	-	-	-	-	-	-	-	-
C	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D	1,644,794	-	1,518,779	-	126,015	-	-	-	-	-	-	-	-	-
NR	112,341,462	5,847,323	22,655,633	5,456,658	5,952,116	-	-	-	-	-	-	2,081,296	3,178,773	67,169,663
Total	$792,421,371	$ 15,818,143	$140,209,456	$ 6,592,179	$294,443,045	$ 949,447	$ 19,421,756	$122,463,125	$ 79,796,681	$ 9,130,131	$ 5,862,764	$ 23,731,381	$ 6,833,600	$ 67,169,663

U.S. Government = Guaranteed by U.S. Government NR = Not Rated

The Plan does not have a formal policy in regard to aggregate credit quality of fixed income holdings. The Plan utilizes external investment management firms to invest in fixed income securities and credit quality is addressed within the guidelines of the mandate. Unless allowed by the mutually agreed upon guidelines of the mandate, all securities invested in are investment grade. If a holding falls below investment grade, the manager will either sell the security or will inform the Plan of the lower rating and why they believe that it is prudent to continue to hold the security as they believe that the security will return to investment grade.

Note 4 – Derivatives

The derivative instruments were recorded at fair value as of December 31, 2022 and 2021. Derivative instruments include forward foreign exchange contracts, futures contracts, rights, and warrants. Derivative transactions involve, to varying degrees, credit risk and market risk. Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to terms. Market risk is the possibility that a change in market prices or currency rates will cause the value of a financial instrument to decrease or become more costly to settle. The Plan's investment managers may invest in derivatives if permitted by the guidelines of their mandate.

Foreign Currency Forward Contracts

Foreign currency forward contracts are used by certain investment managers to protect against the currency risk in the Plan's international equity portfolios. A foreign currency forward contract is an agreement to buy or sell a specific amount of a foreign currency at a specified delivery or maturity date for an agreed-upon price. Foreign currency forward contracts are marked-to-market on a daily basis. The gains or losses resulting from changes in contract values are included in investment income in the statement of changes in fiduciary net position. The Plan experienced a realized loss of $(36,421) and $(24,253) on foreign currency forward contracts in 2022 and 2021, respectively. As of December 31, 2022, the Plan's outstanding foreign currency forward contracts were as follows:

	Pending Foreign Exchange Purchases	Pending Foreign Exchange Sales	Unrealized Gain (Loss)	Changed in Unrealized Gain (Loss)
Australian dollar	$ 91,664	$ -	$ (476)	$ (550)
British pound sterling	87,432	(240,606)	(923)	(5,742)
Canadian dollar	41,457	-	415	347
Czech koruna	-	(24,107)	14	715
Danish krone	-	(42,081)	(118)	497
Euro	346,000	(104,254)	(1,813)	(2,308)
Hong Kong dollar	9,376	-	(26)	84
Japanese yen	121,932	-	4,311	6,081
New Israeli shekel	-	(20,360)	624	624
New Zealand dollar	-	(36,074)	245	174
Norwegian krone	-	(22,285)	(55)	647
Philippine peso	-	(20,905)	(110)	(110)
Polish zloty	-	(12,246)	(10)	(10)
Singapore dollar	-	(31,011)	(287)	(165)
South African rand	-	(46,013)	(531)	(365)
Swedish krona	24,396	-	(208)	(274)
Swiss franc	-	(3,320)	(16)	349
Turkish lira	-	(11,300)	84	568
United States dollar	614,382	(720,957)	-	-
	$ 1,336,639	$ (1,335,519)	$ 1,120	$ 562

Note 4 – Derivatives (continued)

For comparative purposes, as of December 31, 2021 the Plan's outstanding foreign currency forward contracts were as follows:

	Pending Foreign Exchange Purchases	Pending Foreign Exchange Sales	Unrealized Gain (Loss)	Changed in Unrealized Gain (Loss)
Australian dollar	$ 5,594	$ -	$ 74	$ (511)
British pound sterling	327,808	-	4,819	(2,271)
Canadian dollar	13,533	-	68	90
Czech koruna	-	(24,893)	(701)	(496)
Danish krone	-	(79,905)	(615)	(115)
Euro	201,504	(25,518)	495	1,058
Hong Kong dollar	36,064	(458,411)	(110)	(91)
Japanese yen	114,133	-	(1,770)	(3,757)
New Zealand dollar	9,074	-	71	976
Norwegian krone	-	(40,510)	(702)	486
Singapore dollar	-	(9,644)	(122)	(66)
South African rand	-	(37,222)	(166)	(338)
Swedish krona	43,490	-	66	865
Swiss franc	-	(29,501)	(365)	200
Turkish lira	-	(15,794)	(484)	1,383
United States dollar	717,974	(747,218)	-	-
	$ 1,469,174	$ (1,468,616)	$ 558	$ (2,587)

Futures Contracts

Certain international investment managers utilize equity futures contracts to replicate underlying securities they wish to gain exposure to in the portfolio. A financial futures contract is an agreement to buy or sell a specific amount of an asset at a specified delivery or maturity date for an agreed-upon price. Futures contracts are traded on organized exchanges, thereby minimizing credit risk. The net change in the futures contract value is settled daily in cash with the exchanges which results in the contract having a fair value of zero at the end of each trading day. The cash or securities to fulfill these obligations are held in the investment portfolio. As the fair value of the futures contract varies from the original contract price, a gain or loss is paid to or received from the clearinghouse and recognized in the statement of changes in fiduciary net position. The realized gain (loss) on equity futures contracts as of December 31, 2022 and 2021 was $(123,007) and $464,987, respectively.

As of December 31, 2022 and 2021, open futures contracts had the following values:

	2022	2021
Total futures	$ 1,460,724	$ 2,271,406

Note 4 – Derivatives (continued)

Rights and Warrants

Rights and warrants provide investment managers the right, but not the obligation, to purchase or sell a company's stock at a fixed price until a specified expiration date. Rights are normally issued with common stock and expire after two to four weeks. Warrants typically are issued together with a bond or preferred stock and may not expire for several years. The fair value of rights and warrants is reported in the investments in the statement of fiduciary net position. The gain or loss from rights and warrants is included in the investment income in the statement of changes in fiduciary net position. As of December 31, 2022, the Plan's investments in rights and warrants were as follows:

Derivative Type	Notional Value	Fair Value	Change in Fair Value
Total rights and warrants	$ 106,206	$ 771,827	$ 836,335

For comparative purposes, as of December 31, 2021, The Plan's investments in rights and warrants were as follows:

Derivative Type	Notional Value	Fair Value	Change in Fair Value
Total rights and warrants	$ 156,354	$ 815,931	$(1,848,089)

Note 5 – Securities Lending

Under the provisions of state statutes, the Plan utilizes a securities lending agent to lend securities (both equity and fixed income) to qualified third parties in exchange for collateral that will be returned for the same securities in the future. Northern Trust manages the securities lending program and receives cash, securities, or irrevocable letters of credit as collateral. The collateral received cannot be pledged or sold by the Plan unless the borrower defaults. All loans can be terminated on demand by either the Plan or the borrower. At December 31, 2022, the average term of the loans was 178 days (115 days in 2021). Marking to market is performed every business day and the borrower is required to deliver additional collateral when necessary, so that the collateral held for all loans to the borrower will at least equal the fair value of all borrowed securities. U.S. security loan agreements are initially collateralized at 102% of the fair value of loaned securities.

International securities are initially collateralized at 105% of the fair value of loaned securities. Cash collateral is invested in tri-party repurchase agreements and bank deposits, which at December 31, 2022 had a weighted average maturity of 15 days (28 days in 2021). As of December 31, 2022 and 2021, the Plan had loaned to borrower's securities with a fair value of $232,449,023 and $256,266,765, respectively. As of December 31, 2022 and 2021, the Plan received from borrowers' cash collateral of $226,402,857 and $250,946,224, respectively. As of December 31, 2022 and 2021, the Plan received non-cash collateral from borrowers of $12,138,617 and $11,443,037, respectively.

Note 5 – Securities Lending (continued)

Securities lending net income for the years ended December 31, 2022 and 2021 was $653,660 and $512,795, respectively.

A summary of securities loaned at fair value as of December 31:

	2022	2021
Securities loaned - cash collateral		
Fixed income		
U.S. Corporate fixed	$ 39,496,680	$ 36,956,193
U.S. Government agencies	5,348,274	4,588,246
U.S. Government bonds	77,284,979	67,676,143
Equity		
Domestic equities	94,193,765	129,449,177
International equities	4,570,886	6,867,074
Total securities loaned - cash collateral	220,894,584	245,536,833
Securities loaned - non cash collateral		
Fixed income		
U.S. Corporate fixed	143,838	274,512
U.S. Government agencies	296,153	-
U.S. Government bonds	-	5,188,581
Equity		
Domestic equities	4,493,487	2,968,853
International equities	6,620,961	2,297,986
Total securities loaned - non cash collateral	11,554,439	10,729,932
Total	$ 232,449,023	$ 256,266,765

Note 6 – Property and Equipment

Property and equipment are stated at cost. Depreciation has been provided using the straight-line method over periods ranging from 5-8 years. Leasehold improvements are amortized using the straight-line method over the remaining term of the lease. Major outlays for additions and improvements are capitalized if equal to or greater than $4,000. Maintenance and repairs are charged to expense. A summary of property and equipment at December 31, 2022 and 2021 is as follows:

	2022	2021
Pension benefit system	$ 679,236	$ 679,236
Computers	33,849	33,849
Office equipment	13,751	20,683
Right-of-use lease asset	1,234,746	-
	1,961,582	733,768
Less: accumulated depreciation and amortization	706,286	271,464
Net property and equipment	$ 1,255,296	$ 462,304

Depreciation and amortization expense was $441,754 and $146,754 for the years ended December 31, 2022 and 2021, respectively.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures

A. Pension Plan Description

General:

Municipal Employees' and Officers' Annuity and Benefit Fund of Chicago ("MEABF" or the "Plan") is the administrator of a single employer defined benefit plan that was established in 1921 to provide retirement annuities and disability benefits for covered employees and for survivors and other beneficiaries of such employees. The Plan is administered under Chapter 40, Act 5, Article 8 of the Illinois Compiled Statutes. Benefit and contribution provisions are established by the Statutes and may be amended only by the Illinois state legislature. The Retirement Board, comprised of two ex-officio members (the City Comptroller and the City Treasurer) and three elected members, is authorized to carry out the provisions of Chapter 40, Act 5, Article 8 of the Illinois Compiled Statutes. The Retirement Board appoints the executive director, an actuary, an auditor, consultants, and employees necessary for the transaction of business. The Retirement Board meets monthly and receives no compensation but is reimbursed for necessary expenses. The Plan is included in the City of Chicago's financial reports as a component unit.

Membership:

Any employee of the City of Chicago or the Board of Education employed under the provisions of the municipal personnel ordinance except for policemen, firemen, teachers, and those classified by the municipal personnel ordinance as labor service, or any person employed by the Municipal Employees' and Officers' Annuity and Benefit Fund of Chicago (Plan) who is not participating in any other pension fund or retirement system is also covered by the Plan. The payroll for employees covered by the Plan for the years ended December 31, 2022 and 2021 were $2,166,181,666 and $2,001,180,743, respectively.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

Plan membership at December 31 is as follows:

	2022	2021
Active employees (includes members currently receiving disability benefits)		
Vested	12,929	13,198
Non-vested	22,440	19,727
	35,369	32,925
Retirees and beneficiaries currently receiving benefits	25,894	25,683
Terminated employees entitled to benefits but not yet receiving them	2,182	2,201
Terminated employees entitled to a refund of contributions	20,404	19,103
Total	83,849	79,912

Pension legislation (Public Act 96-0889) was approved during 2010 and established two distinct classes of membership with different retirement eligibility conditions and benefit provisions levels. On July 6, 2017, Illinois Public Act 100-0023 was enacted which added a third class of membership with different retirement eligibility conditions and contribution levels. For convenience, the Plan uses a tier concept to distinguish these groups, generally:

Tier 1 - Participants that became members before January 1, 2011.
Tier 2 - Participants that first became members on or after January 1, 2011.
Tier 3 - Participants that first became members on or after July 6, 2017; or a Tier 2 member who irrevocably elected between October 1 and November 15, 2017 to be subject to Tier 3 eligibility conditions and contribution levels ("Elective Tier 3 Member").

A member's classification is determined based upon the date the member becomes a contributing member in a designated reciprocal system/fund codified in the Illinois Pension Code.

Refunds of Employee Contributions

If an employee leaves covered employment without qualifying for an annuity, accumulated contributions are refunded with interest at 3% per annum, to the date of termination of services subject to certain exceptions. Certain disability pension credits are not refundable.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

Employee Pension

Tier 1 employees age 55 or more with at least 10 years of service are entitled to receive a money purchase annuity with partial City contributions if under age 60 with less than 20 years of service. Employees age 60 or more with at least 10 years of service or age 55 or more with at least 20 years of service or age 50 or more with at least 30 years of service are entitled to receive a minimum formula annuity of 2.4% per year of service times the final average salary (highest (average or predominate, whichever is greater) annual salary for any 4 consecutive years within the last 10 years of service immediately preceding the date of retirement). If the employee retires prior to age 60, the annuity shall be reduced by ¼ of 1% for each month the employee is under age 60 if the employee has less than 25 years of service. The annuity is not discounted if the employee is age 50 with at least 30 years of service. An employee with at least 10, 20, or 30 years of service can withdraw and receive a minimum formula annuity at 60, 55, or 50, respectively. The original annuity is limited to 80% of the highest average annual salary, adjusted for annual IRC §401(a)(17) and §415 limitations. Employees withdrawing from service at age 60 or older with at least 10 years of service are entitled to a minimum annuity of $850 per month.

Tier 2 employees age 67 or more with at least 10 years of service are entitled to receive an unreduced annuity benefit or a reduced annuity benefit at age 62 with 10 years of service. The annuity is discounted 1/2 percent for each full month the employee is under age 67. Final average salary is calculated using salary from the eight highest consecutive years within the last 10 years of service prior to retirement.

Tier 3 employees age 65 or more with at least 10 years of service are entitled to receive an unreduced annuity benefit or a reduced annuity benefit at age 60 with 10 years of service. The annuity is discounted 1/2 percent for each full month the employee is under age 65. Final average salary is calculated using salary from the eight highest consecutive years within the last 10 years of service prior to retirement.

Under Tier 2 and Tier 3, pensionable salary was limited to $119,892 in 2022 and $116,740 in 2021, increased each year by the lesser of 3 percent or one-half of the annual unadjusted percentage increase in the Consumer Price Index-U (but not less than zero). These figures are provided to the Plan by the Illinois Department of Insurance.

Automatic Increase in Employee Annuity

Tier 1: An employee annuitant under Tier 1 is eligible to receive an increase of 3.0 percent of the currently payable annuity (compound). This increase begins in January of the year of the first payment date following the earlier of:

1) the later of the third anniversary of retirement or age 53, or
2) the later of the first anniversary of retirement or age 60.

Tier 2: An employee annuitant under Tier 2 who is eligible to receive an increase in annuity benefit, shall receive an annual increase equal to the lesser of 3.0 percent or one-half of the annual unadjusted percentage increase in the Consumer Price Index-U (but not less than zero) as measured in the preceding 12-month period ending with the September preceding the increase. The increase is based on the amount of the originally granted benefit (simple). This increase begins in January of the year of the first payment date following the later of:

1) the attainment of age 67, or
2) the first anniversary of the annuity start date.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

Automatic Increase in Employee Annuity (continued)

Tier 3: An employee annuitant under Tier 3 who is eligible to receive an increase in annuity benefit, shall receive an annual increase equal to the lesser of 3.0 percent or one-half of the annual unadjusted percentage increase in the Consumer Price Index-U (but not less than zero) as measured in the preceding 12-month period ending with the September preceding the increase. The increase is based on the amount of the originally granted benefit (simple). This increase begins in January of the year of the first payment date following the later of:

1) the attainment of age 65, or
2) the first anniversary of the annuity start date.

Surviving Spouse Pension

Tier 1: Upon the death of an employee under Tier 1, the surviving spouse meeting certain eligibility requirements, is entitled to a spouse annuity. There are three basic methods ("money purchase method", "minimum formula annuity method" and the "minimum annuity method") used to determine the amount of spouse's annuity for an ordinary death (not duty-related death). The surviving spouse is entitled to the largest benefit, but the annuity cannot exceed an amount equal to 50% of the highest salary earned by the employee.

Under Tier 2 and Tier 3, the annuity payable to the surviving spouse of an employee is equal to 66 2/3% of the participant's earned retirement annuity at the date of death without a reduction due to age.

Automatic Increase in Spouse Annuity

Under Tier 2 and Tier 3, the surviving spouse of an employee shall receive an annual increase equal to the lesser of 3.0 percent or one-half of the annual unadjusted percentage increase in the Consumer Price Index-U (but not less than zero) as measured in the preceding 12-month period ending with the September preceding the date of the increase. This increase is based on the amount of the originally granted survivor's benefit (simple). This annual increase begins on January 1 following the commencement of the surviving spouse's annuity if the deceased member died while receiving an annuity benefit or on January 1 following the first anniversary of the commencement of the annuity otherwise.

Child Annuity

Under Tier 1, Tier 2, and Tier 3, an annuity is provided for any unmarried child of a deceased employee who is under the age of 18 if the child was conceived or born before withdrawal from service. The employee's death must occur while the employee is in service or in receipt of an annuity. The child's annuity is an amount equal to $220 a month when there is a surviving spouse and $250 when there is no surviving spouse, subject to maximum limitations.

Ordinary Disability

Under Tier 1, Tier 2, and Tier 3, an employee who becomes disabled as the result of any cause other than an accidental injury incurred while in the performance of an act of duty is entitled to an ordinary disability benefit at the amount equal to 50% of the employee's annual salary at the time of disablement. An employee can receive ordinary disability for a period equal to one fourth of his service credits up to a lifetime maximum of 5 years.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

Duty Disability

Under Tier 1, Tier 2, and Tier 3, an employee who becomes disabled as the result of an accidental injury incurred while in the performance of an act of duty is entitled to a duty disability benefit in the amount equal to 75% of the employee's annual salary at the time of injury, reduced by any benefits received by the employee under the provisions of the Workers' Compensation Act. This benefit is limited to age 65 or 5 years from the latest injury, whichever is latest.

Funding Policy

The funding objective is to meet all expected future obligations to Plan participants through its Plan assets and contributions from employee and employer. Member and employer contribution rates are established by state law and may be amended only by the Illinois State Legislature.

Member Contributions

Active members are required to contribute a percentage of their pensionable salary to MEABF. Tier 1 and Tier 2 members contribute 8.5% of their salary (6.5% to provide employee annuity, 1.5% to provide a surviving spouse annuity, and .5% to provide post-retirement increases in annuity) in accordance with the statutes. Tier 3 members contribute 11.5% of their pensionable salary (9.5% to provide employee annuity, 1.5% to provide a surviving spouse annuity, and .5% to provide post-retirement increases in annuity) in accordance with the statutes.

Under Tier 1, Tier 2, and Tier 3, the employer deducts or picks up the employee's contributions before federal income tax is withheld and remits the contributions collected to the Plan. Member contributions earn interest at the rate of 3% per annum and may be refundable. Employees receiving ordinary or duty disability benefits are credited with a percentage of salary for pension purposes just as though the employee were working but these credits are not refundable. Tier 1 and Tier 2 are credited with 8.5% of salary and Tier 3 is credited with 11.5% of salary.

While the amount of pensionable salary upon which member contributions are made under Tier 1 has no limitation, pensionable salary of active employees under Tier 2 and Tier 3 was limited to $119,892 and $116,740 for the years ended December 31, 2022 and 2021, respectively, increased each year by the lesser of 3 percent or one-half of the annual unadjusted percentage increase in the Consumer Price Index-U (but not less than zero) as measured in the preceding 12 month period ending with the September preceding the November 1, which is the date the new amount will be calculated and made available to the pension fund.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

Employer Contributions

The City of Chicago is required by state statutes to contribute the remaining amounts necessary to finance the requirements of MEABF. Effective July 6, 2017, legislation (Public Act 100-0023) which included a new funding structure to increase employer contributions was put into law. The new structure provides for fixed dollar contributions for payment years 2018 through 2022. For payment years 2023 to 2058 the employer's required annual contribution shall be equal to the sum of the employer's portion of the projected normal cost for that fiscal year, plus an amount determined on a level percentage of employee payroll that is sufficient to bring the total actuarial assets of the Plan up to 90% of the total actuarial liabilities of the Plan by the end of 2058.

The actuarial determined contribution (ADC) is determined by using the entry age normal actuarial funding method. MEABF uses the level dollar open method to amortize the unfunded liability over a thirty-year period. The actuarial valuation of the Plan shows that an actuarially determined contribution needed to adequately finance MEABF is $1,262,413,314 and $1,218,360,892 for fiscal years 2022 and 2021, respectively. The statutory employer contributions have been less than the actuarially determined contributions for the past twenty years. Contribution rates may be increased only by an amendment by the State Legislature to the Illinois Pension Code.

Net Pension Liability of Participating Employer

The components of the net pension liability as of December 31, 2022 and 2021, were as follows:

	2022	2021
Total pension liability	$ 19,107,887,483	$ 18,401,579,972
Plan fiduciary net position	3,951,788,039	4,308,269,024
Employer's net pension liability	15,156,099,444	14,093,310,948
Plan fiduciary net position as a percentage of total pension liability	20.68%	23.41%

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of December 31, 2022 and 2021, using actuarial assumptions applied to all periods included in the measurement.

	2022	2021
Inflation	2.50%	2.50%
Salary increase	2.50% to 14.00% varying by years of service and employer	3.50% to 7.75% (1.50% to 6.50% for 2020-2022), varying by years of service
Investment rate of return	6.75%, net of investment expense	7.00%, net of investment expense
Municipal bond rate	3.72% based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of December 31, 2022	2.06% based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of December 31, 2021
Single equivalent discount rate	6.57%, net of investment expense	n/a
Cost of living adjustments	Tier 1: 3.0% compound	Tier 1: 3.0% compound
	Tier 2 & 3: the lesser of 3.0% or one-half the change in CPI, simple	Tier 2 & 3: the lesser of 3.0% or one-half the change in CPI, simple

Post-retirement mortality rates for December 31, 2022 were based on the PubG-2010 Retiree Amount-weighted Below Median Mortality tables (sex-specific), using 117% of the rates for female and 111% of the rates for males, projected generationally using scale MP-2021. Beneficiary mortality rates were based on the PubG-2010 Contingent Survivor Table Amount-weighted Below Median Mortality table (sex-specific) using 111% of the rates for females and 113% rates for males, projected generationally using scale MP-2021. Pre-retirement mortality rates were based on the Pub-G-2010 Employee Amount-weighted Below Median Mortality table (sex-specific) using 92% of the rates for females and 90% of the rates for males, projected generationally using scale MP-2021.

Post-retirement mortality rates for December 31, 2021 were based on the RP-2014 Healthy Annuitant Mortality Table, set forward two years for males and one year for females, and projected generationally using scale MP-2016. Pre-retirement mortality rates were based on 120% of the RP-2014 Employee Mortality Tables projected generationally using scale MP-2016.

The actuarial assumptions used in the December 31, 2022 valuation were based on the results of actuarial experience study for the period January 1, 2017 through December 31, 2021. The actuarial assumptions used in the December 31, 2021, valuation were based on the results of actuarial experience study for the period January 1, 2012 through December 31, 2016.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2022 and 2021 are summarized in the table below.

	2022		2021	
	Target allocation	Long-term expected real rate of return	Target allocation	Long-term expected real rate of return
Fixed income	22%	4.9%	25%	2.0%
Global equity	5%	6.8%	5%	6.8%
Domestic equity	26%	7.1%	26%	7.4%
International equity	17%	7.4%	17%	7.4%
Hedge funds	10%	5.3%	10%	5.6%
Private equity	4%	11.4%	5%	11.4%
Private debt	4%	10.1%		
Real estate	9%	6.8%	10%	5.8%
Infrastructure	3%	6.9%	2%	7.0%

Discount rate

The discount rate used to measure the total pension liability was 6.57% for December 31, 2022. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made according to the contribution rate applicable for each member's tier and that employer contributions will be made as specified by Public Act 100-0023, with an additional supplemental contribution of $101.6 million during 2023.

For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service cost of future plan members and their beneficiaries are not included. 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 through 2078. Therefore, the long-term expected rate of return on pension plan investments of 6.75% was applied to projected benefits for all periods through 2077 and the municipal bond index rate of 3.72% was applied thereafter to determine the total pension liability. This results in single equivalent discount rate of 6.57%.

The discount rate used to measure the total pension liability was 7.0% for December 31, 2021. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made according to the contribution rate applicable for each plan member's tier and that employer contributions will be made as specified by Public Act 100-0023. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service cost of future plan members and their beneficiaries are not included. 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 total pension liability.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

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

The following presents the net pension liability as of December 31, 2022, calculated using the discount rate of 6.57%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.57%) or 1 percentage point higher (7.57%) than the current rate:

	1% Decrease (5.57%)	Current Discount Rate (6.57%)	1% Increase (7.57%)
Net pension liability December 31, 2022	$ 17,481,065,428	$ 15,156,099,444	$ 13,213,817,487

For comparative purposes, the net pension liability as of December 31, 2021, calculated using the discount rate of 7.00%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.00%) or 1 percentage point higher (8.00%) than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net pension liability December 31, 2021	$ 16,366,261,505	$ 14,093,310,948	$ 12,203,639,823

B. Other Post Employment Benefit Plan (OPEB) – Healthcare Subsidy for City of Chicago Retirees

During the year ended December 31, 2019, in response to a lawsuit, the Circuit Court of Cook County ruled that all eligible City of Chicago employee annuitants (both current and future employee annuitants, but not spousal or child annuitants) of MEABF are entitled to receive a health insurance premium subsidy of $25 per month from MEABF, representing partial reimbursement for healthcare costs, for each month after December 31, 2016, in which they qualify.

City of Chicago employee annuitants hired before April 4, 2003 who retired on or after August 23, 1989 with 15 years of service and age 65 years or older are eligible for this subsidy. On June 30, 2020, the Appellate Court of Illinois (First District) revised the eligibility date for the subsidies from the hire date of April 4, 2003 to June 30, 2003. As such, City of Chicago employee annuitants hired before April 4, 2003 who retired on or after August 23, 1989 with 15 years of service and age 65 years or older are eligible for the subsidy. City of Chicago retirees must participate in the current City-sponsored or Labor-sponsored healthcare plans and have deductions taken from their annuities in order to qualify for the reimbursement, effective January 1, 2020, and going forward.

The health insurance premium subsidy payments described below are funded from the statutorily required contributions received by the City of Chicago. In the years ended December 31, 2022 and 2021, the contributions allocated for this benefit and payments for the health insurance premium subsidies totaled $448,508 and $502,375, respectively.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

At December 31, 2022 and 2021, participants consisted of the following:

	2022	2021
Active members	4,983	5,462
Annuitants currently receiving subsidy benefits	7,214	6,846
Inactive members entitled to subsidy benefits but not yet receiving them	351	314
Total	12,548	12,622

Net OPEB Liability of Participating Employer

The components of the net OPEB liability as of December 31, 2022 and 2021, were as follows:

	2022	2021
Total OPEB liability	$ 6,637,653	$ 16,442,920
Plan fiduciary net position	-	-
Employer's net OPEB liability	6,637,653	16,442,920
Plan fiduciary net position as a percentage of total OPEB liability	0.00%	0.00%

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

Actuarial Assumptions

The total OPEB liability was determined by an actuarial valuation as of December 31, 2022 and 2021, using the actuarial assumptions applied to all periods included in the measurement.

	2022	2021
Inflation	2.50%	2.50%
Investment rate of return	6.75%, net of investment expense	7.00%, net of investment expense
Municipal bond rate	3.72% based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of December 31, 2022	2.06% based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of December 31, 2021
Election assumption	25% of eligible City of Chicago employees annuitants are assume to participate in a group health care plan for which the funds offers to deduct health insurance premiums from monthly annuities, and thus receive the health care insurance premium subsidy	

Post-retirement mortality rates for December 31, 2022 were based on the PubG-2010 Retiree Amount-weighted Below Median Mortality tables (sex-specific), using 117% of the rates for female and 111% of the rates for males, projected generationally using scale MP-2021. Beneficiary mortality rates were based on the PubG-2010 Contingent Survivor Table Amount-weighted Below Median Mortality table (sex-specific) using 111% of the rates for females and 113% rates for males, projected generationally using scale MP-2021. Pre-retirement mortality rates were based on the PubG-2010 Employee Amount-weighted Below Median Mortality table (sex-specific) using 92% of the rates for females and 90% of the rates for males, projected generationally using scale MP-2021.

Post-retirement mortality rates for December 31, 2021 were based on the RP-2014 Health Annuitant Mortality tables, set forward two years for males and one year for females, and projected generationally using scale MP-2016. Pre-retirement mortality rates were based on 120% of the RP-2014 Employee Mortality tables projected generationally using scale MP-2016.

The actuarial assumptions used in the December 31, 2022 valuation were based on the results of actuarial experience study for the period January 1, 2017 through December 31, 2021. The actuarial assumptions used in the December 31, 2021, valuation were based on the results of actuarial experience study for the period January 1, 2012 through December 31, 2016.

Discount Rate

Since there are no assets dedicated to the OPEB plan, the discount rate used to measure the total OPEB liability was 3.72% and 2.06%, based on the municipal bond index for December 31, 2022 and 2021, respectively.

Note 7 – Pension and Other Postemployment Benefit-Related Note Disclosures (continued)

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability as of December 31, 2022, calculated using the discount rate of 3.72%, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (2.72%) or 1 percentage point higher (4.72%) than the current rate:

	1% Decrease (2.72%)	Current Discount Rate (3.72%)	1% Increase (4.72%)
Net OPEB liability December 31. 2022	$ 7,245,433	$ 6,637,653	$ 6,112,913

For comparative purposes, the net OPEB liability as of December 31, 2021, calculated using the discount rate of 2.06%, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (1.06%) or 1 percentage point higher (3.06%) than the current rate:

	1% Decrease (1.06%)	Current Discount Rate (2.06%)	1% Increase (3.06%)
Net OPEB liability December 31, 2021	$ 18,260,303	$ 16,442,920	$ 14,906,798

Note 8 – Net Position Held in Trust for Pension Benefits

Reserves represent the components of the Plan's net position. Reserves are established from member and employer contributions and the accumulation of investment income after satisfying investment and administrative expenses. At least once a year, before any transfer is made from these reserves, interest at 3% is credited to these reserves. The reserves do not represent the present value of assets needed, as determined by actuarial valuation, to satisfy retirement and other benefits as they become due. The Plan's major classes of reserves are as follows:

	2022	2021
City Contribution Reserves	$ 2,086,005,923	$ 2,051,426,797
Salary Deduction Reserves	2,128,927,289	2,079,742,104
Prior Services Reserves	11,695,882,592	11,575,520,801
Annuity Payment Reserve	2,847,207,215	2,709,949,826
Optional Reserve Account	1,611,075	1,383,364
	18,759,634,094	18,418,022,892
Unreserved Net Deficit	(14,807,846,055)	(14,109,753,868)
	$ 3,951,788,039	$ 4,308,269,024

Note 8 – Net Position Held in Trust for Pension Benefits (continued)

City Contribution Reserves

Amounts contributed by the City for age and service annuity, surviving spouse annuity and supplemental annuity shall be credited to this reserve. When the employee annuity or surviving spouse annuity is granted the amount in this reserve for such annuity will be transferred to the annuity payment fund reserves.

Salary Deduction Reserves

Amounts contributed by the employee or amounts credited for the employee for age and service annuity and surviving spouse annuity shall be credited to this reserve. When the employee annuity or surviving spouse annuity is granted the amount in this reserve for such annuity will be transferred to the annuity payment fund reserves.

Annuity Payment Reserves

Amounts transferred from the City contribution reserves and the salary deduction reserves for annuities which have been granted will be credited to this reserve.

Prior Service Reserves

Amounts contributed by the City for minimum annuities shall be credited to this reserve.

Optional Reserves

Amounts contributed by the aldermen for the alternative plan.

Note 9 - Leases

The Plan leases its office facilities in Chicago, Illinois under a fifteen-year non-cancellable agreement in effect through February 28, 2026. The base rent has an abatement provision of 20 months. The base rent of $261,872 per year increases approximately 3% each year. Real estate taxes and maintenance charges are additional costs to the base rent and are subject to annual escalation and are expensed as incurred.

The Governmental Accounting Standards Board (GASB) issued Accounting Standards Update (GASB 87) related to Leases, to increase transparency and comparability among organizations by recognizing an intangible right-of-use asset and liability for leases on the Statements of Fiduciary Net Position and disclosing key information about leasing arrangements that are greater than one year in duration. GASB 87 specifically requires an organization to recognize a right-of-use asset and lease liability, initially measured at the present value of the lease payments in the Statements of Fiduciary Net Position. The guidance in the GASB is effective for fiscal years beginning after June 15, 2021. Due to the complexity of the new standard, the Plan has elected to apply the practical expedient that allows lessees to not retroactively apply GASB 87. As a result, the Plan recorded a right-of-use asset and related liability in the amount of $1,504,321 as of January 1, 2022 by calculating the net present value using the discount rate of 1.39%.

The right-of-use asset and the operating lease liability are being amortized over the remaining life of the lease agreement. As of December 31, 2022, the right-of-use asset, net of the landlord rent abatements, and accumulated amortization was $1,234,746 and $296,387, respectively, and the lease liability at December 31, 2022 was $1,162,603.

For the year ended December 31, 2022, office lease expense consisted of the following:

Right-of-use lease asset amortization expense	$ 296,387
Interest expense	16,993
Real estate taxes and maintenance charges	421,246
	$ 734,626

For the year ended December 31, 2021 (prior to GASB 87 implementation), office lease expense consisted of the following:

Base rent	$ 285,828
Real estate taxes and maintenance charges	408,805
	$ 694,633

The future payments due under the office lease are as follows:

Year ending December 31,	Principal	Interest	Total Payment
2023	$ 352,969	$ 13,925	$ 366,894
2024	366,142	8,935	375,077
2025	379,500	3,761	383,261
2026	63,992	111	64,103
	$ 1,162,603	$ 26,732	$ 1,189,335

Note 10 – Risk Management

MEABF carries liability insurance coverage provided by private insurance carriers. In order to limit the risk of asset loss from theft, fraud, robbery or burglary, the Plan carries a government crime policy. The Plan carries fiduciary liability insurance that limits the risk of loss arising from court challenges to fiduciary decisions. The Plan also carries cyber liability insurance that limits the risk of defense costs and settlements as a result of failure to protect or the wrongful release of confidential information of participants, beneficiaries, and employees of the Plan.

Note 11 – Commitments and Contingencies

Investment Commitments

As of December 31, 2022, approximately $40.1 million of capital committed to investments in private equity and private debt were undrawn. As of December 31, 2021, approximately $29.1 million in private equity and real estate funds were undrawn. The Plan believes that the capital may take up to three years to be fully requested.

Litigation

The Plan is subject to claims arising in the ordinary course of its operations. Although the outcome of these lawsuits is not presently determinable, in the opinion of the Plan's management and legal counsel, the resolution of these matters will not have a material adverse effect on the Plan's financial statements.

In July 2013, a group of plaintiffs purporting to represent retirees in four Chicago public pension funds filed a civil action, *Underwood v. City of Chicago et. al.* (13- CH-17450; 1-17-162356), seeking class certification and an order requiring the City and the defendant pension funds to continue subsidizing retiree healthcare insurance premiums past the June 30, 2013, statutory expiration date. Following litigation filed in both the federal and state courts, the Illinois Appellate Court, on June 29, 2017, issued an order which in part affirmed the Circuit Court's dismissal order and held that the subsidies under the 1983 and 1985 amendments are protected benefits under the pension protection clause of the Illinois Constitution. As such, under the Appellate Court Mandate those employee-retirees that joined the defendant pension funds prior to June 30, 2003 are entitled to continue to receive the 1983 provided subsidies (as it relates to the police and fire funds) of $55 per month if non-Medicare-eligible and $21 per month if Medicare-eligible subsidies or $25 (as it relates to the municipal and laborer funds) if the employee-annuitant is 65 years or older with at least 25 years of service. The Appellate Court remanded the case back to the Circuit Court for the purpose of allowing the presiding judge to determine the mechanics of the payments. Thereafter, the Circuit Court issued several orders which in substance: (i) further defined the group of employee annuitants entitled to the statutory subsidies and (ii) reaffirmed prior rulings that the funds have no obligation to contract for insurance. The Circuit Court confirmed that under the 1983 and 1985 amendments, employee-retirees that are otherwise eligible to receive the subsidies must participate in a group retiree healthcare plan and facilitate the payment of the retiree's healthcare premium through a deduction of his or her monthly annuity check. Obligations related to the payment of the statutory subsidy to qualified annuitants under the 1985 amendment are reflected in the financial statements which represent payments made by the Fund for amounts owed to qualified annuitants for subsidy payments consistent with the requirements of the Circuit Court order and Appellate Court Mandate.

Note 12 – Deferred Compensation Plan

The Plan is a governmental eligible employer within the meaning of Code Section 457(e)(1)(A) and has established a deferred compensation plan (457(b)) for eligible employees. Individual contributions to the plan are equal to the amount of salary reductions elected by each participant for the year up to a maximum allowable by Internal Revenue Service regulations. Total employee contributions were $283,850 and $290,670 for the years ended December 31, 2022 and 2021, respectively. Employer contributions are not allowed.

Note 13 – Subsequent Events

Subsequent events have been evaluated through May 17, 2023, which is the date the financial statements were available to be issued. This review and evaluation revealed no material event or transaction which would require an adjustment to or disclosure in the accompanying financial statements.

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Required Supplementary Information (Unaudited)

Schedule of Changes in Employer's Net Pension Liability

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability									
Service cost	$ 263,993,363	$ 246,065,733	$ 236,301,503	$ 228,465,350	$ 223,528,365	$ 572,533,631	$ 619,743,849	$ 226,816,035	$ 247,243,416
Interest	1,269,644,675	1,228,904,759	1,190,694,341	1,159,252,774	1,123,347,772	915,710,984	878,369,406	909,066,895	1,025,763,903
Change of benefit terms	-	-	-	-	-	-	-	2,140,009,339	(1,990,706,362)
Differences between expected and actual experience	84,258,204	121,988,642	100,937,565	16,675,541	95,540,469	(177,754,999)	(127,119,398)	(109,835,037)	(5,504,116)
Changes of assumptions	143,995,810	-	-	-	-	(7,431,191,282)	(578,920,424)	8,711,754,654	-
Benefit payments, including refunds of employee contributions	(1,055,584,541)	(1,010,191,404)	(973,477,637)	(952,651,511)	(916,198,485)	(888,173,535)	(859,671,662)	(826,036,323)	(798,622,811)
Net change in total pension liability	706,307,511	586,767,730	554,455,772	451,742,154	526,218,121	(7,008,875,201)	(67,598,229)	11,051,775,563	(1,521,825,970)
Total pension liability - beginning	18,401,579,972	17,814,812,242	17,260,356,470	16,808,614,316	16,282,396,195	23,291,271,396	23,358,869,625	12,307,094,062	13,828,920,032
Total pension liability - ending (a)	$19,107,887,483	$18,401,579,972	$17,814,812,242	$17,260,356,470	$16,808,614,316	$16,282,396,195	$23,291,271,396	$23,358,869,625	$12,307,094,062
Plan fiduciary net position									
Contributions - employer	959,550,492	573,198,646	496,991,504	418,268,575	349,574,257	261,763,635	149,718,491	149,225,191	149,746,748
Contributions - employee	176,338,741	163,410,877	157,797,710	146,645,216	138,399,727	134,764,920	130,390,848	131,428,103	129,971,981
Net investment income (loss)	(429,912,148)	498,299,160	335,402,959	560,940,002	(204,974,702)	610,515,096	281,419,146	114,025,290	283,281,925
Benefit payments, including refunds of employee contributions	(1,055,584,541)	(1,010,191,404)	(973,477,637)	(952,651,511)	(916,198,485)	(888,173,535)	(859,671,662)	(826,036,323)	(798,622,811)
Administrative expenses	(6,873,529)	(6,687,339)	(7,117,942)	(6,740,268)	(6,638,608)	(6,473,006)	(7,056,784)	(6,701,000)	(6,567,842)
Other - OPEB termination	-	-	-	-	-	5,393,581	-	-	-
Net change in plan fiduciary net position	(356,480,985)	218,029,940	9,596,594	166,462,014	(639,837,811)	117,790,691	(305,199,961)	(438,058,739)	(242,189,999)
Plan fiduciary net position - beginning	4,308,269,024	4,090,239,084	4,080,642,490	3,914,180,476	4,554,018,287	4,436,227,596	4,741,427,557	5,179,486,296	5,421,676,295
Plan fiduciary net position - ending (b)	$ 3,951,788,039	$ 4,308,269,024	$ 4,090,239,084	$ 4,080,642,490	$ 3,914,180,476	$ 4,554,018,287	$ 4,436,227,596	$ 4,741,427,557	$ 5,179,486,296
Employer's net pension liability ending (a)-(b)	$15,156,099,444	$14,093,310,948	$13,724,573,158	$13,179,713,980	$12,894,433,840	$11,728,377,908	$18,855,043,800	$18,617,442,068	$ 7,127,607,766

This is a 10 year schedule however, the information is not required to be presented retroactively. Information will be added to this schedule until 10 years of information is available.

Schedule of Employer's Net Pension Liability

	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total pension liability	$ 19,107,887,483	$ 18,401,579,972	$ 17,814,812,242	$ 17,260,356,470	$ 16,808,614,316	$ 16,282,396,195	$ 23,291,271,396	$ 23,358,869,625	$ 12,307,094,062
Plan fiduciary net position	3,951,788,039	4,308,269,024	4,090,239,084	4,080,642,490	3,914,180,476	4,554,018,287	4,436,227,596	4,741,427,557	5,179,486,296
Employer's net pension liability	15,156,099,444	14,093,310,948	13,724,573,158	13,179,713,980	12,894,433,840	11,728,377,908	18,855,043,800	18,617,442,068	7,127,607,766
Plan fiduciary net position as a percentage of total pension liability	20.68%	23.41%	22.96%	23.64%	23.29%	27.97%	19.05%	20.30%	42.09%
Covered payroll	$ 2,166,181,666	$ 2,001,180,743	$ 1,861,905,323	$ 1,802,790,156	$ 1,734,595,691	$ 1,686,532,720	$ 1,646,939,238	$ 1,643,480,973	$ 1,602,977,593
Employer's net position liability as a percentage of covered payroll	699.67%	704.25%	737.13%	731.07%	743.37%	695.41%	1144.85%	1132.81%	444.65%

This is a 10 year schedule however, the information is not required to be presented retroactively. Information will be added to this schedule until 10 years of information is available.

Schedule of Employer contributions

Year Ended December 31,	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contributions Deficiency	Covered Payroll	Contributions a a Percentage of Employee Payroll
2022	$1,262,413,314	$959,550,492	$302,862,822	$2,166,181,666	44.3%
2021	1,218,360,892	573,198,646	645,162,246	2,001,180,743	28.6%
2020	1,167,153,830	496,991,504	670,162,326	1,861,905,323	26.7%
2019	1,117,387,759	418,268,575	699,119,184	1,802,790,156	23.2%
2018	1,049,915,647	349,574,257	700,341,390	1,734,595,691	20.2%
2017	1,005,456,621	261,763,635	743,692,986	1,686,532,720	15.5%
2016	961,769,955	149,718,491	812,051,464	1,646,939,238	9.1%
2015	677,200,246	149,225,191	527,975,055	1,643,480,973	9.1%
2014	839,038,303	149,746,748	689,291,555	1,602,977,593	9.3%
2013	820,022,689	148,196,884	671,825,805	1,580,288,709	9.4%

Prior to 2014, the Actuarially Determined Contribution is the same as the Annual Required Contribution as determined under GASB 25

Notes to the Schedule of Employer contributions

The most recent historic information presented in the required supplementary schedule of employer contributions was determined as part of the actuarial valuation at the date indicated. Additional information is as follows.

Valuation date	December 31, 2021
Actuarial cost method	Entry-Age Normal
Amortization method	30 years open, level dollar amortization
Asset valuation method	5-year smoothed fair market
Actuarial assumptions:	
Investment rate of return	7.00%, net of investment expense
Projected salary increases	3.5% to 7.75% (1.5% to 6.5% for 2020-2022), varying by years of service.
Mortality	Post-retirement mortality rates were based on the RP-2014 Healthy Annuitant Mortality tables, set forward two years for males and one year for females and projected generationally using Scale MP-2016. Pre-retirement mortality rates were based on 120% of the RP-2014 Employee Mortality tables projected generationally using Scale MP-2016.
Inflation rate	2.50%
Cost of living adjustments	Tier 1: 3% compound Tier 2 & 3: The lesser of 3% or one-half of the change in CPI simple

Schedule of Investment Returns

Year Ended December 31,	Annual Money-Weighted Rate of Return, Net of Investment Expense
2022	(11.6%)
2021	14.0%
2020	9.3%
2019	16.4%
2018	(5.2%)
2017	14.9%
2016	6.4%
2015	2.1%
2014	4.8%

This is a 10 year schedule however, the information is not required to be presented retroactively. Information will be added to this schedule until 10 years of information is available.

Schedule of Changes in Employer's NET OPEB Liability

	2022	2021	2020	2019
Total OPEB liability				
Service cost	$ 78,336	$ 173,216	$ 263,826	$ 118,424
Interest	335,718	685,539	969,934	1,295,859
Change of benefit terms	-	-	-	-
Differences between expected and actual experience	30,922	(84,240)	(5,128,018)	(350,163)
Changes of assumptions	(9,801,735)	(16,243,917)	1,977,443	4,752,619
Benefit payments	(448,508)	(502,375)	(1,607,400)	(2,731,425)
Net change in total OPEB liability	(9,805,267)	(15,971,777)	(3,524,215)	3,085,314
Total OPEB liability - beginning	16,442,920	32,414,697	35,938,912	32,853,598
Total OPEB liability - ending (a)	$ 6,637,653	$ 16,442,920	$ 32,414,697	$ 35,938,912
Plan fiduciary net position				
Contributions - employer	$ 448,508	$ 502,375	$ 1,607,400	$ 2,731,425
Contributions - employee		-	-	-
Net investment income (loss)		-	-	-
Benefit payments	(448,508)	(502,375)	(1,607,400)	(2,731,425)
Administrative expenses	-	-	-	-
Other	-	-	-	-
Net change in plan fiduciary net position	-	-	-	-
Plan fiduciary net position - beginning	-	-	-	-
Plan fiduciary net position - ending (b)	$ -	$ -	$ -	$ -
Employer's net OPEB liability ending (a)-(b)	$ 6,637,653	$ 16,442,920	$ 32,414,697	$ 35,938,912

** Beginning balance as of January 1, 2019 established to reflect Circuit Court of Cook County ruling requiring health insurance subsidy benefit retroactive for each month after December 31, 2016 for certain employee annuitants.*

This is a 10-year schedule however, the information is not required to be presented retroactively. Information will be added to this schedule until 10 years of information is available.

There are currently no assets accumulated in a trust that meets the criteria of GASB codification P22.101 or P52.101 to pay related benefits for the health insurance subsidy.

Schedule of Employer's NET OPEB Liability

	2022	2021	2020	2019
Total OPEB liability	$ 6,637,653	$ 16,442,920	$ 32,414,697	$ 35,938,912
Plan fiduciary net position	-	-	-	-
Employer's net OPEB liability	6,637,653	16,442,920	32,414,697	35,938,912
Plan fiduciary net position as a percentage of total OPEB liability	0.00%	0.00%	0.00%	0.00%
Covered payroll	$ 2,166,181,666	$ 2,001,180,743	$ 1,861,905,323	$ 1,802,790,156
Employer's net OPEB liability as a percentage of covered payroll	0.31%	0.82%	1.74%	1.99%

This is a 10 year schedule however, the information is not required to be presented retroactively. Information will be added to this schedule until 10 years of information is available.

Schedules of Administrative Expenses

Years Ended December 31, 2022 and 2021

	2022	2021
Personnel		
Administrative salaries	$ 3,141,961	$ 2,985,832
Payroll taxes	44,601	42,428
Employee benefits	840,794	1,178,001
	4,027,356	4,206,261
Professional services		
Actuarial valuation	138,275	65,360
Legal services	200,571	176,408
Medical	44,202	68,750
Audit	44,500	46,000
Legislative liaison services	45,000	30,000
Benefit payment services	417,828	409,267
IT consulting	155,854	109,707
Other consulting	255,346	73,256
	1,301,576	978,748
Communication		
Printing and publications	56,839	51,247
Postage	52,190	58,513
Telephone and communications	48,533	45,908
	157,562	155,668
Occupancy and utilities		
Office lease expense	734,626	694,633
Utilities	8,235	9,171
Office maintenance	1,501	732
	744,362	704,536
Other operating expense		
Fiduciary and insurance	265,171	253,485
Office supplies and equipment	10,448	5,386
Technical expense	123,618	147,487
Depreciation	145,367	146,754
Equipment rental and maintenance	4,345	4,022
Training and travel	8,889	8,139
Contractual services	57,719	50,769
Dues and subscriptions	16,791	15,977
Miscellaneous	10,325	10,107
	642,673	642,126
Total administrative expense	$ 6,873,529	$ 6,687,339

Schedules of Investment Management Compensation

Years Ended December 31, 2022 and 2021

	2022	2021
Fixed income managers		
Crescent Capital Management	$ 406,972	$ 429,130
Garcia Hamilton	135,131	143,245
LM Capital Group	196,568	205,964
MacKay Shields	426,691	455,362
NIS	132,602	144,484
Segall Bryant & Hamill	142,174	149,892
Symphony Asset Management	532,732	568,362
Total fixed income managers	1,972,870	2,096,439
Domestic equity managers		
Ariel Investments	385,560	457,005
Kayne Anderson	445,523	523,960
Nuveen	369,403	284,540
Rhumbline Advisers	78,631	91,515
Total domestic equity managers	1,279,117	1,357,020
Global equity managers		
Acadian Asset Management	284,488	200,806
Attucks Asset Management	973,340	1,227,221
Columbia Threadneedle	10,615	187,970
Total global equity managers	1,268,443	1,615,997
International equity managers		
Cornerstone Capital Management	215,141	460,244
Acadian ISC	558,239	528,759
Kayne Anderson	522,661	584,265
LSV Asset Management	427,416	535,826
Northern Trust Company	20,234	40,951
Segall Bryant & Hamill	-	38,578
Walter Scott & Partners	500,068	672,409
William Blair	614,189	856,676
Total international equity managers	2,857,948	3,717,708

Schedules of Investment Management Compensation (continued)

Years Ended December 31, 2022 and 2021

	2022	2021
Hedged equity managers		
The Rock Creek Group	$ 2,336,244	$ 1,541,327
Parametric Defensive Equity	292,049	376,585
Neuberger Berman US PutWrite	193,442	206,754
Total hedged equity managers	2,821,735	2,124,666
Real estate managers		
AFL-CIO Building Trust	709,140	798,692
American Realty	1,013,049	837,230
J P Morgan	1,183,363	1,027,304
Mesirow Real Estate	57,846	192,237
Total real estate managers	2,963,398	2,855,463
Private equity managers		
Adams Street Partners	111,875	175,341
GoldPoint Partners	3,447	33,089
Hispania Partners	-	20,607
Hopewell Ventures	8,651	16,254
Levine Leichtman	66,514	71,930
Mesirow Financial	104,672	157,286
Midwest Mezzanine Fund	29,685	55,915
Muller & Monroe	-	10,000
Prudential Capital Partners	125,065	223,969
Stepstone	24,470	49,682
TRG Management	18,284	20,853
Total private equity managers	492,663	834,926
Private debt managers		
Angelo Gordon	3,995	-
Brightwood Capital	10,452	-
Total private debt managers	14,447	-
Infrastructure managers		
Ullico	1,184,348	1,145,250

Schedules of Investment Management Compensation (continued)

Years Ended December 31, 2022 and 2021

	2022	2021
Total investment management fees	$ 14,854,969	$ 15,747,469
Other investment expenses		
Investment consultant	290,000	290,000
Master custodian	273,757	313,391
Investment legal services	(354)	(1,601)
Total other investment expenses	563,403	601,790
Total investment expenses	$ 15,418,372	$ 16,349,259

Schedules of Professional and Consulting Costs

Years Ended December 31, 2022 and 2021

	2022	2021
Legal advisors	$ 200,571	$ 176,408
Medical advisors	44,202	68,750
Consulting actuary	138,275	65,360
Other consulting	456,200	212,963
Auditor	44,500	46,000
Benefit payment services	417,828	409,267
Total professional and consulting costs	$ 1,301,576	$ 978,748

Investment

This report includes the summary from the Investment Consultant regarding 2022 investment results; certification letter from the Plan's custodian for 2022; a summary of the Plan's investment goals, objectives, and guidelines; and informative investment schedules for your review. Data provided to the Plan by its custodian and its investment consultant form the basis for the information that is presented throughout the Investment Section. All portfolio rates of return are presented using a time-weighted rate of return methodology based on fair values. The figures in the Investment Section of the Comprehensive Annual Financial Report may marginally differ from those found in the Financial Section. This is due to a lag in reporting associated with certain classes of investments. The figures found in the Investment Section represent final figures for 2022.

June 1, 2023

The Board of Trustees
Municipal Employees' Annuity & Benefit Fund of Chicago
321 N. Clark Street, Suite 700
Chicago, IL 60654-4767

Dear Trustees:

Marquette Associates would like to provide a summary of the investment results for the Municipal Employees' Annuity & Benefit Fund of Chicago for the year ended December 31, 2022.

Interest rates increased significantly over the year, generating record negative returns for fixed income with the Barclays Aggregate Bond Index down 13.0%. Senior loans outperformed significantly and provided strong protection for the year, down only 1.1%. U.S. Equities struggled, with the S&P 500 returning -18.1% and the Russell 2000 returning -20.4%. Large cap and value stocks outperformed for the year, with the Russell 1000 Value and the Russell 2000 Growth returning -7.5% and -26.4%, respectively.

Broad International equity markets (MSCI All Country World ex-U.S.) performed slightly better than the U.S. markets, down 16.0%. Emerging markets (MSCI Emerging Markets Index) underperformed developed markets, down 20.1% for the year. Private Real Estate provided strong protection in 2022, with the NCREIF Property Index returning +5.5%.

The Municipal Employees' Annuity & Benefit Fund of Chicago's investment assets totaled $3.18 billion on December 31, 2022. This represented a decrease of $550.7 million from December 31, 2021, of which -$426.9 million was due to investment losses, and -$123.8 million due to withdrawals for benefits and expenses.

The Total Fund returned -11.5% for calendar 2022, net of fees, outperforming the Policy Benchmark's return of -12.2%. The Fund ranked in the 19th percentile in the Investment Metrics Public Defined Benefit Fund peer universe for the period. The 5-year annualized return for the Fund was +4.1% versus +4.7% for the benchmark, ranking the Fund in the 81st percentile.

Factors contributing to 2022 performance include:

- Fixed Income – Good protection from MEABF's asset allocation in an asset class that struggled in 2022. The portfolio significantly outperformed the broad fixed income market, mainly due to the allocation to senior loans and manager outperformance.
- U.S. Equity – Returns for 2022 were roughly in line with the broad market, with value stocks outperforming growth stocks, and large cap outperforming small cap. MEABF's U.S. Equity Composite underperformed its benchmark, primarily due to the Plan's policy overweight to small-cap and manager underperformance.
- International Equity – MEABF's International Equity Composite underperformed for the year, due to significant manager underperformance and the portfolio's overweight to small-cap and emerging markets. Global Low Volatility Equity provided significant protection in a negative market.
- Hedge Funds – The asset class underperformed its benchmark for the year. The allocation generally protected against the equity market downturn, but managers underperformed overall.
- Real Estate – The asset class provided strong protection in an inflationary economy, with positive returns. Some significant manager underperformance caused the MEABF portfolio to underperform its benchmark.
- Private Equity – The asset class provided some protection in strongly negative equity market, returning roughly -6.8%, outperforming its benchmark. Private holdings outperformed overall public equities in 2022.

MEABF continues to invest in a well-diversified portfolio of assets to provide growth opportunities for Plan assets in the years to come. The Plan implements this diversified portfolio by using a combination of active and passive management. The Plan continues to have a strong focus on reducing investment management fees.

Sincerely,

Brian Wrubel
Chief Executive Officer

James R. Wesner, CFA
Managing Director

NORTHERN TRUST

To the Board of Trustees and the Executive Director:

The Northern Trust Company as custodian ("Master Custodian") of assets of the Municipal Employees' Annuity and Benefit Fund of Chicago ("Fund") held by it in a custodial account (the "Account") has provided annual Statements of Account for the Account to the Fund which to the best of its knowledge provide a complete and accurate reflection of The Northern Trust Company's record of the investments, receipts, disbursements, purchases and sales of securities and other transactions pertinent to the Account for the period January 1, 2022 through December 31, 2022.

In addition to the custody of assets in the Account, pursuant to and in accordance with the terms of the amended and restated Master Custody Agreement among the Board of Trustees of the Fund and The Northern Trust Company dated September 1, 2013 as amended (the "Custody Agreement"), The Northern Trust Company provided and continues to provide the following services as Master Custodian:

1. Receive and hold all amounts paid to the Account by the Board of Trustees.
2. Accept and deliver securities in connection with investment transactions in the Account in accordance with the instructions of appointed Investment Managers.
3. Collect dividends and registered interest payments.
4. Collect matured or called securities and coupons to the extent provided in the operating guidelines of The Northern Trust Company in effect from time to time.
5. Invest cash balances held from time to time in the individual investment management accounts of the Account in short term-cash equivalent securities.
6. Facilitate the exercising of rights of ownership, including but not limited to, proxy voting, stock subscriptions and conversion rights as directed by the Fund or its appointed investment managers.
7. Hold securities in the Account in the name of the Fund or nominee form or other means as provided in the Custody Agreement.
8. Use the Federal Book Entry Account System for deposit of Treasury securities and clearing corporations as defined in Article 8 of the Illinois Uniform Commercial Code for the deposit of securities.
9. Employ agents to the extent provided in the Custody Agreement.
10. Provide disbursement services.
11. Provide security fail float income to the extent provided in the operating guidelines of The Northern Trust Company in effect from time to time.
12. Lend Securities in the Account pursuant to a Securities Lending Agreement entered into by and between the Board of Trustees and The Northern Trust Company.

THE NORTHERN TRUST COMPANY

By: Bradley Blackwell

Bradley Blackwell
Senior Vice President

The Northern Trust Company

333 South Wabash Street
Chicago, Illinois 60604
312-630-6000

Investment Authority and Responsibility

The authority granted to the Retirement Board of the Municipal Employees' Annuity and Benefit Fund of Chicago (the "Board") related to investment decisions can be found in the Illinois Compiled Statutes, Chapter 40, Act 5, Section 8-201 and 8-201.1. Section 1-113 also defines investments deemed to be prudent. Any fiduciary with investment authority is required to discharge his or her duties with respect to the Plan with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character with like aims.

In order to clarify the roles and responsibilities of the Board and the various investment professionals engaged by the Board, the following responsibilities have been designated:

The Board, with the assistance of an Investment Consultant and Investment Staff, assume the responsibility for establishing goals, objectives and guidelines to direct the investment activity of the Plan.

The Board engages various managers to make investments in accordance with agreed-upon guidelines and applicable statutes. These managers, acting as fiduciaries, apply their professional judgment in making investment decisions. Managers are given full discretion within their assigned mandate to select, acquire, maintain and dispose of individual investments as authorized by contract.

Plan-level Investment Goals and Objectives

The Board sets the goals and objectives of the investment portfolio solely in the interest of the Plan, its participants and their beneficiaries. The performance objectives of the Plan are threefold:

- The Plan is to meet or exceed its actuarial return assumption of 7.0% on a net-of-fees basis over time with a level of risk deemed appropriate by the Board while maintaining liquidity sufficient to cover benefit payments and other obligations.
- The Plan is to outperform the risk-adjusted return, net-of-fees, of the Plan's policy benchmark.
- The Plan is to rank in at least the top half of the universe of comparable institutional investors with similar risk/return parameters consistently over time.

Investment Manager Goals, Objectives and Guidelines

The guidelines for a particular investment mandate are set at the time of hiring and are included in the contractual agreement between the Plan and the investment manager. The guidelines specify the types of the investments that can be made and contain certain constrains in order to limit risk. Given the investment guidelines, certain goals and objectives are set. Generally, they are as follows:

- Each investment manager is expected to outperform by a mutually agreed upon premium over the set benchmark on a risk-adjusted-basis over a market cycle (typically a three- to five-year period).
- The total net-of-fees return for the mandate should rank above the median within the respective peer universe.
- The investment manager shall attempt to achieve its return objectives while maintaining an appropriate level of risk as determined by the Board and/or as specified in the investment contract.

Risk Management

Risk management is essential to the Plan's mission and to the success of the Plan's investment program. Most investment decisions have a risk component that must be considered. When making investment decisions, the Board shall make a reasonable effort to consider all risks—liquidity risk, market risk, business risk, credit risk, currency risk, interest rate risk, inflationary risk, etc. within the context of the Plan's overall portfolio. The Board, with assistance from staff and its investment consultant, shall, taking into account the Plan's ability and the Board's willingness to assume risk, determine an appropriate risk tolerance level for the Plan. Determining the risk tolerance level shall serve as the first step in crafting an appropriate target asset allocation, setting investment goals and objectives, and making other investment-related decisions.

Asset Allocation

The Plan's assets are diversified to minimize risk and to maximize risk adjusted returns. Diversification is accomplished by utilizing appropriate asset allocation targets. Upon advice from staff and the Plan's investment consultant, the Board shall adopt appropriate asset allocation targets. The target allocation mix includes the traditional domestic & international equity and fixed income investments as well as alternative investments such as hedged equity, private equity, and real assets. Proper diversification within each asset class is based on establishing complementary investment objectives and management styles. The Board, staff and investment consultant will review the asset allocation at least annually and consider changes as deemed prudent.

Cash Flow Needs & Portfolio Rebalancing

The extensive operating cash flow needs of the Plan require the liquidation of investment assets on a monthly basis. Liquidity will be primarily drawn from asset classes that exceed their respective allocation targets in an effort to move the Plan's overall asset allocation closer to target allocations.

Should the regular monthly liquidity events associated with benefit payments not be sufficient to keep the portfolio in line with the target allocations, the Plan's portfolio may need to be rebalanced by shifting assets from one asset class to another. In these instances, the investment consultant and staff will bring a rebalancing plan to the Board for its approval. Upon approval by the Board, the staff will work to transition the assets.

Investment Management Fee

The Plan has made conscious efforts to reduce overall investment management expenses to coincide with our liquidity risks and on-going battle with our funding status. Since 2015, invested assets have been reduced by 30.5% while fee reduction was 34.6%. Over the years, the Fund's investment management fees have reduced significantly while maintaining asset allocation targets and return/risk profiles.

Following factors have attributed to the Fund's success in reducing investment management fees:

- Consolidate over-diversification of managers while moving to passive management in more efficient markets.
- Partnership with existing managers with long relationship in an effort to reduce fees.
- Negotiate with potential investment manager candidates for a highly competitive fee structure.
- Leverage consultant relationship with investment managers to help negotiate and reduce fee structure.

The Board, staff and investment consultant understand the importance of fee reduction within the Plan and are having discussions with managers on a continuous basis.

Investment Managers*
As of December 31, 2022

Acadian Asset Management
Boston, Massachusetts
Global Low Volatility
International Small Cap Equity

Adams Street Partners
Chicago, Illinois
Private Equity Direct Partnerships
Private Equity Fund of Funds

American Realty Advisors
Glendale, California
Real Estate Core Fund

Angelo Gordon
New York, New York
Private Debt Fund

Apogem (f.k.a GoldPoint Partners)
New York, New York
Private Equity Mezzanine Fund

Ariel Investments
Chicago, Illinois
Domestic Equity Small/Mid Cap Value

Attucks Asset Management
Chicago, Illinois
Emerging Manager of Managers – Global Equity

Brightwood Capital Advisors
New York, New York
Private Debt Fund

Crescent Capital Group
Los Angeles, California
High Yield Fixed Income

Garcia Hamilton & Associates
Houston, Texas
Fixed Income Core

Hopewell Ventures (f.k.a Woodland Venture Management)
Chicago, Illinois
Private Equity Direct Partnership

JP Morgan Asset Management
New York, New York
Real Estate Core Fund

Kayne Anderson Rudnick Investment Management
Los Angeles, California
Domestic Equity Small Cap Value
International Small Cap Equity

Levine Leichtman
Beverly Hills, California
Private Equity Mezzanine Funds

LM Capital
San Diego, California
Fixed Income Core

LSV Asset Management
Chicago, Illinois
International Equity Large Cap Value

MacKay Shields
New York, New York
Fixed Income High Yield
International Equity Large Cap

Mesirow Financial
Chicago, Illinois
Private Equity Direct Partnerships
Private Equity Funds of Funds
Real Estate Direct Partnership

Midwest Mezzanine Funds
Chicago, Illinois
Private Equity Mezzanine Funds

Neuberger Berman
Chicago, Illinois
Defensive Equity

NIS
Milwaukee, Wisconsin
Fixed Income Core

Northern Trust Asset Management
Chicago, Illinois
International Equity ACWI ex US Index
International Equity Small Cap Index

Nuveen
Chicago, Illinois
Domestic Equity Small Cap Value
Fixed Income Senior Bank Loans

Parametric
Minneapolis, MN
Defensive Equity

PNC Bank - AFL/CIO
Washington, D.C.
Real Estate Core Fund

Prudential Capital Partners
Chicago, Illinois
Private Equity Mezzanine Fund

RhumbLine Advisors
Boston, Massachusetts
Domestic Equity Large Cap Core Index
Domestic Equity Mid Cap Growth Index

The Rock Creek Group
Washington, D.C.
Hedged Equity Fund of Funds

Segall Bryant & Hamill
Chicago, Illinois
Fixed Income Intermediate
International Equity Small Cap

StepStone Group
San Diego, California
Private Equity Fund of Funds

TRG Management
New York, New York
International Private Equity Direct Partnership

Ullico
Washington, D.C.
Infrastructure Core Fund

Walter Scott & Partners
Edinburgh, Scotland
International Equity Large Cap Growth

William Blair & Company
Chicago, Illinois
Emerging Markets Equity

*List does not include legacy managers who have less than $1 million remaining balance.

Portfolio Performance

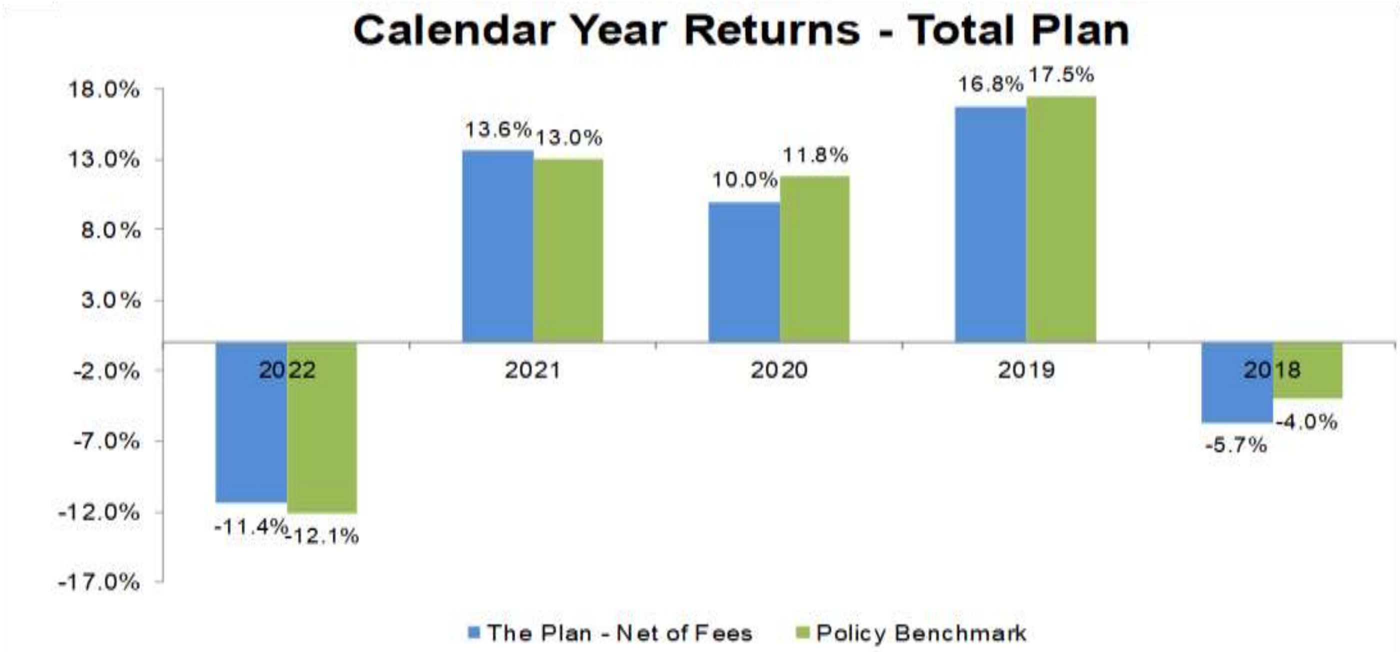
As of December 31, 2022

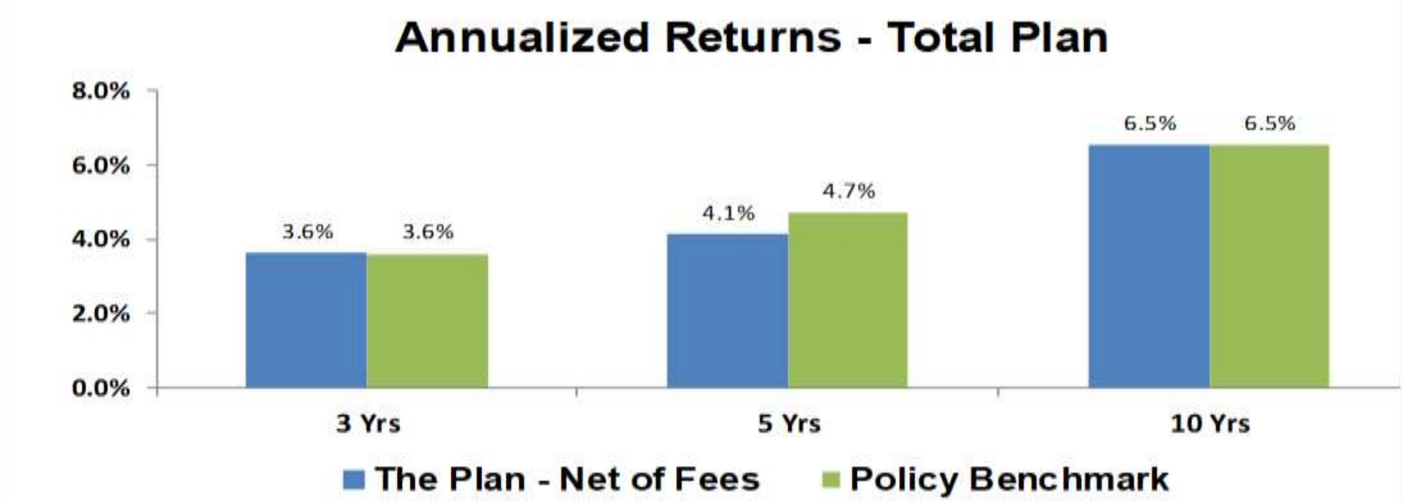
Performance Returns by Asset Class

	Calendar Year Returns					Annualized Returns		
	2022	**2021**	**2020**	**2019**	**2018**	**3 Yrs**	**5 Yrs**	**10 Yrs**
Total Plan								
The Plan - Net of Fees	-11.4%	13.6%	10.0%	16.8%	-5.7%	3.6%	4.1%	6.5%
Policy Benchmark	-12.1%	13.0%	11.8%	17.5%	-4.0%	3.6%	4.7%	6.5%
Fixed Income								
The Plan	-7.4%	1.5%	5.8%	8.7%	-0.1%	-0.3%	1.5%	2.3%
Barclays Cap Aggregate Bond Index	-13.0%	-1.5%	7.5%	8.7%	0.0%	-2.7%	0.0%	1.1%
Domestic Equity								
The Plan	-19.3%	27.1%	18.4%	28.8%	-8.5%	6.7%	7.4%	10.6%
S&P 500 Index	-18.1%	28.7%	18.4%	31.5%	-4.4%	7.7%	9.4%	12.6%
Wilshire 5000 Index	-19.0%	26.7%	20.8%	31.0%	-5.3%	7.4%	9.0%	12.3%
Russell 2000 Index	-20.4%	14.8%	19.9%	25.5%	-11.0%	3.1%	4.1%	9.0%
International Equity								
The Plan	-21.4%	10.7%	14.0%	23.4%	-16.8%	-0.3%	0.4%	4.5%
MSCI ACWI ex U.S. IMI Index	-16.6%	8.5%	11.1%	21.5%	-14.2%	0.2%	0.8%	4.0%
Real Estate								
The Plan	3.9%	19.5%	0.7%	4.5%	6.4%	7.7%	6.8%	8.6%
NCREIF Property Index	5.5%	17.7%	0.5%	6.4%	6.7%	8.1%	7.5%	8.8%
Private Equity								
The Plan	-6.8%	41.3%	23.8%	11.0%	5.1%	15.4%	12.4%	11.8%
Cambridge Associates Private Equity	-10.0%	37.7%	28.1%	15.1%	9.8%	18.5%	16.8%	15.8%
Hedged Equity								
The Plan	-9.0%	13.0%	8.9%	13.8%	-6.0%	3.7%	3.6%	5.4%
HFRX Equity Hedge Index	-3.2%	12.1%	4.6%	10.7%	-9.4%	4.3%	2.6%	3.3%

Returns are calculated using the time-weighted rate of return method.
Returns are presented net-of-fees.
Source: Marquette Associates, Investment Consultant

Portfolio Performance (Continued)



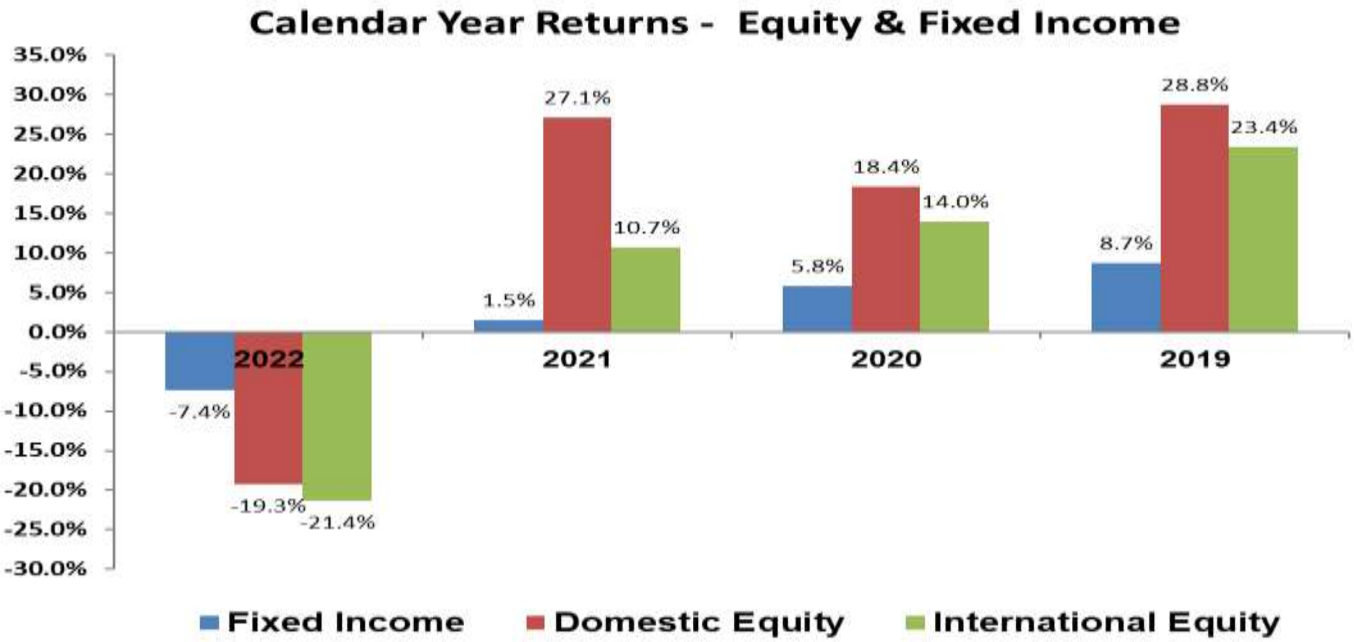


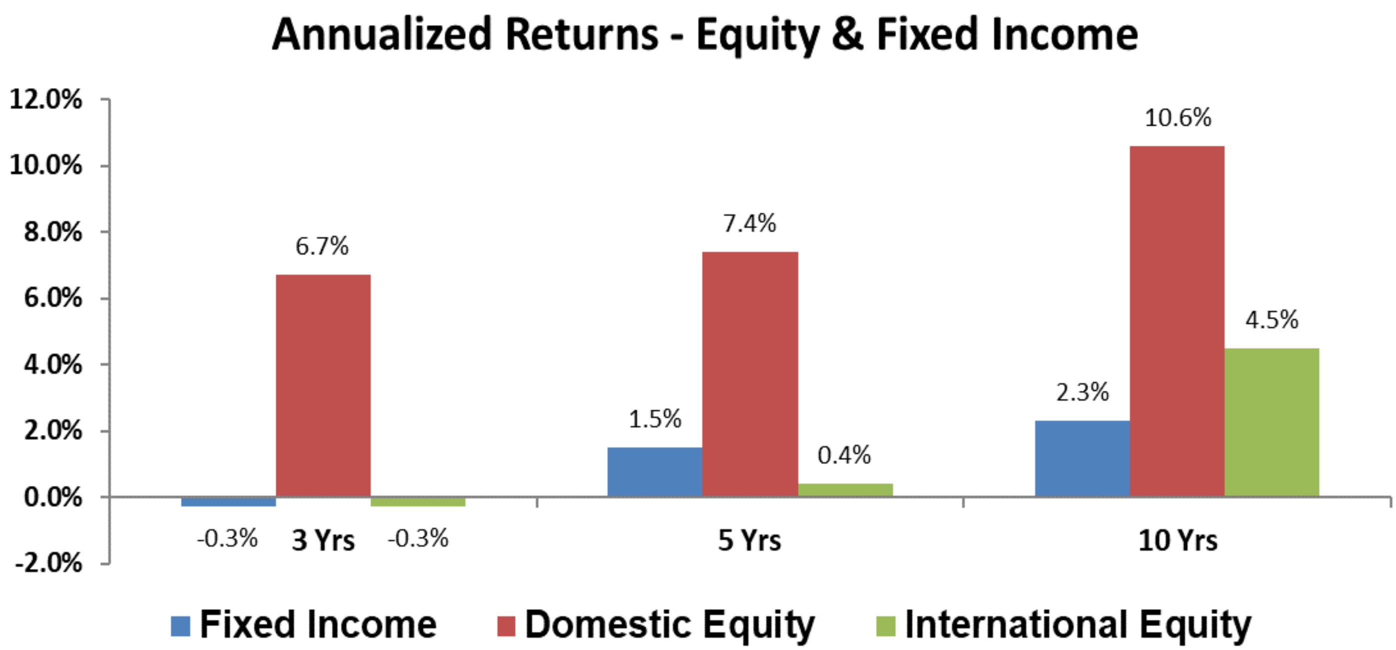
Returns are calculated using the time-weighted rate of return method.

Returns are presented net-of-fees.

Source: Marquette Associates, Investment Consultant

Portfolio Performance (Continued)





Returns are calculated using the time-weighted rate of return method.

Returns are presented net-of-fees.

Source: Marquette Associates, Investment Consultant

Portfolio Summary

As of December 31, 2022 and December 31, 2021

Investment Summary and Asset Allocation

	As of December 31, 2022			As of December 31, 2021		
Asset Category	**Fair Value**	**Percent of Total**	**Target**	**Fair Value**	**Percent of Total**	**Target**
Fixed Income	$ 737,917,253	23.3%	22%	$ 792,421,371	21.3%	25%
Domestic Equity	775,130,113	24.4%	26%	958,016,894	25.8%	26%
Global Equity	113,766,183	3.6%	5%	164,878,061	4.4%	5%
International Equity	504,502,558	15.9%	17%	665,407,966	17.9%	17%
Hedged Equity	346,417,140	10.9%	10%	432,986,981	11.6%	10%
Real Estate	320,367,589	10.1%	9%	337,610,569	9.1%	10%
Infrastructure	103,702,869	3.3%	3%	74,303,752	2.0%	2%
Private Equity	92,117,931	2.9%	4%	108,765,054	2.9%	5%
Private Debt	13,111,779	0.4%	4%	-	0.0%	0%
Short-term*	163,635,342	5.2%	0%	183,400,584	4.9%	0%
Total Investments	$ 3,170,668,757	100.0%	100%	$ 3,717,791,232	100.0%	100%

(1) Balance may not sum due to rounding

(2) Global equity is comprised of both domestic and international securities

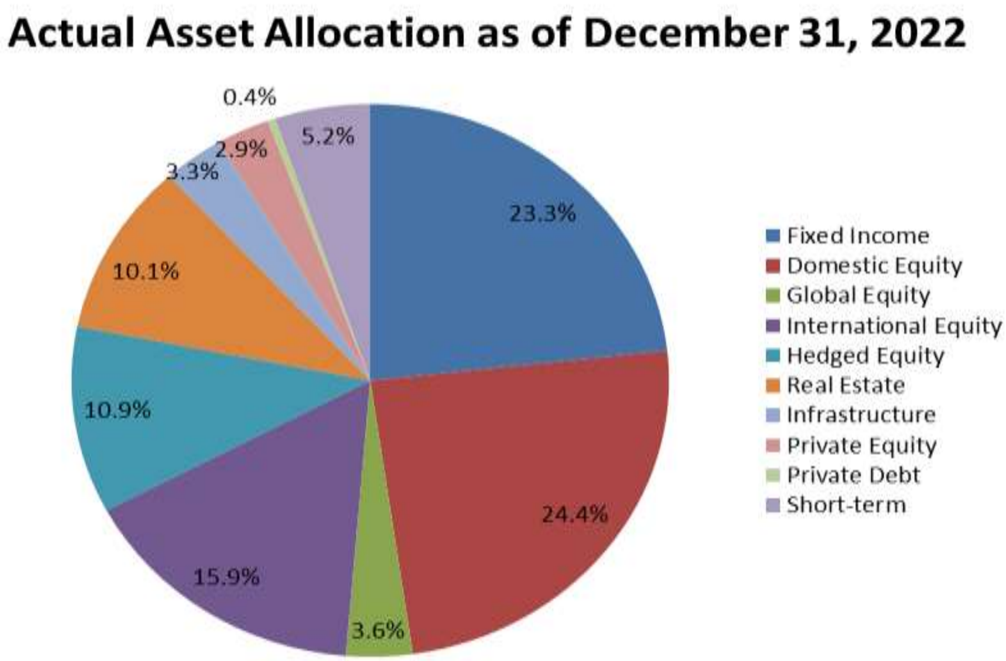
(3) Total equity is comprised of Domestic Equity, Global Equity, and International Equity

*Short-term investments include cash necessary to pay following month's benefits and residual cash balance of active investment managers

Portfolio Asset Allocation

As of December 31, 2022

Asset Class	Target Allocation	Actual Allocation
Fixed Income	22%	23.3%
Domestic Equity	26%	24.4%
Global Equity	5%	3.6%
International Equity	17%	15.9%
Hedged Equity	10%	10.9%
Real Estate	9%	10.1%
Infrastructure	3%	3.3%
Private Equity	4%	2.9%
Private Debt	4%	0.4%
Short-term	0%	5.2%
Total	**100%**	**100%**



Components may not sum to totals due to rounding.

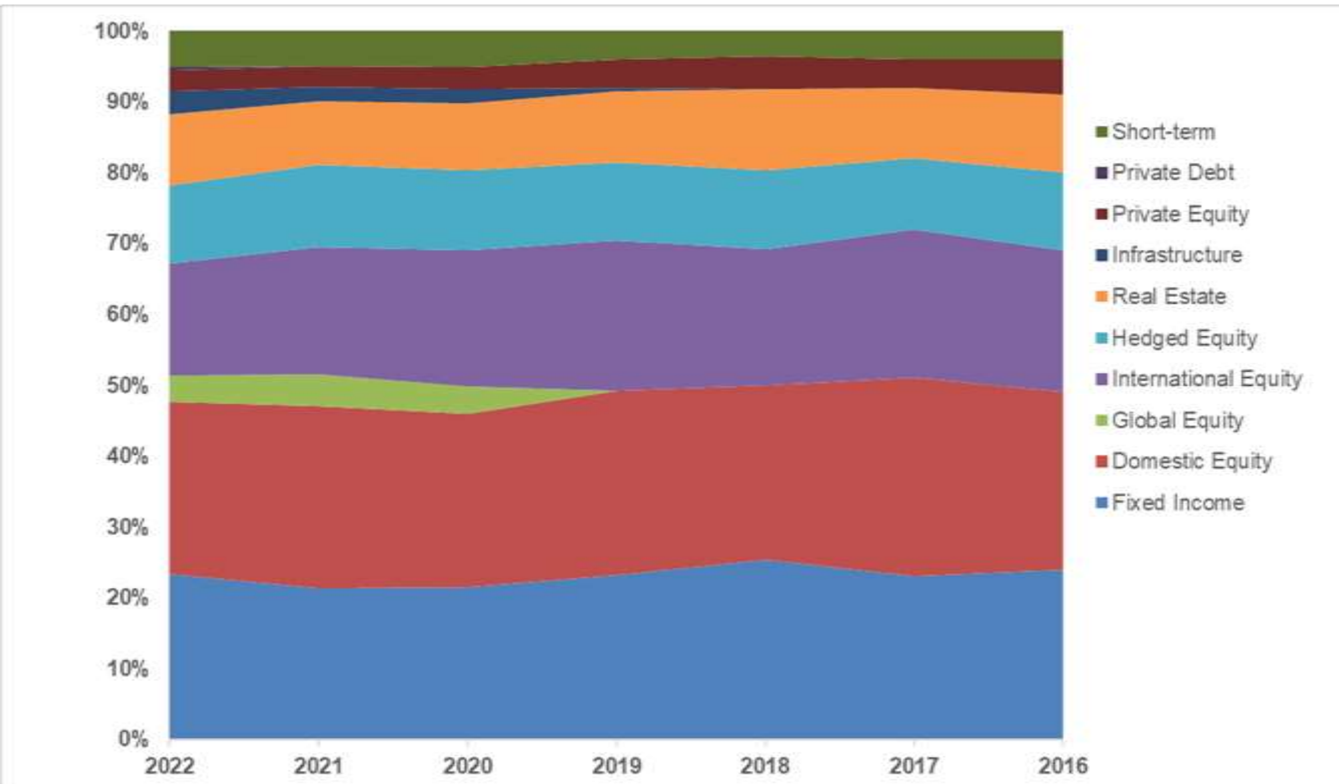
Source: Northern Trust Custody Statements

Portfolio Asset Allocation (continued)

Last Seven Years

Asset Class	2022	2021	2020	2019	2018	2017	2016
Fixed Income	23%	21%	22%	23%	25%	23%	24%
Domestic Equity	24%	26%	24%	26%	25%	28%	25%
Global Equity	4%	4%	4%	0%	0%	0%	0%
International Equity	16%	18%	19%	21%	19%	21%	20%
Hedged Equity	11%	12%	11%	11%	11%	10%	11%
Real Estate	10%	9%	10%	10%	11%	10%	11%
Infrastructure	3%	2%	2%	1%	0%	0%	0%
Private Equity	3%	3%	3%	4%	5%	4%	5%
Private Debt	0%	0%	0%	0%	0%	0%	0%
Short-term	5%	5%	5%	4%	4%	4%	4%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Last Seven Years Asset Allocation



Components may not sum to totals due to rounding.

Source: Northern Trust Custody Statements

Domestic Equity Portfolio Summary

As of December 31, 2022

Sector Allocation

Sector	Fair Value	% of Total	S&P 500
Information Technology	$ 146,301,629	16.62%	25.70%
Financials	130,039,127	14.77%	11.70%
Health Care	123,979,909	14.08%	15.80%
Industrials	116,447,474	13.23%	8.70%
Consumer Discretionary	91,283,356	10.37%	9.80%
Consumer Staples	59,784,059	6.79%	7.20%
Communication Services	55,642,024	6.32%	7.30%
Materials	38,389,538	4.36%	2.70%
Energy	36,323,148	4.13%	5.20%
Miscellaneous/Unclassified	33,127,896	3.76%	0.00%
Real Estate	25,093,183	2.85%	2.70%
Utilities	23,925,101	2.72%	3.20%
Total	$ 880,336,445	100.00%	100.00%

(1) 12.0% of the Total includes Global Equity

Top 10 Holdings

Name of Security	Sector	Shares	Fair Value	% of U.S. Equity
APPLE INC COM STK	Information Technology	222,577.00	$ 28,919,430	3.3%
MICROSOFT CORP COM	Information Technology	108,498.00	26,019,990	3.0%
AMAZON COM INC COM	Consumer Discretionary	125,470.00	10,539,480	1.2%
BERKSHIRE HATHAWAY INC-CL B	Financials	28,580.00	8,828,362	1.0%
UNITEDHEALTH GROUP INC COM	Health Care	14,963.00	7,933,083	0.9%
JOHNSON & JOHNSON COM USD1	Health Care	43,743.00	7,727,201	0.9%
ALPHABET INC CAPITAL STOCK USD0.001 CL A	Communication Services	83,999.00	7,411,232	0.8%
ALPHABET INC CAP STK USD0.001 CL C	Communication Services	72,465.00	6,429,819	0.7%
EXXON MOBIL CORP COM	Energy	56,363.00	6,216,839	0.7%
PROCTER & GAMBLE COM NPV	Consumer Staples	40,686.00	6,166,370	0.7%
Total		**797,344.00**	**$ 116,191,807**	**13.2%**

Note: A complete listing of the portfolio holdings is available for review at the Fund office.

Components may not sum to totals due to rounding.

Source: Northern Trust Custody Statements

International Equity Portfolio Summary

As of December 31, 2022

Country Allocation

Country	Fair Value	% of Total	MSCI ACWI ex US
Japan	$ 89,226,801	17.39%	14.10%
United Kingdom	63,053,985	12.29%	9.70%
France	35,619,610	6.94%	7.10%
China	31,408,197	6.12%	9.20%
Switzerland	31,407,897	6.12%	6.70%
Australia	25,404,256	4.95%	5.00%
Germany	25,288,686	4.93%	4.70%
India	21,047,645	4.10%	4.50%
Canada	20,830,652	4.06%	8.30%
Hong Kong	16,410,186	3.20%	1.90%
Denmark	14,113,416	2.75%	1.70%
Netherlands	13,673,315	2.67%	2.60%
Sweden	12,386,784	2.41%	2.10%
Italy	11,781,337	2.30%	1.40%
Norway	11,479,648	2.24%	0.50%
Taiwan	8,750,101	1.71%	4.00%
Singapore	8,517,204	1.66%	1.00%
Korea, Republic of	7,722,478	1.51%	3.10%
Brazil	7,671,000	1.50%	1.70%
Finland	7,020,483	1.37%	0.60%
Indonesia	6,515,793	1.27%	0.60%
Spain	5,298,855	1.03%	1.50%
Israel	5,143,715	1.00%	0.50%
South Africa	4,100,314	0.80%	1.00%
Mexico	3,909,392	0.76%	0.70%
Poland	3,604,267	0.70%	0.20%
Thailand	3,451,420	0.67%	0.60%
United Arab Emirates	3,349,535	0.65%	0.40%
Austria	2,146,333	0.42%	0.10%
Malaysia	1,856,157	0.36%	0.40%
Philippines	1,434,943	0.28%	0.20%
Belgium	1,397,513	0.27%	0.60%
Remaining Countries	8,040,490	1.57%	3.30%
Total	$513,062,409	100.00%	100.00%

(1) *1.7% of the Total includes Global Equity*

Components may not sum to totals due to rounding.

Source: Northern Trust Custody Statements

International Equity Portfolio Summary (Continued)

As of December 31, 2022

Top 10 Holdings

Name of Security	Country	Sector	Shares	Fair Value	% of Int'l Equity
MANUFACTURING SPON ADS EACH REP 5 ORD TWD10	Taiwan	Information Technology	76,690	$ 5,712,638	1.11%
AIA GROUP LTD NPV	Hong Kong	Financials	493,357	5,486,696	1.07%
NOVO-NORDISK AS DKK0.2 SERIES'B'	Denmark	Health Care	33,826	4,553,598	0.89%
NOVARTIS AG CHF0.50 (REGD)	Switzerland	Health Care	49,897	4,508,096	0.88%
ROCHE HLDGS AG GENUSSCHEINE NPV	Switzerland	Health Care	13,789	4,329,555	0.84%
SHELL PLC ORD EUR0.07	United Kingdom	Energy	152,968	4,279,962	0.83%
LVMH MOET HENNESSY LOUIS VUITTON SE EUR0.30	France	Consumer Discretionary	5,097	3,698,502	0.72%
NESTLE SA CHF0.10(REGD)	Switzerland	Consumer Staples	30,240	3,501,852	0.68%
DIAGEO ORD PLC	United Kingdom	Consumer Staples	77,852	3,418,159	0.67%
RELIANCE INDS INR10(100%DEMAT)	India	Energy	104,562	3,219,392	0.63%
Total			**1,038,278**	**$ 42,708,450**	**8.32%**

Note: A complete listing of the portfolio holdings is available for review at the Plan office.

Components may not sum to totals due to rounding.

Source: Northern Trust Custody Statements

Fixed Income Portfolio Summary

As of December 31, 2022

Sector Allocation

Sector		Fair Value	% of Total	Barclay Agg
Corporate Bonds	$	245,196,875	33.23%	24.21%
Bank Loans		15,146,981	2.05%	2.00%
Government Bonds		121,804,932	16.51%	0.00%
Government Mortgage Backed Securities		98,052,150	13.29%	40.80%
Other Fixed Income		180,596,003	24.47%	27.57%
Government Agencies		22,282,906	3.02%	2.29%
Municipal/Provincial Bonds		20,122,268	2.73%	0.84%
Asset Backed Securities		14,887,636	2.02%	0.45%
Gov't-issued Commercial Mortgage-Backed		7,841,429	1.06%	0.00%
Non-Government Backed C.M.O.s		6,876,774	0.93%	0.00%
Commercial Mortgage-Backed		4,198,046	0.57%	1.84%
Corporate Convertible Bonds		911,254	0.12%	0.00%
Total	**$**	**737,917,253**	**100.00%**	**100.00%**

Top 10 Holdings

Name of Security	Sub Asset Class	Fair Value	% of Fixed Income
UNITED STATES TREAS NTS 1.875% DUE 02-15-2032 REG	Government Bonds	$ 9,615,751	1.30%
US TREASURY N/B 2.375% 05-15-2029	Government Bonds	8,747,250	1.19%
UNITED STATES TREAS BDS BD 3.75% DUE 08-15-2041 REG	Government Bonds	7,345,719	1.00%
US TREASURY N/B 1.5% DUE 02-15-2030 REG	Government Bonds	6,540,839	0.89%
UNITED STATES TREAS BDS 1.5% DUE 08-15-2026 REG	Government Bonds	5,648,859	0.77%
UNITED STATES TREAS NTS 2.75% 08-15-2032	Government Bonds	5,059,385	0.69%
UNITED STATES OF AMER TREAS BONDS DTD 05/15/2016 2.5% DUE 05-15-2046 REG	Government Bonds	4,772,134	0.65%
UNITED STATES TREAS NTS WIT 1 1/2 05/15/31 1.625% DUE 05-15-2031 BEO	Government Bonds	4,387,297	0.59%
UNITED STATES TREAS NTS .625% DUE 05-15-2030 REG	Government Bonds	4,036,219	0.55%
US TREASURY N/B 1.25% DUE 08-15-2031 REG	Government Bonds	4,023,414	0.55%
Total		**$ 60,176,866**	**8.15%**

Note: A complete listing of the portfolio holdings is available for review at the Fund office.

Components may not sum to totals due to rounding.

Source: Northern Trust Custody Statements

Domestic Equity Brokerage Commissions

As of December 31, 2022

Broker Name	Commissions	Shares
TELSEY ADVISORY GROUP*	$ 31,407	631,185
PENSERRA SECURITIES LLC*	24,840	1,864,172
LOOP CAPITAL MARKETS LLC*	20,756	691,542
CL KING*	17,495	352,945
MORGAN STANLEY & CO. LLC	11,606	247,825
CANTOR FITZGERALD & CO.	8,109	277,619
J.P. MORGAN SECURITIES LLC	7,755	173,634
PIPER JAFFRAY & CO	7,608	190,311
WILLIAMS CAPITAL GROUP L.P.,THE*	7,538	398,887
CABRERA CAPITAL MARKETS LLC*	7,028	378,865
WILLIAM BLAIR & COMPANY, L.L.C.	6,279	125,580
JONESTRADING INSTITUTIONAL SERVICES, LLC.	6,096	205,263
RBC CAPITAL MARKETS, LLC	5,819	301,626
ROBERT W. BAIRD & CO. INCORPORATED	5,136	105,055
PERSHING LLC	4,821	241,120
CASTLEOAK SEC / CANTOR CLEARING*	4,504	225,216
RAYMOND JAMES & ASSOCIATES, INC.	4,141	109,201
ACADEMY SECURITIES INC.*	3,682	184,081
NEEDHAM AND COMPANY LLC	3,679	77,860
KEYBANC CAPITAL MARKETS INC	3,589	74,492
STIFEL, NICOLAUS & COMPANY, INCORPORATED	3,528	72,920
CANACCORD GENUITY INC.	3,456	75,831
SUNTRUST CAPITAL MARKETS INC.	3,132	62,645
JEFFERIES LLC	2,879	203,186
OPPENHEIMER & CO. INC.	2,699	54,736
CRAIG HALLUM	2,568	51,350
INSTINET, LLC	2,401	234,460
STEPHENS INC	2,386	47,710
BOFA SECURITIES, INC.	1,948	101,829
BLAYLOCK ROBERT VAN LLC	1,847	92,333
VIRTU AMERICAS LLC	1,175	82,524
SANFORD C. BERNSTEIN & CO., LLC	1,040	240,599
UBS AG STAMFORD BRANCH	1,009	46,318
ITG INC.	834	98,095
STATE STREET GLOBAL MARKETS LLC	709	70,892
LIQUIDNET INC	674	75,062
LUMINEX TRADING AND ANALYTICS	584	146,263
CREDIT SUISSE SECURITIES (USA) LLC	552	66,053
FIDELITY CAPITAL MARKETS (DIV OF NFSC)	479	119,789
WELLS FARGO BANK MINNESOTA NA	416	24,456
GOLDMAN, SACHS & CO.	298	11,528
COWEN AND COMPANY, LLC	248	13,482
BMO CAPITAL MARKETS CORP.	200	49,946
Other Brokers	644	34,175
Total	**$ 227,592**	**8,932,661**

** Women, minority, or disabled-owned brokerage firm.*

Components may not sum to totals due to rounding.

Source: Northern Trust Custody Statements

International Equity Brokerage Commissions

As of December 31, 2022

Broker Name	Commissions	Shares
CLSA LIMITED	$ 27,936	13,670,753
INSTINET EUROPE LIMITED	27,829	10,290,366
MORGAN STANLEY AND CO., LLC	22,768	6,649,124
CLSA SINGAPORE PTE LTD.	19,469	2,287,183
PERSHING LLC	18,724	515,340
CITIGROUP GLOBAL MARKETS EUROPE AG	17,306	641,361
MERRILL LYNCH INTERNATIONAL LIMITED	15,282	2,195,525
JEFFERIES LLC.	12,491	4,130,415
UBS AG LONDON BRANCH	12,035	3,322,760
BANK OF AMERICA CORPORATION	11,745	754,096
WILLIAMS CAPITAL GROUP L.P.,THE*	11,297	44,909
UBS SECURITIES ASIA LIMITED	9,218	4,030,082
DAIWA CAPITAL MARKETS AMERICA INC.	8,310	281,027
HSBC SECURITIES (USA) INC.	7,997	4,681,993
LOOP CAPITAL MARKETS LLC*	7,841	301,636
CITIGROUP GLOBAL MARKETS LIMITED	7,642	1,072,748
GOLDMAN, SACHS AND CO.	6,594	1,736,617
INSTINET PACIFIC LIMITED	6,520	25,808,791
MACQUARIE SECURITIES AUSTRALIA LTD	6,294	3,205,440
INSTINET, LLC	5,967	1,047,293
CLSA UK	5,957	67,598
MIZUHO SECURITIES USA INC.	5,809	211,224
J.P. MORGAN SECURITIES PLC	5,644	700,672
BANCO BTG PACTUAL S.A.	5,631	1,302,600
KEPLER CAPITAL MARKETS	5,599	1,249,717
CREDIT SUISSE SECURITIES (USA) LLC	5,297	2,854,989
SANFORD C. BERNSTEIN AND CO., LLC	5,247	669,198
JOH. BERENBERG,GOSSLER UND CO.KG	4,885	408,370
JPMORGAN SECURITIES (ASIA PACIFIC)	4,740	2,670,784
HSBC BANK PLC	4,256	2,589,636
BANK OF AMERICA MERRILL LYNCH SECS	3,898	225,517
PAREL	3,873	205,187
EXANE S.A.	3,844	265,154
PERSHING SECURITIES LIMITED	3,826	579,884
CREDIT LYONNAIS SECS(ASIA) TAIWAN	3,532	896,300
Other Brokers	134,706	31,850,166
Total	**$ 470,009**	**133,414,455**

** Women, minority, or disabled-owned brokerage firm.*

Components may not sum to totals due to rounding.

Source: Northern Trust Custody Statements

Investment Fees

As of December 31, 2022 (in thousands)

	2022	2021
Investment Management Fees	**Fees**	**Fees**
Fixed Income	$ 1,973	$ 2,096
Domestic Equity	1,279	1,357
International Equity	2,858	3,718
Global Equity	1,268	1,616
Hedged Equity	2,822	2,125
Real Estate	2,963	2,855
Infrastructure	1,184	1,145
Private Equity	493	835
Private Debt	14	-
	$ 14,855 (1)	$ 15,747 (2)
Other Investment Fees		
Investment consultant	$ 290	$ 290
Master custodian	273	314
Legal	-	(2)
	$ 563	$ 602
Total Investment Fees	**$ 15,418**	**$ 16,349**

(1) Investment management fees for 2022 represent approximately 47 bps of total investments.

(2) Investment management fees for 2021 represent approximately 42 bps of total investments.

For a schedule of investment fees by category, please refer to the schedule "Investment Management Compensation" in the financial section on pages 61-63.

Components may not sum to totals due to rounding.

Actuarial

All schedules listed for the Actuarial Section are prepared by the Actuaries.

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May 11, 2023

The Retirement Board of the
Municipal Employees' Annuity and Benefit Fund of Chicago
321 North Clark Street, Suite 700
Chicago, Illinois 60654-4767

Dear Board Members:

We are pleased to submit this annual Actuarial Valuation and Review as of December 31, 2022. It summarizes the actuarial data used in the valuation; establishes the statutorily required contribution for 2024 (payable in 2025), the actuarially determined contribution for the year ending December 31, 2023 under the Board's funding policy, the net pension liability under Governmental Accounting Standards Board (GASB) Statement No. 67 as of December 31, 2022, the pension expense for the fiscal year ending December 31, 2022, under GASB Statement No. 68, the net OPEB liability as of December 31, 2022, under GASB Statement No. 74, and the OPEB expense for the fiscal year ending December 31, 2022, under GASB Statement No. 75; and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Municipal Employees' Annuity and Benefit Fund of Chicago (MEABF or Fund or Plan).

Asset and Membership Data

The census information and financial information on which our calculations were based was prepared by the Fund staff. That assistance is gratefully acknowledged. We have not subjected the census data to any auditing procedures but have examined the data for reasonableness and consistency with the prior year's data.

Actuarial Assumptions and Methods

The actuarial assumptions and methods are set by the Board of Trustees, based upon recommendations made by the Fund's actuary. The assumptions and methods used for the December 31, 2022, actuarial valuation are based on an experience analysis covering the five-year period ending December 31, 2021, and were adopted by the Board, effective December 31, 2022. These actuarial assumptions and methods comply with the parameters set by the Actuarial Standards of Practice for funding purposes and the parameters for disclosure of GASB 67, 68, 74 and 75. Further, in our opinion, the assumptions as approved by the Board appear to be reasonably related to the experience of the Fund. The investment return assumption is based on the Fund being invested according to the target asset allocation in the Investment Policy Statement. **To the extent that the liquidation of assets to pay benefit payments and expenses requires a shift in investment allocation to more liquid, lower return asset classes, a lower discount rate may be required in the future.**

Funding Adequacy

MEABF is funded by employer and member contributions in accordance with the funding policy specified under the Illinois Pension Code (40 ILCS 5/8), which was revised on July 6, 2017 by Public Act 100-0023. Starting in payment year 2023, employer contributions are calculated as the sum of the employer normal cost for that fiscal year plus an amount determined as a level percent of payroll sufficient to bring the total assets of the Fund up to 90% of the actuarial accrued liability by the end of 2058. **Given the low funded ratio and the expected timing of employer contributions, the Fund is still at risk of potential insolvency if an economic recession or investment market downturn were to occur in the near term. We strongly recommend an actuarial funding method that targets 100% funding where payments at least cover interest on the unfunded actuarial liability and a portion of the principal balance.** If the Fund becomes insolvent, the employer will be required to make contributions on a "pay-as-you-go" basis, which means the employer would have to pay all benefits as they become due.

Financial Results and Membership Data

This report includes the following schedules for the Actuarial and Financial sections of the Comprehensive Annual Financial Report which were prepared by Segal:

- Actuarial
  - Active Member Valuation Data
  - Retirees and Beneficiaries Added to and Removed from Rolls
  - Solvency Test
  - Analysis of Financial Experience
- Financial
  - Schedule of Funding Progress
  - Schedule of Employer Contributions

Limitation of Actuarial Measurements

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

Qualifications

The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in my opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

Sincerely,

Matthew A. Strom

Matthew A. Strom, FSA, MAAA, EA
Senior Vice President and Actuary

Actuarial Valuation Summary

Purpose

This report has been prepared by Segal to present a valuation of the Municipal Employees' Annuity and Benefit Fund of Chicago (MEABF or Fund or Plan) as of December 31, 2022. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Fund, as outlined in 40 ILCS 5/8 and administered by the Retirement Board;
- The characteristics of covered active members, inactive vested members, and retirees and beneficiaries as of December 31, 2022, provided by MEABF staff;
- The assets of the Plan as of December 31, 2022, provided by MEABF staff;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Valuation Highlights

The following key findings were the result of this actuarial valuation:

1. **MEABF remains at risk of having to liquidate invested assets at inopportune times to pay monthly benefits due to the current low funding level and expected timing of employer contributions. Future unfavorable investment performance could lead to the Fund not meeting its financial objectives.**
2. An experience review was performed after the last valuation. As a result of this study, the following assumption changes have been adopted for this valuation:
   i) Investment return assumption was lowered from 7.00% to 6.75%.
   ii) Salary scale rates were generally increased. Separate salary scales for Board of Education (BoE) members and Non-Board of Education members were developed.
   iii) Post-retirement mortality was changed from RP-2014 Healthy Annuitant Mortality Table, set forward two years for males and one year for females to PubG-2010 Retiree Amount-weighted Below Median mortality Tables (sex-specific), using 117% of the rates for females and 111% of the rates for males.
   iv) Beneficiary mortality was changed from RP-2014 Healthy Annuitant Mortality Table, set forward two years for males and one year for females to PubG-2010 Contingent Survivor Table Amount-weighted Below Median Mortality table (sex-specific), using 111% of the rates for females and 113% of the rates for males.
   v) Pre-retirement mortality was changed from 120% of the RP-2014 Employee Tables (sex-specific) to PubG-2010 Employee Amount-weighted Below Median mortality table (sex-specific), using 92% of the rates for females and 90% of the rates for males.
   vi) Mortality improvement scale was changed from generational projection using Scale MP-2016 to generational projection using Scale MP-2021.
   vii) Retirement rates for Tier 1 members were adjusted based on plan experience.
   viii) Termination rates were adjusted based on plan expereince. Separate termination rates for BoE members and Non-Boe members were developed.
   ix) Normal cost load for ordinary and duty disability was lowered from 0.75% of payroll to 0.60% of payroll. These changes decreased the actuarial accrued liability by $210.9 million, or 1.1%

and the actuarially determined contribution requirement by 1.8%, and increased the funded ratio based on the actuarial value of assets by 0.26% from 22.54% to 22.80%.

3. For the year ended December 31, 2022, Segal has estimated the asset return on a fair value basis to be -11.0%. After gradual recognition of investment gains and losses under the actuarial smoothing method, the actuarial rate of return was 4.4%. This represents an experience loss when compared to the assumed rate of 7.0% (which was the assumed rate of return for the year ended December 31, 2022). As of December 31, 2022, the actuarial value of assets ($4.27 billion) represents 108% of the fair value ($3.95 billion).
4. The fair value of assets, as of December 31, 2022, is $3.95 billion, which includes $3.17 billion of investments and $765 million of employer contributions receivable. As the employer contributions increase in the future, the receivable employer contributions will become a larger percentage of the reported fair value of assets in the near-term.
5. The funded ratio based on the actuarial value of assets over the actuarial accrued liability as of December 31, 2022, is 22.8%, compared to 22.0% as of December 31, 2021. Using the fair value of assets, the funded ratio as of December 31, 2022, is 21.1%, compared to 23.4% as of December 31, 2021.
6. As shown in Chart 13, for the fiscal year beginning January 1, 2023, the actuarially determined contribution (ADC) for pension benefits based on the Board's funding policy is $1,273,344,843. By statute, the expected employer contribution for 2023 (payable in 2024) is $976,027,541. **Compared to the actuarially determined contribution of $1,273,344,843, the contribution deficiency is $297,317,302. Each year there is a contribution deficiency leads to an increased deficiency in all future years.**
7. As part of the City's Pension Management Policy, the City of Chicago agreed to make a supplemental contribution of $101,640,000 during 2023. Since this is a supplemental contribution, it will not count toward the required statutory contribution. This supplemental contribution was not included in the fair value of assets as of December 31, 2022, but is included in the contributions for 2023 for projection purposes.
8. The total statutorily required contribution for 2022 (payable in 2023) was $959,998,227. The City of Chicago prepaid $234 million of the total statutorily required contribution during 2022. The remaining amount will be paid in 2023.
9. When measuring pension liability for GASB purposes, the Entry Age actuarial cost method is used, which is the same method that is used for funding purposes. However, as of December 31, 2022, the GASB blended discount rate calculation results in a lower discount rate (6.57%) then is used for funding purposes. This means that the total pension liability (TPL) measure for financial reporting shown in this report will be different then the actuarial accrued liability (AAL) measure for funding. We note that the same is true for the normal cost component of the annual plan cost for funding and financial reporting.
10. The net pension liability (NPL) is equal to the difference between the TPL and the Plan's fiduciary net position. The Plan's fiduciary net position is equal to the fair value of assets. The NPL increased from $14,093,310,948 as of December 31, 2021, to $15,156,099,444 as of December 31, 2022. The increase in the NPL is primarily due to assets returning less than the assumed 7.0% and a blended interest rate being utilized to calculate the Total Pension Liability.

11. City of Chicago employee annuitants that were hired prior to July 1, 2003, (both current and future employee annuitants, but not spouse or child annuitants) are entitled to receive a health care insurance premium subsidy of $25 per month if the annuitant participates in a group health care plan for which the Fund offers to deduct health insurance premiums from monthly annuities. As directed by Fund staff, we have treated the health care insurance premium subsidy as being paid from plan assets. For purposes of developing employer contributions, expected future subsidies are included in projected benefit payments and the cost is included in the statutorily required contributions based on the 90% funding target in 2058. The City may wish to consider a separate funding source for the health insurance subsidy. At a minimum, the additional contribution would be equal to expected amount of subsidy payments each year; in effect, funding the health care insurance premium subsidy on a pay-as-you-go basis. The total liability for this benefit decreased from $16.4 million as of December 31, 2021, to $6.6 million as of December 31, 2022, due to an assumption change regarding the assumed election percentage among those eligible for the subsidy (prior assumption was that 50% of eligible members participated in the Plan-sponsored health care and was updated to 25% of members participate based on recent experience) in addition to the assumption changes made associated with the experience analysis covering the five-year period ending December 31, 2021. This is reported as an OPEB liability under GASB 74/75.

12. As indicated in Section 2, Subsection B of this report, the total unrecognized investment loss as of December 31, 2022, is $323,181,365. This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment gains derived from future experience. This implies that earning the assumed rate of investment return of 6.75% per year (net of expenses) on a fair value basis will result in investment losses on the actuarial value of assets in the next few years.

13. The current method used to determine the actuarial value of assets yields an amount that is 108.2% of the fair value of assets as of December 31, 2022. Guidelines in Actuarial Standards of Practice No. 44 (Selection and Use of Asset Valuation Methods for Pension Valuations) recommend that asset values fall within a reasonable range around the corresponding fair value. We believe the actuarial asset method currently complies with these guidelines.

14. This actuarial valuation report as of December 31, 2022, is based on financial data as of that date. Changes in the value of assets subsequent to that date are not reflected.

Summary of Key Valuation Results

		2022	2021
Funding ratios as of December 31:			
Actuarial accrued liability*		$18,759,634,094	$18,418,022,892
Fair value of assets		3,951,788,039	4,308,269,024
Unfunded actuarial accrued liability on a fair value basis		14,807,846,055	14,109,753,868
Funded ratio on a fair value basis		21.07%	23.39%
Actuarial value of assets		$4,274,969,404	$4,041,929,111
Unfunded actuarial accrued liability on an actuarial value basis		14,484,664,690	14,376,093,781
Funded ratio on an actuarial value basis		22.79%	21.95%
Book value of assets		$3,541,795,167	$3,430,633,202
Unfunded actuarial accrued liability on a book value basis		15,217,838,927	14,987,389,690
Funded ratio on a book value basis		18.88%	18.63%
Demographic data as of December 31:			
Number of retirees and beneficiaries		25,894	25,683
Number of inactive members		22,586	21,304
Number of active members		35,369	32,925
Total pensionable salary supplied by the Fund		$2,166,181,666	$2,001,180,743
Average pensionable salary		$61,245	$60,780
Contribution requirement for Fiscal Year:	**2024**	**2023**	**2022**
Statutory City contribution**	$941,017,242	$976,027,541	$959,998,227
Actuarially determined contribution requirment***	N/A	1,273,344,843	1,262,413,314

**Includes pension and OPEB. OPEB liabilities are calculated at the Municipal Bond-Index Rate (2.06% for 2021 and 3.72% for 2022)*

***As established by Public Act 100-0023. City contributions are shown in the year that they will be booked.*
The contributions will be paid in the following year and do not include any Advance pension Payments.

****Based on the Board's funding policy*

Summary of Key Valuation Results - Pension

	2023	2022
Contributions for plan year beginning January 1:		
Actuarially determined contribution requirement	$1,273,344,843	$1,262,413,314
Expected employer contributions	976,027,541	959,998,227
Actual employer contributions*	-	959,999,000
Funding elements for plan year beginning January 1:		
Employer normal cost, including administrative expenses, adjusted for timing	$135,775,060	$105,220,696
Fair value of assets	3,951,788,039	4,308,269,024
Actuarial value of assets	4,274,969,404	4,041,929,111
Actuarial accrued liability	18,752,996,441	18,401,579,972
Unfunded actuarial accrued liability on an actuarial value basis	14,478,027,037	14,359,650,861
Funded ratio on an actuarial value basis	22.80%	21.97%
GASB information as of December 31 of the prior year:		
Long-term expected rate of return	6.75%	7.00%
Municipal bond index	3.72%	2.06%
Single equivalent discount rate	6.57%	7.00%
Total pension liability	$19,107,887,483	$18,401,579,972
Plan fiduciary net position	3,951,788,039	4,308,269,024
Net pension liability	15,156,099,444	14,093,310,948
Plan fiduciary net position as a percentage of total pension liability	20.68%	23.41%

**Receivable amount to be paid the following year. Includes $234 million for 2023 that was prepaid during 2022.*

Summary of Key Valuation Results - OPEB

Contributions for plan year beginning January 1:		
Actuarially determined contribution requirement	N/A	N/A
Expected employer contributions	-	-
Actual employer contributions	-	-
Funding elements for plan year beginning January 1:		
Employer normal cost, including administrative expenses, adjusted for timing	$21,445	$79,139
Fair value of assets	-	-
Actuarial value of assets	-	-
Actuarial accrued liability	$6,637,653	$16,442,920
Unfunded actuarial accrued liability on an actuarial value basis	$6,637,653	$16,442,920
Funded ratio on an actuarial value basis	0.0%	0.0%
GASB information as of December 31 of the prior year:		
Discount rate	3.72%	2.06%
Total OPEB liability	$6,637,653	$16,442,920

Summary of Key Valuation Results

The valuation was made with respect to the following data supplied to us:

1. Pensioners as of the valuation date (including 4,074 beneficiaries)		25,894
2. Members inactive during year ended December 31, 2022 with vested rights		2,182
3. Members active during the year ended December 31, 2022		35,369
Fully vested	12,929	
Not vested	22,440	
4. Other non-vested inactive members as of the valuation date		20,404

Determination of Actuarial Accrued Liability*:

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
1. Active members			
a. Retirement benefits	$ 8,089,631,008	$ 1,833,352,188	$ 6,256,278,820
b. Death benefits	103,321,798	39,673,536	63,648,262
c. Withdrawal benefits	996,411,698	757,730,264	238,681,434
d. Total	9,189,364,504	2,630,755,988	6,558,608,516
2. Inactive vested members	527,156,412	-	527,156,412
3. Inactive non-vested members	198,473,488	-	198,473,488
4. Retirees and beneficiaries	11,468,758,025	-	11,468,758,025
5. Total	$ 21,383,752,429	$ 2,630,755,988	$ 18,752,996,441

Determination of Unfunded Actuarial Accrued Liability:

1. Actuarial accrued liability	$ 18,752,996,441
2. Actuarial value of assets ($3,951,788,039 at fair value)	4,274,969,404
3. Unfunded actuarial accrued liability	$ 14,478,027,037

**Excludes OPEB liabilities*

Summary of Actuarial Valuation Results (Continued)

Components of normal cost:	Tier 1		Tier 2		Tier 3		Total	
	% of Payroll	Amount	% of Payroll	Amount	% of Payroll	Amount	% of Payroll	Amount
1 Retirement	12.03%	$130,321,856	6.76%	$28,375,001	7.29%	$56,952,422	9.44%	$215,649,279
2 Turnover	3.61%	39,122,140	3.23%	13,564,511	3.79%	29,637,650	3.60%	82,324,301
3 Mortality	0.19%	2,109,985	0.22%	935,318	0.20%	1,519,318	0.20%	4,564,621
4 Disability	0.60%	6,500,680	0.60%	2,520,662	0.60%	4,687,638	0.60%	13,708,980
5 Total normal cost: (1) + (2) + (3) + (4)	16.43%	$178,054,661	10.81%	$45,395,492	11.88%	$92,797,028	13.84%	$316,247,181
6 Total normal cost, adjusted for timing*	16.98%	183,965,883	11.16%	46,902,573	12.27%	95,877,788	14.30%	326,746,244
7 Administrative expenses	0.30%	3,259,368	0.30%	1,263,832	0.30%	2,350,329	0.30%	6,873,529
8 Total normal cost, including administrative expenses: (6) + (7)	17.28%	$187,225,251	11.47%	$48,166,405	12.57%	$98,228,117	14.60%	$333,619,773
9 Expected employee contributions**							-8.85%	($202,207,460)
10 Employer normal cost: (8) + (9)							5.75%	$131,412,313
11 Employer normal cost, adjusted for timing***							5.94%	$135,775,060

** Reflects timing adjustment to the middle of the year. Excludes OPEB*

*** Based on payroll, adjusted to the middle of the year*

**** Reflects timing adjustment to the end of the year*

Actuarially Determined Contribution - Pension

		Year Beginning January 1, 2023	
		Amount	% of Payroll
1	Total normal cost*	$326,746,244	14.30%
2	Administrative expenses	6,873,529	0.30%
3	Expected employee contributions**	(202,207,460)	-8.85%
4	Employer normal cost: (1) + (2) + (3)	131,412,313	5.75%
5	Employer normal cost, adjusted for timing***	135,775,060	5.94%
6	Actuarial accrued liability****	18,752,996,441	
7	Actuarial value of assets	4,274,969,404	
8	Unfunded/(overfunded) actuarial accrued liability: (6) - (7)	14,478,027,037	
9	Payment on unfunded actuarial accrued liability, adjusted for timing***	1,137,569,783	49.79%
10	Actuarially determined contribution: (5) + (9)	$1,273,344,843	55.73%
11	Projected payroll	$2,284,830,059	

** Reflects timing adjustment to the middle of the year. Excludes OPEB Liabilities*

*** Based on payroll, adjusted to the middle of the year*

**** Employer contributions are assumed to be paid at the end of the year*

*****Excludes OPEB liabilites*

Plan Membership

	December 31, 2022	December 31, 2021
Active Members		
Number*	35,369	32,925
Tier 1	14,376	15,238
Tier 2	6,462	6,785
Tier 3	14,531	10,902
Vested	12,929	13,198
Non-vested	22,440	19,727
Average age	45.20	45.80
Average years of service	9.80	10.50
Average annual salary	$61,245	$60,780
Inactive Members		
Number	22,586	21,304
Average age	47.40	47.36
Average years of service	3.65	3.74
Retirees		
Number	21,820	21,573
Average age	73.40	73.30
Average annual benefit	$44,724	$43,392
Deferred	0	0
Surviving		
Number	3,856	3,880
Average age	78.30	78.30
Average annual benefit	$17,856	$17,220
Reversionary annuitants		
Number	130	131
Average age	73.40	71.50
Average annual benefit	$4,872	$4,752
Children	88	99
Total members	83,849	79,912

**Includes 273 and 232 members receiving disability benefits for 2021 and 2022, respectively*

Actuarial Experience

To calculate the actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. Overall favorable experience relative to the assumptions (an actuarial gain) causes a decrease in the contribution requirement. On the other hand, overall less favorable experience relative to the assumptions (an actuarial loss) causes an increase in the contribution requirement.

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss is $177,919,931; $94,343,533 from investment losses and $83,576,398 in losses from all other sources. The net experience variation from individual sources other than investments was approximately 0.5% of the actuarial accrued liability.

This chart provides a summary of the actuarial experience during the past year:

Actuarial Experience for Year Ended December 31, 2022

1	Net gain/(loss) from investments	($94,343,533)
2	Net gain/(loss) from administrative expenses	(186,190)
3	Net gain/(loss) from other experience	(83,390,208)
4	Net experience gain/(loss): (1) + (2) + (3)	($177,919,931)

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the MEABF's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets for the 2022 Plan Year was 7.0%. The assumed rate of return on the actuarial value of assets for 2023 and thereafter was changed to 6.75% in this year's valuation. The actual rate of return on an actuarial basis for the 2022 plan year was 4.40%. Since the actual return for the year was less than the assumed return, the Fund experienced an actuarial loss during the year ended December 31, 2022, with regard to its investments.

Actuarial Value Investment Experience for Year Ended December 31, 2022	
1. Actual return	$159,609,130
2. Average value of assets	3,627,895,193
3. Actual rate of return: (1) ÷ (2)	4.40%
4. Assumed rate of return	7.00%
5. Expected return: (2) x (4)	253,952,663
6. Actuarial gain/(loss): (1) – (5)	($94,343,533)

Administrative Expenses

Administrative expenses for the year ended December 31, 2022, totaled $6,873,529 compared to the assumption of $6,687,339. This resulted in a loss of $186,190 for the year.

Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among participants,
- retirement experience (earlier or later than projected),
- mortality (more or fewer deaths than projected),
- the number of disability retirements (more or fewer than projected), and
- salary increases (greater or smaller than projected).

The net loss from this other experience for the year ended December 31, 2022, amounted to $83,390,208, which is approximately 0.5% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the Fund for the year ended December 31, 2022, is shown in the chart below.

Experience Gain/(Loss) Due to Changes in Demographics for Year Ended December 31, 2022

1.	Less turnover than expected	($788,719)
2.	More or earlier retirement than expected	(58,861,306)
3.	More deaths than expected among retirees and beneficiaries	40,591,666
4.	Greater salary/service increases than expected for continuing actives	(58,034,441)
5.	New entrants	(23,441,804)
6.	Demographic gain associated with OPEB liability	(30,922)
7.	Miscellaneous	17,175,318
8.	Total	($83,390,208)

Development of Unfunded Actuarial Accrued Liability

	Year Ending December 31				
	2022	2021	2020	2019	2018
1 Unfunded actuarial accrued liability at beginning of year*	$14,376,093,781	$13,870,189,046	$13,283,443,186	$12,612,970,144	$11,825,624,451
2 Normal cost at beginning of year*	270,536,594	253,120,123	243,081,392	234,883,135	229,786,056
3 Total contributions	(1,136,337,741)	(737,111,898)	(656,396,614)	(567,645,216)	(487,973,984)
4 Interest					
(a) Unfunded actuarial accrued liability and normal cost	$1,025,264,126	$988,631,642	$946,856,721	$899,349,730	$843,878,736
(b) Total contributions	(8,115,034)	(5,622,649)	(7,330,997)	(5,045,776)	(4,762,064)
(c) Total interest: (4a) + (4b)	1,017,149,092	983,008,993	939,525,724	894,303,954	839,116,672
5 Expected unfunded actuarial accrued liability:	$14,527,441,726	$14,369,206,264	$13,809,653,688	$13,174,512,017	$12,406,553,195
(1) + (2) + (3) + (4c)					
6 Changes due to (gain)/loss from:					
(a) Investments	$94,343,533	($96,656,744)	($35,846,593)	$53,467,350	$110,783,177
(b) Demographics and other	83,576,398	119,987,181	96,381,951	19,524,907	95,633,772
(c) Total changes due to (gain)/loss: (6a) + (6b)	177,919,931	23,330,437	60,535,358	72,992,257	206,416,949
7 Change due to plan provisions	0	0	0	35,938,912	0
8 Change in actuarial assumptions	(220,696,967)	(16,442,920)	0	0	0
9 Unfunded actuarial accrued liability at end of year*:	$14,484,664,690	$14,376,093,781	$13,870,189,046	$13,283,443,186	$12,612,970,144
(5) + (6c) + (7) + (8)					

Includes pension and OPEB liabilities for years ended December 31, 2019, and each year thereafter.

Development of Employer Costs

In order to evaluate the sufficiency of the statutorily required employer contribution, the Board has established an actuarially determined contribution funding policy. The amount of actuarially determined contribution is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability. This total amount is then divided by the projected payroll for active members to determine the actuarially determined contribution of 55.73% of payroll. The actuarially determined contribution is based on a 30-year, level dollar amortization of the unfunded actuarial accrued liability. A 30-year "rolling" amortization will never fully fund the unfunded actuarial accrued liability. Segal and the Board are beginning the process of reviewing the funding policy in light of current model practice with respect to actuarial funding policies for public sector retirement plans.

Actuarially Determined Contribution - Pension

		Year Beginning January 1, 2023	
		Amount	% of Payroll
1	Total normal cost*	$326,746,244	14.30%
2	Administrative expenses	6,873,529	0.30%
3	Expected employee contributions**	(202,207,460)	-8.85%
4	Employer normal cost: (1) + (2) + (3)	131,412,313	5.75%
5	Employer normal cost, adjusted for timing***	135,775,060	5.94%
6	Actuarial accrued liability****	18,752,996,441	
7	Actuarial value of assets	4,274,969,404	
8	Unfunded/(overfunded) actuarial accrued liability: (6) - (7)	14,478,027,037	
9	Payment on unfunded actuarial accrued liability, adjusted for timing***	1,137,569,783	49.79%
10	Actuarially determined contribution: (5) + (9)	$1,273,344,843	55.73%
11	Projected payroll	$2,284,830,059	

** Reflects timing adjustment to the middle of the year. Excludes OPEB Liabilities*

*** Based on payroll, adjusted to the middle of the year*

**** Employer contributions are assumed to be paid at the end of the year*

*****Excludes OPEB liabilites*

The contribution requirements as of December 31, 2022, are based on all the data described in the previous sections, the actuarial assumptions and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses, and changes in the actuarial assumptions.

Development of Employer Costs (continued)

Reconciliation of Actuarially Determined Contribution

The chart below details the changes in the actuarially determined contribution from the prior valuation to the current year's valuation:

Reconciliation of Actuarially Determined Contributions from December 31, 2021 to December 31, 2022	
Actuarially Determined Contribution as of December 31, 2021	**$1,262,413,314**
Effect of plan amendment	0
Effect of change in asset method	0
Effect of expected change in amortization payment due to payroll growth	0
Effect of rolling amortization period	(12,665,498)
Effect of change in administrative expense assumption	192,371
Effect of change in other actuarial assumptions	(23,152,597)
Effect of contributions (more)/less than actuarially determined contribution	25,419,109
Effect of investment (gain)/loss	7,684,154
Effect of other (gains)/losses on accrued liability	6,908,047
Effect of net other changes: (gain)/loss	6,545,943
Total change	10,931,529
Actuarially Determined Contribution as of December 31, 2022	**$1,273,344,843**

Comparison of Employer Contribution to Actuarially Determined Contribution

Plan Year Ended December 31	Actuarially Determined Contributions (ADC)*	Actual Contributions**	Percentage Contributed
2013	$834,398,482	$157,704,971	18.9%
2014	848,864,496	158,797,631	18.7%
2015	686,373,727	157,716,475	23.0%
2016	970,112,414	157,444,029	16.2%
2017	1,005,456,621	261,763,635	26.0%
2018	1,049,915,647	349,574,257	33.3%
2019	1,117,387,759	421,000,000	37.7%
2020	1,167,153,830	498,598,904	42.7%
2021	1,218,360,892	573,701,021	47.1%
2022	1,262,413,314	959,999,000	76.0%
2023	1,273,344,843	--	--

** Prior to 2015, this amount was the Annual Required Contribution (ARC) and included both pension and OPEB.*

***Receivable amount to be paid the following year. A portion of the 2020 payment was made during calendar year 2020 and a portion of the 2022 payment was made during calendar year 2022.*

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)* (b)	Unfunded (Overfunded) AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
12/31/2013	$5,114,207,803	$13,828,920,032	$8,714,712,229	36.98%	$1,580,288,709	551.46%
12/31/2014	5,039,297,432	12,307,094,062	7,267,796,630	40.94%	1,602,977,593	453.39%
12/31/2015	4,815,126,844	14,647,114,971	9,831,988,127	32.87%	1,643,480,973	598.24%
12/31/2016	4,590,366,241	15,055,348,696	10,464,982,455	30.49%	1,646,939,238	635.42%
12/31/2017	4,456,771,744	16,282,396,195	11,825,624,451	27.37%	1,686,532,720	701.18%
12/31/2018	4,195,644,172	16,808,614,316	12,612,970,144	24.96%	1,734,595,691	727.25%
12/31/2019	4,012,852,196	17,260,356,470	13,247,504,274	23.25%	1,802,790,156	734.83%
12/31/2020	3,977,037,893	17,814,812,242	13,837,774,349	22.32%	1,861,905,323	743.21%
12/31/2021	4,041,929,111	18,401,579,972	14,359,650,861	21.97%	2,001,180,743	717.56%
12/31/2022	4,274,969,404	18,752,996,441	14,478,027,037	22.80%	2,166,181,666	668.37%

Excludes OPEB

Solvency Test

Actuarial Valuation Date	(1) Active and Inactive Member Contribution	(2) Retirees and Beneficiaries	(3) Active and Inactive Members (ER Financial Portion)	Actuarial Value of Assets	Portion (%) of Present Value Covered By Assets (1)	(2)	(3)
12/31/2013	$1,763,193,047	$7,938,850,949	$4,154,449,370	$5,114,207,803	100.00%	42.21%	0.00%
12/31/2014	1,816,477,893	7,029,523,772	3,478,587,338	5,039,297,432	100.00%	45.85%	0.00%
12/31/2015	1,874,982,804	8,427,968,220	4,352,310,693	4,815,126,844	100.00%	34.89%	0.00%
12/31/2016	1,918,150,355	8,725,032,932	4,412,165,409	4,590,366,241	100.00%	30.63%	0.00%
12/31/2017	1,952,652,300	9,905,000,389	4,424,743,506	4,456,771,744	100.00%	25.28%	0.00%
12/31/2018	1,992,398,627	10,308,704,123	4,507,511,566	4,195,644,172	100.00%	21.37%	0.00%
12/31/2019*	2,049,285,500	10,648,208,601	4,598,801,281	4,012,852,196	100.00%	18.44%	0.00%
12/31/2020*	2,127,044,611	10,919,860,748	4,800,321,580	3,977,037,893	100.00%	16.94%	0.00%
12/31/2021*	2,176,979,366	11,325,872,685	4,915,170,841	4,041,929,111	100.00%	16.47%	0.00%
12/31/2022*	2,227,955,939	11,474,011,008	5,057,667,147	4,274,969,404	100.00%	17.84%	0.00%

Includes pension and OPEB

Reconciliation of Member Data

	Active Members*	Inactive Members	Retirees	Beneficiaries	Total
Number as of December 31, 2021	32,925	21,304	21,573	4,110	79,912
New members	5,646	N/A	N/A	N/A	5,646
Terminations	-2,075	2,075	0	0	0
Retirements	-866	-248	1,114	N/A	0
Died with beneficiary	-35	-7	-198	240	0
Died without beneficiary	-24	-11	-676	-303	-1,014
Refunds	-619	-201	0	0	-820
Rehire	417	-417	0	N/A	0
Net transfers	0	92	0	0	92
Temporary annuity expired	N/A	N/A	-3	-16	-19
Data adjustment	0	-1	10	43	52
Number as of December 31, 2022	35,369	22,586	21,820	4,074	83,849

**Includes members receiving disability benefits*

History of Active Member Valuation Data

Actuarial Valuation Date	Active Members	Percent increase	Annual Salaries	Percent increase	Average Salary	Percent increase	CPI Chicago*
12/31/2013	30,647	(2.17%)	$1,580,288,709	(0.66%)	51,564	1.54%	0.51%
12/31/2014	30,160	(1.59%)	1,602,977,593	1.44%	53,149	3.07%	1.48%
12/31/2015	30,683	1.73%	1,643,480,973	2.53%	53,563	0.78%	0.00%
12/31/2016	30,296	(1.26%)	1,646,939,238	0.21%	54,362	1.49%	1.86%
12/31/2017	30,922	2.07%	1,686,532,720	2.40%	54,542	0.33%	1.66%
12/31/2018	31,285	1.17%	1,734,595,691	2.85%	55,445	1.66%	1.07%
12/31/2019	32,162	2.80%	1,802,790,156	3.93%	56,053	1.10%	2.23%
12/31/2020	31,327	(2.60%)	1,861,905,323	3.28%	59,435	6.03%	0.89%
12/31/2021	32,925	5.10%	2,001,180,743	7.48%	60,780	2.26%	6.61%
12/31/2022	35,369	7.42%	2,166,181,666	8.25%	61,245	0.77%	5.50%
Average Increase/(Decrease) last 5 years		2.72%		5.13%		2.35%	3.23%

**CPI-Chicago as of the valuation date*

History of Retirees and Beneficiaries Added to Payrolls 2013 – 2022

	Added to Payroll		Removed from Payroll		Payroll End of Year			
Valuation Date	Number	Annual Benefits*	Number	Annual Benefits	Number	Annual Benefits	Average Annual Benefit	Increase in Average Benefit
Employee Annuitants (Male and Female)								
12/31/2013	1,242	$57,147,576	743	$21,682,632	20,113	$691,021,680	$34,357	2.79%
12/31/2014	1,054	37,110,852	756	23,299,656	20,411	704,832,876	34,532	0.51%
12/31/2015	990	65,756,124	817	23,871,948	20,584	746,717,052	36,277	5.05%
12/31/2016	1,107	58,094,440	772	25,721,880	20,919	779,089,612	37,243	2.66%
12/31/2017	1,148	62,453,527	930	30,481,722	21,137	811,061,417	38,372	3.03%
12/31/2018	1,086	64,883,087	830	29,664,303	21,393	846,280,201	39,559	3.09%
12/31/2019	981	62,186,925	951	34,004,036	21,423	874,463,090	40,819	3.19%
12/31/2020	905	61,399,969	942	36,513,245	21,386	899,349,814	42,053	3.02%
12/31/2021	1,102	72,434,290	915	35,723,948	21,573	936,060,156	43,390	3.18%
12/31/2022	1,127	75,541,539	880	35,831,337	21,820	975,770,358	44,719	3.06%
Surviving Spouse and Reversionary Annuitants								
12/31/2013	270	$4,593,708	279	$3,096,132	4,345	$57,041,916	$13,128	2.91%
12/31/2014	265	4,648,596	310	3,713,844	4,300	57,976,668	13,483	2.70%
12/31/2015	251	4,185,900	291	3,681,516	4,260	58,481,052	13,728	1.82%
12/31/2016	235	4,862,474	282	3,544,440	4,213	59,799,086	14,194	3.39%
12/31/2017	261	5,053,290	343	4,653,334	4,131	60,199,042	14,573	2.67%
12/31/2018	255	5,539,163	304	4,043,991	4,082	61,694,214	15,114	3.71%
12/31/2019	268	5,701,160	329	4,335,344	4,021	63,060,030	15,683	3.76%
12/31/2020	284	6,322,659	317	4,500,408	3,988	64,882,281	16,269	3.74%
12/31/2021	300	6,521,864	277	3,978,007	4,011	67,426,138	16,810	3.33%
12/31/2022	278	6,743,257	303	4,694,886	3,986	69,474,509	17,430	3.69%

**Annual benefits added to payroll include post-retirement increase amounts.*

Actuarial Reserve Liabilities as of December 31, 2022

	2022	2021
Accrued Liability for Active and Inactive Participants*	$7,284,238,417	$7,088,076,410
Reserves for:		
Service Retirement Pension	$10,187,923,002	$10,070,291,515
Future Spouses of Current Retirees	780,164,178	739,164,013
Surviving Spouse Pension	499,893,842	503,131,075
Child Annuitants	777,002	916,959
OPEB Benefits	6,637,653	16,442,920
Total Accrued Liability**	18,759,634,094	18,418,022,892
Actuarial Net Assets	4,274,969,404	4,041,929,111
Unfunded Actuarial Liabilities	14,484,664,690	14,376,093,781

**Accrued liability for active participants includes retirement liability for members in ordinary or duty disability status. Liability for disability benefits is recognized as a one-year term cost of 0.60 percent of pay added to the normal cost for 2022 and 0.75 percent of pay for 2021.*
***Includes pension and OPEB*

Statutory Reserves as of December 31, 2022

	Annuity Payment Fund	Prior Service Fund	Total
Statutory Reserve*			
Retirees	$2,119,404,521	$6,967,653,423	$9,087,057,944
Future Surviving Spouses	484,232,252	510,730,634	994,962,886
Spouses**	243,570,442	192,350,778	435,921,220
Annual Benefits			
Retirees	$261,417,941	$714,352,417	$975,770,358
Future Surviving Spouses	N/A	N/A	N/A
Spouses**	$36,559,866	$32,914,643	$69,474,509

** As required by State statutes, Statutory Reserves are calculated using the Combined Annuity Mortality Table with interest at 3.00 percent per annum, except for employees and spouses of employees who were participants on or before January 1, 1952, for whom the American Experience Table of Mortality with interest at 4.00 percent per annum is used.*

*** Surviving spouses also include reversionary annuitants.*

Actuarial Assumptions and Actuarial Cost Method

Rationale for Assumptions: The information and analysis used in supporting each assumption that has a significant effect on this actuarial valuation is shown in the Experience Review dated March 16, 2023. Current data is reviewed in conjunction with each annual valuation.

Mortality Rates:

Post-retirement: The PubG-2010 Retiree Amount-weighted Below Median mortality Tables (sex-specific), using 117% of the rates for females and 111% of the rates for males, projected generationally using scale MP-2021 (effective December 31, 2022).

Beneficiary: PubG-2010 Contingent Survivor Table Amount-weighted Below Median Mortality table (sex-specific), using 111% of the rates for females and 113% of the rates for males, projected generationally using scale MP-2021 (effective December 31, 2022).

Pre-retirement: PubG-2010 Employee Amount-weighted Below Median mortality table (sex-specific), using 92% of the rates for females and 90% of the rates for males, projected generationally using scale MP-2021 (effective December 31, 2022).

The mortality tables specified above were determined to reasonably reflect the mortality experience of the Plan as of the valuation date. The mortality table was then adjusted to future years using generational projection under scale MP-2021 to reflect future mortality improvements.

Termination Rates: These rates are based on recent experience of the Fund (effective December 31, 2022).

Service	BoE Rate (%)	Non-BoE Rate (%)	Service	BoE Rate (%)
0 – 0.99	18.25	16.00	11 – 11.99	4.75
1 – 1.99	16.00	13.75	12 – 12.99	4.50
2 – 2.99	13.25	12.75	13 – 13.99	4.50
3 – 3.99	11.50	10.00	14 – 14.99	4.00
4 – 4.99	9.75	8.50	15 – 15.99	4.00
5 – 5.99	8.00	8.00	16 – 16.99	3.50
6 – 6.99	7.50	6.75	17 – 17.99	3.25
7 – 7.99	6.25	5.75	18 – 18.99	3.00
8 – 8.99	5.50	5.25	19 – 19.99	2.75
9 – 9.99	5.50	4.75	20 – 20.99	2.00
10 – 10.99	4.75	4.75	21+	2.00

Retirement Rates: For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience of the Fund (effective December 31, 2022).

Tier 1:

	Age and Service-Based Retirement Rates							
Service	50 - 54	55 - 59	60 - 64	65	66 - 67	68 - 69	70 - 79	80+
10 - 11		0%	10%	32.5%	30%	30%	35%	100%
12 - 19		0%	10%	25%	15%	20%	22.5%	100%
20 - 24		7%	10%	27.5%	15%	20%	22.5%	100%
25 - 29		10%	10%	30%	22.5%	20%	22.5%	100%
30	15%	12.5%	15%	40%	22.5%	20%	22.5%	100%
31 - 32	15%	12.5%	15%	37.5%	22.5%	20%	30%	100%
33 - 34	27.5%	15%	15%	37.5%	22.5%	20%	30%	100%
35 - 39	27.5%	15%	15%	35%	22.5%	20%	30%	100%
40+	50%	50%	50%	50%	50%	50%	50%	100%

Tier 2: For employees first hired on or after January 1, 2011, and before July 6, 2017, rates of retirement for each age from 62 to 80 were used (effective December 31, 2011).

Age	Rate
62	40%
63 - 69	20%
70 - 79	45%
80 +	100%

Tier 3: For employees first hired on or after July 6, 2017, rates of retirement for each age from 60 to 80 were used (effective December 31, 2018).

Age	Rate
60	40%
61 – 69	20%
70 – 79	45%
80 +	100%

Disability Benefit Valuation: Disability benefits are valued in normal cost as 0.60% of projected payroll (effective December 31, 2022).

Valuation of Inactive Participants: Inactive members with less than 10 years of service are assumed to take an immediate refund of his or her account balance. For inactive members with 10 or more years of service, the money purchase benefit is estimated by projecting the account balance (including employer contributions, when applicable) to the earliest retirement age. This estimated money purchase benefit is increased by 15% to account for the possibility that the minimum annuity formula is more valuable. For inactive members with 10 or more service and salary information available, the minimum annuity benefit is valued, if it is more valuable than the money purchase benefit.

Unknown Data for Participants: Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

Spouse: 85% of members are assumed to be married, female spouses are assumed to be four years younger than male spouses, and 100% of spouses are assumed to be opposite gender (effective December 31, 1999).

Member Contributions: Based on payroll, adjusted to the middle of the year.

Net Investment Return: 6.75% per year, net of investment expense (effective December 31, 2022)

Inflation: 2.50% per year (effective December 31, 2017)

Salary Increases:

Service	BoE Rate (%)	Non-BoE Rate (%)
0 – 0.99	6.25	14.00
1 – 1.99	6.25	11.00
2 – 2.99	6.25	6.00
3 – 3.99	6.25	5.00
4 – 4.99	6.25	5.00
5 – 5.99	6.25	5.00
6 – 6.99	6.25	4.00
7 – 7.99	6.25	4.00
8 – 10.99	6.25	3.50
11 – 22.99	5.25	3.50
23 – 25.99	5.00	3.50
26 – 26.99	5.00	2.75
27 – 31.99	4.00	2.75
32+	4.00	2.50

Administrative Expenses: Equal to actual expenses for the prior year. For purposes of the 50-year projection, future administrative expenses are assumed to increase by 2.5% each year.

Actuarial Value of Assets: Fair value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual fair value return and the expected return on the fair value and is recognized over a five-year period (effective December 31, 1999).

Actuarial Cost Method: Entry Age Normal. Under this method, a normal cost is calculated for each employee that is the level annual contribution as a percent of pay required to be made from the employee's date of hire for as long as he/she remains active so that sufficient assets will be accumulated to provide his/her benefit. The accrued liability is the difference between the present value of all future benefits and the present value of all future normal costs.

OPEB Healthcare Subsidy: 25% of eligible City of Chicago employee annuitants are assumed to elect to participate is a group health care plan for which the Fund offers to deduct health insurance premiums from monthly annuities, and thus receive the health care insurance premium subsidy.

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Membership: Any employee of the City of Chicago or the Board of Education employed under the provisions of the municipal personnel ordinance or any person employed by the Municipal Employees' Annuity and Benefit Fund of Chicago who is not participating in any other pension fund or retirement system is covered by the Fund. Current and former employees of the Chicago Housing Authority and the Public Building Commission who have service in this Plan or who reinstate service in this Plan, may elect to participate in this Plan with respect to their employment with the Chicago Housing Authority or the Public Building Commission under certain circumstances.

Tiers:

Tier 1: First hired before January 1, 2011

Tier 2: First hired from non-reciprocal Fund on or after January 1, 2011, and before July 6, 2017

Tier 3: First hired on or after July 6, 2017, or former Tier 2 members that elected to make a one-time irrevocable election to switch to Tier 3 ("elective" Tier 3)

Employee Contributions: Tier 1 and Tier 2 members of the Fund are required to contribute 8.5% of pensionable salary to the Fund as follows: 6.5% for the employee's retirement annuity, 1.5% for the spouse's annuity, and 0.5% for the automatic increases in the retirement annuity.

Tier 3 members of the Fund are required to contribute 11.5% of pensionable pay. However, member contribution rate will be the normal cost rate, if less than 11.5%, but not lower than 8.5%. Once the Fund reaches 90% funded, the member contribution rate will be lowered to 7.5% and remain at 7.5% unless the funded ratio drops below 75%.

Final Average Salary: For Tier 1 members, the final average salary is the average salary of the highest four consecutive years within the last 10 years of service prior to retirement.

For Tier 2 and Tier 3 members, the final average salary is the average pensionable salary of the highest eight consecutive years within the last 10 years of service prior to retirement. Pensionable salary is limited to $106,800 in 2011, increased by the lesser of 3% or ½ of the change in CPI-U, not less than zero. For 2022, the salary limit was $119,892.

Employee Retirement Annuity:

Money Purchase Formula

Eligibility

Tier 1, the earlier of:

- Age 60 and in active employment
- Age 55 and 10 years of service

Tier 2: Age 62 and 10 years of service

Tier 3: Age 60 and 10 years of service

Amount

The annuity is based on all employee and City contributions. However, for Tier 1 members who retire before age 60 with less than 20 years of service, the annuity is based on employee contributions plus 1/10th of the City contributions for each year of service over 10.

Maximum is 60% of highest salary.

Minimum Annuity Formula

Eligibility

Tier 1, the earlier of:

- Age 60 and 10 years of service
- Age 55 and 20 years of service
- Age 50 and 30 years of service

Tier 2: Age 62 and 10 years of service

Tier 3: Age 60 and 10 years of service

Amount

The annuity is equal to 2.4% for each year of service times final average salary.

For Tier 1 members under age 60 with less than 25 years of service, the annuity is reduced by 0.25% for each month that the member is under age 60.

For Tier 2 members under age 67, the annuity is reduced by 0.50% for each month that the member is under age 67.

For Tier 3 members under age 65, the annuity is reduced by 0.50% for each month that the member is under age 65.

Maximum is 80% of final average salary.

Post-Retirement Increase:

Tier 1:

An employee annuitant is eligible to receive an annual increase of 3% of the current payable annuity (compound). This increase begins in January of the year of the first payment date following the earlier of:

1) the later of the third anniversary of retirement or age 53, or
2) the later of the first anniversary of retirement or age 60

Tier 2 and Tier 3:

An employee annuitant or surviving spouse who is eligible to receive an increase in annuity benefit, shall receive an annual increase equal to the lesser of 3% or ½ of the annual unadjusted percentage increase in the Consumer Price Index-U. The increase is based on the amount of the originally granted benefit (simple). This increase begins in January of the year of the first payment date following the later of:

1) the attainment of age 67 for Tier 2 members or age 65 for Tier 3 members, or
2) the first anniversary of the annuity start date

Reversionary Annuity:

An employee may elect to reduce his or her annuity by an amount less than or equal to $400 to provide a reversionary annuity for a spouse, parent, child, brother, or sister, to begin upon the employee's death. The election must be made before retirement and have been in effect one year prior to death. The one-year requirement is waived if the beneficiary is the employee's spouse. The death of the employee before retirement voids this election. The reversionary annuity for a spouse when added to the spouse's annuity cannot exceed 100% of the employee's reduced annuity. The amount of the monthly reversionary annuity is determined by multiplying the amount of the monthly reduction in the employee's annuity by a factor based on the age of the employee and the difference between the ages of the employee and the reversionary annuitant at the start date of the employee's annuity.

Elected City Officer's Optional Plan:

An alternative plan for elected officials of 3% of final salary for the first eight years, 4% for the next four years, and 5% thereafter, subject to an 80% maximum, is available. The elected official must contribute an additional 3% of salary to receive these benefits. This plan also includes alternative widow and disability benefit formulas. This plan became effective upon approval from the IRS on September 17, 1991. Public Act 100-0023 closed this Plan to officers elected after July 6, 2017.

Spouse Annuity:	The surviving spouse annuity is the greater of the annuity under the money purchase formula or the minimum annuity formula. Surviving spouses who remarry on or after September 4, 2000, will not have their annuities terminated.
Money Purchase Formula	When an employee retires, the spouse's annuity is fixed, based on employee and City contributions for the spouse's annuity and a joint life age factor. If the employee dies in service, the spouse's annuity is based on all contributions. For 3% annuities fixed on or after August 1, 1983, the "Combined Annuity Mortality Table" shall continue to be used; however, surviving spouse's single life annuities and reversionary annuities shall be computed using the best factor (the factor producing the highest annuity), without regard to gender.
Minimum Annuity Formula	If the employee retires or dies in service and is at least age 55 with 20 or more years of service, or is at least age 50 with 30 or more years of service, the spouse's annuity is equal to half the amount of the annuity the employee was entitled to receive at the time of retirement or death in service. This annuity must be reduced by 0.25% for each month the spouse is under age 55 (or age 50 if the employee had at least 25 years of service) at the time the employee retires or dies in service. If the employee dies while receiving a retirement annuity, the spouse is eligible for an annuity of one half of the employee's annuity at death. This annuity is reduced by 0.25% for each month the spouse is under age 55 (or age 50 if the employee had at least 25 years of service) at the time of the employee's death. If the employee dies in service with at least 10 years of service, the spouse is entitled to an annuity of half of the minimum formula annuity earned and accrued to the credit of the employee at the date of death. This annuity is not reduced due to the age of the employee or spouse. The spouse is eligible for this annuity only if the marriage was in effect for at least 10 years. The spouse will receive a minimum annuity of $800 per month if the employee retires with at least 10 years of service or dies in service with at least five years of service. For Tier 2 and Tier 3 members, the annuity payable to the surviving spouse is equal to 66 2/3% of the participant's accrued retirement annuity without a reduction due to age.
Child Annuity:	A child's annuity is provided for an unmarried child of a deceased employee who is under the age of 18, if the child was born before the withdrawal from service. The annuity is $220 per month while the spouse of the deceased employee is alive and $250 per month if the spouse is deceased.

Ordinary Disability Benefit:

This benefit is granted for disabilities incurred other than in performance of an act of duty and is 50% of salary as of the last day worked. The first payment shall be made one month after the disablement occurs provided the employee is not then in receipt of salary. Length of time on disability is limited to a maximum of 25% of the employee's total service or five years, whichever occurs first.

The Fund contributes salary deductions for annuity purposes for the ordinary disability benefit. Such amounts contributed by the Fund after December 31, 2000, while the employee is receiving ordinary disability benefits, are not refundable to the employee and will be used for annuity purposes only.

Duty Disability Benefit:

Any employee who becomes disabled as the result of an injury incurred in the performance of any act of duty has a right to receive a duty disability benefit in the amount of 75% of salary at date of injury, plus $10 a month for each unmarried child less than age 18. Child's duty disability benefit is limited to 15% of the employee's salary as of the date of injury. Duty disability benefits begin one day after the later of the last day worked or the last day paid.

If the disability has resulted from any mental disorder, physical defect or disease which existed at the time such injury was sustained, the duty disability benefit shall be 50% of salary at date of injury. Disablement because of heart attacks, strokes, or any disablement due to heart disease shall not be considered the result of an accident suffered in the performance of duty. However, the employee will receive service credit and the City will contribute salary deductions for annuity purposes if the employee is receiving Workers' Compensation.

A duty disability benefit is payable to age 65 if the disability benefits begin before age 60. For an employee who begins disability on or after age 60, disability benefits will continue for five years. A duty disability benefit which continues for more than five years and which starts before the employee's age 60, will be increased by 10% on January 1st of the sixth year.

The City contributes salary deductions for annuity purposes for the duty disability benefit. Such amounts contributed by the City after December 31, 1981, while the employee is receiving duty disability benefits, are not refundable to the employee and will be used for annuity purposes only.

Refunds:

Tier 1:

An employee who resigns before age 55, or before age 60 with less than 10 years of service, is entitled to all salary deductions accumulated with interest to date of resignation, plus the 0.50% deducted for annuity increase purposes without interest.

Tier 2 and Tier 3:

An employee who resigns before age 62 (or age 60 for Tier 3) without regard to length of service, or who resigns with less than 10 years of service regardless of age, is entitled to all salary deductions accumulated with interest to date of resignation, plus the 0.50% deducted for annuity increase purposes without interest.

All Tiers:

Amounts contributed by the employee, excluding the 0.50% deductions for annuity increase, that have not been paid out as annuity are refundable to the employee's estate with interest to the date of retirement or death, if the employee died in service.

If the annuity of an employee or spouse is less than $800 a month, the employee or spouse may elect to receive a refund in lieu of an annuity.

If unmarried at the time of retirement, the employee is entitled to a refund, with interest, of contributions made for the spouse's annuity.

Plan Year: January 1 through December 31

OPEB Healthcare Subsidy:

All eligible City of Chicago employee annuitants (both current and future employee annuitants, but not spouse or child annuitants) are entitled to receive a health care insurance premium subsidy of $25 per month.

Eligibility Requirements:

- Retired on or after August 23, 1989
- Hired before July 1, 2003
- 15 years of service
- Participate in a group health care plan for which the Fund offers to deduct health insurance premiums from monthly annuities

Statistical

The Statistical Section presents additional information to provide financial users with added historical perspective, context and detail to assist in using the information in the financial statements; and additional analytical information on Plan membership data, retirement benefits and other postemployment benefits.

The schedules beginning on page 116 through page 118 show financial trends information that assist users in understanding and assessing how the Plan's financial position has changed over time. A schedule on page 119 allocates revenues or additions to fiduciary net position by source. A schedule on page 120 allocates expenses or deductions from fiduciary net position by type. The schedule on page 121 shows the refunds of contributions and the schedule on page 122 allocate the total benefits that were paid.

The schedules presented immediately following the financial trends information contain additional analytical information on the level of monthly or annual benefits by type of benefit, by number of retirees, and years of service. A schedule on page 123 provides information on the average monthly benefit payments to new retirees. Schedules on pages 124 and 125 provides information on average employee retirement benefit payable, current retirees and beneficiaries by range of pension amounts, history of retirees and beneficiaries by type of benefit, and covered employees by age and years of service. A schedule on page 126 provides information on Plan membership data.

Changes in Fiduciary Net Position

(Last ten years)

	2022	2021	2020	2019	2018
Additions:					
Employer contributions	$ 959,999,000	$ 573,701,021	$ 498,598,904	$ 421,000,000	$ 349,574,257
Member contributions	176,338,741	163,410,877	157,797,710	146,645,216	138,399,727
Net investment income	(429,912,148)	498,299,160	335,402,959	560,940,002	(204,974,702)
Other additions	-	-	-	-	-
Total Additions	$ 706,425,593	$ 1,235,411,058	$ 991,799,573	$1,128,585,218	$ 282,999,282
Deductions:					
Annuities	$ 1,014,031,467	$ 971,820,479	$ 940,526,176	$ 914,653,034	$ 878,738,782
Disabilities	10,150,649	10,427,376	9,511,321	10,323,869	10,415,725
Healthcare Subsidy	448,508	502,375	1,607,400	2,731,425	-
Refunds	31,402,425	27,943,549	23,440,140	27,674,608	27,043,978
Administrative Expenses	6,873,529	6,687,339	7,117,942	6,740,268	6,638,608
Total Deductions	$ 1,062,906,578	$ 1,017,381,118	$ 982,202,979	$ 962,123,204	$ 922,837,093
Net Increase/(Decrease)	(356,480,985)	218,029,940	9,596,594	166,462,014	(639,837,811)
Beginning of year	4,308,269,024	4,090,239,084	4,080,642,490	3,914,180,476	4,554,018,287
End of year	$ 3,951,788,039	$ 4,308,269,024	$4,090,239,084	$4,080,642,490	$ 3,914,180,476

Changes in Fiduciary Net Position (continued)

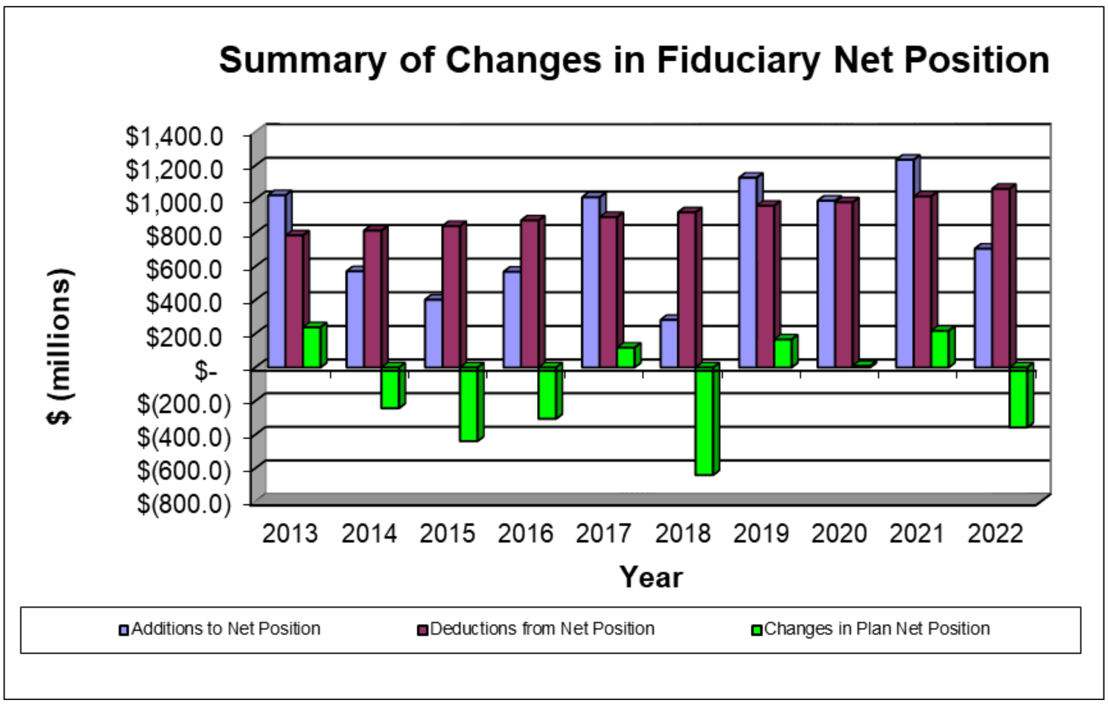
(Last ten years)

	2017	2016	2015	2014	2013
Additions:					
Employer contributions	$ 261,763,635	$ 157,444,029	$ 157,716,475	$ 158,797,631	$ 157,704,971
Member contributions	134,764,920	130,390,848	131,428,104	129,971,981	131,532,173
Net investment income	610,515,096	281,419,146	114,025,290	283,268,612	735,272,432
Other additions	5,393,581	-	-	13,313	-
Total Additions	$1,012,437,232	$ 569,254,023	$ 403,169,869	$ 572,051,537	$ 1,024,509,576
Deductions:					
Annuities	$ 842,632,392	$ 813,092,340	$ 782,083,805	$ 754,391,331	$ 723,880,608
Disabilities	11,711,092	12,004,051	12,266,647	11,905,700	12,158,883
Health Care Subsidy	-	7,725,538	8,491,284	9,050,883	9,508,087
Refunds	33,830,051	34,575,271	31,685,872	32,325,780	33,456,449
Administrative Expenses	6,473,006	7,056,784	6,701,000	6,567,842	6,498,913
Total Deductions	$ 894,646,541	$ 874,453,984	$ 841,228,608	$ 814,241,536	$ 785,502,940
Net Increase/(Decrease)	117,790,691	(305,199,961)	(438,058,739)	(242,189,999)	239,006,636
Beginning of year	4,436,227,596	4,741,427,557	5,179,486,296	5,421,676,295	5,182,669,659
End of year	$4,554,018,287	$ 4,436,227,596	$ 4,741,427,557	$ 5,179,486,296	$ 5,421,676,295

Summary of Changes in Fiduciary Net Position

(Last ten years)

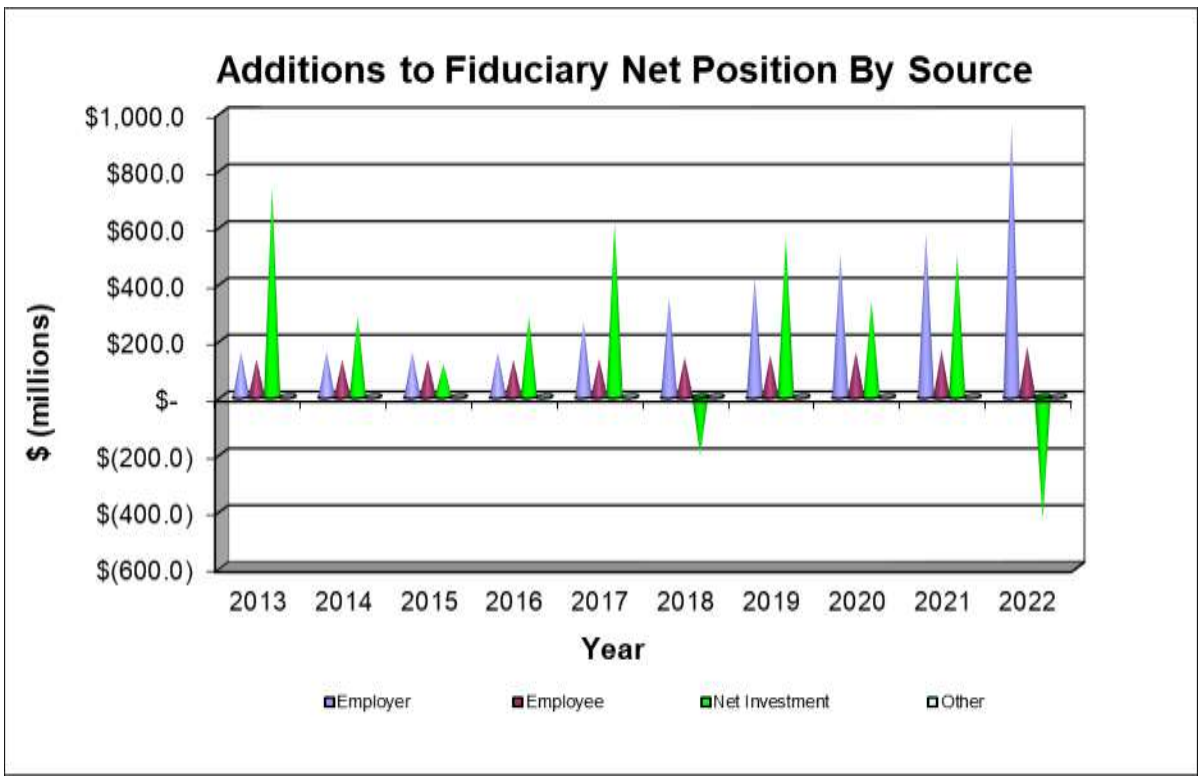
Year	Additions to Net Position	Deductions from Net Position	Increase (Decrease) in Net Position
2013	$ 1,024,509,576	$ 785,502,940	$ 239,006,636
2014	572,051,537	814,241,536	(242,189,999)
2015	403,169,869	841,228,608	(438,058,739)
2016	569,254,023	874,453,984	(305,199,961)
2017	1,012,437,232	894,646,541	117,790,691
2018	282,999,282	922,837,093	(639,837,811)
2019	1,128,585,218	962,123,204	166,462,014
2020	991,799,573	982,202,979	9,596,594
2021	1,235,411,058	1,017,381,118	218,029,940
2022	706,425,593	1,062,906,578	(356,480,985)



Additions to Fiduciary Net Position By Source

(Last ten years)

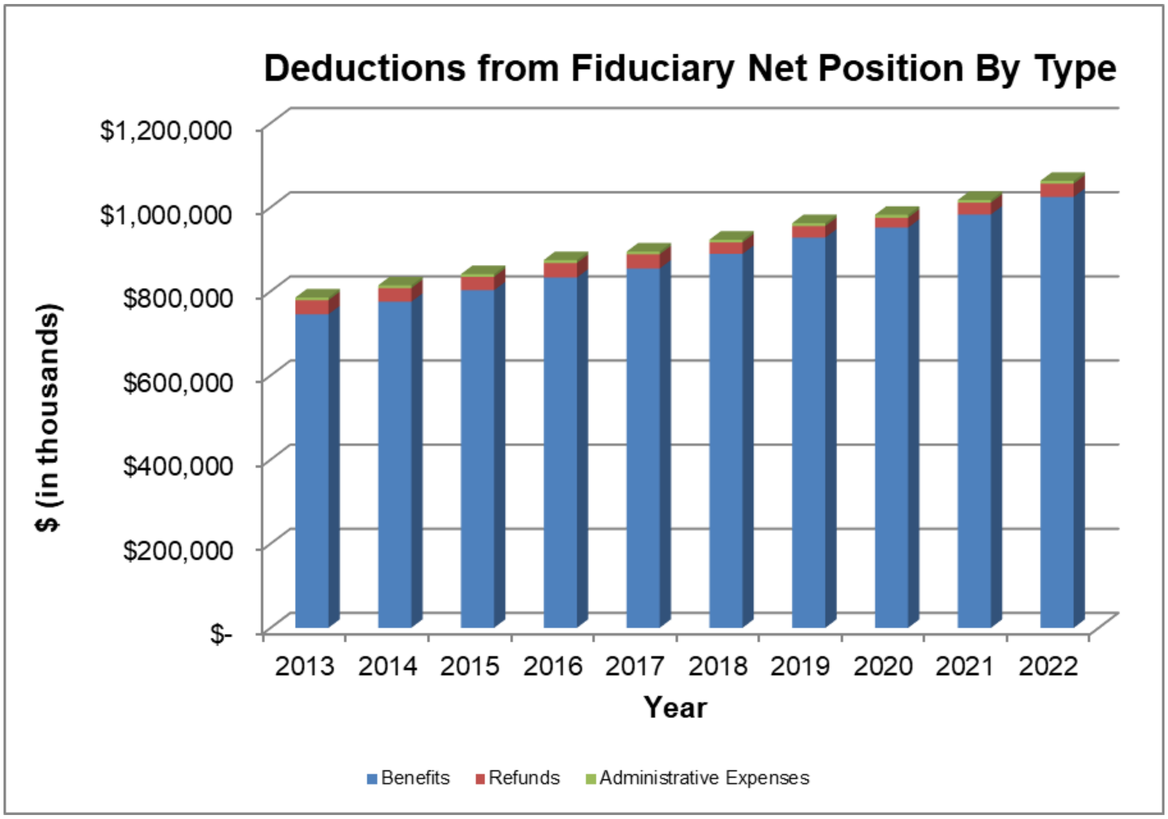
Year	Employer Contributions	Employee Contributions	Investment Income (net of expense)	Other Income	Total
2013	$ 157,704,971	$ 131,532,173	$ 735,272,432	$ -	$ 1,024,509,576
2014	158,797,631	129,971,981	283,268,612	13,313	572,051,537
2015	157,716,475	131,428,104	114,025,290	-	403,169,869
2016	157,444,029	130,390,848	281,419,146	-	569,254,023
2017	261,763,635	134,764,920	610,515,096	5,393,581	1,012,437,232
2018	349,574,257	138,399,727	(204,974,702)	-	282,999,282
2019	421,000,000	146,645,216	560,940,002	-	1,128,585,218
2020	498,598,904	157,797,710	335,402,959	-	991,799,573
2021	573,701,021	163,410,877	498,299,160	-	1,235,411,058
2022	959,999,000	176,338,741	(429,912,148)	-	706,425,593



Deductions from Fiduciary Net Position By Type

(Last ten years)

Year	Benefits	Refunds	Administrative Expense	Total
2013	$ 745,547,578	$ 33,456,449	$ 6,498,913	$ 785,502,940
2014	775,347,914	32,325,780	6,567,842	814,241,536
2015	802,841,736	31,685,872	6,701,000	841,228,608
2016	832,821,929	34,575,271	7,056,784	874,453,984
2017	854,343,484	33,830,051	6,473,006	894,646,541
2018	889,154,507	27,043,978	6,638,608	922,837,093
2019	927,708,328	27,674,608	6,740,268	962,123,204
2020	951,644,897	23,440,140	7,117,942	982,202,979
2021	982,750,230	27,943,549	6,687,339	1,017,381,118
2022	1,024,630,624	31,402,425	6,873,529	1,062,906,578



Refunds by Type

(Last ten years)

Year	Separation	Death	Others[1]	Total
2013	$ 30,765,181	$ 2,711,770	$ (20,502)	$ 33,456,449
2014	29,219,994	3,211,181	(105,395)	32,325,780
2015	27,325,678	4,570,458	(210,264)	31,685,872
2016	30,676,911	3,899,766	(1,406)	34,575,271
2017	31,091,785	3,160,126	(421,860)	33,830,051
2018	25,002,075	2,549,529	(507,626)	27,043,978
2019	24,727,609	3,138,908	(191,909)	27,674,608
2020	19,701,721	2,791,287	947,132	23,440,140
2021	24,377,701	3,857,159	(291,311)	27,943,549
2022	28,535,689	3,359,379	(492,643)	31,402,425

[1] Others include transfer of contributions to other Funds and refunds due to error in deductions

Benefits by Type - Last ten years

	2022	2021	2020	2019	2018
Annuities:					
Employee	$ 944,684,064	$ 904,403,581	$ 875,714,653	$ 851,367,370	$ 816,753,591
Surviving Spouse	69,085,584	67,132,302	64,523,211	62,959,842	61,678,713
Children	261,819	284,596	288,312	325,822	306,478
Total Annuities	1,014,031,467	971,820,479	940,526,176	914,653,034	878,738,782
Disabilities:					
Ordinary	7,770,601	7,616,202	6,569,404	7,381,403	6,717,495
Duty	2,380,048	2,811,174	2,941,917	2,942,466	3,698,230
Total Disabilities	10,150,649	10,427,376	9,511,321	10,323,869	10,415,725
Postemployment Healthcare					
Employee	448,508	502,375	1,607,400	2,731,425	-
Surviving Spouse	-	-	-	-	-
Children	-	-	-	-	-
Total Healthcare Subsidy	448,508	502,375	1,607,400	2,731,425	-
Total Benefits	$1,024,630,624	$ 982,750,230	$ 951,644,897	$ 927,708,328	$ 889,154,507

	2017	2016	2015	2014	2013
Annuities:					
Employee	$ 781,897,484	$ 753,153,639	$ 723,152,347	$ 696,095,106	$ 666,939,420
Surviving Spouse	60,357,230	59,627,061	58,554,347	57,902,663	56,522,097
Children	377,678	311,640	377,111	393,562	419,091
Total Annuities	842,632,392	813,092,340	782,083,805	754,391,331	723,880,608
Disabilities:					
Ordinary	7,351,851	7,685,452	8,315,568	8,067,664	8,161,747
Duty	4,359,241	4,318,599	3,951,079	3,838,036	3,997,136
Total Disabilities	11,711,092	12,004,051	12,266,647	11,905,700	12,158,883
Postemployment Healthcare					
Employee	-	6,530,366	7,219,202	7,726,595	8,137,318
Surviving Spouse	-	1,194,032	1,270,277	1,319,793	1,363,359
Children	-	1,140	1,805	4,495	7,410
Total Healthcare Subsidy	-	7,725,538	8,491,284	9,050,883	9,508,087
Total Benefits	$ 854,343,484	$ 832,821,929	$ 802,841,736	$ 775,347,914	$ 745,547,579

History of Average Pension Benefit Payments to New Retirees[1]

(Last ten years)

Retirement Effective Dates		Year of Service 10-14	15-19	20-24	25-29	30 & Over	Total
	Average Monthly Benefit at Retirement	$1,304	$1,998	$2,348	$3,259	$ 4,446	$ 3,065
2013	Average Final Average Salary	$4,456	$4,890	$4,314	$4,953	$ 5,668	$ 5,030
	Number of Active Recipients	104	106	204	216	290	920
	Average Monthly Benefit at Retirement	$1,169	$1,760	$2,290	$3,137	$ 4,350	$ 2,891
2014	Average Final Average Salary	$4,161	$4,528	$4,597	$4,877	$ 5,644	$ 4,921
	Number of Active Recipients	93	92	185	203	223	796
	Average Monthly Benefit at Retirement	$1,275	$1,959	$2,279	$3,405	$ 4,446	$ 3,048
2015	Average Final Average Salary	$4,439	$4,685	$4,387	$5,174	$ 5,724	$ 5,031
	Number of Active Recipients	68	119	171	180	227	765
	Average Monthly Benefit at Retirement	$1,347	$1,909	$2,350	$3,383	$ 4,795	$ 3,126
2016	Average Final Average Salary	$5,096	$4,836	$4,604	$5,199	$ 6,276	$ 5,306
	Number of Active Recipients	83	113	208	199	237	840
	Average Monthly Benefit at Retirement	$1,306	$1,938	$2,480	$3,687	$ 4,889	$ 3,273
2017	Average Final Average Salary	$4,734	$4,860	$4,841	$5,526	$ 6,293	$ 5,434
	Number of Active Recipients	91	122	197	247	245	902
	Average Monthly Benefit at Retirement	$1,551	$2,030	$2,741	$3,973	$ 5,285	$ 3,628
2018	Average Final Average Salary	$5,590	$4,998	$5,247	$6,017	$ 6,854	$ 5,961
	Number of Active Recipients	82	126	167	201	272	848
	Average Monthly Benefit at Retirement	$1,336	$1,961	$2,713	$4,002	$ 5,175	$ 3,598
2019	Average Final Average Salary	$4,624	$4,985	$5,305	$6,141	$ 6,716	$ 5,953
	Number of Active Recipients	74	94	158	177	247	750
	Average Monthly Benefit at Retirement	$1,262	$2,048	$2,606	$4,249	$ 5,272	$ 3,710
2020	Average Final Average Salary	$4,790	$5,032	$5,126	$6,488	$ 6,863	$ 6,044
	Number of Active Recipients	72	90	143	161	254	720
	Average Monthly Benefit at Retirement	$1,608	$1,987	$2,686	$4,012	$ 5,309	$ 3,898
2021	Average Final Average Salary	$5,795	$4,920	$5,228	$6,167	$ 6,832	$ 6,091
	Number of Active Recipients	48	81	200	208	343	880
	Average Monthly Benefit at Retirement	$1,351	$2,069	$2,804	$4,271	$ 5,490	$ 3,914
2022	Average Final Average Salary	$4,978	$5,149	$5,416	$6,539	$ 7,097	$ 6,251
	Number of Active Recipients	88	92	199	208	344	931

[1] *This schedule excludes reciprocal annuities, money purchase annuities and minimum annuities*

Source of Data: Actuarial Valuation and Review as of December 31, 2022

Average Employee Retirement Benefits Payable

(last ten years)

Valuation Date	Average Annual Benefit	Average Current Age Of Retirees	Average Benefit At Retirement Current Year	Average Age At Retirement Current Year	Average Service Years At Retirement Current Year
12/31/2013	$34,357	72.6	$31,177	63.0	23.55
12/31/2014	$34,532	72.7	$29,775	62.5	23.35
12/31/2015	$36,277	72.8	$31,686	62.6	23.48
12/30/2016	$37,243	72.9	$32,000	62.0	23.50
12/31/2017	$38,372	72.9	$34,413	62.0	24.16
12/31/2018	$39,559	73.0	$37,678	62.2	24.45
12/31/2019	$40,819	73.1	$37,670	62.2	24.49
12/30/2020	$42,053	73.2	$39,526	62.7	24.88
12/31/2021	$43,390	73.3	$41,394	63.2	25.97
12/31/2022	$44,719	73.4	$42,388	62.4	25.83

Source of Data: Actuarial Valuation and Review as of December 31, 2022

Current Retirees & Beneficiaries by Range of Pension Amounts

As of December 31, 2022

Amount of Monthly Benefit	Number of Employee Annuitants	Number of Spouse Annuitants	Number of Reversionary Annuitants	Number of Child Annuitants	Total Number of Annuitants
Under $500	698	184	90	88	1,060
$500 - $999	1,312	1,596	32	-	2,940
$1,000 - $1,499	2,595	597	4	-	3,196
$1,500 - $1,999	2,299	487	3	-	2,789
$2,000 - $2,499	1,588	362	1	-	1,951
$2,500 - $2,999	1,720	309	-	-	2,029
$3,000 - $3,499	1,630	166	-	-	1,796
$3,500 - $3,999	1,256	106	-	-	1,362
$4,000 - $4,499	1,163	27	-	-	1,190
$4,500 - $4,999	1,188	9	-	-	1,197
$5,000 - $5,499	1,072	9	-	-	1,081
$5,500 - $5,999	1,018	2	-	-	1,020
$6,000 - $6,499	899	1	-	-	900
$6,500 - $6,999	785	1	-	-	786
$7,000 & Over	2,597	-	-	-	2,597
Totals	**21,820**	**3,856**	**130**	**88**	**25,894**

Source of Data: Actuarial Valuation and Review as of December 31, 2022

History of Retirees and Beneficiaries By Type of Benefit

(Last ten years)

Valuation	Annuitants				Disability		Compensation	Reciprocal	
Date	Employee	Spouse	Child	Reversionary	Ordinary	Duty	Annuitants*	Employee	Spouse
12/31/2013	17,320	3,844	141	138	227	213	2	2,793	363
12/31/2014	17,553	3,798	141	139	195	225	2	2,858	363
12/31/2015	17,697	3,757	118	134	187	213	2	2,887	369
12/30/2016	17,954	3,706	102	128	178	216	2	2,965	379
12/30/2017	18,113	3,633	114	124	162	211	2	3,024	374
12/31/2018	18,304	3,597	102	119	158	164	2	3,089	366
12/31/2019	18,273	3,540	100	122	165	133	2	3,150	359
12/30/2020	18,220	3,519	97	117	146	130	2	3,166	352
12/30/2021	18,355	3,525	99	131	147	126	2	3,218	355
12/30/2022	18,592	3,482	88	130	114	118	2	3,228	374

Compensation annuitants also included with spouse annuitants

Source of Data: Actuarial Valuation and Review as of December 31, 2022

Covered Employees by Age & Years of Service

Attained	Completed Years of Service										
Age	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & Over	Total
Under 20	98	49	-	-	-	-	-	-	-	-	147
20-24	677	1,017	17	-	-	-	-	-	-	-	1,711
25-29	835	2,083	366	6	-	-	-	-	-	-	3,290
30-34	617	2,125	1,076	211	10	-	-	-	-	-	4,039
35-39	476	1,706	1,183	500	186	36	-	-	-	-	4,087
40-44	388	1,391	1,095	488	470	229	41	-	-	-	4,102
45-49	292	1,154	896	462	516	528	245	19	-	-	4,112
50-54	287	944	826	459	598	771	563	196	6	-	4,650
55-59	176	670	637	411	560	760	515	343	63	1	4,136
60-64	96	364	439	290	495	623	460	321	131	32	3,251
65-69	49	129	167	122	202	230	186	135	61	38	1,319
70 & Over	17	49	49	48	70	90	75	66	26	35	525
Total	**4,008**	**11,681**	**6,751**	**2,997**	**3,107**	**3,267**	**2,085**	**1,080**	**287**	**106**	**35,369**

Source of Data: Actuarial Valuation and Review as of December 31, 2022

10-Year History of Plan Membership

(Last ten years)

Year	Member Active	Inactive	Retirees	Beneficiaries	Total
2013	30,647	14,254	20,116	4,486	69,503
2014	30,160	15,495	20,414	4,441	70,510
2015	30,683	16,268	20,586	4,378	71,915
2016	30,296	16,876	20,921	4,315	72,408
2017	30,922	17,549	21,138	4,245	73,854
2018	31,285	17,575	21,393	4,184	74,437
2019	32,162	18,734	21,423	4,121	76,440
2020	31,327	20,139	21,386	4,085	76,937
2021	32,925	21,304	21,573	4,110	79,912
2022	35,369	22,586	21,820	4,074	83,849

10-Year History of Covered Employees

(Last ten years)

Year	Male Participants	Female Participants	Total Participants
2013	12,622	18,025	30,647
2014	12,464	17,696	30,160
2015	12,618	18,065	30,683
2016	12,482	17,814	30,296
2017	12,518	18,404	30,922
2018	12,424	18,861	31,285
2019	12,515	19,647	32,162
2020	12,134	19,193	31,327
2021	12,495	20,430	32,925
2022	13,020	22,349	35,369

Source of Data: Actuarial Valuation and Review as of December 31, 2022

Appendix A

LEGISLATIVE CHANGES IN PLAN PROVISIONS 2013 THROUGH 2022

2013 Session

Public Act 98-0043 (HB 1584)

- Approved and effective June 28, 2013.
- Changes the duration of health insurance supplement payments to eligible employee annuitants to "Beginning July 1,2008, and until such time as the city no longer provides a health care plan for such annuitants or December 31, 2016, whichever comes first.

Public Act 98-0433 (HB 2620)

- Approved and effective August 16, 2013.
- Allows for an additional exception to the RFP process for obtaining investment services for "contracts for follow-on funds with the same fund sponsor through close-end funds".

2014 Session

Public Act 98-0641 (SB 1922)

- Approved and effective June 9, 2014.
- Implements a funding policy designed to achieve 90% funded ratio by 2055.
- Provides for incrementally increased employer contribution multiple, which eventually converts to actuarial-based funding.
- Caps the current pension levy at the full required city contribution amount.
- Creates payment obligation to the fund; provides enforcement.
- Provides for incrementally increased employee contributions.
- Tier 1: Ties annual increase in retirement annuity to inflation, subject to 3% cap, delays initial annual increase by one year, and eliminates annual increases in 2017, 2019 and 2025 for most annuitants.
- Tier 2: Reduces minimum retirement age by 2 years, delays the initial annual increase by one year for some retirees, and eliminates the annual increases in 2025.

Public Act 98-1022 (SB 452)

- Approved and effective August 22, 2014.
- Requires investment managers and consultants entering into a contract to disclose information on use of vendors owned by minorities, females, and persons with disabilities.
- Requires minority consideration to be "within the bounds of financial and fiduciary prudence."
- Defines "minority investment managers" and requires funds to adopt a policy to increase goals for utilization. Requires annual review.
- Declares it is the public policy of the State to encourage use of minority investment managers.

2015 Session

Public Act 99-0462 (SB 1334)

- Approved August 25, 2015.
- Sets aspirational goals that, beginning January 1, 2016, at least 20% of the total funds under management be managed by emerging investment managers and that at least 20% of the investment advisors be minorities, females, and persons with disabilities.
- Sets the aspirational goal that, beginning January 1, 2016, at least 20% of contracts for “information technology services”, “accounting services”, “insurance brokers”, “architectural and engineering services”, and “legal services” be awarded to businesses owned by minorities, females, and person with disabilities.

Jones et al. v. Municipal Employees’ Annuity and Benefit Fund of Chicago, et al.
Johnson et al. v. Municipal Employees’ Annuity and Benefit Fund of Chicago, et al.

- Public Act 98-0641 was ruled unconstitutional by the circuit court on July 24, 2015. On March 24, 2016, the Illinois Supreme Court affirmed the circuit court’s decision.
- Restores full automatic annual increase, the date of initial increase and eliminates increase holidays
- For Tier 2, changes retirement age for unreduced benefits back to age 67 and for reduced benefits to age 62.
- Eliminates new funding policy.

2016 Session

Public Act 99-0683 (HB 6030)

- Approved July 29, 2016.
- Requires every pension fund or retirement system under the Code to develop and implement, by no later than June 30, 2017, a process to identify annuitants who are deceased. The process shall require the pension fund or retirement system to check for any deceased annuitants at least once per month and shall include the use of commonly accepted methods to identify persons who are deceased, which include but are not limited to, the use of a third party entity that specializes in the identification of deceased persons, the use of data provided by the Social Security Administration, the use of data provided by the Department of Public Health’s Office of Vital Records, or the use of any other method that is commonly used by other states to identify deceased persons.

APPENDIX A

2017 Session

Public Act 100-0023 (SB 0042)

- Approved July 6, 2017 (effective date).
- Creates a new tier of benefit eligibility and contribution requirements for members (Tier 3) who first become members on or after the effective date of the Act. Benefit structure would be consistent with a Tier 2 member, except as reflected below:
  - Members would contribute 11.5%
  - Beginning January 1, 2018, members would contribute the lesser of 11.5% or the normal cost of the accrued benefit calculated on an annual basis; not less than 8.5%
  - Qualified members would be able to retire at 65 years of age undiscounted and 60 to 64 years of age discounted.
- A Tier 2 member would have from October 1 to November 15, 2017 to make an irrevocable election to become a Tier 3 member.
- Creates an optional benefits structure for certain Tier 2 members. Must be passed by resolution or ordinance by the governing body of the local government.
- Requires law department employees first hired after the effective date of the Act to be members of the Fund.
- The City of Chicago will increase contributions to the Fund from 2018 to 2022 (ramp period) and then begin paying a required contribution to achieve 90% funding in 40 years (2058).
- The Fund's ability to subrogate a disability injury of a member that was caused by a third party.
- Closes the Alternative Annuity for City Officers Plan to officers who first become an elected officer after the effective date of the Act.
- Felony conviction. Any refund to a person who was convicted of a felony that was in relation to their service as a municipal employee, shall be reduced by any benefit received by the person prior to the calculation of the refund. This relates to persons who first became members after the effective date of the Act.

Public Act 100-0334 (HB0350)

- Approved and effective August 25, 2017.
- Provides for the forfeiture of benefits for any person who otherwise would receive a survivor benefit who is convicted of any felony relating to or arising out of or in connection with the service of the member from whom the benefit results.
- Provides that this legislation will not affect any right to survivor benefits prior to the effective date of this Act.

Public Act 100-0542 (SB1714)

- Approved and effective November 8, 2017.
- Amends the General Provisions Article 1 of the Illinois Pension Code.
- Requires an investment consultant to annually disclose to the Board (of a retirement system, pension fund, or investment board) the following:
  - Total searches conducted for investment services in the prior year
  - Total searches conducted for investment services in the prior year that include minority owned, female owned, or businesses owned by persons with a disability (MWDBE), number of MWDBE recommendations made, and amounts awarded to the MWDBE
  - Requires a consultant to disclose any compensation or economic opportunity received in the last 24 months from any investment advisors recommended to or retained by the Board (of a retirement system, pension fund, or investment board).
  - Requires consideration of these disclosures before awarding any contract for consulting services.

APPENDIX A

2018 Session

Public Act 100-1166 (HB0166)

- Approved and effective 1/4/19.
- Trailer bill to SB0042 (Public Act 100-0023).
- Clarifies what qualifies a participant as a Tier 3 member.
- Clarifies the member contribution rate once the MEABF achieves 90% funding.

2019 Session

Public Act 101-0069 (HB2824)

- Approved and effective 7/12/19.
- Changes the date by which members receive retroactive annuity payments to be 1 year prior to the date the application for annuity is received by the Board.
- Provides that the Board can extend the frequency at which a member receiving disability payments from the Fund must be examined by a Board appointed physician.
- Provides that the Board will not be liable if a member experiences financial loss due to depositing their annuity payment with a financial institution that is possibly not federally insured.

Public Act 101-0473 (HB2460)

- Approved in August 2019 and effective January 1, 2020.
- Sustainable Investing Principles was approved by the Board and adopted by MEABF's Investment Policy Statement in December 2019.
- Requires the Board and other fiduciaries to regularly consider material, relevant, and decision-useful sustainability factors in evaluating investment decisions.

Public Act 101-0233 (HB814)

- Approved August 9, 2019 and effective January 1, 2020.
- Amends the Open Meetings Act.
- Provides that an elected or appointed member of a municipality may satisfy training requirements by taking a course sponsored or conducted by an organization as designated under the Illinois Municipal Code.
- Provides content requirements for training.
- Provides a certificate of completion must be issued to each elected or appointed member who successfully completes that training.

2019 Session (continued)

Public Act 101-0177 (HB 834)

- Effective July 31, 2019.
- Amends the Equal Pay Act of 2003.
- Provides that exceptions to the equal pay requirement based on sex also applies to the equal pay requirement for African American employees.
- Provides that an employer may not disclose salary or wage information without written authorization from the employee whose information is being requested.
- Provides that specified provisions shall not be construed to prevent an employer from providing benefit information in relation to a position or engage in discussions with an applicant about their expectations regarding benefits.
- Provides that an employer is not in violation of specified provisions when an applicant volunteers salary and benefit history on the condition that the employer does not consider or rely on the information given voluntarily as a factor in determining whether to offer a job or determine future salary, benefits, or other compensation.

Public Act 101-0459 (HB 2124)

- Approved and effective August 26, 2019.
- Also amends the Open Meetings Act.
- Provides that a public body may hold a closed meeting to discuss the appointment, employment, compensation, discipline, performance, or dismissal of specific employees, independent contractors in a park, recreational, or educational setting, or specific volunteers of the public body or legal counsel for the public body.

Public Act 101-0005 (SB 196)

- Approved and effective May 15, 2019.
- Provides that appointments made to the State Board of Elections occurring in 2019 shall be made and submitted by the Governor no later than May 15.

Public Act 101-0546 (SB 1264)

- Approved August 23, 2019 and effective January 1, 2020.
- Amends the Revised Uniform Unclaimed Property Act.
- Provides that the Act does not apply to any annuity, pension, or benefit funds held in a fiduciary capacity by a retirement system.
- Provides that property assumed as abandoned in an annuity, pension, or benefit fund held in a fiduciary capacity shall be reported to the administrator.
- Provides that no retirement system shall pay any benefit funds held in a fiduciary capacity to the administrator.

2019 Session (continued)

Public Act 101-0343 (SB 1624)

- Approved August 9, 2019 and effective January 1, 2020.
- Amends the Personal Information Protection Act.
- Provides that an information breach to more than 500 Illinois residents as a result of a single breach must be reported to the Attorney General no later than when notice is provided to the consumer.
- Provides that the Attorney General may publish information concerning the breach.

Public Act 101-0434 (SB 1713)

- Approved August 20, 2019 and effective January 1, 2020.
- Amends the Freedom Information Act.
- Provides exemptions from disclosure a public body's confidential bank and credit card account information where the disclosure of this information could result in public loss.

2020 Session

Public Act 101-0640 (SB 2135)

- Approved and effective June 12, 2020.
- Provides the following provisions that may be enacted by the government due to the COVID-19 pandemic:
    - Meetings subject to the Open Meetings Act can be conducted by audio or video conference without a quorum of the members physically present under certain conditions.
    - No public entity will be considered in violation of this Act for failure to respond to a request between March 10, 2020 and June 1,2020 as long as the entity responds within 30 days of the effective date of this Act.
    - The deadlines for filling statements of economic interest on or after March 17, 2020 are suspended until August 1, 2020.
    - Allows for notaries and witnesses to perform their duties using two-way audio-video communication technology that allows video and audio interaction between the individual signing the document, the witness, and the notary public.

Public Act 101-0642 (SB 1863)

- Approved and effective June 16, 2020.
- Creates the Conduct of the 2020 General Election Article in the Code.
- Establishes November 3, 2020 as a State holiday to be known as General Election Day to be observed throughout the State.
- Provides that all government offices shall be closed unless said office is being used for election day services or as a polling place.
- Also provides for changes to the following: vote by mail, first time voters, the public dissemination of information, early voting, election judges, additional duties of elections authorities, and 2020 county party conventions.

APPENDIX A

2021 Session

Public Act 102-0342 (HB 275)

- Approved and effective August 13, 2021.
- Amends the Illinois Pension Code.
- Provides that a compensation or supplemental annuity shall not be paid unless the performance of an act of duty results solely in the death of the employee.
- Provides that the death of employee as a result of exposure and contraction of COVD-19 while in the performance of acts of duty with rebuttable presumption is considered to be a death in active service from March 9, 2020, to June 30, 2021. This does not apply if the employee was on a leave of absence from their employer or working remotely for 2 weeks prior to contracting COVID-2019.
- For school years on or after July 1, 2021, an annuity shall not be cancelled if an employee of CPS is re-employed as a SECA on a temporary/hourly/non-annual basis if said employee does not work more than 120 days in a school year or earn more than $30,000 a school year. Re-employment does not require contributions, result in service credit being earned, or for said employee be considered an active participant in this Fund.
- Allows an officer under the Downstate Police Article to establish up to 5 years of optional credit as a participant under the Chicago Police Article under certain circumstances.

Public Act 102-0601 (HB 2766)

- Approved August 27, 2021 and effective January 1, 2022.
- Provides that an annuitant formerly employed by the City of Chicago may have a portion of their pension withheld for payment of dues to a labor organization. Also, the City of Chicago shall coordinate mailings no more than twice in a 12-month period to such annuitants.

Public Act 102-0603 (HB 3004)

- Approved August 27, 2021 and effective January 1, 2022.
- Prohibits an individual who is a board member of a pension fund, investment board, or retirement system from being employed by that retirement system at any time during their service or for 12 months after they are no longer a board member. If a senior administrative staff position becomes vacant and no other member of the staff is willing to accept the position, a board member may service as an interim member of senior staff of the Fund under certain circumstances.

Public Act 102-0014 (HB 3922)

- Approved June 16, 2021 and effective January 1, 2022.
- Provides that Juneteenth shall be observed on June 19 of each year as a holiday throughout the State. When June 19 falls on a Saturday or Sunday, neither the previous Friday or following Monday shall be considered a paid holiday.

APPENDIX A

2022 Session

Public Act 102-1108 (HB 1293)

- Approved and effective December 21, 2022.
- Amends the Illinois Pension Code. Provides that the State-funded retirement systems shall not invest in any investment instrument issued by entity that resides in or has its principal place of business in Russia or Belarus
- Provides that no retirement system shall invest or deposit State monies in any bank that is domiciled or has its principal place of business in Russia or Belarus.
- Provides that each State-funded retirement system shall instruct its investment advisors to sell, redeem, or withdraw all direct holdings of Russian or Belarusian sovereign debt or government backed securities from the retirement system's assets in an orderly and fiduciarily responsible manner.

Public Act 102-0709 (HB 5472)

- Approved and effective April 22, 2022
- Amends the Downstate Teacher Article of the Illinois Pension Code
- Provides that from July 1, 2021 to June 30, 2022, an additional 20 paid days or 100 paid hours shall be added to a provision that allows an annuitant to accept employment for a certain number of paid days or hours as a teacher without affecting one's pension.

Public Act 102-0285 (SB 273)

- Approved and effective August 6, 2021
- Amends the Public Funds Investment Act
- Provides that no more than one-third of a public agency's funds may be invested in short term obligations that mature no later than 270 days from the date of purchase, or in investments that mature more than 270 days but less than 3 years from the date of purchase.

Public Act 102-0097 (SB 460)

- Approved July 9, 2021 and effective January 1, 2022
- Amends the Illinois Pension Code.
- Provides that all contracts for investment services shall be awarded using a process that is like the process required for the procurement of professional and artistic services under the Illinois Procurement Code.
- Provides that an exception may be allowed for contracts for investment services with an emerging investment manager provided through a qualified manager of emerging investment manager services.
- Provides that a board may select or appointment an emerging investment manager if that manager has been providing investment services in the multimanager portfolio for at least 24 months.
- Provides that all exceptions must be published on the Fund's website, which shall name the person authorizing the procurement and a brief explanation of the reason for the exception.

2022 Session (continued)

Public Act 102-0219 (SB 1675)

- Approved and effective July 30, 2021
- Amends the Deferred Compensation Article of the Illinois Pension Code.
- Provides that any agency with employees subject to automatic enrollment must systematically provide the employee data necessary for enrollment to the Department of Central Management Services or its designee.
- Provides that the Board shall establish annual, automatic increases to employee contribution rates for employees that are automatically enrolled in the deferred compensation plan.
- Provides that the amount of automatic annual increases to employee contribution rates in any 12-month period shall not exceed 1% of compensation.

Public Act 102-0653 (SB 2356)

- Approved August 27, 2021 and effective January 1, 2022
- Amends the Open Meetings Act
- Provides that each public body shall periodically meet to review minutes of all closed meetings.
- Provides that meetings to review minutes shall occur every 6 months, or as soon thereafter as is practicable, considering the nature and meeting schedule of the public body.
- Provides that when a public body is dissolved or consolidated by executive action and its functions and responsibilities are assumed by a unit of local government which assumes the functions of the prior public body shall review the closed session minutes of that public body.

End of Report

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