



ILLINOIS MUNICIPAL RETIREMENT FUND ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the years ended December 31, 2022 and December 31, 2021

OAK BROOK, IL & SPRINGFIELD, IL



**FOR THE YEARS ENDED
DECEMBER 31, 2022 & DECEMBER 31, 2021**

PREPARED BY

The Finance Department of the
Illinois Municipal Retirement Fund

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CONTACT IMRF

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www.imrf.org

Brian Collins

Executive Director

IMRF MISSION STATEMENT

To efficiently and impartially develop, implement, and administer programs that provide income protection to members and their beneficiaries on behalf of participating employers, in a prudent manner.

IMRF VALUES

These values guide IMRF to REAACH for our mission and achieve our goals

R E A A C H
RESPECT EMPATHY ACCOUNTABILITY ACCURACY COURAGE HONESTY



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IMRF BOARD OF TRUSTEES

The IMRF Board of Trustees is responsible for the prudent management of IMRF's retirement assets, and for making sure the money is there to pay the benefits earned by every IMRF member and beneficiary, now and for years to come. The Board carries the responsibility to ensure that IMRF continues to be a well-run, successful pension fund. An eight-member Board of Trustees governs IMRF:

- Four Executive Trustees elected by participating units of government
- Three Employee Trustees elected by participating IMRF members
- One Annuitant Trustee elected by IMRF annuitants.

The Board meets at least four times a year and may meet monthly as needed. Trustees are elected to five-year terms and serve without compensation. In their five-year term, each Trustee will have the opportunity to hold each officer position at least one time. Trustees are not subject to term limits.



TOM KUEHNE
2023 PRESIDENT
EXECUTIVE TRUSTEE
Current term ending Dec. 31, 2027
Village of Arlington Heights



PETER STEFAN
2023 VICE PRESIDENT
EMPLOYEE TRUSTEE
Current term ending Dec. 31, 2025
Village of Lake in the Hills



LOUIS KOSIBA
2023 SECRETARY
ANNUITANT TRUSTEE
Current term ending Dec. 31, 2025
Formerly IMRF



NATALIE COPPER
EMPLOYEE TRUSTEE
Current term ending Dec. 31, 2024
Dawes School in Evanston



GWEN HENRY
EXECUTIVE TRUSTEE
Current term ending Dec. 31, 2025
DuPage County



TRACIE MITCHELL
EMPLOYEE TRUSTEE
Current term ending Dec. 31, 2025
City of Decatur Police Department



DAVID MILLER
EXECUTIVE TRUSTEE
Current term ending Dec. 31, 2026
North Shore Water Reclamation District



SUE STANISH
EXECUTIVE TRUSTEE
Current term ending Dec. 31, 2023
Naperville Park District

IMRF DIRECTORS



BRIAN COLLINS
Executive Director



CARA BANNON
Director of Human Resources



BETH JANICKI CLARK
General Counsel



ANGELA MILLER-MAY
Chief Investment Officer



MARK NANNINI
Chief Financial Officer

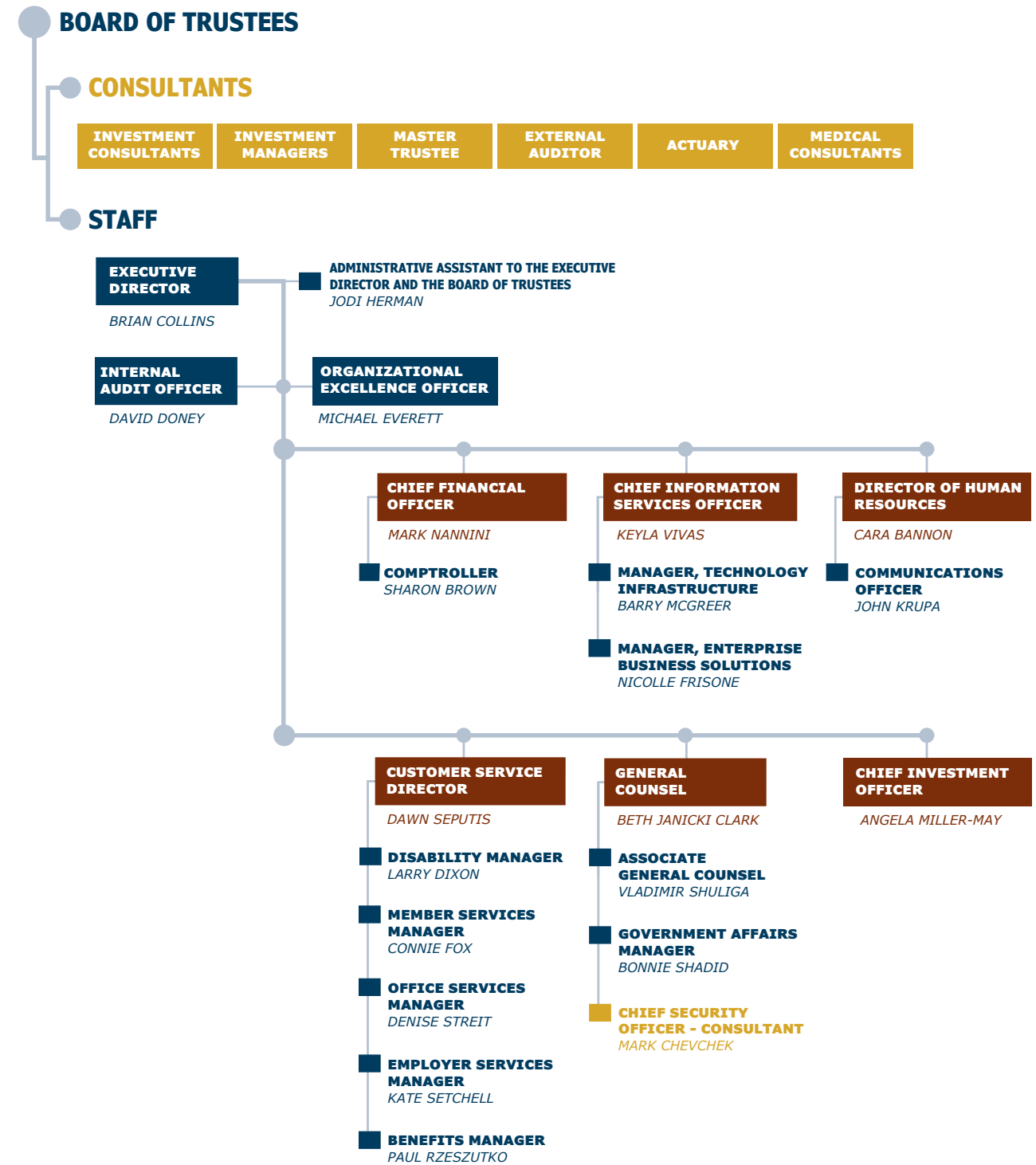


DAWN SEPUTIS
Customer Service Director



KEYLA VIVAS
Chief Information Services Officer

ORGANIZATION CHART



Consultants – Investment Consultants are listed on pages 70 and 71, investment commissions and fees are listed on pages 80 through 82.

Actuary Gabriel, Roeder, Smith & Company Brian B. Murphy, F.S.A. Mark Buis, F.S.A. Southfield, Michigan	External Auditors Plante Moran Michelle Watterworth Theresa Banka Kristin Hunt Southfield, Michigan	Master Trustee The Northern Trust Kimberly Miller Senior Vice President Chicago, Illinois	Medical Consultants MMRO, Inc. Novi, Michigan	Adjudicators Ottosen DiNolfo Hassenbarlg & Castaldo, LTD. Susan Davis Brunner, LLC.
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GFOA AWARDS

IMRF takes great pride in its reputation for transparency. To ensure this reputation continues, IMRF seeks feedback from the Government Finance Officers Association (GFOA) through its various award programs.

For 2021, IMRF received the Certificate of Achievement for Excellence in Financial Reporting for the 42nd consecutive year. To achieve the award, IMRF earned outstanding or proficient ratings across all award criteria. This honor showcases IMRF's ongoing commitment to the core values of accuracy and accountability, and to providing the resources required to support members and employers across Illinois.

IMRF will continue to participate in the GFOA awards programs in the future.



May 26, 2023
Board of Trustees
Illinois Municipal Retirement Fund
Oak Brook, Illinois 60523-2337

FORMAL TRANSMITTAL

We are pleased to submit the Annual Comprehensive Financial Report (Annual Report) of the Illinois Municipal Retirement Fund (IMRF) for the year ended December 31, 2022. IMRF's management is responsible for the compilation and accuracy of the financial, investment, actuarial, and statistical information contained in this report. To the best of our knowledge and belief, the enclosed information is accurate in all material respects and is reported in a manner designed to fairly present the fiduciary net position and changes in the fiduciary net position of IMRF.

In developing and evaluating IMRF's accounting system, we consider the adequacy of internal accounting controls. We design these controls to provide reasonable assurance regarding the safekeeping of assets and the reliability of financial records. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements.

IMRF's Internal Audit department is comprised of four full-time employees, including an Internal Audit Officer. The Internal Audit department uses a risk-based audit plan and detailed internal audit programs that encompass examination of internal controls and the Fund's financial transactions and records. IMRF engages an independent public accounting/technology consulting firm annually to review and test internal controls over our information systems.

The internal audit function reports directly to the Executive Director and the Board of Trustees. The Board of Trustees has established an Audit Committee, comprised of at least three Board members. Annually, the Internal Audit Officer presents a report to the Audit Committee covering the results of internal audit procedures performed. The Internal Audit Officer may also meet with the committee on an as-needed basis. Again, this year, the Internal Audit Officer reported that IMRF's system of internal controls appears adequate and is being adhered to in the areas tested.

Annually, IMRF completes a SOC 1 Type 2 (System and Organization Controls) attestation report for distribution to employers and their auditors to comply with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*. A SOC 1 Type 2 attestation engagement tests controls related to the accuracy of financial data and the information technology used to produce the financial data. The unmodified opinion in the report gives an employer's auditor confidence that the proper controls are in place and administered on a consistent basis each day of the year and that the financial information is accurate and can be relied upon.

The Illinois Pension Code requires an annual audit of the financial statements of the Fund by independent certified public accountants selected by the Board of Trustees. IMRF satisfied this requirement and the independent auditor's unmodified audit report on IMRF's 2022 Financial Statements is included in this report. The independent auditors meet at least twice a year with the Audit Committee, once to report on the planned scope of their audit and a second time to report on its results.

The Management Discussion and Analysis (MD&A) begins on page 20 of this Annual Report and provides an overview and analysis of the operations of IMRF and the financial statements. This letter of transmittal is intended to complement the MD&A and should be read in conjunction with it.

PROFILE OF IMRF

IMRF is the administrator of an agent multiple-employer public employee retirement system. The Illinois State Legislature established IMRF in 1939. It began operations in 1941 to provide retirement, death, and disability benefits to employees of local units of government in Illinois. Members, employers, and annuitants elect eight trustees who govern IMRF. IMRF is separate and apart from the Illinois state government and is not included in the state's financial statements. IMRF now serves 3,027 different employers, 175,224 participating members, 148,128 inactive (not receiving benefits) and 151,568 benefit recipients. The Illinois Pension Code requires IMRF to provide its financial statements to participating employers and to any participating member who requests them. These financial statements also appear on IMRF's website, www.imrf.org.

ECONOMIC CONDITIONS

SUMMARY OF FINANCIAL INFORMATION

The following table summarizes additions and deductions to the Fund's fiduciary net position for 2022 and 2021.

	2022 (millions)	2021 (millions)	Dollar Change (millions)	Percent Change
Additions	\$ (6,557.0)	\$ 9,890.0	\$ (16,447.0)	(166.3)%
Deductions	2,952.2	2,761.9	190.3	6.9%
Net Change	\$ (9,509.2)	\$ 7,128.1	\$ (16,637.3)	(233.4)%

The decrease in Additions between 2022 and 2021 is primarily due to a \$16,316.2 million decrease in investment income. The 2022 financial markets decreased over 2021 markets impacted by the war abroad, supply chain issues, increases in wages, and inflationary times impacted the economy. Despite the Federal Reserve raising rates seven times throughout 2022 inflation prevailed. The increase in Deductions is primarily due to increased benefit payment amounts and an increase in the number of benefit recipients from 147,134 to 151,568, as well as an increase in refunds. For a full understanding of IMRF's financial results, you are encouraged to review the "Financial" section of this report, which includes the Independent Auditor's Report, Management's Discussion and Analysis, Financial Statements, and other supplemental information. Management's Discussion and Analysis provides a narrative introduction, overview, and analysis of the financial statements and complements this transmittal letter.

FUNDING

The funding of IMRF is comprised of three components. The first is member contributions of either 4.5% (regular plan) or 7.5% (SLEP and ECO plans) of the covered wages established by the Illinois Pension Code. The second portion of the funding is employer contributions. These contributions are based on an individual rate calculated for each employer annually by our actuary. It is based on each employer's member demographics, wages, and experience. The final and most important component of funding the plan is investment income. IMRF has advocated for a 100% funding goal as it, in the long run, is the most cost efficient for our employers. For additional information on investments, see the "Investments" section.

IMRF's actuary uses a five-year smoothed market-related value with a 20% corridor to determine the actuarial value of assets. The smoothing is intended to prevent extreme volatility in employer contribution rates due to short-term fluctuations in the investment markets. For the December 31, 2022, valuation, the aggregate actuarial value of assets was \$52.1 billion. The aggregate actuarial liability for all IMRF employers was \$53.1 billion. The aggregate actuarial funding ratio is currently 98.2% (a decrease from the 2021 ratio of 98.6%). If the market value of assets is used (i.e., no actuarial smoothing), the aggregate funding ratio is 90.7% as of December 31, 2022, a decrease from 113.3% as of December 31, 2021. The reason for the difference between the two ratios is due to the five-year smoothing of gains and losses in the actuarial funding ratio while the market funding ratio reflects the immediate impact of investment gains and losses. As of December 31, 2022, IMRF's market-based funding value change was less than the actuarial funding value since there were (\$3,941.8) million of unrecognized actuarial investment losses, which will be reflected in the 2023 through 2026 period, in keeping with the five-year actuarial smoothing technique discussed above.

The preceding ratios are for the Fund as a whole. Under the Illinois Pension Code, each employer funds the pensions for its own employees. Funding ratios for individual employers and individual plans vary widely. IMRF members can look with a sense of security to the net position base since these assets are irrevocably committed to the payment of their pensions when they retire. The actuary has determined that the present net position base, expected future contributions, and investment earnings thereon are sufficient to provide for full payment of future benefits under the level payroll percentage method of funding. The "Actuarial" section of this report contains the actuary's letter and further information on IMRF's funding. The IMRF Board of Trustees last reviewed the funding policy in December 2022. The annual assumed investment rate of return is 7.25%.

INVESTMENTS

The investment portfolio is a major contributor to the Fund. Year 2022 investment returns resulted in a loss of \$7.9 billion or (12.9)%. Looking at it from a long-term perspective of 3, 5, and 10 years, the rates of return are 5.3%, 5.9%, and 7.8%, respectively. The 2022 investment loss represented a negative 120.0% of the Plan Additions for the year. Plan additions include investment returns as well as member and employer contributions for the year. In the past five years—2018 through 2022—investment income/losses represented the following percentage of additions/subtractions to fiduciary net position:

Year	Percentage of Additions/Subtractions
2022	(120.0)%
2021	85.4%
2020	83.0%
2019	85.9%
2018	(452.8)%

IMRF's primary goal is to optimize the long-term total return of the Fund's investments through a policy of diversification, within a parameter of prudent risk, as measured on the total portfolio. Currently, the public markets portfolio is managed by 34 professional investment management firms handling 43 mandates. These firms make investment decisions under the Prudent Person Rule authorized by Article 1 of the Illinois Pension Code and by investment policy guidelines adopted by the Board of Trustees. The private markets portfolio is invested with 71 investment firms across 217 separate funds. These firms make investment decisions under the Prudent Person Rule, authorized by Article 1 of the Illinois Pension Code and by investment policy guidelines adopted by the Board of Trustees.

Our Internal Equity Management team of three staff managed approximately \$4.5 billion in assets as of December 31, 2022.

The Board employs an Investment Consultant to assist staff in the development and evaluation of IMRF's strategic asset allocation, asset liability modeling study, and investment policy statements. The Investment Consultant also assists with the selection of investment management firms and in the monitoring and evaluation of investment manager performance. The Board of Trustees selected Wilshire Associates as the investment consultant in January 2020, that contract continued throughout 2022.

The Investments section of this report contains a summary of IMRF's investment portfolio, investment performance, the Investment Consultant's report, the Master Trustee's report, a summary of investment policies and fees/commissions. These summaries are in the Investments Section on pages 67 through 82. Please refer to the Table of Contents for specific page numbers.

CURRENT AND FUTURE DEVELOPMENTS

A. BOARD OF TRUSTEES

Tom Kuehne, who has served as Trustee since 2013, was elected to his third term as Executive Trustee. His third term will run from January 1, 2023, through December 31, 2027.

B. LEGISLATIVE ACTIVITY APPLICABLE TO IMRF (PASSED IN 2022)

Six bills and One Federal Law that affect IMRF passed the General Assembly in 2022:

Public Act 102-0849

Creates an exemption for employers from the Accelerated Payment requirements that arise due to workers' compensation payments. Effective May 13, 2022.

Public Act 102-0850

Aligns the suggested employer resolution to adopt an Early Retirement Incentive with the statutory language regarding limitations on ERI retirees returning to work for an IMRF employer. Effective May 13, 2022.

Public Act 102-0856

Adds current members of the State Employees' Retirement System, (SERS) who are participating in that fund as Illinois Gaming Board or arson investigators to the list of inactive members eligible to transfer certain IMRF credit to SERS. Effective January 1, 2023.

Public Act 102-0857

Opens a window to transfer certain service credit from IMRF to a downstate police pension fund. Effective May 13, 2022.

Public Act 102-0943

Requires all employers to make at least 20 days of paid leave available annually to any employee trustee of IMRF in their employment. It also requires the Fund to reimburse these employers for the actual cost of hiring a substitute employee during such leaves (currently requires reimbursement only of the trustee's actual salary). Effective January 1, 2023.

Public Act 102-1061

In the provisions applicable to IMRF, opens two transfer windows: one to transfer certain IMRF service credit to a downstate police pension fund and another to transfer service credit from a downstate police pension fund to IMRF SLEP service. The provision to transfer service out of IMRF was effective January 1, 2023 while the provision allowing transfer of service to IMRF was effective July 1, 2022.

Public Law No. 117-328 (Federal)

In the provisions applicable to IMRF, increases the age at which inactive members must begin receiving distributions from the plan from the current age 72 to 75. This change will occur incrementally over the next 10 years. It also exempts public safety employees from the 10% early withdrawal penalty upon the earlier of age 50 or 25 years of service credit earned in that capacity regardless of age. It also expands the definition of "public safety employees" to include correctional officers and certain forensic employees. Effective December 29, 2022.

C. SYSTEMS DEVELOPMENT

IMRF's major 2022 system development priorities focused on:

- Continued the Horizon Project system implementation, including the upgrade of all components in all environments and completed the last segment for Phase 4 "Build and Deploy" including two rounds of User Acceptance Testing. "Go Live" for Horizon 1.0 originally planned for fourth quarter 2022 was moved to 2023.

- Disaster Recovery work continued to improve our ability to meet our Recovery Time Objective goals using replication strategies. We executed a Disaster Recovery drill for production using Horizon infrastructure and pension administration solution instead of Spectrum (mainframe) prior to "Go Live.". Two major Disaster Recovery drills were executed in 2022.
- Replaced Palo Alto Firewall appliance to meet IMRF needs for performance, capacity, and improve defense against cybersecurity threats. This was needed as we expand our digital footprint by increasing access through VPN, performing more video conference meetings, conducting webinars, broadening data replication technology to support an upgraded Disaster Recovery posture, and adapting to some vendors solely offering cloud-based services moving forward.
- Implemented expanded Multifactor Authentication Access to further protect IMRF digital identities and increase our cyber defense posture against unauthorized access to critical identity connection endpoints.
- Implemented telephony enhancements such as Call Back Assist to support IMRF's Customer Service Goals.
- Upgraded our virtualization infrastructure version ahead of Horizon "Go Live."

IMRF's major 2023 system development priorities focused on:

- Performing last phases of the Horizon Project system implementation such as Pilot program, staff training, performance testing, and finalization of all data conversion tasks. Go Live" for Horizon 1.0 is planned for 2023.
- Implementing Horizon version 1.1 during 2024.
- Replacing end-of-support audio-visual components in three conference rooms located in both our Springfield and Oak Brook offices.
- Augmenting our Horizon data storage needs while reducing energy costs by introducing all-flash storage components that replace older components that were used with the Spectrum solution.
- Improving the Springfield network architecture by eliminating a circuit dependency.
- Replacing wireless access points throughout IMRF's Oak Brook office to enhance security while introducing the increased speeds provided by newer wireless standards.
- Introducing telephony self-service options via an Interactive Voice Response (IVR) system with phone-based call surveys for Member, Employer, and beneficiary feedback.
- Enhancing our Business Continuity Plan (BCP) by configuring a telephony presence at our Disaster Recovery (DR) site that takes advantage of cloud-based communications.
- Updating our SAN storage environment and implementing new flash storage arrays in Oak Brook and the DR site.
- Adding additional servers to Oak Brook and the DR site to support Horizon environments and prepare for End of Life (EOL) of some current systems.
- Adding backup replication processes from Oak Brook and the DR site.
- Replacing Oak Brook floor switch stacks which have reached EOL.
- Retiring Microsoft Server 2012 systems that will reach EOL in 2023, as well as the decommissioning of our original pre-Horizon server upgrades (once "Go Live" is reached).

D. INVESTMENT ACTIVITIES

On February 2, 2023, IMRF staff and its consultant presented the 2023 Asset Allocation Review to the Investment Committee of the IMRF Board of Trustees. Asset allocation targets were approved by the Board and became effective as of February 2, 2023. The 2023 and 2022 asset allocation targets are listed in the table below:

Asset Class	2023 Target	2022 Target
U.S. Equity	35.5%	35.5%
International Equity	18.0%	18.0%
Fixed Income	25.5%	25.5%
Private Real Assets	10.5%	10.5%
Alternative Investments	9.5%	9.5%
Cash Equivalents	1.0%	1.0%

Major investment activities in 2022 through February 2, 2023, were as follows:

- The 2023 IMRF Investment Committee Charter and Statement of Investment Policy were revised by staff and approved by the Board.
- Commitments were approved for 12 Private Real Assets mandates totaling \$803 million.
- Commitments were approved for 24 Private Equity mandates totaling \$804 million.
- A Portfolio Rebalancing was implemented withdrawing approximately \$3,600 million from S&P Growth and \$200 million from emerging market debt rebalancing into \$300 million into domestic high yield fixed income, \$400 million into global listed infrastructure \$1,000 million to an international bank loan fund, \$1,500 million into internally managed domestic equity, and \$600 million for private market capital calls and cash flow.
- The Capital Markets Assumptions and 2023 Annual Asset Allocation Review were presented by staff and the consultant and were approved by the Board. This included changes to the strategic asset allocation targets and the policy benchmark to be phased in over a three-year period.

E. STRATEGIC PLAN

IMRF's Strategic Plan provides the Fund with a road map for meeting the challenges and opportunities in achieving our Vision to provide the highest quality retirement services to our members, their beneficiaries, and employers in a cost-effective manner. The Plan guides our efforts to continuously improve customer service to our employers and members.

The 2023 - 2025 IMRF Strategic Plan includes elements of the Baldrige Criteria for Performance Excellence to ensure we align our objectives, processes, and resources with our Vision. IMRF staff began implementing a series of action plans that support our four Strategic Objectives during 2023. We include the following four key result areas on our leadership scorecard to measure our progress towards meeting our objectives:

- Financial Health
- Workforce Engagement
- Customer Engagement
- Operational Excellence

The 2023 - 2025 Strategic Plan was approved by the Board of Trustees at the February 11, 2022 board meeting.

F. THE PARTNERSHIP FOR EXCELLENCE

The Partnership for Excellence (TPE) is a regional non-profit organization serving Illinois, Indiana, Ohio, and West Virginia dedicated to improving the performance of organizations by utilizing the Baldrige Criteria for Performance Excellence and aligning their processes to become more efficient and sustainable. Organizations that pursue the Baldrige management framework can demonstrate through the TPE award application that they have adopted proven performance practices, principles, and strategies that nurture excellence in all aspects of their operations. This can range from customer relations to workforce engagement to specific operational and financial results. The comprehensive feedback report received from TPE provides additional guidance on how IMRF can further leverage our strengths and pursue opportunities for improvement.

In 2022, the state of Illinois formally joined the TPE regional Baldrige program, after disbanding of the Illinois Performance Excellence (ILPEX) program. IMRF was proud to be the recipient of the ILPEX Gold Award (representing achievement of excellence) in 2017.

Achieving the highest level of recognition at a state level (ILPEX Gold) qualified IMRF to apply at the national level via the Malcolm Baldrige National Quality Award (MBNQA). Established by Congress in 1987, the MBNQA was designed to raise awareness of quality management and to recognize US organizations that have implemented successful quality-management systems. IMRF applied to MBNQA in April 2018, qualified for a site visit, and received a comprehensive feedback report. IMRF again applied for the 2019 evaluation cycle and was awarded a site visit for a second year in a row. Our application and participation in the Baldrige program demonstrate IMRF's continued dedication to delivering excellent customer service to our members, annuitants, and employers.

In November 2019 IMRF staff received notice that IMRF was a proud recipient of the Malcolm Baldrige National Quality Award, the first public pension fund in the nation to receive this prestigious award. IMRF will continue to adopt the Baldrige Criteria for Performance Excellence framework and will be eligible to apply for the Malcolm Baldrige National Quality Award again in 2025.



Malcolm Baldrige National Quality Award

G. DEFINED BENEFIT ADMINISTRATION BENCHMARKING ANALYSIS

CEM Benchmarking Inc. conducts an annual Defined Benefit Administration Benchmarking Analysis for public pension systems. IMRF has participated in this benchmarking program since 2001. This program provides insight into benefit administration costs, customer service levels, customer experience and industry best practices. Our strategic objective is to provide the highest quality of service at a median cost. IMRF's total service score placed in the top 15%, while our costs were slightly below the median, as compared to our peer group of 41 public systems in the United States and Canada. IMRF will continue to participate in this benchmarking program, as it is an important part of our Continuous Process Improvement Program and allows us to gain valuable insights on trends and innovations occurring within the pension industry around the world.

REPORTS TO MEMBERSHIP

IMRF issued a variety of reports covering 2022 and 2021 activity. We provided Employer Statements every month. We issued annuitant statements in February 2023, Active Member Statements in March 2023, and Inactive Member Statements in March 2023. We will include a summary of this Annual Report for members and annuitants in *Fundamentals*, IMRF's member newsletter. We will advise Authorized Agents in May 2023 that this report, as well as our Popular Annual Financial Report, is available on our website, www.imrf.org.

ADDITIONAL AWARDS AND ACKNOWLEDGMENTS

AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to IMRF for its Annual Comprehensive Financial Report for the year ended December 31, 2021. IMRF has received a Certificate of Achievement from the GFOA for the last 42 consecutive years (fiscal years 1980-2021).



To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized Annual Comprehensive Financial Report, whose contents conform to program standards. Such a report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe our current report continues to conform to the Certificate of Achievement program requirements, and we will submit it to the GFOA. The Certificate of Achievement is a prestigious national award, recognizing conformance with the highest standards for preparation of state and local government financial reports.

IMRF also received a Certificate of Achievement for Excellence in Financial Reporting for its Popular Annual Financial Report for the year ended December 31, 2021.

IMRF received the GFOA Distinguished Budget Award for its 2022 budget. GFOA awarded the Distinguished Budget Presentation Award for the ninth consecutive time to IMRF. The award is for a one-year period. IMRF has applied again for this prestigious award for the 2023 budget document.

In addition, GFOA awarded IMRF its prestigious "Triple Crown" Award for the third year in a row. This award recognizes governments that have received all three GFOA Certificate of Achievement for Excellence in Financial Reporting awards.

In 2022, in recognition of meeting professional standards for plan administration and funding as set forth in the Public Pension Standards, IMRF was awarded for plan funding and administration by the Public Pension Coordinating Council, a confederation of the National Association of Retirement Administrators, the National Conference on Public Employee Retirement Systems, and the National Council on Teacher Retirement.

ACKNOWLEDGMENTS

The production of this report reflects the combined effort of the IMRF staff under the leadership of the Board of Trustees and the Executive Director, Brian Collins. The Finance Department, under the direction of Mark Nannini, compiled the report. A special thank you to Finance staff who dealt with COVID 19 concerns and were still able to produce this report for the Board of Trustees and the 3,027 employers that participate in IMRF.

We believe this report provides complete and reliable information for making management decisions, for determining compliance with legal provisions, and for determining responsible stewardship for the assets contributed by our members and their employers.

We make this report available to the Authorized Agents for all participating units of government. The Authorized Agents form the link between IMRF and its membership. Their cooperation, for which we are thankful, contributes significantly to the success of IMRF. We hope they will find this report both informative and helpful.

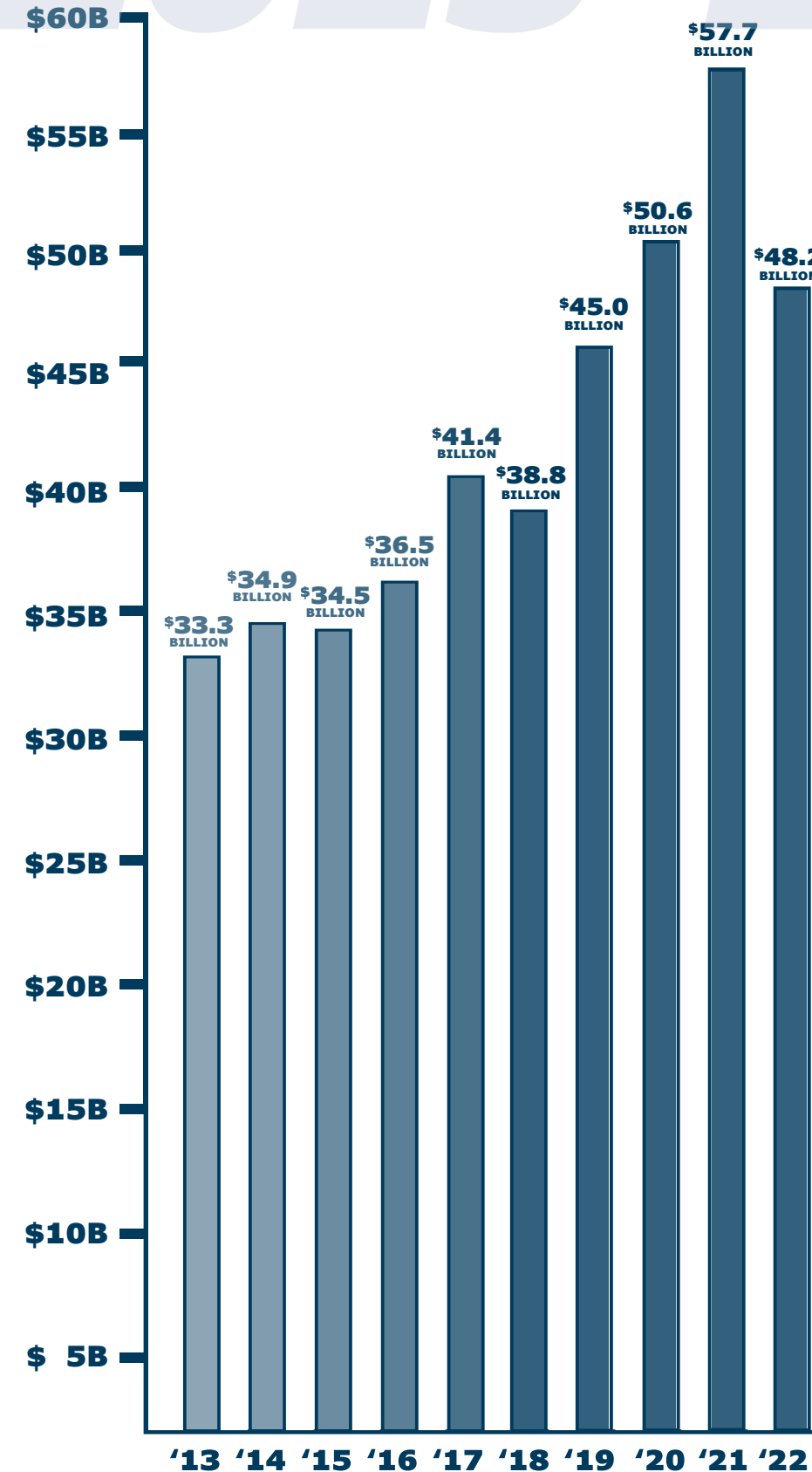
Respectfully submitted,

Brian Collins
Executive Director

Mark F. Nannini
Chief Financial Officer

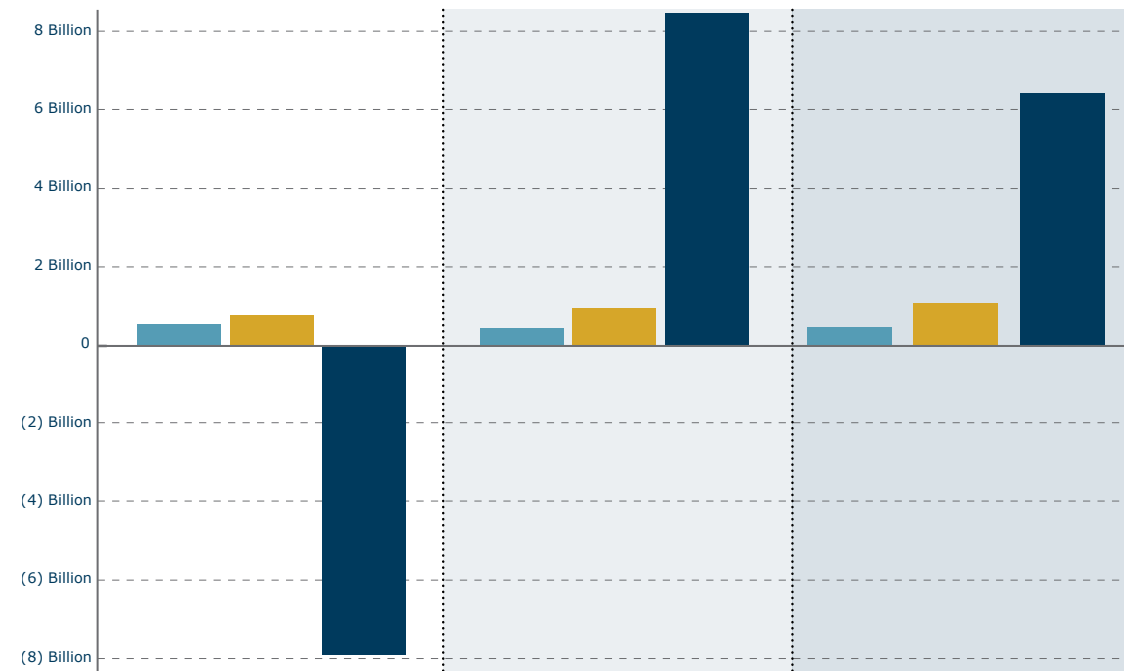
IMRF FIDUCIARY NET POSITION

2013-2022



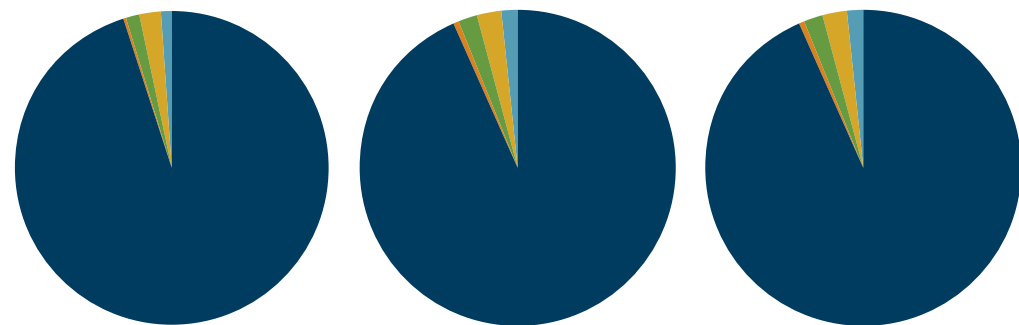
IMRF's financial position remains strong. With 44.7% growth from 2013 to 2022—an addition of 14.9 billion— IMRF will continue to provide secure and stable retirements for thousands of public employees in Illinois while limiting employer costs long into the future.

REVENUES BY SOURCE



	2022	2021	2020
Members	\$501,784,408	\$ 471,392,017	\$ 449,724,661
Employers	808,087,538	969,420,117	927,591,609
Investments	(7,866,897,624)	8,449,159,554	6,722,902,177
Total	(\$6,557,025,678)	\$ 9,889,971,688	\$ 8,100,218,447

EXPENSES BY TYPE



	2022	2021	2020
Annuities	\$ 2,791,927,834	\$ 2,624,826,197	\$ 2,451,850,667
Disability	8,090,078	9,334,722	8,383,136
Death	42,805,181	39,287,258	34,083,355
Refunds	73,175,000	60,073,886	52,178,126
Administrative	36,225,509	28,318,297	31,776,955
Total	\$ 2,952,223,602	\$ 2,761,840,360	\$ 2,578,272,239

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Independent Auditor's Report

To the Board of Trustees
 Illinois Municipal Retirement Fund

Opinion

We have audited the financial statements of Illinois Municipal Retirement Fund (IMRF) as of and for the years ended December 31, 2022 and 2021 and the related notes to the financial statements, which collectively comprise IMRF's basic financial statements, as listed in the table of contents.

In our opinion, the accompanying financial statements present fairly, in all material respects, the fiduciary net position of Illinois Municipal Retirement Fund as of December 31, 2022 and 2021 and the changes in its 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 Audits of the Financial Statements* section of our report. We are required to be independent of IMRF 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.

Responsibilities of Management for the Financial Statements

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

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about IMRF's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audits 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 audits 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 audits in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audits.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

To the Board of Trustees
 Illinois Municipal Retirement Fund

- Obtain an understanding of internal control relevant to the audits 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 IMRF's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about 's ability to continue as a going concern for a reasonable period of time.

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

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and other required supplementary information, as identified in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our 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.

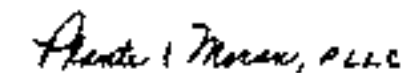
Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise Illinois Municipal Retirement Fund's basic financial statements. The other supplementary information, as identified in the table of contents, is presented for the purpose of additional analysis and is 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 other supplementary information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Information

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

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



May 19, 2023

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following Management's Discussion and Analysis (MD&A) of the Illinois Municipal Retirement Fund's (IMRF or the "Fund") financial performance provides an introduction to the financial statements of IMRF for the years ended December 31, 2022, and December 31, 2021. Since the MD&A is designed to focus on current activities, resulting changes, and current known facts, please read it in conjunction with the formal transmittal letter (pages 7-14), the financial statements and notes, required supplementary information, and supplementary information.

REQUIRED FINANCIAL STATEMENTS

IMRF, an agent multiple-employer public employee retirement system, prepares its financial statements on an accrual basis in accordance with Generally Accepted Accounting Principles promulgated by the Governmental Accounting Standards Board (GASB). The Statements of Fiduciary Net Position include all of IMRF's assets, liabilities, deferred outflows of resources, and deferred inflows of resources and provides information about the nature and amount of investments available to satisfy the pension benefits of the Fund. All additions to and deductions from the net position held in trust for pension benefits are accounted for in the Statements of Changes in Fiduciary Net Position. These statements measure IMRF's success over the past year in increasing the fiduciary net position available for pension benefits.

FINANCIAL ANALYSIS OF IMRF

In 2022, contributions of \$1,310 million, investment losses of \$7,867 million, and deductions to fiduciary net position of \$2,952 million resulted in a net decrease of \$9,509 million. This net decrease brought the Fund's fiduciary net position to \$48.2 billion.

FIDUCIARY NET POSITION

To begin the financial analysis, summarized comparisons of IMRF's Fiduciary Net Position for 2022 versus 2021 and 2021 versus 2020 are presented below.

CONDENSED STATEMENTS OF FIDUCIARY NET POSITION (IN MILLIONS)

	2022	2021	Dollar Change	Percent Change
Cash and cash equivalents	\$ (7.0)	\$ (5.3)	\$ (1.7)	32.1%
Receivables and prepaids	472.4	516.0	(43.6)	(8.4)
Investments	47,776.4	57,286.4	(9,510.0)	(16.6)
Invested securities lending cash collateral	315.5	327.3	(11.8)	(3.6)
Capital assets, net	67.8	57.3	10.5	18.3
Total assets	48,625.1	58,181.7	(9,556.6)	(16.4)
Deferred outflow of resources	10.7	3.1	7.6	245.2
Liabilities	444.0	471.1	(27.1)	(5.8)
Deferred inflow of resources	1.0	13.7	(12.7)	(92.7)
Fiduciary net position	\$ 48,190.8	\$ 57,700.0	\$ (9,509.2)	(16.5)%

As the table shows, fiduciary net position decreased by \$9,509 million, or (16.5)% in 2022.

This decrease reflects the decrease in investment returns in 2022. The decrease in receivables and prepaids in 2022 is largely due to the decrease in the receivables from brokers for unsettled trades at year-end due to a smaller number of trades outstanding at year-end 2022 compared to 2021. The decrease in liabilities in 2022 is due primarily to the decrease in the payables to brokers for unsettled trades at year-end 2022.

The following table presents the investment allocation as of year-end 2022 and 2021, as compared to IMRF's target allocation as of December 31, 2022.

	2022	2022 Target	2021
U.S. equities	34.5%	35.5%	40.3%
International equities	18.9	18.0	19.4
Fixed income	24.8	25.5	22.6
Real estate	9.6	10.5	7.8
Alternative investments	11.0	9.5	8.7
Short-term	1.2	1.0	1.2

IMRF is evaluating decreasing its allocation to alternative investment strategies as part of its annual rebalancing program. The current target allocations were reconfirmed during Investment Committee meetings in 2022. IMRF continuously monitors its actual investment allocations in relation to its targets and rebalances as appropriate.

CONDENSED STATEMENTS OF FIDUCIARY NET POSITION (IN MILLIONS)

	2021	2020	Dollar Change	Percent Change
Cash and cash equivalents	\$ (5.3)	\$ (5.4)	\$ 0.1	(1.9)%
Receivables and prepaids	516.0	573.0	(57.0)	(9.9)
Investments	57,286.4	50,273.6	7,012.8	13.9
Invested securities lending cash collateral	327.3	237.8	89.5	37.6
Capital assets, net	57.3	48.2	9.1	18.9
Total assets	58,181.7	51,127.2	7,054.5	13.8
Deferred outflow of resources	3.1	4.7	(1.6)	(34.0)
Liabilities	471.1	550.9	(79.8)	(14.5)
Deferred inflow of resources	13.7	9.1	4.6	50.5
Fiduciary net position	\$ 57,700.0	\$ 50,571.9	\$ 7,128.1	14.1%

As the table shows, fiduciary net position increased by \$7,128 million, or 14.1% in 2021.

This increase reflects the increase in investment returns in 2021. The decrease in receivables and prepaids in 2021 is largely due to the decrease in the receivables from brokers for unsettled trades at year-end due to a smaller number of trades outstanding at year-end 2021 compared to 2020. The decrease in liabilities in 2021 is due primarily to the decrease in the payables to brokers for unsettled trades at year-end 2021.



CHANGES IN FIDUCIARY NET POSITION

Summarized comparisons of IMRF's Changes in Fiduciary Net Position for 2022 versus 2021 and 2021 versus 2020 are presented below.

CONDENSED STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION (IN MILLIONS)

Table with 5 columns: Category, 2022, 2021, Dollar Change, Percent Change. Rows include Additions (Member contributions, Employer contributions, Net investment (loss)/gain, Other), Total Additions, Deductions (Benefits, Refunds, Administrative expenses), Total Deductions, and Net (decrease)/increase in fiduciary net position.

ADDITIONS

Additions needed to fund benefits are accumulated through contributions and returns on invested funds. Contributions for 2022 totaled \$1,310 million, which was 9.1% less than 2021. The decrease reflects the decrease in the average employer contribution rate from 10.6% in 2021 to 8.6% in 2022.

The time-weighted investment return for 2022 was (12.9)%. The \$(7,867) million investment loss in 2022 represents a \$(16,316) million change from the \$8,449 million gain in 2021.

In 2022, IMRF had net depreciation in the value of investments of \$(8,704) million, a \$(16,378) million change from the \$7,674 million of appreciation recorded in 2021.

The total rate of return for the portfolio in 2022 was negative 12.9% compared to 16.6% in 2021. IMRF's U.S. stock portfolio returned a negative 19.3% compared to a negative 19.2% custom benchmark.

DEDUCTIONS

The expenses paid by IMRF include benefit payments, refunds, and administrative expenses. Expenses for 2022 totaled \$2,952 million, \$190 million over 2021. The increase in benefit payments to members and beneficiaries resulted primarily from growth in the number of annuitants to 151,568 in 2022 from 147,134 in 2021.

CONDENSED STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION (IN MILLIONS)

Table with 5 columns: Category, 2021, 2020, Dollar Change, Percent Change. Rows include Additions (Member contributions, Employer contributions, Net investment gain), Total additions, Deductions (Benefits, Refunds, Administrative expenses), Total deductions, and Net increase in fiduciary net position.

ADDITIONS

Additions needed to fund benefits are accumulated through contributions and returns on invested funds. Contributions for 2021 totaled \$1,441 million, which was 4.6% more than 2020. The increase reflects the increase in employer payroll from \$7,568 million in 2020 to \$7,811 million in 2021.

Time-weighted investment gains for 2021 were 16.6%. The \$8,449 million investment gain in 2021 represents a \$1,726 million change from the \$6,723 million gain in 2020.

In 2021, IMRF had net appreciation in the value of investments of \$7,674 million, a \$1,656 million change from the \$6,018 million of appreciation recorded in 2020. Interest, dividends, and equity fund income totaled \$956 million, an increase from \$855 million in 2020.

DEDUCTIONS

The expenses paid by IMRF include benefit payments, refunds, and administrative expenses. Expenses for 2021 totaled \$2,762 million, \$184 million over 2020. The increase in benefit payments to members and beneficiaries resulted primarily from growth in the number of annuitants to 147,134 in 2021 from 142,329 in 2020.

MONEY-WEIGHTED RATE OF RETURN

When comparing returns, it is important to remember that as a pension fund, IMRF's investment program has a very long time horizon. See the "Investments" section for details of some of the longer term results.

Table with 2 columns: For the year ended, Return. Rows include December 31, 2022, December 31, 2021, and December 31, 2020.

2022 ANNUAL COMPREHENSIVE FINANCIAL REPORT

2022 ANNUAL COMPREHENSIVE FINANCIAL REPORT

**STATEMENTS OF FIDUCIARY NET POSITION**

As of December 31	2022	2021
Assets		
Cash and cash equivalents	\$ (7,040,239)	\$ (5,282,565)
Receivables and prepaid expenses		
Contributions	91,678,604	94,015,060
Investment income	132,184,461	119,649,066
Receivables from brokers for unsettled trades	32,148,719	88,975,972
Prepaid expenses	216,432,202	213,397,023
Total receivables and prepaid expenses	472,443,986	516,037,121
Investments, at fair value		
Fixed income	11,866,835,887	12,942,015,122
Stocks	25,498,663,405	34,178,517,237
Short term investments	564,837,565	735,743,099
Real estate	4,586,045,681	4,440,105,815
Alternative investments	5,260,057,434	4,990,058,724
Total investments	47,776,439,972	57,286,439,997
Invested securities lending cash collateral	315,478,383	327,265,865
Capital assets		
Equipment, at cost	90,387,442	80,980,644
Accumulated depreciation	(25,908,295)	(23,646,082)
Right to use assets - buildings	4,497,614	-
Accumulated amortization	(1,152,363)	-
Total capital assets	67,824,398	57,334,562
Total assets	48,625,146,500	58,181,794,980
Total deferred outflow of resources	10,733,455	3,109,563
Liabilities		
Securities lending cash collateral	315,478,383	327,265,865
Payables to brokers for unsettled trades	76,042,572	100,797,890
Accrued expenses and benefits payable	49,221,145	43,043,685
Lease liability	3,313,279	-
Total liabilities	444,055,379	471,107,440
Total deferred inflow of resources	1,020,081	13,743,328
Net position restricted for pensions	\$ 48,190,804,495	\$ 57,700,053,775

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

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

For the Years Ended December 31	2022	2021
Additions		
Contributions		
Members for retirement coverage	\$ 501,784,408	\$ 471,392,017
Employers for benefit plan coverage	808,087,538	969,420,117
Total contributions	1,309,871,946	1,440,812,134
Investment income		
From investing activities		
Interest	307,847,920	290,038,208
Dividends	467,440,738	391,319,884
Equity fund income, net	250,222,760	274,758,311
Net (depreciation)/appreciation in fair value of investments	(8,703,577,375)	7,674,039,612
Investment activity (loss)/gain	(7,678,065,957)	8,630,156,015
Less: Direct investment expense	(194,704,122)	(186,744,292)
Net investment activity (loss)/gain	(7,872,770,079)	8,443,411,723
From security lending activity		
Securities lending income	11,241,985	4,945,189
Net securities lending management fees and borrower rebates	(5,494,743)	787,892
Net security lending activity income	5,747,242	5,733,081
Total investment (loss)/gain	(7,867,022,837)	8,449,144,804
Other	125,213	14,750
Total additions	(6,557,025,678)	9,889,971,688
Deductions		
Annuities	2,791,927,834	2,624,826,197
Disability benefits	8,090,078	9,334,722
Death benefits	42,805,181	39,287,258
Refunds	73,175,000	60,073,886
Administrative expenses	36,225,509	28,318,297
Total deductions	2,952,223,602	2,761,840,360
Net (decrease)/increase	(9,509,249,280)	7,128,131,328
Net position restricted for pensions		
Beginning of year	57,700,053,775	50,571,922,447
End of year	\$ 48,190,804,495	\$ 57,700,053,775

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

NOTES TO BASIC FINANCIAL STATEMENTS (December 31, 2022 and 2021)

A. PLAN DESCRIPTION

The Illinois Municipal Retirement Fund (IMRF or the “Fund”) is the administrator of an agent multiple-employer public employee retirement system. The Illinois State Legislature established IMRF to provide employees of local governments and school districts a sound and efficient retirement system. Members, employers, and annuitants elect eight trustees who govern IMRF. Four Executive Trustees are elected by employers, three Employee Trustees are elected by members, and one Annuitant Trustee is elected by annuitants. Any IMRF member who has eight years of service credit as of December 31 of the election year is eligible to be nominated to serve as a trustee. State law authorizes the Board to make investments, pay benefits, set employer contribution rates, hire staff and consultants, and perform all necessary functions to carry out the provisions of the Illinois Pension Code. Benefit and contribution provisions are established by state law and may be amended only by the Illinois General Assembly. IMRF is administered in accordance with Illinois statutes. The statutes do not provide for termination of the plan under any circumstances. IMRF is separate and apart from the Illinois state government and is not included in the state’s financial statements.

1. EMPLOYERS

	2022	2021
Participating employers	3,027	3,032

The Illinois Pension Code specifies the units of government required to participate in IMRF and the units that may elect to join. Participation by the following units of government is mandatory:

- All counties except Cook,
- All school districts except Chicago and,
- All cities, villages, and incorporated towns with a population over 5,000, other than Chicago, which do not provide Social Security or equivalent coverage for their employees before they reach a population of 5,000.

Other units of government with general taxing powers, such as townships and special districts, may elect to join. Participating instrumentalities, which include units of government without general taxing powers and not-for-profit organizations, associations, or cooperatives authorized by state statute, may participate. They must meet financial stability requirements. Units that elect to join the system may not, under any circumstances, terminate their participating employer status as long as they are in existence.

2. MEMBERS

	2022	2021
Inactive members		
Retirees and beneficiaries currently receiving benefits	151,568	147,134
Terminated members entitled to benefits but not yet receiving them	16,243	15,545
Terminated members—non-vested	131,885	122,846
Total inactive members	299,696	285,525
Active members		
Non-vested	97,727	93,166
Vested	77,497	79,144
Total active members	175,224	172,310
Grand total	474,920	457,835

Employers must enroll employees in IMRF if the positions meet the qualifications for IMRF membership.

There are some exceptions. City hospital employees and elected officials have the option to participate. IMRF does not cover individuals in certificated teaching positions covered by the Illinois Teachers’ Retirement System. Also, IMRF does not generally cover individuals performing police or fire protection duties for employers with local police and fire pension funds. Certain police chiefs may choose to participate as Sheriff’s Law Enforcement Personnel (SLEP) members.

3. CONTRIBUTIONS

The member contribution rates—4.5% for Regular members, 7.5% for SLEP members and Elected County Official (ECO) plan members—are set by statute. The statutes require each participating employer to contribute the amount necessary, in addition to member contributions, to finance the retirement coverage of its own employees. Employer contributions for disability benefits, death benefits, and the supplemental retirement benefits are pooled. Contribution rates for disability and death benefits are set by the IMRF Board of Trustees, while the supplemental retirement benefits rate is set by statute. Costs of administering the plan are financed by investment income. Contributions are based on employer payrolls and are due on the tenth of the month following the month of payment, pursuant to the authority vested in the IMRF Board by the Illinois Pension Code.

4. BENEFIT PROVISIONS

Benefits are established by statute and may only be changed by the General Assembly. The benefit provisions in effect on the member’s date of participation determine a member’s minimum benefit, while the benefit provisions in effect on the member’s date of termination determine a member’s maximum benefit. The following is a summary of the IMRF benefit provisions as of December 31, 2022, and December 31, 2021. The ECO plan was created by statute in 1997 and was revised in 2000. In 2010, the General Assembly passed legislation which became Public Acts 96-0889 and 96-1495. These acts created a second tier within the Regular, SLEP, and ECO plans for members joining IMRF after December 31, 2010, with no prior qualifying service. On August 8, 2011, Public Act 97-0273 closed the ECO plan to new participants. A more extensive description of the plan can be found in the “Actuarial” section.

Plan	Regular Tier 1	Regular Tier 2	SLEP Tier 1	SLEP Tier 2	Original ECO	Revised ECO Tier 1	Revised ECO Tier 2
Vesting	8 years	10 years	20 years	10 years	8 years	8 years in each elected position	8 years in each elected position; 10 years in total
Minimum Age For Unreduced Benefit	35+ years of service: 55, otherwise 60	35+ years of service: 62, otherwise 67	50 with 20+ years of service	55 with 10+ years of service	Sheriffs with 20 years of SLEP service: 50, otherwise 55	Sheriffs with 20 years of SLEP service: 50, otherwise 55	Sheriffs with 10 years of SLEP service: 62, otherwise 67
Final Rate Of Earnings	Highest consecutive 48 months in the last 10 years	Highest consecutive 96 months in the last 10 years; pensionable earnings currently capped at \$119,892.41 for 2022 increasing annually by 3% or ½ of CPI, whichever is less	Highest consecutive 48 months in the last 10 years	Highest consecutive 96 months in the last 10 years; pensionable earnings currently capped at \$119,892.41 for 2022 increasing annually by 3% or ½ of CPI, whichever is less	Annual salary on the last day of ECO participation	Highest consecutive 48 months in the last 10 years for each elected position	Highest consecutive 96 months in the last 10 years; pensionable earnings currently capped at \$119,892.41 for 2022 increasing annually by 3% or ½ of CPI, whichever is less
Survivor Benefits	Annuity for eligible spouse	Annuity for eligible spouse	Annuity for eligible spouse	Annuity for eligible spouse	Annuity for eligible spouse and unmarried children under 18	Annuity for eligible spouse and unmarried children under 18	Annuity for eligible spouse and unmarried children under 18
Post-Retirement Increase	3% of original amount	3% or 1/2 of CPI, whichever is less of original amount	3% of original amount	3% or 1/2 of CPI, whichever is less of original amount	3% of original amount	3% of original amount	3% or 1/2 of CPI, whichever is less of original amount
Early Retirement	At age 55, discount based on age and service	At age 62, discount based on age and service	None	At age 50, discount based on age and service	None	None	At age 62, discount based on age and service

Refunds

Members who terminate their IMRF participation may withdraw their contributions and forfeit future retirement benefits.

Early Retirement

IMRF employers may offer an Early Retirement Incentive (ERI) for active members who have 20 or more years of service and are age 50 (57 for Tier 2 members) or older. The program is optional with employers and may not be offered until the liability for any previous ERI is paid.

Supplemental Retirement Benefit

Retirees and surviving spouses who have been receiving benefits for at least one year receive a supplemental retirement benefit in July. The total supplemental benefit pool in each year is equal to 0.62% of the participating payroll for the previous year. An individual receives a *pro-rata* share of the total pool based upon the ratio of his or her individual benefits to the total benefits paid to all IMRF recipients.

Death Benefits

The named beneficiaries of a deceased retired member receive their share of a one-time death benefit of \$3,000. In addition to the lump sum benefit, an eligible spouse receives a monthly pension equal to 50% (66 2/3% for ECO retirees and Tier 2 members) of the member's pension. The beneficiaries of an active member who had at least one year of service, receive a lump sum benefit equal to one year's earnings (limited to the pensionable earnings cap for Tier 2 members) plus the member's contributions with interest. Death benefits paid upon the death of an inactive member vary depending on the member's age and service.

Disability

Members who have at least one year of service and meet the disability medical requirements will receive a benefit of up to 50% of the average monthly earnings in the 12 months preceding disability. Disabled ECO members receive a disability benefit equal to the benefit they would receive upon retirement. IMRF reduces the benefit by Social Security or workers' compensation awards. Members paid disability continue to receive pension service credit and death benefit protection.

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

1. REPORTING ENTITY

As defined by 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) The primary government is financially accountable if it appoints a voting majority of the organization's governing body and (a) it is able to impose its will on that organization or (b) there is a potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the primary government.

(2) The primary government is financially accountable if an organization is fiscally dependent on and there is a potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the primary government.

Based upon these criteria, IMRF has no component units and IMRF is not a component unit of any other entity.

2. BASIS OF ACCOUNTING

IMRF prepares its financial statements using the economic resources measurement focus and the accrual basis of accounting. It recognizes member and employer contributions as revenues in the month member earnings are payable in accordance with the provisions of the Illinois Pension Code. Benefits and refunds are recognized as expenses when payable. Expenses are recorded when the corresponding liabilities are incurred regardless of when payment is made.

3. USE OF ESTIMATES

The preparation of IMRF's financial statements, in conformity with U.S. generally accepted accounting principles, requires management to make significant estimates and assumptions that affect the reported amounts and fiduciary net position at the date of the financial statements. Actual results could differ from those estimates.

4. RISKS AND UNCERTAINTIES

IMRF invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risk. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the value of investment securities will occur in the near term, and such changes could materially affect the amounts reported in the Statements of Fiduciary Net Position.

5. INCOME TAXES

IMRF is exempt from federal and state income taxes and has received a favorable determination from the Internal Revenue Service under Code section 401(a).

6. METHOD USED TO VALUE INVESTMENTS

IMRF reports investments 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 value for stocks is determined by using the closing price listed on the national securities exchanges as of December 31. Fair value for fixed income securities is determined by using quoted market prices and other observable significant inputs including quoted prices for similar securities, interest rates, and fixed income pricing models provided by independent pricing services. For commingled funds, fair value is determined using the net asset value certified by the commingled fund manager as of December 31. For alternative investments, which include real estate, private equity, and absolute return funds, fair value is determined using the net asset value (NAV) per share established by fund managers, which are subject to annual audit. Fair value for fixed income and equities classified as level 3 are based on inputs principally by using valuation techniques from The Northern Trust Company. Their values can only be estimated using a combination of complex market prices, mathematical models, and subjective assumptions. Fair value for the majority of derivative instruments is determined principally by using quoted market prices provided by independent pricing services. The remaining derivative instruments are priced by The Northern Trust Company by obtaining prices from a variety of internal and external sources.

7. DEFERRED OUTFLOWS/INFLOWS OF RESOURCES

The Statements of Fiduciary Net Position, in addition to assets, includes a separate section for the deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net assets that applies to future periods and as such, they will not be recognized as an outflow of resources (deduction) until then. In addition to liabilities, the Statements of Fiduciary Net Position includes a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net assets that applied to future periods and as such, will not be recognized as an inflow of resources (addition) until that time.

8. ADOPTION OF NEW ACCOUNTING PRONOUNCEMENT

During the current year, IMRF adopted GASB Statement No. 87, Leases. As a result, IMRF now includes a liability for the present value of payments expected to be made and right-to-use assets. Lease activity is further described in Note L.

9. RECLASSIFICATIONS

Certain prior year amounts have been reclassified to conform to the current year presentation.

C. NEW ACCOUNTING PRONOUNCEMENTS

In May 2020, GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements*. The primary objective of this Statement is to provide guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITA). IMRF will adopt Statement No. 96 for its December 31, 2023, financial statements.

In April 2022, GASB issued Statement No. 99, *Omnibus 2022*. The objectives of this Statement are to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing (1) practice issues that have been identified during implementation and application of certain GASB Statements and (2) accounting and financial reporting for financial guarantees. The practice issues addressed by this Statement are as follows:

- Classification and reporting of derivative instruments within the scope of Statement No. 53, Accounting and Financial Reporting for Derivative Instruments, that do not meet the definition of either an investment derivative instrument or a hedging derivative instrument.

- Clarification of provisions in Statement No. 87, Leases, as amended, related to the determination of the lease term, classification of a lease as a short-term lease, recognition and measurement of a lease liability and a lease asset, and identification of lease incentives.
- Clarification of provisions in Statement No. 94, Public-Private and Public-Public Partnerships and Availability Payment Arrangements, related to (a) the determination of the public-private and public-public partnership (PPP) term and (b) recognition and measurement of installment payments and the transfer of the underlying PPP asset.
- Clarification of provisions in Statement No. 96, Subscription-Based Information Technology Arrangements, related to the subscription-based information technology arrangement (SBITA) term, classification of a SBITA as a short term SBITA, and recognition and measurement of a subscription liability.
- Extension of the period during which the London Interbank Offered Rate (LIBOR) is considered an appropriate benchmark interest rate for the qualitative evaluation of the effectiveness of an interest rate swap that hedges the interest rate risk of taxable debt.
- Accounting for the distribution of benefits as part of the Supplemental Nutrition Assistance Program (SNAP).
- Disclosures related to nonmonetary transactions.
- Pledges of future revenues when resources are not received by the pledging government.
- Clarification of provisions in Statement No. 34, Basic Financial Statements—and Management’s Discussion and Analysis—for State and Local Governments, as amended, related to the focus of the government-wide financial statements.
- Terminology updates related to certain provisions of Statement No. 63, Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position.
- Terminology used in Statement 53 to refer to resource flows statements.

Effective dates are as follows:

- The requirements related to extension of the use of LIBOR, accounting for SNAP distributions, disclosures of nonmonetary transactions, pledges of future revenues by pledging governments, clarification of certain provisions in Statement 34, as amended, and terminology updates related to Statement 53 and Statement 63 are effective upon issuance.
- The requirements related to leases, PPPs, and SBITAs are effective for fiscal years beginning after June 15, 2022, and all reporting periods thereafter.
- The requirements related to financial guarantees and the classification and reporting of derivative instruments within the scope of Statement 53 are effective for fiscal years beginning after June 15, 2023, and all reporting periods thereafter.

IMRF is reviewing the portions that affect its financial statements and will adopt as required.

In June 2022, GASB issued Statement No. 100, *Accounting Changes and Error Corrections*. The primary objective of this Statement is to enhance accounting and financial reporting requirements for accounting changes and error corrections to provide more understandable, reliable, relevant, consistent, and comparable information for making decisions or assessing accountability. IMRF will adopt Statement No. 100 for its December 31, 2024, financial statements.

In June 2022, GASB issued Statement No. 101, *Compensated Absences*. This statement updates the recognition and measurement guidance for compensated absences under a unified model. This statement requires that liabilities for compensated absences be recognized for leave that has not been used and leave that has been used but not yet paid in cash or settled through noncash means and establishes guidance for measuring a liability for leave that has not been used. It also updates disclosure requirements for compensated absences. IMRF will adopt Statement No. 101 for its December 31, 2024, financial statements.

D. DEPOSITS AND INVESTMENT RISK DISCLOSURES

1. DEPOSITS

Custodial credit risk for deposits is the risk that, in the event of a financial institution failure, IMRF’s deposits may not be returned. Cash held in non-investment-related bank accounts is neither insured nor collateralized for amounts in excess of \$250,000 by the Federal Deposit Insurance Corporation (FDIC). These deposits are not required to be collateralized by statute and there is no related deposit policy for custodial risk. Cash is swept daily into an investment account. Withdrawals are made daily to fund necessary business expenses. The timing of the withdrawals may create a negative cash balance. This is due to the payment on the last business day in December of each year, the following year’s January 1 benefit payments. These payments are recorded as a prepaid as of December 31 in the financial statements. Cash equivalents are typically short-term investments that have high credit quality and are highly liquid.

These assets are under the custody of the Northern Trust Company. The Northern Trust Company has an AA Long Term Deposit/Debt rating by Standard & Poor and an Aa2 rating by Moody.

	2022	2021
Carrying amounts at December 31		
Cash and cash equivalents	\$ (7,040,239)	\$ (5,282,565)
Bank balances at December 31		
Bank balances	\$ 179,822	\$ 147,799
Amount exposed to custodial credit risk		
Cash balance held with investment manager exposed to custodial credit risk	\$ 885,349	\$ 1,597,674

2. INVESTMENT POLICIES, ASSET ALLOCATION, AND MONEY-WEIGHTED RATE OF RETURN

The Illinois Pension Code prescribes the “Prudent Person Rule” as IMRF’s investment authority, effective August 25, 1982. This rule requires IMRF to make investments 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 entity of like character with like aims. Within the “Prudent Person” framework, the Board of Trustees adopts investment guidelines for IMRF Investment Managers, which are included within their respective Investment Management Agreements.

The “Investments” Section contains a summary of these guidelines. By statute, all investments are held in the name of IMRF or in the name of a nominee created for the express purpose of securities registration.

IMRF’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 the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the Board’s adopted asset allocation as of December 31, 2022.

	Asset Class					
	U.S. equities	International equities	Fixed income	Real estate	Alternative investments	Short term
Target	35.5%	18.0%	25.5%	10.5%	9.5%	1.0%

For the year ended December 31, 2022, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was (13.93)%. For the year ended December 31, 2021, it was 17.02%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

3. INVESTMENT SUMMARY

The following table presents a summary of the Fund's investments by type at December 31, 2022 and 2021:

	2022	2021
U.S. government & agency fixed income	\$ 3,626,620,175	\$ 3,893,544,474
U.S. corporate fixed income	3,407,019,411	3,786,403,517
U.S. fixed income funds	2,776,228,233	3,746,668,113
Foreign fixed income securities	440,895,746	734,087,107
Foreign fixed income funds	1,616,072,322	781,311,911
U.S. equities	13,988,881,820	19,299,332,907
U.S. equity funds	2,490,836,751	3,809,185,342
Foreign equities	6,269,660,799	7,667,238,765
Foreign equity funds	2,749,284,035	3,402,760,223
Foreign currency forward contracts	37,280,887	(4,842,701)
Pooled short-term investment funds	538,515,024	723,304,310
Real estate	4,586,045,681	4,440,105,815
Private equity	5,259,981,482	4,989,950,351
Absolute return funds	75,952	108,373
Swaps	14,191,417	(300,894)
Options	144,841	61,199
Other	(25,294,604)	17,521,185
Total investments at fair value	\$ 47,776,439,972	\$ 57,286,439,997

Short-term securities include commercial paper or notes having a maturity of less than 90 days. Pooled short-term investment funds are commingled funds managed by Northern Trust. Under the terms of the investment agreement for these funds, Northern Trust may invest in a variety of short-term investment securities. Alternative investments include commingled funds and separate accounts that invest in private equity and absolute return funds.

There are no individual investments held by IMRF that represent 5% or more of the Fund's fiduciary net position or the investment portfolio at year-end. As of December 31, the following lists IMRF's holdings in index funds. The NT Collective U.S. Marketcap Equity Index Fund does represent greater than 5% of fiduciary net position for each year end.

	2022	2021
NT Collective U.S. Marketcap Equity Index Fund	\$ 1,945,750,947	\$ 3,255,297,343
NT Collective All Country World	1,702,602,031	2,015,936,998
Babson Capital Global Fund	1,616,072,322	734,087,107
BlackRock US Debt Index Fund	1,598,782,435	1,837,987,280
NT Collective Aggregate Bond Index Fund	1,100,651,759	1,817,007,757
Genesis Emerging Markets Fund	1,013,450,610	1,357,488,612

4. CUSTODIAL CREDIT RISK FOR INVESTMENTS

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, IMRF will not be able to recover the value of investments or collateral securities that are in the possession of an outside party. As of December 31, the following investments were uninsured and unregistered, with securities held by the counterparty or by its trust department or agent, but not in the Fund's name:

	2022	2021
Investments in foreign currency	\$ 38,212,818	\$ 18,990,300

5. CONCENTRATION OF CREDIT RISK DEBT SECURITIES

The debt security portfolios are managed by professional investment management firms. These investment management firms are required to maintain diversified portfolios. Each investment manager must comply with risk management guidelines individually assigned to them as part of their Investment Management Agreement.

The total debt securities portfolio is managed using the following general guidelines adopted by the IMRF Board of Trustees:

- A. Bonds, notes, or other obligations of indebtedness issued or guaranteed by the U.S. government, its agencies, or instrumentalities are permissible investments and may be held without restriction.
- B. The average credit quality of the total portfolio must be investment grade.
- C. Debt obligations of any single U.S. corporation shall generally be limited to a maximum of 5% of the total portfolio at fair value.
- D. Generally, no more than 30% of a manager's assets at fair value may be invested in securities rated below investment grade at the time of purchase. Investment managers using high yield disciplines will not be subject to this restriction.
- E. Debt obligations of any U.S. industry shall generally be limited to a maximum of 25% of the total portfolio at fair value.
- F. Bonds or other debt obligations of foreign countries and corporations payable in U.S. and in non-U.S. funds are authorized but, in general, will not exceed 15% of the portfolio.

Quality Rating

	2022	2021
Corporate and International		
AAA	\$ 248,852,385	\$ 235,293,664
AA	184,340,864	262,942,109
A	651,496,356	736,424,357
BBB	1,295,065,516	1,679,748,836
BB	772,787,811	876,896,928
B	330,276,475	347,530,181
CCC	56,370,441	41,974,174
CC	159,898	151,968
D	92,378	963,853
Not Rated	237,428,361	316,049,545
Government and Agencies		
Agency	3,020,281,453	3,383,103,973
AAA	254,107,587	114,087,997
AA	350,497,132	347,929,938
A	46,795,192	71,185,035
BBB	14,479,374	11,552,523
BB	1,058,395	839,378
B	4,709,162	22,740,046
Not Rated	5,736,552	11,845,397
Fixed Income Funds		
Index	4,392,300,555	4,480,755,220
Total	\$ 11,866,835,887	\$ 12,942,015,122

The "Agency" caption in the above table does not have a specific credit quality rating since they were not covered by the rating agencies. Typically these securities have at least an AA credit quality rating. The U.S. fixed income fund had an average credit quality rating of AAA for 2022 and 2021. The international fixed income fund had an average quality rating B for 2022 and 2021.

6. INTEREST RATE RISK

IMRF manages its exposure to fair value losses arising from interest rate risk by diversifying the debt securities portfolio and maintaining the debt securities portfolio at an effective duration range between 80% and 120% of the benchmark index.

Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates. It uses the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. The effective duration measures the sensitivity of market price to parallel shifts in the yield curve. IMRF benchmarks its debt security portfolio to the Bloomberg Barclays Aggregate Bond Index. At December 31, 2022 and December 31, 2021, the effective duration of the Bloomberg Barclays Aggregate Bond Index was 6.22 and 6.35, respectively. At the same points in time, the effective duration of IMRF debt securities portfolio was 3.59 and 4.28, respectively.

Investment	2022 Fair Value	Effective Weighted Duration Rate	2021 Fair Value	Effective Weighted Duration Rate
U.S. Corporate	\$ 3,407,019,411	3.98	\$ 3,786,403,517	4.97
U.S. Government & Agencies	3,626,620,175	4.74	3,893,544,474	5.67
U.S. Fixed Income Funds	2,776,228,233	3.64	3,746,668,113	2.96
Foreign	440,895,746	2.88	781,311,911	4.18
Foreign Fixed Income Fund	1,616,072,322	0.27	734,087,107	0.23
Total	\$ 11,866,835,887	3.59	\$ 12,942,015,122	4.28

7. FOREIGN CURRENCY RISK

The international portfolio is constructed on the principles of diversification, quality, growth, and value. Country exposure is limited to 25% or two times the benchmark weighting at fair value. Risk of loss arises from changes in currency exchange rates. International managers may also engage in transactions to hedge currency at their discretion. Currency trading may not be used for speculative purposes. The following represents IMRF's holdings by currency in international equity and fixed income holdings:

	2022	2021
Foreign Equities		
Australian dollar	\$ 181,573,804	\$ 161,206,178
Brazilian real	127,793,467	126,374,486
British pound sterling	663,018,000	809,515,435
Canadian dollar	332,574,248	292,614,547
Chilean peso	5,736,781	1,325,400
Colombian peso	4,267,692	7,005,930
Czech korona	2,796,723	-
Danish krone	147,790,615	157,495,078
Euro	1,535,631,360	1,843,716,497
Hong Kong dollar	398,413,959	437,436,077
Hungarian forint	7,861,019	10,659,509
Indian rupee	134,088,465	131,985,134
Indonesian rupiah	36,137,290	30,302,032
Japanese yen	840,706,639	973,216,286
Malaysian ringgit	1,762,543	2,242,602
Mexican peso	83,181,382	55,255,245
New Israeli shekel	10,625,863	6,354,365
New Taiwan dollar	169,210,312	281,089,307
New Zealand dollar	28,264,048	9,217,017
Norwegian krone	77,012,140	72,472,455
Philippine peso	11,397,713	6,698,343
Polish zloty	10,426,641	4,732,735
Russian ruble	10,851,934	-
Singapore dollar	55,768,762	30,328,204
South African rand	20,336,199	22,046,632
South Korean won	152,782,703	219,947,782
Swedish krona	107,577,809	291,019,360
Swiss franc	312,062,161	477,012,005
Thai baht	51,474,550	27,911,717
Turkish lira	64,304,587	19,654,134
United Arab Emirates dirham	8,166,343	2,932,780
United States dollar	3,425,349,082	4,558,231,716
Total Foreign Equities	\$ 9,018,944,834	\$ 11,069,998,988

	2022	2021
Foreign Fixed Income		
Brazilian real	\$ -	\$ 8,467,897
Chilean peso	-	9,797,856
Colombian peso	-	5,528,529
Czech koruna	-	4,086,891
Euro	-	783,077
Hungarian forint	-	2,631,694
Indonesian rupiah	10,360,014	17,803,277
Japanese yen	-	4,540,878
Malaysian ringgit	-	6,302,503
Mexican peso	26,033,155	37,434,705
Peruvian nuevo sol	-	2,537,495
Russian ruble	4,534,009	29,450,351
South African rand	-	16,697,043
Thai baht	-	7,523,590
United States dollar	2,016,040,890	1,361,813,232
Total Foreign Fixed Income	2,056,968,068	1,515,399,018
Total	\$ 11,075,912,902	\$ 12,585,398,006

E. SECURITIES LENDING PROGRAM

The IMRF securities lending program is authorized by the IMRF Board of Trustees. IMRF lends securities (both equity and fixed income) to securities firms on a temporary basis through its agent, The Northern Trust Company. There are no restrictions on the amount of securities that may be lent. IMRF receives fees for all loans and retains the right to all interest and dividend payments while the securities are on loan. All securities are loaned for collateral that may include cash, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned for collateral valued, subject to de-minimus rules, at 102% of the fair value of the securities plus any accrued interest (105% for non-U.S. securities). As the fair value of the securities loaned changes, the borrower must adjust the collateral accordingly. IMRF or the borrower has the right to close the loan at any time. The average term of overall loans was 83 days as of December 31, 2022, and 149 days as of December 31, 2021. When the loan closes, the borrower returns the securities loaned to IMRF, and IMRF returns the associated collateral to the borrower. IMRF cannot pledge or sell the non-cash collateral unless the borrower fails to return the securities borrowed.

Northern Trust pools all collateral received from securities lending transactions and invests any cash collateral. IMRF holds a prorated share of the collateral provided by the borrowers of its securities. The cash collateral is shown on IMRF's financial statements. Cash collateral is invested in a short-term investment pool, which had an interest sensitivity of 15 days as of December 31, 2022, and 28 days as of December 31, 2021. Cash collateral may also be invested separately in "term loans," in which case the investments match the term of the loan. These loans can be terminated on demand by either lender or borrower.

Indemnification pertains to the situation in which a client's securities are not returned due to the insolvency of a borrower and The Northern Trust fails to live up to its contractual responsibilities relating to the lending of those securities. The Northern Trust's responsibilities include performing appropriate borrower and collateral investment credit analyses, demanding adequate types and levels of collateral and complying with applicable Department of Labor and Federal Financial Institutions Examination Council regulations concerning securities lending. During 2022 and 2021, there were no violations of legal or contractual provisions and no borrower or lending agent default losses to the securities lending agent. There are no dividends or coupon payments owing on the securities lent. IMRF had no credit risk as a result of its securities lending program, as the collateral held exceeded the fair value of the securities lent as of December 31, 2022 and 2021.

Securities lent are included in the Statements of Fiduciary Net Position. The fair value of collateral received includes cash collateral of \$315,478,383 and \$327,265,865 at December 31, 2022 and December 31, 2021, respectively.

Loans outstanding as of	December 31, 2022	December 31, 2021
Fair value of securities loaned	\$ 1,773,220,638	\$ 2,672,240,677
Fair value of collateral received	\$ 1,819,906,297	\$ 2,732,303,217

F. DERIVATIVE INSTRUMENTS

IMRF's investment managers may enter into derivative instrument transactions as permitted by their guidelines. A derivative financial instrument is an investment whose payoff depends upon the value of an underlying asset such as bond or stock prices, a market index, or commodity prices. Derivative instruments 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. IMRF's investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and exposure monitoring procedures. Market risk is the possibility that a change in interest or currency rates will cause the value of a financial instrument to decrease or become more costly to settle. The market risk associated with derivative instruments, the prices of which are constantly fluctuating, is regulated by imposing strict limits as to the types, amounts, and degrees of risk that investment managers may undertake. Senior investment management approves these limits and the risk positions of the investment managers are reviewed on a periodic basis to monitor compliance with the limits, IMRF does not purchase derivative instruments with borrowed funds.

During the year, IMRF's derivative instrument investments included foreign currency forward contracts, financial futures, options, and swaps. Foreign currency forward contracts are used to hedge against the currency risk in

IMRF's foreign stock and fixed income security portfolios. The remaining derivative instruments are used to improve yield, adjust the duration of the fixed income portfolio, or to hedge changes in interest rates.

Foreign currency forward contracts are agreements to buy or sell a specific amount of a specific currency at a specified delivery or maturity date for an agreed upon price. As the fair value of the underlying currency varies from the original contract price, IMRF records an unrealized gain or loss. The counterparties to the foreign currency forward contracts are banks which are rated A or above by rating agencies. The fair value of forward currency contracts outstanding at December 31, 2022 and December 31, 2021 is as follows:

Fair Value as of	December 31, 2022	December 31, 2021
Pending Foreign Exchange Purchases		
Australian dollar	\$ 202,051,846	\$ 36,629,186
Brazilian real	232,983,565	302,314,928
British pound sterling	165,092,787	180,773,916
Canadian dollar	111,087,059	121,198,093
Chilean peso	41,072,922	46,145,499
Chinese yuan renminbi	9,058,320	54,451,524
Colombian peso	29,242,911	44,310,378
Czech koruna	24,988,592	11,487,315
Danish krone	15,569,256	12,032,650
Egyptian pound	24,315,596	26,522,121
Euro	269,474,622	182,541,380
Hong Kong dollar	10,007,854	27,050,612
Hong Kong offshore Chinese yuan renminbi	131,908,718	139,104,140
Hungarian forint	27,951,123	56,096,177
Indian rupee	71,627,633	191,288,355
Indonesian rupiah	14,997,465	38,404,205
Japanese yen	367,741,333	397,648,789
Kuwaiti dinar	189,216	527,474
Malaysian ringgit	-	3,594,780
Mexican peso	81,680,864	194,652,141
New Israeli shekel	3,228,642	11,168,342
New Taiwan dollar	86,031,457	100,732,046
New Zealand dollar	65,522,205	70,291,931
Norwegian krone	39,095,086	42,100,127
Philippine peso	26,525,479	43,301,195
Polish zloty	20,413,710	47,784,028
Russian ruble	75,210,750	75,928,991
Saudi riyal	114,156	323,981
Singapore dollar	6,710,173	11,131,111
South African rand	55,588,425	56,041,687
South Korean won	3,244,587	65,877,037
Swedish krona	69,309,177	27,511,638
Swiss franc	177,545,768	104,144,491
Thai baht	6,187,719	7,989,362
Turkish lira	73,660,900	9,174,381
United Arab Emirates dirham	3,051,549	745,124
United States dollar	2,514,296,009	2,878,607,307
Total Purchases	\$ 5,056,777,474	\$ 5,619,626,442

Fair Value as of	December 31, 2022	December 31, 2021
Pending Foreign Exchange Sales		
Australian dollar	\$ (104,187,838)	\$ (75,954,009)
Brazilian real	(268,268,940)	(264,530,967)
British pound sterling	(124,791,940)	(111,035,212)
Canadian dollar	(99,705,317)	(99,443,662)
Chilean peso	(41,191,722)	(24,547,365)
Chinese yuan renminbi	(16,597,753)	(22,115,053)
Colombian peso	(2,580,771)	(28,816,686)
Czech koruna	(25,129,669)	(3,257,407)
Danish krone	(38,304,247)	(19,338,628)
Egyptian pound	(6,530,683)	(25,033,064)
Euro	(337,924,308)	(313,913,572)
Hong Kong dollar	(16,207,367)	(38,428,826)
Hong Kong offshore Chinese yuan renminbi	(146,624,418)	(171,572,790)
Hungarian forint	(27,902,210)	(13,860,030)
Indian rupee	(30,454,899)	(174,776,475)
Indonesian rupiah	(22,725,436)	(44,224,726)
Japanese yen	(403,425,200)	(500,325,224)
Kuwaiti dinar	(99,607)	(527,404)
Mexican peso	(80,939,527)	(116,600,876)
New Israeli shekel	(6,230,091)	(18,073,737)
New Romanian leu	-	(445,047)
New Taiwan dollar	(147,483,871)	(197,497,906)
New Zealand dollar	(52,835,650)	(36,091,530)
Norwegian krone	(32,728,935)	(45,081,229)
Peruvian nuevo sol	-	(1,959,879)
Philippine peso	(24,487,814)	(40,051,248)
Polish zloty	(25,087,972)	(20,926,231)
Russian ruble	(68,315,514)	(85,853,624)
Saudi riyal	-	(301,324)
Singapore dollar	(6,614,032)	(11,078,866)
South African rand	(28,509,440)	(47,455,062)
South Korean won	(49,611,892)	(137,426,350)
Swedish krona	(57,488,070)	(51,067,943)
Swiss franc	(153,461,106)	(92,013,816)
Thai baht	(6,037,594)	(7,291,143)
Turkish lira	(28,967,070)	(10,188,723)
United Arab Emirates dirham	(2,958,982)	(109,912)
United States dollar	(2,535,086,702)	(2,773,253,597)
Total Sales	(5,019,496,587)	(5,624,469,143)
Net Unrealized (Loss)/Gain	\$ 37,280,887	\$ (4,842,701)

Financial futures are similar to forward contracts, except futures contracts are standardized and traded on organized exchanges. As the fair value of the underlying hedging assets vary from the original contract price, a gain or loss is recognized and is settled through the clearinghouse. Financial futures represent an off-balance sheet obligation, as there are no balance sheet assets or liabilities associated with those contracts. The contractual amounts of future contracts outstanding as of December 31, 2022 and December 31, 2021 are as follows:

Fair Value as of	December 31, 2022		December 31, 2021		Change Amount
	Amount	Number of Contracts	Amount	Number of Contracts	
Fixed income derivative futures sold	\$ 271,761,888	1,194	\$148,573,526	821	\$ 123,188,362
Fixed income derivative offset futures purchased	271,761,888	1,194	148,573,526	821	123,188,362
Fixed income derivative offset futures sold	386,984,044	2,773	326,245,608	2,541	60,738,436
Fixed income derivative futures purchased	386,984,044	2,773	326,245,608	2,541	60,738,436
Equity derivative offset futures sold	\$ 22,393,800	-	\$38,068,000	-	\$ (15,674,200)
Equity derivative futures purchased	22,393,800	116	38,068,000	160	(15,674,200)
Cash and cash equivalent derivative futures sold	\$ -	-	\$53,813,700	216	\$ (53,813,700)
Cash and cash equivalent derivative offset futures purchased	-	-	53,813,700	216	(53,813,700)
Cash and cash equivalent derivative offset futures sold	35,596,876	150	672,850,687	2,730	(637,253,811)
Cash and cash equivalent derivative futures purchased	35,596,876	150	672,850,687	2,730	(637,253,811)

Contractual amounts, which represent the fair value of the underlying assets of the derivative contracts, are often used to express the volume of these positions. Such amounts do not reflect the extent to which positions may offset one another or the potential risk, which is generally a lesser amount.

Financial options are agreements that give one party the right, but not the obligation, to buy or sell a specific amount of an asset for a specified price, called the strike price, on or before a specified expiration date. As a writer of financial options, IMRF receives a premium at the outset of the agreement and bears the risk of an unfavorable change in the price of the assets underlying the option. Gains and losses on options are determined based on fair values and are recorded in the Statements of Changes in Fiduciary Net Position. The fair value (liability) of financial options outstanding at year-end December 31, 2022, and December 31, 2021 are as follows:

Fair Value as of	December 31, 2022		December 31, 2021		Change in Fair Value Amount
	Amount	Notional Value	Amount	Notional Value	
Financial put options	\$ 76,187	\$ 867	\$ 30,589	\$ 18,380,826	\$ 45,598
Financial call options	68,654	792	30,610	1,069	38,044

Interest rate swaps are agreements between two or more parties to exchange sets of cash flows over a period of time. In the most common type of interest rate swap arrangement, one party agrees to pay fixed interest payments on designated dates to a counterparty who, in turn, agrees to make return interest payments that float with some

reference rate. In addition to interest rate swaps, one of IMRF's investment managers utilizes credit default swaps which add liquidity to individual credits and protect specific positions. Gains and losses on swaps are determined based on fair values and are recorded in the Statements of Changes in Fiduciary Net Position. The fair value (liability) of swaps outstanding as of December 31, 2022, and December 31, 2021 are as follows:

Fair Value as of	December 31, 2022	December 31, 2021	Change
Swaps, gain/(loss)	\$ 14,191,417	\$ (300,894)	\$ 14,492,311

As of December 31, 2022				Change in Fair Value Amount
Type of Swap	Notional Value	Fair Value	Counterparty Credit Rating	
Credit Default Swap	\$ 48,137,100	\$ 356,389	NR *	\$ (1,857,686)
Credit Default Swap	48,137,100	(37,289)	NR *	(37,289)
Inflation Swap	-	-	NR *	(271,637)
Inflation Swap	-	-	NR *	162,404
Interest Rate Swap	534,338,000	17,471,059	NR *	15,907,735
Interest Rate Swap	534,338,000	(3,598,742)	NR *	588,784
Total	\$ 1,164,950,200	\$ 14,191,417		\$ 14,492,311

As of December 31, 2021			
Type of Swap	Notional Value	Fair Value	Counterparty Credit Rating
Credit Default Swap	\$ 70,195,750	\$ 2,214,075	NR *
Credit Default Swap	70,195,750	-	NR *
Inflation Swap	47,140,000	271,637	NR *
Inflation Swap	47,140,000	(162,404)	NR *
Interest Rate Swap	778,793,025	1,563,324	NR *
Interest Rate Swap	778,793,025	(4,187,526)	NR *
Total	\$ 1,792,257,550	\$ (300,894)	

NR* = Not rated.

G. FUTURE INVESTMENT COMMITMENTS

At December 31, 2022 and December 31, 2021, IMRF had future commitments for additional contributions to real estate and alternative investment managers totaling \$4,426,073,474 and \$3,968,250,954, respectively.

H. FAIR VALUE MEASUREMENT

IMRF categorizes investments measured at fair value within the fair value hierarchy established by generally accepted accounting principles (GAAP). The hierarchy prioritizes valuation inputs used to measure the fair value of the asset or liability into three broad categories.

The inputs or methodology used for valuing the securities is not an indication of the risk associated with investing in those respective securities.

The three hierarchy categories are as follows:

- Level 1: Investments reflect prices quoted in active markets for identical assets.
- Level 2: Investments reflect prices that are based on a similar observable asset either directly or indirectly in an active market, and inputs in markets are not considered to be active for identical or similar assets.
- Level 3: Investments reflect prices based on unobservable inputs and may include situations where there is minimal, if any, market activity for the investment.

If the fair value is measured using inputs from different levels in the fair value hierarchy, the measurement is categorized based on the lowest priority level input that is significant to the valuation. The Fund's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the investment. Investments measured at fair value, using the net asset value (NAV) per share (or equivalent) as a practical expedient to fair value, are not classified in the fair value hierarchy; however, separate disclosures for these investments are included in this report.

The securities lending cash collateral investment pool and short-term investments consist of money market funds, certificates of deposit, and highly liquid cash equivalents. They are reported at amortized cost which approximates fair value. These investments are not categorized in the fair value hierarchy.

Fixed income and equity investments classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets, to the extent that these securities are actively traded.

Fixed income and equity investments classified in Level 2 of the fair value hierarchy are normally valued based on price data obtained from observed transactions and market price quotations from broker dealers and/or pricing sources. Valuation estimates for service providers' internal models use observable inputs such as interest rates, yield curves, credit/risk spreads, and default rates. Matrix pricing techniques value securities based on their relationship to benchmark quoted prices. Exchange traded and over-the-counter investment derivatives are valued by independent pricing service providers, where the value is derived from underlying asset prices, reference rates, indices, or other observable inputs.

Fixed income and equity investments classified in Level 3 of the fair value hierarchy are valued based on inputs principally by using valuation techniques from The Northern Trust Company. Their values can only be estimated using a combination of complex market prices, mathematical models, and subjective assumptions.

Alternative investments are measured at fair value, using the NAV per share as a practical expedient to fair value. Investments measured at NAV are not classified in the fair value hierarchy

Investments measured at amortized cost consist of IMRF's Short-Term Investment Funds (STIF) account, offered through the Funds custodial bank. These are not included in the fair value hierarchy and are presented only to show comparability between the Fair Value tables and the amounts shown in the Schedules of Fiduciary Net Position for Total investments.

The following tables summarize the valuation of IMRF's investments by the fair value hierarchy levels and investments measured at NAV as of December 31, 2022, and December 31, 2021.

As of December 31, 2022					
Fair Value Measurements Using					
	Fair Value	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs	Investments Measured at NAV
U.S. government & agency fixed income	\$ 3,626,620,175	\$ 1,371,118,260	\$ 2,151,881,510	\$ 103,620,405	\$ -
U.S. corporate fixed income	3,407,019,411	-	3,215,984,814	191,034,597	-
U.S. fixed income funds	2,776,228,233	-	1,100,651,759	-	1,675,576,474
Foreign fixed income funds	2,056,968,068	-	428,744,583	12,151,163	1,616,072,322
Fixed income	11,866,835,887	1,371,118,260	6,897,262,666	306,806,165	3,291,648,796
U.S. equities	13,988,881,820	13,979,434,853	9,446,967	-	-
U.S. equity funds	2,490,836,751	2,490,836,751	-	-	-
Foreign equities	6,269,660,799	6,268,854,827	-	805,972	-
Foreign equity funds	2,749,284,035	2,749,284,035	-	-	-
Equity	25,498,663,405	25,488,410,466	9,446,967	805,972	-
Real estate	4,586,045,681	-	-	-	4,586,045,681
Private equity	5,259,981,482	-	-	-	5,259,981,482
Absolute return funds	75,952	-	-	-	75,952
Options	144,841	144,841	-	-	-
Swaps	14,191,417	-	14,191,417	-	-
Investments measured at fair value	\$ 47,225,938,665	\$ 26,859,673,567	\$ 6,920,901,050	\$ 307,612,137	\$ 13,137,751,911
Investments measured at amortized cost	550,501,307				
Total	\$ 47,776,439,972				

Year Ended December 31, 2022	Investments measured at Net Asset Value (NAV)			
	Fair Value	Unfunded Commitments	Redemption Frequency (if currently eligible)	Redemption Notice Period
U.S. fixed income funds	\$ 1,675,576,474	\$ -	Daily	0-2 Days
Foreign fixed income	1,616,072,322	-	Daily	30 Days
Commingled Fixed Income Funds Total	3,291,648,796	-		
Real estate	4,586,045,681	1,860,533,771	Quarterly, Not Eligible	30-60 days, N/A
Private equity	5,259,981,482	2,565,539,702	Quarterly, Not Eligible	60 days, N/A
Absolute return funds	75,952	-	Monthly, Quarterly	Notice in Place
Investments measured at NAV	\$13,137,751,911	\$4,426,073,474		



	As of December 31, 2021				
	Fair Value Measurements Using				
	Fair Value	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs	Investments Measured at NAV
U.S. government & agency fixed income	\$ 3,893,544,474	\$ 1,978,682,405	\$ 1,826,022,810	\$ 88,839,259	\$ -
U.S. corporate fixed income	3,786,403,517	-	3,561,450,193	224,953,324	-
U.S. fixed income funds	3,746,668,113	-	1,817,007,757	-	1,929,660,356
Foreign fixed income funds	1,515,399,018	-	774,983,723	6,328,188	734,087,107
Fixed income	12,942,015,122	1,978,682,405	7,979,464,483	320,120,771	2,663,747,463
U.S. equities	19,299,332,907	19,286,211,134	13,121,773	-	-
U.S. equity funds	3,809,185,342	3,809,185,342	-	-	-
Foreign equities	7,667,238,765	7,667,238,001	-	764	-
Foreign equity funds	3,402,760,223	3,402,760,223	-	-	-
Equity	34,178,517,237	34,165,394,700	13,121,773	764	-
Real estate	4,440,105,815	-	-	-	4,440,105,815
Private equity	4,989,950,351	-	-	-	4,989,950,351
Absolute return funds	108,373	-	-	-	108,373
Options	61,199	61,199	-	-	-
Swaps	(300,894)	-	(300,894)	-	-
Investments measured at fair value	\$ 56,550,457,203	\$ 36,144,138,304	\$ 7,992,285,362	\$ 320,121,535	\$ 12,093,912,002
Investments measured at amortized cost	735,982,794				
Total	\$ 57,286,439,997				

Year Ended December 31, 2021	Investments measured at Net Asset Value (NAV)			
	Fair Value	Unfunded Commitments	Redemption Frequency (if currently eligible)	Redemption Notice Period
U.S. fixed income funds	\$ 1,929,660,356	\$ -	Daily	0-2 Days
Foreign fixed income	734,087,107	-	Daily	30 Days
Commingled Fixed Income Funds Total	2,663,747,463	-		
Real estate	4,440,105,815	1,340,318,896	Quarterly, Not Eligible	30-60 days, N/A
Private equity	4,989,950,351	2,306,573,034	Quarterly, Not Eligible	60 days, N/A
Absolute return funds	108,373	-	Monthly, Quarterly	Notice in Place
Investments measured at NAV	\$12,093,912,002	\$3,646,891,930		

1. INVESTMENTS MEASURED AT NET ASSET VALUE

Commingled Fixed Income Funds. This type includes fixed income funds that are considered to be commingled in nature. The fair value of the investments in this type has been determined using the NAV per share (or equivalent) of the Fund's ownership interest in the partners' capital at the end of the period. These are based upon the fair value of the underlying investments. Overall, IMRF's strategy for fixed income investments is to provide stable income and to diversify the equity market risk in the portfolio. The fixed income portfolio's objective is to achieve a total return that exceeds the total return of the Bloomberg Barclays U.S. Aggregate Bond Index net of fees. IMRF's investments in fixed income commingled funds essentially have the same objective.

Real Estate Funds. This type includes open-ended commingled funds, commingled closed-ended funds, and a commingled closed-ended fund of funds. The fair value of the investments in this type has been determined using the NAV per share (or equivalent) of the Fund's ownership interest in the partners' capital at the end of the period. These are based upon the fair value of the underlying investments. The open-ended commingled funds are generally eligible for redemption on a quarterly basis. The closed-ended funds are not eligible for redemption. Distributions received as underlying investments within the fund are liquidated over the term of the fund, which is typically 7 to 12 years. IMRF strategy for investing in real estate is to provide diversification, inflation protection, and income generation in the investment portfolio. The real estate portfolio's objective is to achieve a total return that exceeds the return of the National Council of Real Estate Investment Fiduciaries (NCREIF) gross of fees Open End Diversified Core Equity (ODCE) Index over a rolling three year period. The global real estate program invests capital in private and public real estate debt and equity markets in order to achieve the investment objectives. The role of public real estate is to provide diversification, income, and liquidity. The role of private real estate is to provide diversification, inflation protection, and return enhancement. Private market real estate investments will be diversified among various return strategies including core, value-add, and opportunistic in U.S. and non-U.S. markets.

Private Equity Funds. This type consists of private equity separate accounts with underlying partnerships, private equity fund of funds, direct limited partnership investments, and five hedge fund side pockets. The fair value of the investments in this type has been determined using the NAV per share (or equivalent) of the Funds' ownership interest in the partners' capital at the end of the period. These are based upon the fair value of the underlying investments. Private equity investments are not eligible for redemption. Distributions received as underlying investments within the fund are liquidated over the term of the partnership, which is typically 7 to 12 years. The hedge fund of funds is eligible for redemption at any time, subject to the redemption constraints of the underlying investments. IMRF's strategy for alternative investments is to diversify the Fund's assets and enhance investment portfolio return through long-term capital appreciation. Private Equity is one component of this portfolio investment strategy. The alternatives investment portfolio's objective is to achieve an annualized return of 9%. The alternative investment asset class can encompass different and distinct asset categories within U.S. and non-U.S. markets. The investment objective is to generate long-term returns in a diversified manner. It generally consists of limited partnerships in which IMRF commits a fixed amount that the general partner will invest over several years. The partnership structure may cover periods of 10 years or more. As such, the alternative asset class is not structured to provide short term cash flow for the Fund.

I. EMPLOYEE RETIREMENT DEFINED BENEFIT PLAN

1. GENERAL INFORMATION ABOUT THE DEFINED BENEFIT PLAN

A. IMRF PLAN DESCRIPTION

As an employer, IMRF's defined benefit pension plan for regular employees provides retirement, disability benefits, post-retirement increases, and death benefits to plan members and their beneficiaries. IMRF is the administrator of an agent multiple employer public pension fund. A summary of IMRF's pension benefits is provided in the "Benefits Provided" section of this document. Details of all benefits are available from IMRF. Benefit provisions are established by statute and may only be changed by the General Assembly of the State of Illinois.

B. BENEFITS PROVIDED

IMRF has three benefit plans. All three IMRF benefit plans have two tiers. Employees hired before January 1, 2011, are eligible for Tier 1 benefits. Tier 1 employees are vested for pension benefits when they have at least eight years of qualifying service credit. Tier 1 employees who retire at age 55 (at reduced benefits) or after age 60 (at full benefits), with eight years of service, are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 1-2/3% of the final rate of earnings for the first 15 years of service credit, plus 2% for each year of service credit after 15 years, to a maximum of 75% of their final rate of earnings. Final rate of earnings is the highest total earnings during any consecutive 48 months, within the last 10 years of service, divided by 48. Under Tier 1, the pension is increased by 3% of the original amount on January 1, every year after retirement.

Employees hired on or after January 1, 2011, are eligible for Tier 2 benefits. For Tier 2 employees, pension benefits vest after ten years of service. Participating employees who retire at age 62 (at reduced benefits) or after age 67 (at full benefits), with ten years of service, are entitled to an annual retirement benefit, payable monthly for life, in an amount equal to 1-2/3% of the final rate of earnings for the first 15 years of service credit, plus 2% for each year of service credit after 15 years, to a maximum of 75% of their final rate of earnings. Final rate of earnings is the highest total earnings during any 96 consecutive months, within the last 10 years of service, divided by 96. Under Tier 2, the pension is increased on January 1 every year after retirement, upon reaching age 67, by the lesser of:

- 3% of the original pension amount, or
- 1/2 of the increase in the Consumer Price Index of the original pension amount.

C. IMRF EMPLOYEES COVERED BY BENEFIT TERMS

As of December 31, 2022 and December 31, 2021, the following employees were covered by the benefit terms:

	2022	2021
Retirees and Beneficiaries currently receiving benefits	196	193
Inactive Plan Members entitled to but not yet receiving benefits	75	65
Active Plan Members	210	211
Total	481	469

D. CONTRIBUTIONS

As set by statute, IMRF's Regular Plan Members are required to contribute 4.5% of their annual covered salary. The statute requires employers to contribute the amount necessary, in addition to member contributions, to finance the retirement coverage of their own employees. IMRF's annual contribution rate for calendar years 2022 and 2021 was 9.14% and 10.40% respectively. For the fiscal year ended December 31, 2022, and December 31, 2021, IMRF contributed \$1,631,546 and \$1,825,082 respectively to the plan. IMRF also contributes for disability benefits, death benefits, and supplemental retirement benefits, all of which are pooled at the IMRF level. Contribution rates for disability and death benefits are set by IMRF's Board of Trustees, while the supplemental retirement benefits rate is set by statute.

2. NET PENSION LIABILITY/(ASSET)

IMRF's net pension liability/(asset) was measured as of December 31, 2022, and December 31, 2021. The total pension liability used to calculate the net pension liability/(asset) was determined by an actuarial valuation as of that date.

A. ACTUARIAL ASSUMPTIONS

The following are the methods and assumptions used to determine total pension liability at December 31, 2022, and December 31, 2021:

Actuarial Cost Method	Entry-Age Normal
Asset Valuation Method	Market Value of Assets
Inflation Rate	2.25%
Salary Increases	2.85% to 13.75%, including inflation.
Investment Rate of Return	7.25%
Retirement Age	Experience-based table of rates, specific to the type of eligibility condition, last updated for the 2020 valuation pursuant to an experience study from years 2017 to 2019
Mortality	
Non-Disabled Retirees	Pub-2010, Amount-Weighted, below-median income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020 were used
Disabled Retirees	Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020.
Active Members	Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020.

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 to the target asset allocation percentage and adding expected inflation. The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table as of December 31, 2022 and December 31, 2021:

	2022		2021	
	Portfolio Target Percentage	Long-Term Expected Real Rate of Return	Portfolio Target Percentage	Long-Term Expected Real Rate of Return
Domestic Equity	35.5%	6.50%	39.0%	1.90%
International Equity	18.0%	7.60%	15.0%	3.15%
Fixed Income	25.5%	4.90%	25.0%	(0.60)%
Real Estate	10.5%	6.20%	10.0%	3.30%
Alternative Investments	9.5%	6.25-9.90%	10.0%	1.70-5.50%
Cash Equivalents	1.0%	4.00%	1.0%	(0.90)%
Total	100.0%		100.0%	

3. SINGLE DISCOUNT RATE

A Single Discount Rate of 7.25% was used to measure the total pension liability. The projection of cash flow used to determine this Single Discount Rate assumed that the plan members' contributions will be made at the current contribution rate, and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability. The Single Discount Rate reflects:

1. The long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits), and
2. The tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of the most recent valuation, the expected rate of return on plan investments is 7.25%, the municipal bond rate is 4.05% and 1.84% as of December 31, 2022, and December 31, 2021, respectively, and the resulting single discount rate is 7.25% as of both December 31, 2022 and December 31, 2021.

4. CHANGES IN THE NET PENSION LIABILITY

	Total Pension Liability (A)	Plan Fiduciary Net Position (B)	Net Pension Liability (A)-(B)
Balances at December 31, 2020	\$99,297,473	\$98,938,776	\$358,697
Changes for the year:			
Service Cost	1,651,203	-	1,651,203
Interest on the Total Pension Liability	7,062,415	-	7,062,415
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience of the Total Pension Liability	(148,957)	-	(148,957)
Changes of Assumptions	-	-	-
Contributions - Employer	-	1,863,644	(1,863,644)
Contributions - Employees	-	799,505	(799,505)
Net Investment Income	-	16,608,903	(16,608,903)
Benefit Payments, including Refunds of Employee Contributions	(5,420,913)	(5,420,913)	-
Other (Net Transfer)	-	(377,387)	377,387
Net Changes	3,143,748	13,473,752	(10,330,004)
Balances at December 31, 2021	\$102,441,221	\$112,412,528	\$(9,971,307)
Changes for the year:			
Service Cost	1,591,628	-	1,591,628
Interest on the Total Pension Liability	7,270,377	-	7,270,377
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience of the Total Pension Liability	1,444,330	-	1,444,330
Changes of Assumptions	-	-	-
Contributions - Employer	-	1,760,286	(1,760,286)
Contributions - Employees	-	813,941	(813,941)
Net Investment Income	-	(14,544,490)	14,544,490
Benefit Payments, including Refunds of Employee Contributions	(5,911,939)	(5,911,939)	-
Other (Net Transfer)	-	(401,430)	401,430
Net Changes	4,394,396	(18,283,632)	22,678,028
Balances at December 31, 2022	\$106,835,617	\$94,128,896	\$12,706,721

Notes to the schedule: For 2022, The Net Pension Liability is included in the Accrued Expenses and Benefits Payable. For 2021, the Net Pension Asset is included in the Receivables and Prepaids.

A. SENSITIVITY OF THE NET PENSION LIABILITY/(ASSET) TO CHANGES IN THE DISCOUNT RATE

The following presents the plan's net pension liability/(asset), calculated using a Single Discount Rate of 7.25%, as well as what the plan's net pension liability/(asset) would be if it were calculated using a Single Discount Rate that is 1% lower or 1% higher:

	December 31, 2022		
	Current Single Discount Rate Assumption		
	1% Decrease (6.25%)	Current Rate (7.25%)	1% Increase (8.25%)
Total Pension Liability	\$ 118,704,524	\$ 106,835,617	\$ 97,394,244
Plan Fiduciary Net Position	94,128,896	94,128,896	94,128,896
Net Pension Liability/(Asset)	\$ 24,575,628	\$ 12,706,721	\$ 3,265,348

	December 31, 2021		
	Current Single Discount Rate Assumption		
	1% Decrease (6.25%)	Current Rate (7.25%)	1% Increase (8.25%)
Total Pension Liability	\$ 113,883,084	\$ 102,441,221	\$ 93,293,805
Plan Fiduciary Net Position	112,412,528	112,412,528	112,412,528
Net Pension Liability/(Asset)	\$ 1,470,556	\$ (9,971,307)	\$ (19,118,723)

5. PENSION EXPENSE, DEFERRED OUTFLOWS OF RESOURCES, AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS

For the year's ended December 31, 2022, and December 31, 2021, IMRF recognized pension expense/(income) of \$3,696,672 and \$(2,117,987) respectively. At December 31, 2022, and December 31, 2021, IMRF reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	As of December 31, 2022		As of December 31, 2021	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Deferred Amounts to be Recognized in Pension Expense in Future Periods				
Differences between expected and actual experience	\$ 2,264,927	\$ 86,039	\$ 2,217,866	\$ 117,498
Changes of assumptions	18,374	278,398	490,730	515,816
Net difference between projected and actual earnings on pension plan investments	8,047,623	-	-	12,850,437
Total	\$ 10,330,924	\$ 364,437	\$ 2,708,596	\$ 13,483,751

As of December 31, 2022 and December 31, 2021, the amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future periods as follows:

Year Ending December 31, 2022		Year Ending December 31, 2021	
Net Deferred Outflows/(Inflows) of Resources		Net Deferred Outflows/(Inflows) of Resources	
2023	\$ 550,993	2022	\$ (1,558,136)
2024	1,804,364	2023	(4,268,685)
2025	2,886,658	2024	(3,015,314)
2026	4,724,472	2025	(1,933,020)
2027	-	2026	-
Thereafter	-	Thereafter	-
Total	\$ 9,966,487	Total	\$ (10,775,155)

J. POST-EMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)

1. GENERAL INFORMATION ABOUT THE OPEB PLAN

A. PLAN DESCRIPTION

IMRF, as an employer, administers a single-employer defined benefit healthcare plan ("Retiree Health Plan") under the provisions of ILCS Chapter 215, Article 5, Section 367j. The plan is set up as a pay as you go plan. As such, there are no assets accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.

B. BENEFITS PROVIDED

As required by the statutes, the Retiree Health Plan provides lifetime health and dental care insurance for eligible retirees and their spouses through IMRF's group health insurance plan, which covers both active and retired members. Benefit subsidy provisions have been established by IMRF's Board of Trustees that cover a percentage of the retiree's insurance premiums from the date of retirement to the date the retiree becomes eligible for Medicare. These benefit subsidy provisions can be modified or terminated at the sole discretion of the IMRF Board. Except for any eligible subsidy, retirees must pay the entire blended insurance premium for their coverage. The amount of the subsidy varies based upon the retiree's years of service with IMRF and are as follows:

Years of Service	IMRF Percent	Retiree Percent
Less than 10	0.0%	100.0%
10-14	20.0	80.0
15-19	27.5	72.5
20	35.0	65.0
21	36.5	63.5
22	38.0	62.0
23	39.5	60.5
24	41.0	59.0
25	42.5	57.5
26	44.0	56.0
27	45.5	54.5
28	47.0	53.0
29	48.5	51.5
30 and up	50.0	50.0

C. EMPLOYEES COVERED BY THE BENEFIT TERMS

The following employees were covered by the benefit terms at December 31, 2022 and December 31, 2021:

	2022	2021
Inactive employees or beneficiaries currently receiving benefits	21	26
Inactive employees entitled to but not yet receiving benefits	-	-
Active employees	206	210
Total	227	236

2. TOTAL OPEB LIABILITY

IMRF's total OPEB liability of \$2,117,633 and \$2,543,618 was measured as of December 31, 2022, and December 31, 2021, respectively, and was determined by an actuarial valuation as of those dates.

The total OPEB liability in the December 31, 2022, and December 31, 2021, actuarial valuations was determined using the following actuarial assumptions and other inputs. These were applied to all periods included in the measurement unless otherwise specified.

Actuarial Cost Method	Entry-Age Normal		
Discount Rate	2022 - 4.05%	2021 - 1.84%	2020 - 2.00%
Price Inflation	2022 - 2.25%	2021 - 2.25%	2020 - 2.50%
Wage Inflation	2022 - 2.75%	2021 - 2.75%	2020 - 3.25%
Salary Increases	2022 and 2021 - 2.85% to 9.85%, includes wages inflation 2020 - 3.39% to 10.35%, includes wage inflation		
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Based on the experience study covering the three year period ending December 31, 2019 (and December 31, 2016 for the 2020 valuation) as conducted for the Illinois Municipal Retirement System.		
Mortality			
Active members*	2022 and 2021 - Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female tables, and future mortality improvements projected using scale MP-2020. 2020 - IMRF specific mortality rates with 2-dimensional, fully generational improvements using MP-2017 (base year 2015) Mortality Improvement Scale.		
Retirees*	2022 and 2021 - Pub-2010, Amount-Weighted, below-median income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020. 2020 - IMRF specific mortality rates with 2-dimensional, fully generational improvements using MP-2017 (base year 2015) Mortality Improvement Scale.		
Disability*	2022 and 2021 - Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male (adjusted 100%) and Female tables, and future mortality improvements projected using scale MP-2020. 2020 - Based on the experience study covering the three year period ending December 31, 2016 as conducted for the Illinois Municipal Retirement Fund.		
Health Care Trend Rates	2022 and 2021 - Initial trend of 7.50% gradually decreasing to an ultimate trend rate of 3.50% in year 12. 2020 - Initial trend of 8.25% gradually decreasing to an ultimate trend rate of 3.50% in year 10		
Ageing Factors	Based on the 2013 SOA Study "Health Care Costs - From Birth to Death"		

*Based on the experience study covering the three year period ending December 31, 2019, as conducted for the Illinois Municipal Retirement Fund.

For plans that have no assets, the discount rate used is the same as the tax-exempt municipal bond rate, based on an index of 20 year general obligation bonds with an average credit rating of AA as of the measurement date. For these valuations, the Fidelity 20 Year Municipal GO AA Index was used.

3. CHANGES IN THE TOTAL OPEB LIABILITY

	2022	2021
Total OPEB Liability – Beginning of the Year	\$ 2,543,618	\$ 2,353,042
Service Cost	132,620	137,431
Interest on the Total OPEB Liability	46,463	46,624
Changes of Benefit Terms	-	-
Differences Between Expected and Actual Experience	(205,464)	83,035
Changes in Assumptions	(230,089)	74,291
Benefit Payments	(169,515)	(151,105)
Net Changes	(425,985)	190,576
Total OPEB Liability – End of the Year	\$2,117,633	\$2,543,618

Changes in assumptions for 2022 and 2021 reflected in the current valuation:

- a change in the discount rate from 2.00% in 2020 to 1.84% in 2021 to 4.05% in 2022,
- a change in the price inflation from 2.50% in 2020 to 2.25% in 2021 and 2022,
- a change in the wage inflation from 3.25% in 2020 to 2.75% in 2021 and 2022,
- a change in salary increases from 3.39% to 10.35%, including wage inflation in 2020 to 2.85% to 9.85%, including wages inflation in 2021 and 2022,
- a change in the retirement age tables from the 3 year experience study ending December 31, 2016 to the 3 year experience study ending December 31, 2019,
- a change in mortality tables in 2021, and the repeal of the "Cadillac" excise tax in 2019.

A. SENSITIVITY OF THE TOTAL OPEB LIABILITY TO CHANGES IN THE DISCOUNT RATE

The following presents the total OPEB liability of IMRF, as well as what the total OPEB Liability would be if it were calculated using a discount rate that is plus/minus 1 percentage point from the current discount rate:

	Total OPEB Liability					
	Current Single Discount Rate					
	1% Decrease		Assumptions		1% Increase	
	Rate	Amount	Rate	Amount	Rate	Amount
2022	3.05%	\$ 2,242,339	4.05%	\$ 2,117,633	5.05%	\$ 1,998,205
2021	0.84%	2,681,552	1.84%	2,543,618	2.84%	2,407,550

B. SENSITIVITY OF THE TOTAL OPEB LIABILITY TO CHANGES IN THE HEALTH-CARE COST TREND RATES

The following presents the total OPEB liability of IMRF, as well as what the total OPEB Liability would be if it were calculated using health-care cost trend rates that are plus/minus 1 percentage point from the current health-care cost trend rates:

	Total OPEB Liability		
	Current Health Care Cost		
	1% Decrease	Trend Rate Assumption	1% Increase
2022	\$ 1,948,489	\$ 2,117,633	\$ 2,310,151
2021	2,325,692	2,543,618	2,793,773

4. OPEB EXPENSE AND DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES RELATED TO OPEB

For the years ended December 31, 2022, and December 31, 2021, IMRF recognized OPEB expense of \$138,033 and \$190,506 respectively. At December 31, 2022 and December 31, 2021, IMRF reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	December 31, 2022		December 31, 2021	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 64,969	\$ 450,490	\$ 74,002	\$ 333,579
Changes in assumptions or other inputs	337,562	205,154	400,967	-
Total	\$ 402,531	\$ 655,644	\$ 474,969	\$ 333,579

As of December 31, 2022 and December 31, 2021, the amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense as follows:

As of December 31, 2022		As of December 31, 2021	
Net Deferred Outflows/(Inflows) of Resources		Net Deferred Outflows/(Inflows) of Resources	
2023	\$ (41,050)	2022	\$ 6,151
2024	(41,050)	2023	6,151
2025	(41,050)	2024	6,151
2026	(35,627)	2025	6,151
2027	(747)	2026	11,574
Thereafter	(93,589)	Thereafter	105,212
Total	\$ (253,113)	Total	\$ 141,390

K. RESERVES

IMRF maintains several reserves as required by the Illinois Pension Code and Board policy. All reserves are fully funded with the exception of some individual employer retirement reserves. These reserves do not equal the present value of expected retirement benefits for all employers. As of December 31, 2022, the present value of expected retirement benefits for all employers combined exceeded the retirement reserves by \$4,922,104,291. As of December 31, 2021, retirement reserves exceeded the present value of expected retirement benefits for all employers combined by \$6,772,502,765.

These reserves are explained in the Illinois Pension Code, Section 7-202 through 208.

	2022	2021
Member Contribution Reserve		
Balance at December 31	\$ 7,935,641,984	\$ 7,723,735,649
Annuity Reserve		
Balance at December 31	\$ 30,872,785,502	\$ 29,173,126,705
Employer Reserves		
Retirement contribution reserve	9,650,730,446	20,469,641,864
Earnings and experience reserve	(287,014,327)	314,794,930
Supplemental retirement benefit reserve	3,275,139	1,536,978
Death benefit reserve	6,832,977	9,209,428
Disability benefit reserve	8,552,774	8,008,221
Balance at December 31	\$ 9,382,377,009	\$ 20,803,191,421

L. OTHER NOTES

1. PREPAID EXPENSES

	2022	2021
Prepaid administrative expenses	\$ 3,620,619	\$ 3,312,558
GASB 68 net pension asset	-	9,971,307
January 1 benefits charged to bank account in December	212,811,583	200,113,158
Balance at December 31	\$ 216,432,202	\$ 213,397,023

2. CAPITAL ASSETS

Capital assets are recorded at their cost at the time of acquisition. Depreciation and amortization are computed using the straight-line method over the estimated useful life of the related asset. The estimated useful lives are 1) furniture: ten years; 2) equipment: five to ten years; 3) internally developed software: six years; and 4) automobiles: four years.

	Year ended December 31, 2022			
	Beginning Balance	Additions	Deletions	Ending Balance
Capital Assets				
Leasehold improvements	\$ 1,439,861	\$ 144,540	\$ -	\$ 1,584,401
Furniture and equipment	15,699,372	1,532,573	(145,890)	17,086,055
Software	13,364,359	-	-	13,364,359
Total in service	30,503,592	1,677,113	(145,890)	32,034,815
Software under development	50,477,052	7,875,575	-	58,352,627
Total ending balance	80,980,644	9,552,688	(145,890)	90,387,442
Accumulated Depreciation & Amortization				
Leasehold improvements	989,864	190,259	-	1,180,123
Furniture and equipment	13,309,522	2,217,844	(145,890)	15,381,476
Software	9,346,696	-	-	9,346,696
Ending balance	23,646,082	2,408,103	(145,890)	25,908,295
Capital Assets, net	\$ 57,334,562	\$ 7,144,585	\$ -	\$ 64,479,147

	Year ended December 31, 2021			
	Beginning Balance	Additions	Deletions	Ending Balance
Capital Assets				
Leasehold improvements	\$ 1,264,450	\$ 175,411	\$ -	\$ 1,439,861
Furniture and equipment	14,608,744	1,090,628	-	15,699,372
Software	13,364,359	-	-	13,364,359
Total in service	29,237,553	1,266,039	-	30,503,592
Software under development	40,334,588	10,142,464	-	50,477,052
Total ending balance	69,572,141	11,408,503	-	80,980,644
Accumulated Depreciation and Amortization				
Leasehold improvements	838,877	150,987	-	989,864
Furniture and equipment	11,146,189	2,163,333	-	13,309,522
Software	9,346,696	-	-	9,346,696
Ending balance	21,331,762	2,314,320	-	23,646,082
Capital Assets, net	\$ 48,240,379	\$ 9,094,183	\$ -	\$ 57,334,562

3. LEASE AGREEMENTS

The Fund leases its headquarters facilities at the Drake Oak Brook Plaza under an agreement with the building’s management. The Fund has an agreement for the office space through December 31, 2025. Payments are generally fixed monthly, with certain variable payments not included in the measurement of the lease liability required based on maintenance, parking, storage, property tax, and other building operating expenses. The lease contained an abatement clause, which was included in the calculation of the lease liability.

The Fund also leases office space in Springfield for its Regional Counseling Center. The Fund has an agreement for the office space through March 31, 2024. The agreement also increased the total square footage. Payments are generally fixed monthly. There are not any variable payments included in the lease.

Lease asset activity of the Fund was as follows:

	Year ended December 31, 2022			
	Beginning Balance	Additions	Deletions	Ending Balance
Right to Use Assets (Lessee)				
Buildings	\$ -	\$ 4,497,614	\$ -	\$ 4,497,614
Accumulated Amortization				
Buildings	\$ -	1,152,363	-	1,152,363
Right to Use Assets, net	\$ -	\$ 3,345,251	\$ -	\$ 3,345,251

During the year ended December 31, 2022, IMRF recognized the following outflows as a result of certain items that were properly excluded from the initial measurement of the lease liability of \$732,618. These amounts include building maintenance costs, parking, storage fees, common area utilities, and property taxes.

Future principal and interest payment requirements related to the Fund’s lease liability at December 31 are as follows:

	Principal	Interest	Total
2023	\$ 1,173,319	\$ 59,117	\$ 1,232,436
2024	1,079,317	89,995	1,169,312
2025	1,060,643	126,017	1,186,660
Total	\$ 3,313,279	\$ 275,129	\$ 3,588,408

4. COMPENSATED ABSENCES

Annual vacation leave is earned by all employees. Upon termination, employees are eligible to receive compensation for their accrued annual leave balances. At December 31, 2022, a liability existed for accumulated annual leave calculated at the employee’s December 31, 2022 pay rate in the amount of \$1,083,683. Employees who have been continuously employed by IMRF for at least five years prior to the date of their retirement, resignation, or death will receive payment for their accumulated sick leave balance, with such payment not to exceed the sum of 90 days of the employee’s annual compensation. For employees who have not been employed for five continuous years, an accrued liability is calculated assuming the likelihood that they will meet the five year threshold in the future. At December 31, 2022, a liability existed for accumulated and accrued sick leave, calculated at the employee’s December 31, 2022 pay rate in the amount of \$2,952,624. The total leave liability of \$4,444,133 and \$4,453,214 as of December 31, 2022, and December 31, 2021, respectively, also includes an accrual for IMRF employer contributions and payroll taxes. These amounts are reflected in the Statements of Fiduciary Net Position in accrued expenses and benefits payable.

5. RISK MANAGEMENT

IMRF carries commercial, business, fiduciary liability, cyber, and automobile liability insurance coverage provided by private insurance carriers. These policies limit the risk of loss from torts; theft of, damage to and destruction of assets; errors and omission; injuries to employees; and natural disasters. There have been no material insurance claims filed or paid during the last three years.

The Fund is also exposed to investment risk. This risk is limited by diversification of the portfolio, establishment and monitoring of investment policies and guidelines, and monitoring of investment performance. In addition, investment consultants and fiduciary counsel monitor the Fund’s activities and advise the Board of Trustees.

6. CONTINGENCIES

IMRF is a defendant in a number of lawsuits that, in management’s opinion, will not have a material effect on the financial statements.



REQUIRED SUPPLEMENTARY INFORMATION*

* Unaudited; see accompanying Independent Auditor's Report

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS (Last 9 calendar years)

Table with 4 columns: Calendar Year Ended December 31, 2022, 2021, 2020. Rows include Total Pension Liability, Service Cost, Interest on the Total Pension Liability, Changes of Benefit Terms, Differences Between Expected and Actual Experience of the Total Pension Liability, Changes of Assumptions, Benefit Payments, including Refunds of Employee Contributions, Net Change in Total Pension Liability, Total Pension Liability - Beginning, Total Pension Liability - Ending (A), Plan Fiduciary Net Position, Contributions - Employer, Contributions - Employees, Net Investment Income, Benefit Payments, including Refunds of Employee Contributions, Other (Net Transfers), Net Change in Plan Fiduciary Net Position, Plan Fiduciary Net Position - Beginning, Plan Fiduciary Net Position - Ending (B), Net Pension Liability/(Asset) - Ending (A) - (B), Plan Fiduciary Net Position as a Percentage of the Total Pension Liability, Covered Valuation Payroll, Net Pension Liability/(Asset) as a Percentage of Covered Valuation Payroll.

NOTES TO SCHEDULE

This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, information is presented for those years for which information is available.

IMRF as an employer, first implemented GASB 68 in fiscal year 2019. The cumulative effect of the change equals the ending balances as of December 31, 2018 and can also be found in IMRF's 2019 Annual Report. To provide the reader additional information, this schedule is presented to show actual year-to-year changes and trends in the amounts listed.

Table with 6 columns: 2019, 2018, 2017, 2016, 2015, 2014. Rows include Total Pension Liability, Service Cost, Interest on the Total Pension Liability, Changes of Benefit Terms, Differences Between Expected and Actual Experience of the Total Pension Liability, Changes of Assumptions, Benefit Payments, including Refunds of Employee Contributions, Net Change in Total Pension Liability, Total Pension Liability - Beginning, Total Pension Liability - Ending (A), Plan Fiduciary Net Position, Contributions - Employer, Contributions - Employees, Net Investment Income, Benefit Payments, including Refunds of Employee Contributions, Other (Net Transfers), Net Change in Plan Fiduciary Net Position, Plan Fiduciary Net Position - Beginning, Plan Fiduciary Net Position - Ending (B), Net Pension Liability/(Asset) - Ending (A) - (B), Plan Fiduciary Net Position as a Percentage of the Total Pension Liability, Covered Valuation Payroll, Net Pension Liability/(Asset) as a Percentage of Covered Valuation Payroll.

NOTES TO SCHEDULE CONTINUED

Changes in assumptions:

- For 2014, changes are primarily from adopting an IMRF-specific mortality tables with fully generational projection scale MP-2014 (base year 2014) developed from the RP-2014 mortality tables.
• For 2015, changes are primarily from a change in the calculated single discount rate from 7.49% in 2014 to 7.47% in 2015.
• For 2016, changes are primarily from a change in the calculated single discount rate from 7.47% in 2015 to 7.50% in 2016.
• For 2017, changes are primarily from adopting an IMRF-specific mortality tables with fully generational projection scale MP-2017 (base year 2015) developed from the RP-2014 mortality tables.
• For 2018, the assumed investment rate of return was lowered from 7.50% to 7.25%.
• For 2020, changes are primarily from adopting the Pub-2010, amount weighted, general mortality tables for retirees and active members.

SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS**

Calendar Year Ended December 31,	2022	2021
Total OPEB Liability		
Service Cost	\$ 132,620	\$ 137,431
Interest on the Total OPEB Liability	46,463	46,924
Changes of Benefit Terms	-	-
Differences Between Expected and Actual Experience	(205,464)	83,035
Changes of Assumptions	(230,089)	74,291
Health Insurance Subsidy Payments *	(169,515)	(151,105)
Net Change in the Total OPEB Liability	(425,985)	190,576
Total OPEB Liability – Beginning	2,543,618	2,353,042
Total OPEB Liability – Ending	\$ 2,117,633	\$ 2,543,618
Covered Employee Payroll	\$ 18,343,118	\$ 17,866,862
Total OPEB Liability as a Percentage of Covered Employee Payroll	11.54%	14.24%

NOTES TO SCHEDULE

(Ten year trend information not available due to implementation of GASB Statement No. 75 in 2018. Historical information is not available prior to fiscal year 2017.)

* Includes an adjustment for any implicit rate subsidy present in the pre-65 rates.

** There are no assets accumulated in a trust that meets the criteria of GASB codification P52.101 to pay related benefits for the OPEB Plan.

2020	2019	2018	2017
\$ 117,971	\$ 101,836	\$ 119,612	\$ 112,513
58,602	72,003	74,519	84,042
-	-	-	-
(30,919)	(10,076)	(393,995)	(174,577)
210,501	165,579	23,037	103,110
(150,212)	(144,210)	(105,440)	(95,870)
205,943	185,132	(282,267)	29,218
2,147,099	1,961,967	2,244,234	2,215,016
\$ 2,353,042	\$ 2,147,099	\$ 1,961,967	\$ 2,244,234
\$ 17,523,905	\$ 17,067,031	\$ 15,549,200	\$ 15,627,422
13.43%	12.58%	12.62%	14.36%



SCHEDULE OF EMPLOYER CONTRIBUTIONS

Calendar Year	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Valuation Payroll	Actual Contribution as a Percentage of Covered Valuation Payroll
2013	\$ 1,511,513	\$ 1,493,946	\$ 17,567	\$ 12,471,233	11.98%
2014	1,456,059	1,464,867	(8,808)	12,772,451	11.47
2015	1,509,919	1,525,536	(15,617)	13,676,803	11.15
2016	1,609,368	1,618,248	(8,880)	14,459,727	11.19
2017	1,613,882	1,633,408	(19,526)	14,929,525	10.94
2018	1,692,334	1,727,695	(35,361)	15,370,885	11.24
2019	1,423,164	1,461,295	(38,131)	16,320,688	8.95
2020	1,923,982	1,977,839	(53,857)	18,031,700	10.97
2021	1,847,740	1,863,644	(15,904)	17,766,731	10.49
2022	1,653,199	1,760,286	(107,087)	18,087,521	9.73

SCHEDULE OF MONEY-WEIGHTED RATE OF RETURNS

The money-weighted rate of return is presented to provide information regarding IMRF's investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested.

Annual Money-weighted Rate of Returns, Net of Investment Expenses									
2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
(13.93)%	17.02%	15.20%	19.82%	(4.25)%	15.69%	7.81%	0.50%	6.19%	20.15%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS USED IN THE CALCULATION OF THE 2022 CONTRIBUTION RATE*

Valuation Date	
Notes	Actuarially determined contribution rates are calculated as of December 31 each year, which is 12 months prior to the beginning of the fiscal year in which contributions are reported.
Methods and Assumptions Used to Determine 2022 Contribution Rates	
Actuarial Cost Method:	Aggregate entry age normal
Amortization Method:	Level percentage of payroll, closed
Remaining Amortization Period:	21-year closed period
Asset Valuation Method:	5-year smoothed market; 20% corridor
Wage Growth:	2.75%
Price Inflation:	2.25%
Salary Increases:	2.85% to 13.75%, including inflation
Investment Rate of Return:	7.25%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition; last updated for the 2020 valuation pursuant to an experience study of the period 2017 to 2019.
Mortality:	For non-disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020.
Other Information	
Benefit Changes:	None.

* Based on Valuation Assumptions used in the December 31, 2020 actuarial valuation. There is a two year lag between valuation and rate setting.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS USED IN THE CALCULATION OF THE 2021 CONTRIBUTION RATE*

Valuation Date	
Notes	Actuarially determined contribution rates are calculated as of December 31 each year, which is 12 months prior to the beginning of the fiscal year in which contributions are reported.
Methods and Assumptions Used to Determine 2021 Contribution Rates	
Actuarial Cost Method:	Aggregate entry age normal
Amortization Method:	Level percentage of payroll, closed
Remaining Amortization Period:	22-year closed period
Asset Valuation Method:	5-year smoothed market; 20% corridor
Wage Growth:	3.25%
Price Inflation:	2.50%
Salary Increases:	3.35% to 14.25%, including inflation
Investment Rate of Return:	7.25%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition; last updated for the 2017 valuation pursuant to an experience study of the period 2014 to 2016.
Mortality:	For non-disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2017 (base year 2015). The IMRF Specific rates were developed from the RP-2014 Blue Collar Healthy Annuitant Mortality Table with adjustments to match current IMRF experience.
	For disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2017 (base year 2015). The IMRF-specific rates were developed from the RP-2014 Disabled Retirees Mortality Table, applying the same adjustments that were applied for non-disabled lives.
	For active members, an IMRF-specific mortality table was used with fully generational projection scale MP-2017 (base year 2015). The IMRF specific rates were developed from the RP-2014 Employee Mortality Table with adjustments to match current IMRF experience.
Other Information	
Benefit Changes:	None.

* Based on Valuation Assumptions used in the December 31, 2019, actuarial valuation; note two year lag between valuation and rate setting.

SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS

CHANGES OF ASSUMPTIONS

Changes of assumptions and other inputs reflect the effects of changes in the discount rate each period. The following are the discount rates used in each period:

Discount Rate					
2022	2021	2020	2019	2018	2017
4.05%	1.84%	2.00%	2.75%	3.71%	3.31%

(Ten year trend information not available due to implementation of GASB Statement No. 75 in 2018. Historical information is not available prior to fiscal year 2017.)

SUPPLEMENTARY INFORMATION

Schedule of Administrative Expenses	2022	2021
Personnel services	\$ 24,073,711	\$ 17,414,376
Supplies	409,917	325,043
Professional services	1,829,035	1,864,046
Occupancy and utilities	1,077,806	2,425,462
Postage and delivery	621,685	570,460
Equipment service and rental	2,712,006	1,943,820
Expendable equipment	258,257	298,203
Miscellaneous	1,663,571	1,162,567
Depreciation	3,579,521	2,314,320
Total	\$ 36,225,509	\$ 28,318,297

Schedule of Payments for Professional Services	2022	2021
Actuary	\$ 535,000	\$ 624,776
External auditor	316,164	363,240
Modernization consulting	452,852	464,773
Compensation and benefit consultants	117,804	76,437
Internal auditing	211,736	198,438
Medical consultant	67,378	59,364
Legal services	55,095	2,314
Other consulting	8,400	8,775
IT consultants	33,140	40,617
Hearing officer	20,259	17,344
Tax consultant	10,210	6,955
Public relations consultant	997	1,013
Total	\$ 1,829,035	\$ 1,864,046

Schedule of Investment Expenses	2022	2021
Investment manager fees	\$ 190,199,072	\$ 182,925,249
Equity Internal Management expenses	818,397	799,185
Master trustee fees	301,500	280,000
Investment consultants	795,000	795,000
Investment information service providers	2,115,374	1,775,186
Investment legal fees	350,934	143,529
Tax preparation fees	12,965	9,425
Miscellaneous	110,880	16,718
Total	\$ 194,704,122	\$ 186,744,292

A schedule of investment-related fees can be found in the Investments section.

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Wilshire

March 2023

The Board of Trustees
The Executive Director
Illinois Municipal Retirement Fund
2211 York Road, Suite 500
Oakbrook, IL 60523

Subject: Calendar Year 2022 Investment Performance

Dear Trustees and Mr. Executive Director,

2022 picked up where 2021 left off in terms of inflation, with the Consumer Price Index (CPI) rising 7.1% during the year. In an effort to tame inflation, the Federal Reserve increased short-term interest rates by over 4%, a level not seen since prior to the Great Financial Crisis. Global manufacturing, as measured by the JPM Global Manufacturing PMI, remained in contraction territory, finishing the year at 48.6. Export activity has continued to decline as supply shortages and China lockdowns have provided challenges. In contrast, the U.S. labor market continued to be robust, with an unemployment rate ending the year at 3.5%. Job growth was widespread but primarily driven by gains in the leisure and hospitality segments, pointing to an increase in consumer demand within these sectors post Covid.

With that backdrop, 2022 was a very challenging year for investors as both growth and defensive assets sold off. The U.S. equity market, as represented by the FT Wilshire 5000 Index was down -19.04% for the year. International equities, marked by the MSCI ACWI ex-U.S. Index, was down -12.75%, with mixed results from developed markets (-14.45%) and emerging markets (-20.09%). Fixed income returns failed provide the diversification benefits, given that the equity market sell-off was driven by higher interest rates and tighter monetary conditions. Duration exposure was particularly challenging, causing core fixed income as indicated by the Bloomberg U.S. Aggregate Index, to be down -13.01% for the year. Finally, in terms of inflation sensitive assets, the Bloomberg Commodity Index was up 16.1%, while the Wilshire Global RESI Index was down -24.9%.

The Illinois Municipal Retirement Fund ("IMRF") ended the calendar year 2022 at \$47.87 billion, down for the year by approximately \$8.94 billion, including benefit payments and fund expenses.

The IMRF Total Fund did benefit from having a well-diversified portfolio, returning -12.90% net of fees during 2022. IMRF outperformed the Total Fund Benchmark, which returned -13.26%. Strong investment manager performance within Private Equity and Private Real Estate were the largest contributors to relative outperformance during the year. Having an overweight to U.S. Equity and an underweight to Private Real Assets were a drag on portfolio performance.

On a gross of fee basis, the IMRF ranked at the 73rd Percentile during 2022 in the InvestmentMetrics All Public Plans with AUM Greater \$1 Billion Universe. Over the trailing three and five-years, IMRF ranked at the 45th and 46th Percentiles, respectively.

Wilshire

The IMRF U.S. Equity Portfolio returned -19.25%, net of fees, trailing the benchmark which returned -18.53%. Relative to peers, the U.S. Equity Portfolio ranked at the 64th Percentile.

Within International Equity, the IMRF portfolio returned -18.14%, net of fees during the year, underperforming the MSCI ACWI ex-US Index, which returned -16.00%. Relative to peers, the IMRF International Equity Portfolio ranked at the 63rd Percentile over the one-year period.

The IMRF Fixed Income Portfolio also slightly underperformed the benchmark in this challenging environment, returning -11.90% versus the benchmark at -11.58%. On a positive note, the portfolios allocation to Bank Loans in a rising interest rate environment, as well as investment manager performance within High Yield were both beneficial. Relative to peers, the IMRF Fixed Income Portfolio ranked at the 45th Percentile during the year.

Sincerely,

Rose Dean, CFA
Managing Director
Wilshire Advisors

Basis of presentation: The time-weighted method is used to calculate the rates of return.



March 10, 2023

Board of Trustees and Executive Director
Illinois Municipal Retirement Fund
2211 York Road
Oak Brook, IL 60523-2374

To the Board of Trustees and the Executive Director

The Northern Trust Company as Master Trustee has provided detailed financial reports of all investments, receipts, disbursements, purchases and sales of securities and other transactions pertinent to the Fund for the period January 1, 2022 through December 31, 2022. Also, a statement of assets together with their fair market value was provided, showing the properties held as of December 31, 2022. The Northern Trust Company certifies that the statements contained therein are fairly presented and are true and accurate.

In addition to the custody of the assets, The Northern Trust Company provided and will continue to provide the following services as Master Trustee:

1. Receive and hold all amounts paid to the Trust Fund by the Board of Trustees.
2. Accept and deliver securities in accordance with the instructions of appointed Investment Managers.
3. Collect dividends and registered interest payments.
4. Collect matured or called securities and coupons.
5. Securities Lending.
6. Invest cash balances held from time to time in the individual investment management accounts in short term, cash equivalent securities.
7. Exercise rights of ownership in accordance with pre-described jurisdiction of stock subscriptions and conversion rights.
8. Hold securities in the name of the Master Trust or nominee form.
9. Employ agents with the consent of the Board of Trustees.
10. Provide disbursement and security fail float income.
11. Checking Accounts.
12. On-line Trust and Banking reporting.
13. Provide outsourced capital call execution support.

THE NORTHERN TRUST COMPANY

By:
Kimberly A. Miller
Senior Vice President

The Northern Trust Company
50 South La Salle Street
Chicago, Illinois 60603
312-630-6000



INVESTMENT CONSULTANTS

MASTER TRUSTEE

The Northern Trust Company
Kim Miller, Senior Vice President
Chicago, Illinois

PERFORMANCE EVALUATION

Wilshire Associates Incorporated
Rose Dean, Managing Director
Ali Kazemi, Managing Director
Santa Monica, California

INVESTMENT CONSULTANT

Wilshire Associates Incorporated
Rose Dean, Managing Director,
Ali Kazemi, Managing Director,
Santa Monica, California

INVESTMENT MANAGERS

Abbott Capital Management, LLC
New York, New York

ABRY Partners
Boston, Massachusetts

Accel-KKR Partners
Menlo Park, California

AEW Capital Management, LP
Boston, Massachusetts

Agent Capital
Waltham, Massachusetts

Almanac Realty Investors
New York, New York

Ares Management, LLC
London, England

Arrowstreet Capital, LP
Cambridge, Massachusetts

Artemis Real Estate Partners
Chevy Chase, Maryland

Ativo Capital Management LLC
Chicago, Illinois

AUA Private Equity Partners
New York, New York

Baring Private Equity Asia
Central, Hong Kong

Barings Capital Management
Charlotte, North Carolina

Barings LLC
Hartford, Connecticut

Beecken Petty O'Keefe & Company, LLC
Chicago, Illinois

BlackRock Financial Management, Inc.
New York, New York

The Blackstone Group LP
New York, New York

BMO Global Asset Management
Chicago, Illinois
Miami, Florida

BNY Mellon
Boston, Massachusetts

Brandes Investment Partners, LP
San Diego, California

Brookfield Investment Management, Inc.
Chicago, Illinois

Brown Capital Management, Inc.
Baltimore, Maryland

CBRE Global Investors
Los Angeles, California

Channing Capital Management, LLC
Chicago, Illinois

Chicago Pacific Founders
Chicago, Illinois

ChrysCapital
Maharashtra, India

Clearlake Capital Group
Santa Monica, California

Cohen & Steers Capital Management, Inc.
New York, New York

Crow Holdings Capital
Dallas, Texas

Dimensional Fund Advisors
Santa Monica, California

Dodge & Cox Investment Managers
San Francisco, California

Dune Capital Management LP
New York, New York

EARNEST Partners, LLC
Atlanta, Georgia

EnCap Investments, LP
Houston, Texas

Estancia Capital Partners, LP
Scottsdale, Arizona

Fidelity Institutional Asset Management
Boston, Massachusetts

Forest Investment Associates
Atlanta, Georgia

Franklin Templeton Real Estate Advisors
New York, New York

FirstMark Capital
New York, New York

Frontier Capital Management Co.
Boston, Massachusetts

Garcia Hamilton & Associates, LP
Houston, Texas

Genesis Asset Managers International, Ltd.
London, England

GlobeFlex Capital, LP
San Diego, California

Goldman Sachs
New York, New York

GTIS Partners
New York, New York

Hancock Natural Resource Group, Inc.
Boston, Massachusetts

INVESTMENT CONSULTANTS (CONTINUED)

HarbourVest
Boston, Massachusetts

ICV Partners
New York, New York

IK Investment Partners
London, United Kingdom

Inflexion Private Equity Partners, LLP
London, England

Insight Venture Management, LLC
New York, New York

Invesco Real Estate
Dallas, Texas

Investment Counselors of Maryland, LLC
Baltimore, Maryland

JLC
Chicago, Illinois

JP Morgan
New York, New York

Kohlberg Kravis Roberts & Co. LP
New York, New York

LaSalle Investment Management
Chicago, Illinois

Lazard Asset Management
New York, New York

Lightspeed Venture Partners
Menlo Park, California

LM Capital Group, LLC
San Diego, California

Longfellow Investment Management Co.
Boston, Massachusetts

LongWharf Capital
Boston, Massachusetts

LSV Asset Management
Chicago, Illinois

MackKay Shields, LLC
New York, New York

Mayfield Fund
Menlo Park, California

Mondrian Investment Partners Limited
London, England

Muller & Monroe Asset Management, LLC
Chicago, Illinois

New Enterprise Associates
Chevy Chase, Maryland

New Mainstream Capital
New York, New York

Northern Trust Investments, Inc.
Chicago, Illinois

Oak Street Real Estate Partners
Chicago, Illinois

Pantheon Ventures, Inc.
San Francisco, California

Partners Group
Zug, Switzerland

Red Arts Capital
Chicago, Illinois

Ramirez Asset Management, Inc.
New York, New York

Resolution Real Estate Advisors, LLP
London, England

Rockwood Capital, LLC
New York, New York

Sands Capital Management, LLC
Arlington, Virginia

Security Capital Markets Group, Inc.
Chicago, Illinois

Starwood Capital Group
Greenwich, Connecticut

TA Associates Realty
Boston, Massachusetts

Templeton Investment Counsel, LLC
Fort Lauderdale, Florida

The Sterling Group
Houston, Texas

The Vistria Group
Chicago, Illinois

Torchlight Investors
New York, New York

True North
Maharashtra, India

Valor Equity Partners
Chicago, Illinois

Versant Venture Management LLC
Menlo Park, California

Vista Equity Partners, LLC
Austin, Texas

Waud Capital Partners
Chicago, Illinois

Western Asset Management Company
Pasadena, California

William Blair & Company
Chicago, Illinois

Xponance, Inc.
Durham, North Carolina

INVESTMENT POLICIES

The Board of Trustees, operating within the "prudent person" framework, has adopted the following investment objectives and guidelines. The objectives and guidelines presented here are intended to be summarizations. Specific contractual objectives and guidelines are in effect for individual investment mandates.

A. INVESTMENT OBJECTIVES

1. To diversify the investment portfolio so as to optimize investment returns.
2. To set investment and actuarial policies that assure the adequate accumulation of assets and maintain a reasonable funded status.
3. To achieve rates of return greater than the current actuarial investment assumption of 7.25 percent.
4. To achieve rates of return consistent with expectations for each asset class used, without significantly changing the expected risk profile of the asset class or the investment portfolio.
5. To achieve in U.S. equities a total return that exceeds the total return of the Custom U.S. Equity Benchmark.
6. To achieve in international equities a total return that exceeds the total return of the Morgan Stanley Capital International All Country World Index Ex-US (MSCI ACWI-Ex U.S.).
7. To achieve in fixed income securities a total return that exceeds the total return of the Custom Fixed Income Benchmark.
8. To achieve in private real asset investments a return that exceeds the Custom Private Real Assets Benchmark.
9. To achieve in alternative investments a return that exceeds the Custom Alternative Investment Benchmark.
10. To achieve in internally managed short-term securities relative performance better than 3-month U.S. Treasury Bills.

B. PROXY VOTING GUIDELINES

The Board of Trustees of the Illinois Municipal Retirement Fund (IMRF) recognizes its fiduciary responsibility to prudently manage the assets of the Fund. The assets include common stock in many different companies and, as a shareowner, the Board also owns proxy voting rights. The Board acknowledges that it not only has a right to vote proxies, but also a duty to vote them. Proxies have economic value and, therefore, the Board has the duty to prudently oversee the management of them as it does all other Fund assets.

The Board shall vote proxies in accordance with the exclusive benefit rule which requires the Board to act solely in the economic interest of the Fund's members and beneficiaries.

Generally, proxies related to corporate governance shall be voted in favor of shareholder-sponsored proposals requiring corporate boards to act in the best interests of shareholders. Proxies related to proxy access shall be voted in favor of proposals where shareholder access to the director nomination process and to the company's proxy statement are allowed. Proxies related to director, executive, and employee compensation shall be voted in favor of compensation plans that motivate directors, executives, and employees to achieve high performance for the long-term benefits of all shareowners. Proxies related to board diversity shall be voted in favor of proposals allowing shareholders to increase diversity in the boardroom. Proxies related to equal opportunity shall be voted in favor of proposals requesting a company to disclose its diversity policies or initiatives and disclosure of a company's comprehensive workforce diversity data. Proxies related to takeover defenses shall be voted in favor of proposals allowing shareholders to vote on poison pills and golden parachutes. Proxies related to capital structure issues shall be voted in favor of proposals requiring shareowner approval for reasonable share increases needed for business purposes. Proxies related to mergers, acquisitions, and corporate restructuring will be voted on a case-by-case basis. Proxies related to routine management issues shall generally be voted in accordance with management's view on such issues. Proxies related to political expenditures shall be voted in favor of proposals that require board approval and disclosure of all political expenditures. Proxies related to social, political, and environmental issues shall be generally supported when proposals are seeking greater disclosure of a company's environment, social and sustainability risks, and practices. In keeping with the Board's fiduciary duty to act solely in the economic interest of the Fund, IMRF recognizes many laudable social and political issues come before the shareowners for a vote. IMRF will abstain from voting on such proposals.

C. DOMESTIC EQUITY INVESTMENT GUIDELINES

1. Generally, no individual security shall comprise more than 5% of the total portfolio at fair value.
2. The total portfolio shall generally not hold more than 5% of the outstanding shares of any one company.
3. Holdings of any one issuer, at the time of purchase, shall generally be limited to not more than 15% of a manager's portfolio fair value.
4. Sector exposure in the total portfolio shall generally not differ by more than 5 percentage points from the sector exposure of the Russell 3000 Index.
5. Domestic equity managers must invest in equity securities that are listed on principal U.S. exchanges or traded over the counter. American Depository Receipts (ADRs) and Global Depository Receipts (GDRs) of foreign companies are permissible.

D. INTERNATIONAL EQUITY INVESTMENT GUIDELINES

1. Generally, no individual security shall comprise more than 6% of the total portfolio at fair value.
2. The total portfolio shall generally not hold more than 5% of the outstanding shares of any one company.
3. Holdings of any one issuer, at the time of purchase, shall generally be limited to a maximum of 8% of a manager's portfolio fair value.
4. Sector exposure in the portfolio shall not exceed the higher of 25% or two times the benchmark weighting at fair value.
5. Country exposure in the portfolio shall not exceed the higher of 25% or two times the benchmark weighting at fair value.
6. International equity managers shall generally invest in equity securities of companies domiciled outside of the U.S. They may be allowed to invest in U.S. domiciled companies that operate, and/or generate revenues primarily outside the U.S.
7. International equity managers may engage in various transactions to manage currency. Forward contracts, futures, and options may be used for currency management purposes. Managers are not permitted to utilize over-the-counter derivatives for hedging and/or speculative purposes unless otherwise specified within individual manager guidelines.

E. FIXED INCOME INVESTMENT GUIDELINES

1. Bonds, notes or other obligations of indebtedness issued or guaranteed by the U.S. government, its agencies, or instrumentalities may be held without restriction.
2. The average credit quality of the total fixed income portfolio must be investment grade.
3. Debt obligations of any single U.S. corporation shall generally be limited to a maximum of 5% of the total fixed income portfolio at fair value.
4. Generally, no more than 30% of an investment manager's assets at fair value may be invested in securities rated below investment grade at the time of purchase. Investment managers outside of core and core plus mandates are not subject to this restriction.
5. Bonds or other debt obligations of foreign countries and corporations payable in U.S. dollars and foreign currency are authorized, but in general will not exceed 15% of total fixed income portfolio.
6. Individual manager portfolios shall have an effective duration between 80-120% of the index, for mandates benchmarked against the Bloomberg Barclays U.S. Aggregate Bond Index or the ICE BofA Merrill Lynch High Yield Cash Pay Index.
7. The use of swaps, exchange-traded financial futures, exchange-traded options on financial futures, and over-the-counter options are subject to individual manager guidelines. Managers are not permitted to utilize these transactions for speculative purposes. Leverage is not allowed except as permitted for rolling mortgage pass-through securities.
8. No assets shall be committed to short sale contracts.

F. EQUITY REAL ESTATE INVESTMENT GUIDELINES

The primary role of the global real estate program is to provide diversification benefits to the total Fund through low correlations with other portfolio asset classes. The secondary role is to generate income and provide protection against inflation.

1. The maximum commitment to any private real estate manager shall be 40% of the total real estate portfolio value plus unfunded commitments, at the time of due diligence.
2. IMRF will seek property type diversification at the total private real estate portfolio level, and any single private real estate investment may not be fully diversified. Investments may include office, retail, industrial, multi-family, and other non-traditional categories such as hotels, self-storage, data centers, student housing, land, and other property types.
3. IMRF will seek geographic and economic diversification at the total private real estate portfolio level. Any given investment may not be diversified on a stand-alone basis. Although IMRF may invest in strategies where investments are located outside of the U.S., exposure to these dedicated strategies is limited to 25% of the total real estate portfolio value plus unfunded commitments, at the time of due diligence.
4. IMRF's long-term strategic target to core real estate investments is 60% with a minimum of 50%.
5. Modest amounts of leverage may be used as a means of enhancing the overall risk adjusted returns. Leverage at the total real estate portfolio level will be kept below 50% loan to value.
6. Publicly traded real estate securities will not exceed 20% of the total real estate portfolio plus unfunded commitments, at the time of due diligence.
7. The majority of real estate investments will consist of equity ownership in commercial real estate. Managers whose sole strategy is to invest in non-equity or debt strategies will not exceed 25% of the total real estate portfolio plus unfunded commitments, at the time of due diligence.

G. ALTERNATIVE INVESTMENT GUIDELINES

The Alternative Investment Portfolio will consist of venture capital, buyout, mezzanine, special situation, timber, agriculture, infrastructure, and absolute return investments. The investments will be made to generate long-term returns in a diversified manner. The investments will generally be made through limited partnership structures in which IMRF commits a fixed amount that the General Partner will invest over several years. The partnership structure may cover periods of 10 years or more. IMRF understands and recognizes that the alternative asset class will not be structured in a way to provide short term cash flow needs for the Fund.

Exposure to dedicated non-U.S. strategies will be limited to 30% of the total alternative investments portfolio value plus unfunded commitments at the time of due diligence.

The maximum commitment to any direct alternative manager shall be 40% of the total alternative investments portfolio value plus unfunded commitments, at the time of due diligence.

H. SHORT-TERM INVESTMENT GUIDELINES

Permissible short-term investments are U.S. Treasury Bills and Notes, high-grade commercial paper, repurchase agreements, banker's acceptances, and certificates of deposit. Commercial paper investments shall be made in instruments rated "A-2" or "P-2" or better, as defined by a recognized rating service. Comparable ratings are required for banker's acceptances and certificates of deposit. Idle cash balances swept by the custodian bank shall be invested in a constant \$1 Net Asset Value vehicle. The objective is to generate current income that is consistent with preservation of capital and maintenance of liquidity.

I. DIVERSE INVESTMENT MANAGER GUIDELINES

The Illinois Municipal Retirement Fund is committed to diversity in the hiring of minority-owned and emerging investment managers, as defined by the Illinois Pension Code.

A minority investment manager is defined as an investment manager that manages an investment portfolio and meets the definition of "minority-owned business," "woman-owned business," or "business owned by a person with a disability," as defined in the Business Enterprise for Minorities, Women, and Persons with Disabilities Act. Minority Investment Management firms must be 51% or more owned by individuals that are minorities, women, or persons with a disability and are citizens or lawful permanent residents of the United States.

An emerging investment manager is defined as an investment advisor that manages an investment portfolio of at least \$10,000,000 but less than \$10,000,000,000 and is a "minority owned business," "woman owned business," or "business owned by a person with a disability," as defined in the Business Enterprise for Minorities, Women, and Persons with Disabilities Act. Emerging Investment Management firms must be 51% or more owned by individuals that are minorities, women, or persons with a disability and are citizens or lawful permanent residents of the United States.

The IMRF Board of Trustees adopts the following aspirational goals and minority and emerging investment manager goals based on percentage of total Fund fair value, percentage of asset class, and percentage of investment management fees paid.

The Illinois Municipal Retirement Fund Board of Trustees adopts two aspirational goals: (i) to utilize emerging investment managers for at least 20% of the total Fund's assets under management and (ii) to utilize firms owned by minorities, women, and persons with disabilities for at least 20% of the total Fund's assets under management.



RETURNS BY ASSET CLASS (Periods ending December 31)

	2022	2021	2020	2019	2018	Annualized		
						3 Yrs	5 Yrs	10 Yrs
Total Fund Time - Weighted Returns								
IMRF - Gross of Fees	(12.74)%	16.82%	14.98%	19.77%	(4.25)%	5.44%	6.10%	8.01%
IMRF - Net of Fees	(12.86)%	16.63%	14.79%	19.57%	(4.41)%	5.27%	5.92%	7.80%
CPI (Inflation)	8.00%	4.70%	1.23%	1.81%	2.44%	4.64%	3.64%	2.48%
Equities - U.S.								
IMRF - Gross of Fees	(19.12)%	24.89%	22.07%	29.23%	(6.08)%	7.24%	8.40%	11.81%
IMRF - Net of Fees	(19.25)%	24.69%	21.86%	29.00%	(6.26)%	7.06%	8.21%	11.58%
Russell 3000	(19.21)%	25.66%	20.89%	31.02%	(5.24)%	7.07%	8.79%	12.13%
Russell 2000	(20.44)%	14.82%	19.96%	25.52%	(11.01)%	14.34%	5.77%	10.41%
Equities - International								
IMRF - Gross of Fees	(17.86)%	9.78%	13.52%	23.76%	(14.16)%	0.78%	1.70%	5.15%
IMRF - Net of Fees	(18.14)%	9.37%	13.08%	23.39%	(14.41)%	0.41%	1.35%	4.80%
MSCI ACWI Ex-U.S.	(16.00)%	7.82%	10.65%	21.51%	(14.20)%	0.07%	0.88%	3.80%
MSCI EAFE	(14.45)%	11.26%	7.82%	22.01%	(13.79)%	1.54%	2.57%	5.60%
Fixed Income								
IMRF - Gross of Fees	(11.83)%	(0.44)%	7.87%	9.50%	(0.28)%	-1.80%	0.68%	1.85%
IMRF - Net of Fees	(11.90)%	(0.53)%	7.75%	9.37%	(0.41)%	-1.90%	0.57%	1.71%
Bloomberg Barclays Aggregate	(13.01)%	(1.55)%	7.51%	8.72%	0.01%	-2.71%	0.02%	1.06%
Bloomberg Barclays Government/Credit	(8.23)%	(2.50)%	8.93%	9.71%	(0.42)%	-1.26%	0.73%	1.12%
ICE BofAML U.S. High Yield	(11.14)%	5.28%	6.21%	14.40%	(2.26)%	-0.21%	2.13%	3.94%
Real Estate								
IMRF - Net of Fees	12.76%	21.95%	4.16%	9.78%	8.36%	12.70%	11.23%	11.14%
Real Estate Benchmark	6.54%	21.02%	0.34%	4.39%	7.36%	8.97%	7.72%	9.11%
Alternative Investments								
IMRF - Gross of Fees	3.99%	46.46%	12.31%	9.48%	17.32%	19.60%	17.05%	13.25%
IMRF - Net of Fees	3.99%	46.44%	12.27%	9.43%	17.14%	19.57%	16.99%	13.05%
Cash & Cash Equivalents								
IMRF	3.18%	2.44%	2.56%	3.59%	2.36%	2.73%	2.83%	1.69%
U.S. Treasury Bills	1.46%	0.01%	0.67%	2.28%	1.87%	0.72%	1.26%	0.75%

These investment results are calculated and presented using standard performance evaluation methods in a manner consistent with the investment industry in general and public pension funds in particular. Rates of return were determined using a modified time-weighted return calculation. Source: Wilshire.

SCHEDULE I

Investment Portfolio Summary (In millions of dollars)

	As of December 31, 2022		As of December 31, 2021	
	Fair Value	Percent of Total Fair Value	Fair Value	Percent of Total Fair Value
Fixed Income				
Government & Agencies	\$ 3,626.6	7.6%	\$ 3,893.5	6.8%
Corporate	3,407.0	7.1	3,786.4	6.6
Index Funds	2,776.2	5.8	3,746.7	6.5
Foreign	2,057.0	4.3	1,515.4	2.7
Total Fixed Income	11,866.8	24.8	12,942.0	22.6
Stocks				
U.S. Common & Preferred	13,988.9	29.3	19,299.3	33.7
U.S. Stock Funds	2,490.8	5.2	3,809.2	6.6
Foreign Common & Preferred	6,269.7	13.1	7,667.2	13.5
Foreign Stock Funds	2,749.3	5.8	3,402.8	5.9
Total Stocks	25,498.7	53.4	34,178.5	59.7
Real Estate	4,586.0	9.6	4,440.1	7.8
Private Equity Investments	5,260.1	11.0	4,990.1	8.7
Short-Term Investments	564.8	1.2	735.7	1.2
Total Portfolio	\$ 47,776.4	100.0%	\$ 57,286.4	100.0%

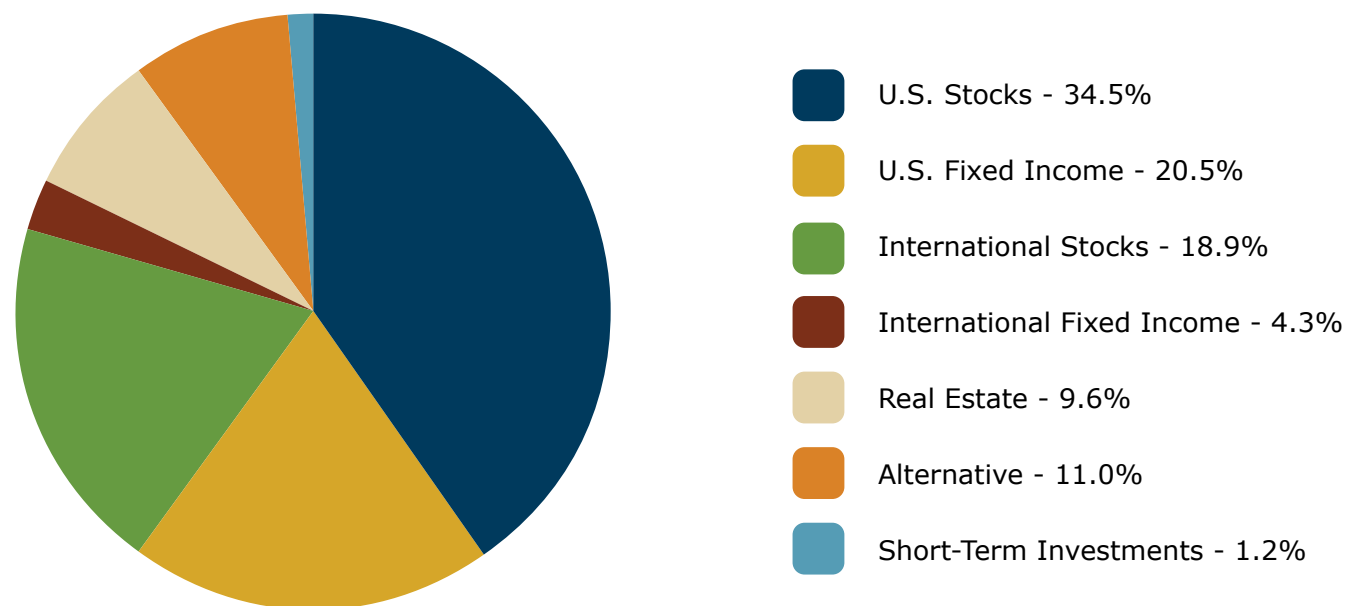
SCHEDULE II

Asset Allocation (Last five years)

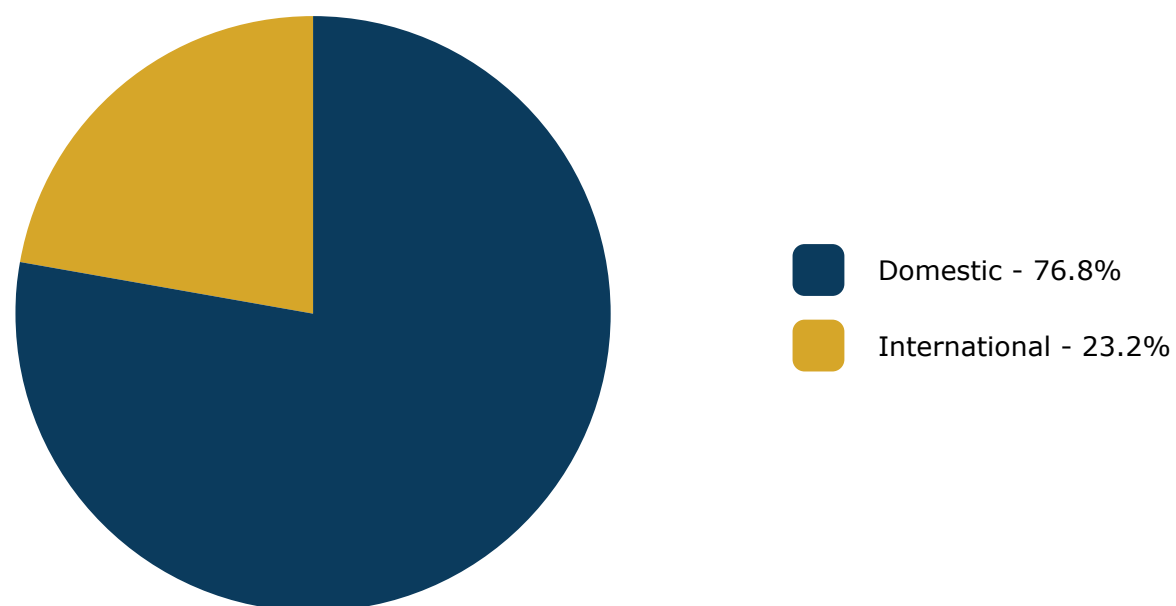
	Fair Value as a Percent of Portfolio				
	2022	2021	2020	2019	2018
Fixed Income					
U.S. Government & Agencies	7.6%	6.8%	6.3%	8.5%	8.9%
Corporate	7.1	6.6	7.2	8.1	8.5
Index Fund	5.8	6.5	7.8	8.1	8.6
Foreign	4.3	2.7	2.7	3.0	3.5
Total Fixed Income	24.8	22.6	24.0	27.7	29.5
Stocks					
U.S. Common & Preferred	29.3	33.7	32.6	31.1	29.1
U.S. Stock Funds	5.2	6.6	8.1	8.6	10.6
Foreign Common & Preferred	13.1	13.5	13.3	11.9	11.0
Foreign Stock Funds	5.8	5.9	7.1	6.9	7.0
Total Stocks	53.4	59.7	61.1	58.5	57.7
Real Estate	9.6	7.8	7.1	7.3	7.1
Private Equity Investments	11.0	8.7	6.4	5.0	4.0
Short-Term Investments	1.2	1.2	1.4	1.5	1.7
Total Portfolio	100.0%	100.0%	100.0%	100.0%	100.0%

IMRF INVESTMENT PORTFOLIO (AS OF DECEMBER 31, 2022)

ALLOCATION BY ASSET CLASS



TOTAL INVESTMENTS BY REGION



TEN LARGEST FIXED INCOME INVESTMENT HOLDINGS

As of December 31, 2022 (Excludes commingled funds and short-term investments)

Investment Income Holdings	Fair Value	Percent of Total Invested Market
U.S. Treasury Bonds Due 8/15/2041	\$ 143,692,577	0.30%
U.S. Treasury Notes Due 5/15/2025	96,118,825	0.20
U.S. Treasury Notes Due 2/15/2031	70,127,026	0.15
U.S. Treasury Bonds Due 5/15/2029	68,884,594	0.14
U.S. Treasury Bonds Due 5/15/2046	54,223,326	0.11
U.S. Treasury Bonds Due 8/15/2024	51,963,393	0.11
U.S. Treasury Bonds Due 2/15/2037	48,531,322	0.10
U.S. Treasury Bonds Due 2/15/2025	42,843,164	0.09
Bank America Corp Due 2/7/2030	39,794,166	0.08
U.S. Treasury Notes due 4/30/2024	39,083,953	0.08
Total	\$ 655,262,346	1.36%

TEN LARGEST EQUITY INVESTMENT HOLDINGS (Excludes commingled funds)

Equity Investment Holdings	Fair Value	Percent of Total Invested Market
Microsoft, Inc.	\$ 394,130,500	0.82%
Apple, Inc.	336,686,440	0.70
Amazon, Inc.	251,647,788	0.53
Visa, Inc.	164,542,596	0.34
Alphabet, Inc.	115,533,115	0.24
Servicenow, Inc.	109,320,913	0.23
Wells Fargo & Co	107,183,266	0.22
Dexcom, Inc.	105,953,119	0.22
Merck & Co, Inc.	104,683,877	0.22
Exxon Mobil, Inc	101,729,138	0.21
Total	\$ 1,791,410,752	3.73%

A complete listing of investments is available on IMRF's website, www.imrf.org.



SCHEDULE OF 2022 DOMESTIC BROKERAGE COMMISSIONS

(In order of commission received)

Broker Name	Total Shares	Commission	Per Share
The Northern Trust Company	63,892,967.00	\$ 479,201.23	\$ 0.008
Loop Capital Markets, LLC	17,292,431.00	329,750.19	0.019
Penserra Securities, LLC	7,538,496.00	220,448.50	0.029
Blaylock Robert Van, LLC	7,392,207.00	218,328.34	0.030
North South Capital, LLC	6,390,940.00	190,763.83	0.030
Robert W. Baird & Co., Inc.	5,845,897.00	189,358.00	0.032
Jefferies, LLC	5,267,872.00	142,782.65	0.027
Wells Fargo Bank Minnesota NA	4,809,527.00	133,458.77	0.028
CL King	4,374,575.00	128,206.39	0.029
ISI Group, Inc.	4,432,164.00	116,700.91	0.026
Drexel Hamilton, LLC	5,576,263.00	111,525.26	0.020
Piper Jaffray & Company	3,222,764.00	105,900.83	0.033
RBC Capital Markets, LLC	3,795,994.00	103,217.95	0.027
Keybank Capital Markets, Inc.	2,823,022.00	99,710.76	0.035
Stephens, Inc.	2,346,532.00	91,941.14	0.039
J.P. Morgan Securities, LLC	6,714,108.00	88,076.71	0.013
RBC Europe, Ltd.	2,396,037.00	81,746.87	0.034
Cabrera Capital Markets, LLC	4,612,525.00	81,179.87	0.018
Cowen and Company, LLC	2,770,466.00	80,229.99	0.029
Oppenheimer & Company, Inc.	1,952,934.00	75,623.28	0.039
Stifel, Nicolaus & Company, Inc.	2,278,299.00	73,259.98	0.032
Keefe Bruyette	1,956,338.00	68,646.69	0.035
Raymond James & Associates, Inc.	2,169,261.00	68,073.28	0.031
Sanford C. Bernstein & Company, LLC	10,245,536.00	64,651.62	0.006
Instinet Europe, Ltd.	2,079,340.00	59,961.63	0.029
Guggenheim Securities, LLC	2,033,020.00	59,255.52	0.029
Merrill Lynch International, Ltd.	16,113,690.00	58,129.77	0.004
Needham and Company, LLC	1,546,243.00	57,875.53	0.037
Bank of America Corporation	5,855,024.00	56,158.55	0.010
RBC Dominion Securities, Inc.	2,499,782.00	55,927.69	0.022
Credit Suisse Securities (USA), LLC	3,370,731.00	55,230.27	0.016
William Blair & Company, LLC	1,436,621.00	53,744.21	0.037
UBS Securities Asia, Ltd.	31,188,361.00	52,948.64	0.002
Leerink Partners, LLC	1,254,285.00	49,925.91	0.040
Sturdivant	2,320,320.00	49,616.86	0.021
Other Brokers	1,515,895,638.88	1,013,566.96	0.001
Total	1,765,690,210.88	\$ 4,965,124.58	\$ 0.003

SCHEDULE OF 2022 INTERNATIONAL BROKERAGE COMMISSIONS

(In order of commission received)

Broker Name	Total Shares	Commission	Per Share
Instinet Pacific, Ltd.	130,121,079.00	\$ 73,824.25	\$ 0.001
Macquarie Securities Australia, Ltd	36,883,283.00	33,644.23	0.001
UBS Securities Asia, Ltd.	33,411,269.00	41,848.45	0.001
Merrill Lynch International, Ltd.	33,410,449.00	70,558.33	0.002
Jefferies, LLC	26,234,870.00	94,015.31	0.004
Jefferies Hong Kong, Ltd.	25,313,134.00	20,832.90	0.001
HSBC Bank, PLC	24,567,509.00	39,578.30	0.002
Morgan Stanley and Company, LLC	24,417,799.00	60,518.45	0.002
HSBC Securities (USA) Inc.	24,098,272.00	59,342.55	0.002
Goldman, Sachs and Company	23,713,535.00	102,975.91	0.004
UBS AG London Branch	22,357,124.00	76,624.25	0.003
UBS AG Stamford Branch	18,389,764.00	39,233.22	0.002
Instinet Europe, Ltd.	14,800,758.00	199,059.96	0.013
Nomura Financial Advisory and Securities	14,478,074.00	41,615.88	0.003
Credit Suisse Securities (USA), LLC	13,229,717.00	21,091.65	0.002
Citigroup Global Markets, Inc.	12,850,822.00	9,062.22	0.001
Banque Paribas Paris	12,309,333.00	19,364.12	0.002
UBS Warburg Securities, Ltd. Taiwan	12,178,865.00	32,037.39	0.003
Investment Technology Group, Ltd.	12,056,994.00	37,078.06	0.003
J.P. Morgan Securities (Asia Pacific)	11,606,700.00	8,404.34	0.001
SG Securities (Hong Kong), Ltd.	11,514,806.00	8,789.85	0.001
Barclays Capital	11,157,281.00	25,075.15	0.002
CISA, Ltd.	10,838,375.00	21,750.51	0.002
J.P. Morgan Securities, PLC	10,239,816.00	55,801.16	0.005
North South Capital, LLC	9,646,521.00	54,767.16	0.006
Citibank N.A.	9,361,987.00	44,120.03	0.005
Jefferies International, Ltd.	8,053,442.00	37,875.61	0.005
Bank of America Corporation	7,834,055.00	266,453.94	0.034
Exane, S.A.	6,846,671.00	29,756.22	0.004
Citigroup Global Markets Europe, AG	6,718,794.00	63,882.98	0.010
Citigroup Global Markets, Ltd.	6,655,222.00	23,286.23	0.003
Other Brokers	1,682,569,080.19	1,034,226.03	0.001
Total	2,307,865,400.19	\$ 2,746,494.64	\$ 0.001



SCHEDULE OF INVESTMENT FEES

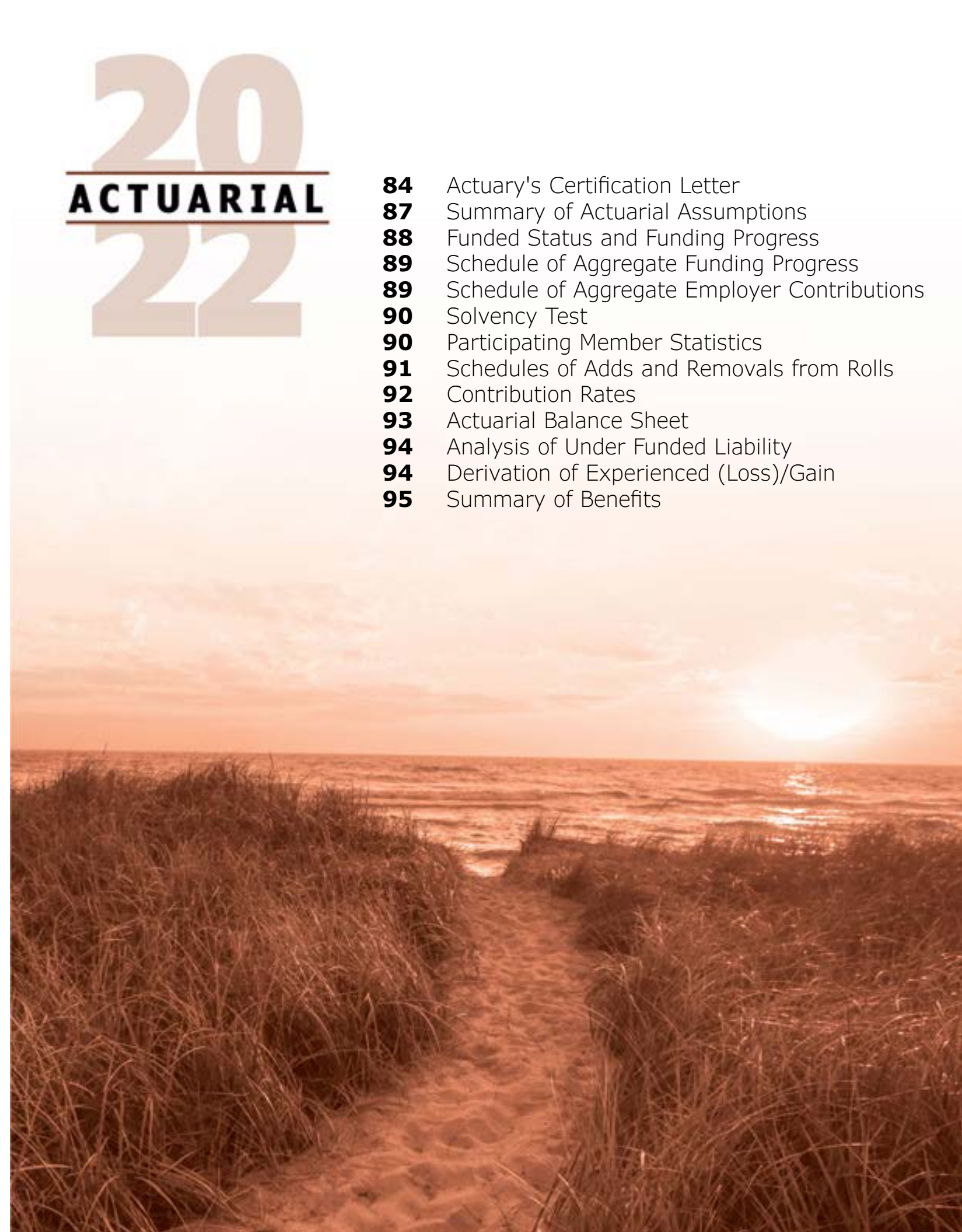
	2022 Fees	2022 Assets under management at year end (in thousands)*	Basis Points	2021 Fees	2021 Assets under management at year end (in thousands)*	Basis Points
Investment manager fees						
Fixed income managers	\$ 15,145,498	\$ 11,207,713	10	\$12,465,518	\$ 12,265,210	10
Stock managers**	25,392,987	9,857,496	20	34,860,939	17,199,536	20
International managers	40,019,826	17,497,504	26	48,504,265	18,995,895	26
Real estate managers	47,069,799	4,275,711	96	40,087,005	4,166,727	96
Alternative investment managers	63,389,359	5,027,192	100	47,806,707	4,768,497	100
Total	191,017,469	\$47,865,616		183,724,434	\$ 57,395,865	
Other investment fees						
Master trustee fees	301,500			280,000		
Investment consulting fees	795,000			795,000		
Total investment fees	192,113,969			184,799,434		
Non-fee investment expenses	2,590,153			1,944,858		
Total direct investment expenses	\$194,704,122			\$186,744,292		
Securities lending fees						
(Borrower rebates) and management fees	\$ 5,494,744			\$ (787,892)		

* Assets under management includes accrued investment income and unsettled trades.

** Includes \$818,397 and \$799,185 for 2022 and 2021, respectively, in expenses related to IMRF's Equity Internal Management group.

2022 ACTUARIAL

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March 27, 2023

Board of Trustees
Illinois Municipal Retirement Fund
2211 S. York Road, Suite 500
Oak Brook, Illinois 60523-2374

Dear Board Members:

The basic financial objective of the Illinois Municipal Retirement Fund (IMRF) is to establish and receive contributions which:

- When expressed in terms of percents of active member payroll will remain approximately level from generation to generation; and
- When combined with present assets and future investment returns will be sufficient to meet the financial obligations of IMRF to present and future retirees and beneficiaries.

The financial objective is addressed within the annual actuarial valuation of the IMRF.

The purposes of the valuation are to: 1) measure the financial position of IMRF; and 2) develop the 2024 employer contribution rates that are sufficient to fund each participating employer's normal cost (i.e., the costs assigned by the valuation method to the year of service about to be rendered), as well as to fund unfunded actuarial accrued liabilities as a level percent of active member payroll. The valuations cannot be relied upon for any other purpose.

The most recent funding valuation was completed based upon population data, asset data, and plan provisions as of December 31, 2022, and issued on March 10, 2023. The individual member statistical data required for the valuations was furnished by your Executive Director and Staff, together with pertinent data on financial operations. Their cooperation in furnishing these materials is acknowledged with appreciation. We are not responsible for the accuracy or completeness of the data. We checked the information provided for internal and year-to-year consistency, but did not audit the data. A report containing the results of the funding valuation is produced annually.

The following schedules in the Actuarial Section of the Annual Comprehensive Financial Report were prepared based upon certain information presented in the previously mentioned funding valuation report. The actuary provided the Brief Summary of Assumptions directly. In the case of the other schedules, IMRF Staff excerpted information from various schedules in the actuarial reports and tabulated it to produce the appropriate Annual Comprehensive Financial Report Schedule.

Actuarial Section

- Brief Summary of Assumptions
- Schedules of Funding Status
- Schedules of Funding Progress
- Schedule of Employer Contributions
- Solvency Test
- Participating Member Statistics
- Average Employer Contribution rates
- Actuarial Balance Sheet
- Analysis of Unfunded Liability
- Derivation of Experience Gain (loss)

The December 31, 2022 valuations were based upon assumptions that were recommended in connection with a study of experience covering the 2017-2019 period. A brief summary of the assumptions and methods is attached.

All assumption and methods comply with relevant actuarial standards of practice. The funding valuation complies with the Board's funding policy. If the funding policy is followed and all assumptions are realized exactly, contributions to the plan will stay approximately level, and the plan will gradually approach 100% funding over a very long period of years.

As of the valuation date, in the aggregate, IMRF is 98.2% funded based upon the smoothed value of assets and 90.8% funded based upon market value. Each participating employer, however, has a separate funding percent, some of which will be above the aggregate result, and others of which will be below it. Based upon the results of the December 31, 2022 valuations, we are pleased to report to the Board that the Illinois Municipal Retirement Fund is meeting its basic financial objective and continues to operate in accordance with the actuarial principles of level percent-of-payroll financing.

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 or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.



One Towne Square | Suite 800 | Southfield, Michigan 48076-3723



Board of Trustees
 Illinois Municipal Retirement Fund
 March 27, 2023
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Readers desiring a more complete understanding of the actuarial condition of IMRF are encouraged to obtain and read the complete valuation reports. The material in the Actuarial Section and Financial Section of this Annual Comprehensive Financial Report contains some, but not all, of the information in the valuation reports.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Mark Buis, Francois Pieterse and Laura Frankowiak are Members of the American Academy of Actuaries (MAAA), are independent of the plan sponsor and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,
 Gabriel, Roeder, Smith & Company

Mark Buis, FSA, EA, FCA, MAAA

Francois Pieterse, ASA, FCA, MAAA

Laura Frankowiak, ASA, FCA, MAAA

MB/FP/LF:sc
 Enclosure



Illinois Municipal Retirement Fund
Brief Summary of Actuarial Assumptions Used in 2022 Valuations
(Adopted as of December 31, 2020, Except as Noted Below)

Investment Return	7.25% per annum, compounded annually, net of expenses, including a price inflation component of 2.25%.
Payroll Growth	2.50% per annum, compounded annually.
Retirement Rates	Rates vary by age and sex. See table below for sample values.
Mortality for Actives and Annuitants	For non-disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020.
Disability	Graduated rates by age. See table below for sample values.
Separation and Salary Increases	Graduated rates by age and service. See table below for sample values.
Asset Valuation Method	Market Related Value that reflects five-year averaging of investment gains and losses, subject to a 20% corridor.
Liability Valuation Method	For the purposes of determining contribution rates, the Entry Age Actuarial Cost Method is applied on an aggregate basis. Gains and Losses become part of unfunded liabilities.

Age	Sample Probabilities				Pay Increase Next Year (5+ Yrs. of Service)
	Active Mortality		Disability		
	Male	Female	Male	Female	
20	0.04%	0.01%	0.00%	0.00%	5.25%
30	0.07%	0.03%	0.00%	0.00%	4.77%
40	0.13%	0.06%	0.01%	0.01%	3.73%
50	0.21%	0.10%	0.03%	0.01%	3.23%
60	0.48%	0.25%	0.06%	0.03%	2.89%
65	0.69%	0.37%	0.06%	0.04%	2.85%

Age	Separation			Retirement (Tier 1)					
	Regular (8+ Yrs. Serv.)		SLEP (7+ Yrs.)	Reduced Early		Normal Unreduced		SLEP Service	
	Male	Female		Male	Female	Male	Female	< 32 Yrs.	(32+ Yrs.)
30	4.8%	7.7%	3.7%	-	-	-	-	-	-
35	3.8%	5.9%	2.5%	-	-	-	-	-	-
40	3.0%	4.6%	1.6%	-	-	-	-	-	-
45	2.5%	3.8%	1.5%	-	-	-	-	-	-
50	2.1%	3.2%	1.5%	-	-	-	-	30.0%	32.6%
55	-	-	-	7.00%	6.05%	33.0%	29.5%	25.0%	32.6%
60	-	-	-	-	-	13.0%	11.5%	21.0%	32.6%
65	-	-	-	-	-	26.0%	27.0%	21.0%	32.6%
70	-	-	-	-	-	26.0%	25.5%	100.0%	100.0%

Ages	Sample Probabilities (for Ages in 2022)			
	Annuitant Mortality			
	Healthy Annuitants		Disabled Annuitants	
	Male	Female	Male	Female
40	0.1353%	0.0589%	0.8573%	0.7509%
50	0.7191%	0.4128%	1.5101%	1.3882%
60	1.1888%	0.5902%	2.5920%	2.0630%
70	2.0629%	1.1094%	3.6394%	2.5434%
80	5.6721%	3.5617%	6.6564%	5.5704%

This summary was provided by the Actuary.



FUNDED STATUS AND FUNDING PROGRESS

As of December 31, 2022, the most recent actuarial valuation date, the plan on an aggregate basis was 98.6% funded on an actuarial basis. The actuarial accrued liability for benefits was \$53.1 billion, and the actuarial value of assets was \$52.1 billion, resulting in an unfunded actuarial accrued liability (UAAL) of \$970 million. The covered payroll (annual payroll of active employees covered by the plan) was \$8.3 billion, and the ratio of the UAAL to the covered payroll was 11.7%.

The schedule of funding progress presents multi-year trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liability for benefits.

ADDITIONAL INFORMATION AS OF THE LATEST ACTUARIAL VALUATION FOLLOWS:

- Valuation date** December 31, 2022
- Actuarial cost method** Entry age normal
- Amortization method** Level percent of payroll for Regular and SLEP; level dollars for ECO
- Amortization period** Taxing bodies: closed, 19 years
 Entities over 120% funded on a market basis: varies by funding status
 Non-taxing bodies: open, 10 years
- Asset valuation method** Five-year smoothed market related with a 20% corridor

ACTUARIAL ASSUMPTIONS:

- Investment rate of return** 7.25%
- Projected salary increases** 2.89% to 13.75%
- Assumed wage inflation rate** 2.75%
- Group size growth rate** 0.00%
- Assumed payroll growth rate** 2.50%
- Post-retirement increase** Tier 1 - 3.0%—simple
 Tier 2 - 3.0%—simple or 1/2 increase in CPI, whichever is less
- Mortality table** For non-disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020 were used. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male (adjusted 100%) and Female (unadjusted) tables, and future mortality improvements projected using scale MP-2020. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020.

This data was provided by the Actuary.

TABLE I
Schedule of Aggregate Funding Progress (Last ten years)

Actuarial Valuation Date December 31	Aggregate Actuarial Liabilities (AAL)			Unfunded Actuarial Liabilities (UAL)		
	Total AAL Entry Age (a)	Actuarial Assets (b)	Actuarial Assets as a percent of AAL (b/a)	Total UAL (a-b)	Member Payroll (c)	UAL as a percent of Member Payroll (a-b)/c
2013	\$ 34,356,575,473	\$ 30,083,042,548	87.6%	\$ 4,273,532,925	\$ 6,602,479,436	64.7%
2014*	37,465,147,612	32,700,208,537	87.3	4,764,939,075	6,732,500,876	70.8
2015	39,486,573,890	34,913,127,469	88.4	4,573,446,421	6,919,337,807	66.1
2016	41,358,710,402	36,773,397,527	88.9	4,585,312,875	7,006,710,264	65.4
2017*	42,179,482,656	39,187,802,312	92.9	2,991,680,344	7,127,492,621	42.0
2018*	45,354,110,653	40,829,952,193	90.0	4,524,158,460	7,321,479,593	61.8
2019*	47,357,901,268	42,936,185,938	90.7	4,421,715,330	7,547,532,434	58.6
2020*	48,922,948,739	46,017,438,373	94.1	2,905,510,366	7,568,181,773	38.4
2021	50,927,551,000	50,191,547,801	98.6	736,003,199	7,811,067,072	9.4
2022	53,112,908,786	52,142,670,028	98.2	970,238,758	8,303,276,224	11.7

* After assumption change
This data was provided by the Actuary.

TABLE II
Schedule of Aggregate Employer Contributions (Last ten years)

Year Ended December 31	Normal Contributions	Amortization of Unfunded Actuarial Liability	Death & Disability Benefit Contributions	Supplemental Retirement Benefit Contributions	Total Contributions	Percentage of Actuarial Required Contribution Contributed
2013	\$512,289,897	\$356,734,526	\$20,344,350	\$41,600,283	\$930,969,056	99%
2014	513,293,254	348,081,564	19,531,784	42,476,223	923,382,825	100
2015	518,959,516	317,936,978	19,973,953	43,606,437	900,476,884	100
2016	478,995,396	390,798,313	20,170,190	43,973,422	933,937,321	100
2017	477,803,406	361,773,832	19,107,613	44,797,180	903,482,031	100
2018	483,736,934	404,016,662	13,752,607	46,062,620	947,568,823	100
2019	422,913,805	297,062,029	12,780,691	47,393,173	780,149,698	100
2020	451,773,080	411,707,577	15,967,779	48,143,173	927,591,609	100
2021	457,124,851	443,791,293	19,361,764	49,142,209	969,420,117	100
2022	433,056,735	303,684,904	19,570,443	51,775,456	808,087,538	100



TABLE III
Solvency Test (Last ten years)

Calendar Year	Aggregate Actuarial Liabilities (AAL)				Portion of Actuarial Liabilities Covered by Assets		
	Active Member Contributions (1)	Annuitants (2)	Active Members (Employer Financed Portion) (3)	Actuarial Assets	(1)	(2)	(3)
2013	\$ 5,957,217,332	\$ 15,753,071,341	\$ 12,646,286,800	\$ 30,083,042,548	100.0%	100.0%	66.2%
2014	6,262,110,058	17,885,026,667	13,318,010,887	32,700,208,537	100.0	100.0	64.2
2015	6,488,892,894	19,506,345,352	13,491,335,644	34,913,127,469	100.0	100.0	66.1
2016	6,714,120,028	21,085,519,077	13,559,071,297	36,773,397,527	100.0	100.0	66.2
2017	6,924,946,616	22,007,921,865	13,246,614,175	39,187,802,312	100.0	100.0	77.4
2018	7,141,414,323	24,106,296,051	14,106,400,279	40,829,952,193	100.0	100.0	67.9
2019	7,372,126,920	25,719,545,459	14,266,228,889	42,936,185,938	100.0	100.0	69.0
2020	7,590,754,155	27,251,813,875	14,080,380,709	46,017,438,373	100.0	100.0	79.4
2021	7,725,384,410	29,173,126,705	14,029,039,895	50,191,547,801	100.0	100.0	94.8
2022	7,936,001,055	30,872,651,189	14,304,256,542	52,142,670,028	100.0	100.0	93.2

This data was provided by the Actuary.

TABLE IV
Participating Member Statistics (Last ten years)

Calendar Year	Total Salaries	Percent Increase (Decrease) in Total Salaries	Average Annual Salary	Percent Increase in Average Salary	Number of Participating Members	Average Attained Age	Average Years of Service
2013	\$ 6,602,479,436	1.6%	\$ 38,059	2.2%	173,481	47.9	10.7
2014	6,732,500,876	2.0	38,786	1.9	173,579	47.9	10.6
2015	6,919,337,807	2.8	39,805	2.6	173,832	47.9	10.6
2016	7,006,710,264	1.3	40,076	0.7	174,835	47.8	10.5
2017	7,127,492,621	1.7	40,597	1.3	175,566	47.8	10.4
2018	7,321,479,593	2.7	41,476	2.2	176,523	47.8	10.3
2019	7,547,532,434	3.1	42,451	2.4	177,795	47.7	10.1
2020	7,568,181,773	0.3	44,353	4.5	170,637	47.8	10.4
2021	7,811,067,072	3.2	45,315	2.2	172,731	47.5	10.0
2022	8,303,276,224	6.3	47,327	4.4	175,446	47.2	19.7

This data was provided by the Actuary.

TABLE V
Schedules of Adds and Removals from Rolls (Last ten years)

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

Calendar Year	Added to Rolls		Removed from Rolls		End of Year Rolls		Average Annual Benefit	Percent Change in Average Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2013	8,855	\$ 154,660,608	3,899	\$ 39,647,140	107,732	\$ 1,430,511,045	\$ 13,278	3.7%
2014	9,099	142,621,088	4,076	16,601,950	112,755	1,556,530,183	13,805	4.0
2015	9,553	154,096,739	4,276	17,348,199	118,032	1,693,278,723	14,346	3.9
2016	9,387	150,640,326	4,219	16,654,518	123,200	1,827,264,531	14,832	3.4
2017	9,655	160,577,864	4,597	19,935,030	128,258	1,967,907,365	15,343	3.4
2018	9,540	163,529,915	4,537	18,936,746	133,261	2,112,500,534	15,852	3.3
2019	9,343	162,863,622	4,515	19,587,203	138,089	2,255,776,953	16,336	3.1
2020	9,581	173,020,256	5,341	25,816,764	142,329	2,402,980,445	16,883	3.3
2021	10,170	198,690,457	5,365	26,738,938	147,134	2,574,931,964	17,501	3.7
2022	9,733	185,071,597	5,299	77,928,971	151,568	2,682,074,590	17,696	1.1

Schedule of Disabilitants Added to and Removed from Rolls

Calendar Year	Added to Rolls		Removed from Rolls		End of Year Rolls		Average Annual Benefit	Percent Change in Average Benefit
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits		
2013	2,166	26,589,417	2,237	26,682,159	1,082	10,546,882	9,748	5.6%
2014	2,123	26,688,760	2,115	26,126,923	1,090	11,108,719	10,191	4.5
2015	1,936	24,777,914	2,036	26,296,672	990	9,589,961	9,687	(4.9)
2016	1,841	24,551,597	1,899	25,084,100	932	9,057,458	9,718	0.3
2017	1,679	23,175,340	1,839	23,943,773	772	8,289,025	10,737	10.5
2018	1,655	23,316,183	1,704	23,483,662	723	8,121,546	11,233	4.6
2019	1,770	25,549,639	1,741	23,963,994	752	9,707,191	12,908	14.9
2020	1,443	22,985,609	1,501	24,322,209	694	8,370,591	12,061	(6.6)
2021	1,553	24,187,499	1,594	24,989,318	653	7,568,772	11,591	(3.9)
2022	1,426	22,881,812	1,485	22,066,744	594	8,383,840	14,114	21.8



TABLE VI
Average Employer Contribution Rates

Calendar Year	Normal Cost	Amortization of Unfunded Liability	Early Retirement Incentive (ERI) Liability	SLEP Enhancement Liability	Disability and Death	Supplemental Retirement Benefit	Total
Regular members							
2020	5.98%	3.93%	0.17%	n/a	0.21%	0.62%	10.91%
2021	5.86	3.74	0.16	n/a	0.24	0.62	10.62
2022	5.22	2.38	0.14	n/a	0.23	0.62	8.59
2023	5.09	0.43	0.14	n/a	0.27	0.62	6.55
2024	4.96	0.72	0.10	n/a	0.25	0.62	6.65
Sheriff's Law Enforcement Personnel (SLEP) members							
2020	11.94%	9.62%	0.09%	2.00%	0.21%	0.62%	24.48%
2021	11.72	9.03	0.09	1.99	0.25	0.62	23.70
2022	10.05	6.86	0.05	1.99	0.24	0.62	19.81
2023	9.87	3.50	0.06	2.05	0.28	0.62	16.38
2024	9.61	5.47	0.05	1.98	0.26	0.62	17.99
Elected County Official (ECO) members							
2020	13.79%	58.02%	0.00%	n/a	0.23%	0.62%	72.66%
2021	14.21	56.57	0.00	n/a	0.28	0.62	71.68
2022	13.26	47.21	0.00	n/a	0.28	0.62	61.37
2023	13.14	24.05	0.00	n/a	0.32	0.62	38.13
2024	12.81	26.00	0.00	n/a	0.30	0.62	39.73

This data was provided by the Actuary.

TABLE VII
Participating Member Contribution Rates (Last ten years)

Year	Regular IMRF			Sheriff's Law Enforcement Personnel				Elected County Official			
	Normal	Survivor	Total	Normal	Survivor	SLEP	Total	Normal	Survivor	ECO	Total
2013	3.75%	0.75%	4.50%	3.75%	0.75%	3.00%	7.50%	3.75%	0.75%	3.00%	7.50%
2014	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2015	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2016	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2017	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2018	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2019	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2020	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2021	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2022	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50

ACTUARIAL BALANCE SHEET

	December 31	
	2022	2021
Sources of Funds		
Actuarial value of assets	\$ 52,142,670,028	\$ 50,191,547,801
Actuarial present value of future contributions		
Member	2,915,117,514	2,738,327,976
Employer Normal Costs	3,126,246,791	3,022,571,092
Under Funded Actuarial Accrued Liability	970,238,758	736,003,199
Total Sources	\$ 59,154,273,091	\$ 56,688,450,068
Uses of Funds		
Retired members and beneficiaries	\$ 30,872,651,189	\$ 29,173,126,705
Inactive members	4,652,149,256	4,380,869,719
Active members	23,141,267,561	22,718,955,645
Voluntary additional members	473,034,579	397,621,378
Death and disability benefits	15,170,506	17,876,621
Total Uses	\$ 59,154,273,091	\$ 56,688,450,068

This data was provided by the Actuary.

ANALYSIS OF UNDER FUNDED LIABILITY

	December 31	
	2022	2021
Underfunded liability beginning of year	\$ 736,003,199	\$ 2,905,510,366
Assumed net (payments) during year	(49,091,971)	(217,755,192)
Assumed interest	51,601,401	202,847,945
Expected underfunded liability	\$ 738,512,629	\$ 2,890,603,119
Increase due to change in assumptions	\$ -	\$ -
Increase due to experience study	-	-
Increase (Decrease) due to investment performance	23,294,564	(2,174,486,990)
Decrease due to other sources	208,431,565	19,887,070
Under funded liability end of year	\$ 970,238,758	\$ 736,003,199

This data was provided by the Actuary.



DERIVATION OF EXPERIENCE (LOSS)/GAIN

	2022	2021
Type of Risk Area		
Risks Related to Assumptions (in millions)		
Economic Risk Areas		
Investment Return/(Loss)	\$ (23.3)	\$ 2,174.5
Pay Increases	(256.7)	(76.2)
Demographic Risk Areas		
Service Retirements	(34.1)	(54.0)
Early Retirements	(12.2)	(17.2)
Vested Deferred Retirements	2.5	(8.4)
Death and Survivor Benefits	(3.7)	1.2
Disability Benefits	8.9	8.9
Terminated with Refund	61.6	49.6
Risks Not Related to Assumptions (1)	25.3	76.2
Total (Loss)/Gain During Year	\$ (231.7)	\$ 2,154.6

This data was provided by the Actuary.

Regular actuarial valuations give information about the composite change in unfunded actuarial accrued liabilities - whether or not the liabilities are increasing or decreasing and by how much. The objective of a gain and loss analysis is to determine the portion of the change in actuarial condition (unfunded actuarial accrued liabilities) attributable to each risk area. The fact that actual experience differs from assumed experience is to be expected - the future cannot be predicted with 100% precision. The economic risk areas (particularly investment return and pay increases) are volatile. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common.

(1) This is primarily due to rehires of former employees and actual reserve transfers for retirees being higher than the estimated reserve transfers.

SUMMARY OF BENEFITS

This is a brief description of IMRF benefits. Additional conditions and restrictions may apply. A complete description is found in Article 7 of the Illinois Pension Code.

GENERAL

IMRF serves 3,027 employers including cities, villages, counties, school districts, townships, and various special districts, such as parks, forest preserves, and sanitary districts. Each employer contributes to separate accounts to provide future retirement benefits for its own employees.

Employees of these employers are required to participate if they work in an IMRF qualified position. An IMRF qualified position is one that is expected to equal or exceed the employer's annual hourly standard; the standard is either 600 or 1,000 hours a year.

IMRF has three benefit plans. The vast majority of IMRF members participate in the Regular plan. The Sheriff's Law Enforcement Personnel (SLEP) plan is for sheriffs, deputy sheriffs, and selected police chiefs. Forest preserve districts may adopt the SLEP plan for their law enforcement personnel. Counties could adopt the Elected County Official (ECO) plan for their elected officials prior to August 8, 2011. The ECO plan was closed to new participants after that date. After a county adopted the ECO plan, participation was optional for the elected officials of that county.

All three IMRF benefit plans have two tiers. Tier 2 benefits are lower than Tier 1, and cost about 40% less to provide. All IMRF members initially hired on or after January 1, 2011, are in Tier 2.

Both the member and the employer contribute toward retirement benefits. Members contribute a percentage of their salary as established by the Pension Code. The percentage depends on the plan in which the member participates. Regular members contribute 4.5%. SLEP and ECO members contribute 7.5%. Members also have the option of making voluntary after-tax contributions up to 10% of their salary. Employer contribution rates are actuarially calculated annually for each employer. Employers pay most of the cost for member and survivor pensions and all of the cost for supplemental retirement, death, and disability benefits. All contributions are pooled for investment purposes.

Since 1982, investment returns account for 68% of IMRF revenue.

VESTING

TIER 1

Members are vested for pension benefits when they have at least eight years of qualifying service credit. SLEP members are vested for a SLEP pension when they have at least 20 years of SLEP service credit. SLEP members with more than eight years of service, but less than 20 years of SLEP service, will receive a Regular pension.

Revised ECO members (those who joined the ECO plan after January 25, 2000) are vested with eight or more years of ECO service credit in the same elected county position. Revised ECO members with eight years of service, but less than eight years in the same elected county office, will receive a Regular pension.

TIER 2

Members are vested for pension benefits when they have at least 10 years of qualifying service credit. SLEP members are vested for a SLEP pension when they have at least 10 years of SLEP service credit. ECO members (those who joined the ECO plan after January 1, 2011, and before August 8, 2011) are vested with 10 or more years of total service credit with at least eight years in the same elected county position. ECO members with at least 10 years of total service credit, but less than eight years of service in the same elected county office, will receive a Regular pension.



REFUNDS

Non-vested members who stop working for an IMRF employer can receive a lump sum refund of their IMRF member contributions. Vested members can receive a lump sum refund of their IMRF contributions, if they have not attained the earliest eligible age for receiving a pension based on their plan rules. Vested members who have reached their eligible retirement age may choose to receive a refund, if their pension would be less than \$100 per month or if the refund is rolled over into another defined benefit retirement plan for the purpose of purchasing service credit.

Members who retire without an eligible spouse (married to or in a civil union with the member at least one year before the member terminates IMRF participation) may receive a refund of their surviving spouse contributions, with interest, or an annuity.

If, upon a member's death, all of the member contributions with interest were not paid as a refund or pension to either the member or his or her spouse, the beneficiary will receive any balance of the member's account.

PENSION CALCULATIONS

A REGULAR IMRF PENSION IS:

- 1-2/3% of the final rate of earnings for each of the first 15 years of service credit, plus
- 2% for each year of service credit in excess of 15 years.

The maximum pension at retirement cannot exceed 75% of the final rate of earnings.

A SLEP PENSION IS:

- 2-1/2% of the final rate of earnings for each year of service.

The maximum pension at retirement cannot exceed 80% (75% for Tier 2) of the final rate of earnings.

AN ECO PENSION IS:

- 3% of the final rate of earnings for each of the first eight years of service, plus
- 4% for each year of service between eight and 12 years of service, plus
- 5% for years of service credit over 12.

The maximum pension at retirement cannot exceed 80% of the final rate of earnings.

A money purchase minimum pension is provided if it exceeds the normal formula amount. The money purchase minimum is the amount that may be purchased by 2.4 times the member's applicable accumulated contributions, including interest thereon.

A reversionary pension option is provided to members at retirement. This option permits the member to revert a portion of his pension to one other person. This election is irrevocable.

An IMRF pension is paid for life.

FINAL RATE OF EARNINGS

TIER 1

The final rate of earnings for Regular and SLEP members is the highest total earnings during any 48 consecutive months within the last 10 years of IMRF service, divided by 48, or the total lifetime earnings divided by the total lifetime number of months of service, whichever is higher. The final rate of earnings for ECO members is the annual salary of the ECO member on the day he or she retires. For Revised ECO members, the final rate of earnings is the highest total earnings during any 48 consecutive months within the last 10 years of IMRF service, divided by 48, for each office held.

TIER 2

The final rate of earnings for Regular and SLEP members is the highest total earnings during any 96 consecutive months within the last 10 years of IMRF service, divided by 96, or the total lifetime earnings divided by the total lifetime number of months of service, whichever is higher. For ECO members who joined the plan after January 1, 2011, and before August 8, 2011, the final rate of earnings is the highest total earnings during any 96 consecutive months within the last 10 years of IMRF service, divided by 96, for each office held. Pensionable earnings are initially capped at \$106,800, increases annually by 3% or one-half of the increase of the Consumer Price Index, whichever is less. The pensionable earnings cap for 2023 will be \$123,489.18, and in 2022 it was \$119,892.41 For Tier 2 SLEP members, overtime compensation is excluded from pensionable earnings.

RETIREMENT ELIGIBILITY

TIER 1

Normal retirement for an unreduced pension is:

- Age 60 with eight or more years of service, or 35 or more years of service at age 55,
- Age 50 with 20 or more years of SLEP service for members with SLEP service,
- Age 55 with eight or more years of service for members with ECO service, or
- Age 55 with eight or more years of service in the same elected county office for members with Revised ECO service.

Regular members may retire as early as age 55 with a reduced pension. The reduction is the lesser of:

- 1/4% for each month the member is under age 60, or
- 1/4% for each month of service less than 35 years.

TIER 2

Normal retirement for an unreduced pension is:

- Age 67 with 10 or more years of service, or 35 or more years of service at age 62,
- Age 55 with 10 or more years of SLEP service for members with SLEP service, or
- Age 67 with eight or more years of service in the same elected county official for members with ECO service (ten years total service).

Regular members may retire as early as age 62 with a reduced pension. The reduction is the lesser of:

- 1/2% for each month the member is under age 67, or
- 1/2% for each month of service less than 35 years.

SLEP members may retire as early as age 50 with a reduced pension. The reduction is 1/2% for each month the member is under age 55.

SERVICE CREDIT

Service credit is the total time under IMRF, stated in years and fractions. Service is credited monthly while the member is working, receiving IMRF disability benefits, or on IMRF's Benefit Protection Leave. For revised ECO members, the ECO benefit formula is limited to service in an elected office.

Members may qualify for a maximum of one year of additional service credit for unused, unpaid sick leave accumulated with the last employer. Members who retire from a school district may utilize unused sick leave from all school district employers. This additional service credit applies only for members leaving employment for retirement. The service credit is earned at the rate of one month for every 20 days of unused, unpaid sick leave or fraction thereof.

IMRF is a participating plan under the Reciprocal Act, as are all other Illinois public pension systems, except local police and fire pension plans. Under the Reciprocal Act, service credit from multiple pension systems of at least one year may be considered together at the date of retirement or death for the purpose of determining eligibility for and amount of benefits.

POST-RETIREMENT INCREASES

TIER 1

Members in all plans receive an annual 3% increase based upon the original amount of the pension. The increase for the first year is prorated for the number of months the member was retired.

TIER 2

Members in all plans receive an annual increase based upon the original amount of the pension of 3% or one-half of the increase in the Consumer Price Index, whichever is less. For Regular and ECO members, the annual increases do not begin until the retiree reaches the age of 67 or after 12 months of retirement, whichever is later. For SLEP members the increases begin at age 60 or after 12 months of retirement, whichever is later.

EARLY RETIREMENT INCENTIVE (ERI)

IMRF employers may offer an Early Retirement Incentive (ERI) program to their employees who are over 50 years of age (57 for Tier 2 Regular and ECO members) and have at least 20 years of service credit. Eligible members may purchase up to five years of service credit and age. Employers must pay off the additional ERI liability within 10 years. Subsequent ERI programs may be offered by an employer only after the liability for the previous ERI program is paid.

SUPPLEMENTAL RETIREMENT BENEFITS

Each July, IMRF provides a supplemental benefit payment, or “13th Payment,” to IMRF retirees and surviving spouses who have received IMRF pension payments for the preceding 12 months. The supplemental benefit payment amount will vary depending on the dollar amount to be distributed and the number of persons eligible. The supplemental benefit payment amount is decreasing annually, because the number of retirees is increasing while the pool of available money is decreasing.

DISABILITY BENEFITS

Regular and SLEP members are eligible for a maximum of 30 months of temporary disability benefits if they:

- Have at least 12 consecutive months of service credit since being enrolled in IMRF,
- Have at least nine months of service credit in the 12 months immediately prior to becoming disabled,
- Are unable to perform the duties of any position which might reasonably be assigned by the IMRF employer because of any illness, injury, or other physical or mental condition, and
- Are not receiving any earnings from any IMRF employer.

Regular and SLEP members are eligible for total and permanent disability benefits until they become eligible for full Social Security Old Age benefits if they:

- Have exhausted their temporary disability benefits,
- Have a medical condition which did not pre-exist their IMRF participation or they have five years of IMRF participation without being on temporary disability, and
- Are unable to work in any gainful activity for any employer.

The monthly disability benefit payment is equal to 50% of the average monthly earnings based on the 12 months prior to the month the member became disabled.

ECO members are eligible for ECO disability benefits if they:

- Have at least 12 consecutive months of service credit since being enrolled in IMRF,
- Are in an elected county office at the time the disability occurred,
- Are making ECO contributions at the time the disability occurred,

- Are unable to reasonably perform the duties of their offices,
- Have resigned their offices, and
- Have two licensed physicians, approved by IMRF, certify that the ECO member is permanently disabled.

The monthly ECO disability benefit is equal to the greater of:

- 50% of the annualized salary payable on the last day of ECO participation divided by 12 or,
- The retirement benefit earned to date.

Disability benefits under all plans are offset by Social Security or workers’ compensation benefits. If disabled members receive Social Security disability and/or workers’ compensation benefits, IMRF pays the difference between those benefits and 50% of the member’s average monthly earnings. However, IMRF will always pay a minimum monthly benefit of \$10. Members on disability earn pension service credit as if they were working.

DEATH BENEFITS

Beneficiaries of active members who have more than one year of service, or whose deaths are job-related, are entitled to lump sum IMRF death benefits. If the member was not vested, or vested without an eligible spouse, the death benefit is equal to one year’s earnings (limited to pensionable earnings cap for Tier 2 members) plus any balance in the member’s account. Eligible spouses of deceased, vested, active members may choose the lump sum or a monthly surviving spouse pension.

Beneficiaries of inactive, non-vested members receive a lump sum payment of any balance in the member’s account, including interest. If the beneficiary is an eligible spouse of an inactive, vested member age 55 or older, the spouse may choose between the lump sum payment or a death benefit of \$3,000, plus a monthly surviving spouse pension. Beneficiaries of retired members receive a \$3,000 death benefit. Eligible spouses also receive a surviving spouse pension.

SURVIVING SPOUSE PENSION

For Regular and SLEP members, a surviving spouse’s monthly pension is one-half (66-2/3% for Tier 2) of the member’s pension.

For ECO members, a surviving spouse’s monthly pension is 66-2/3% of the member’s pension. This pension is payable once the surviving spouse becomes 50 years old. If the spouse is caring for the member’s minor, unmarried children (the age 50 requirement does not apply), the spouse will receive:

- A monthly pension equal to 30% of the ECO member’s salary at time of death, plus
- 10% of the ECO member’s salary at time of death for each minor, unmarried child. The maximum total monthly benefit payable to spouse and children cannot exceed 50% of the ECO member’s salary at the time of death, or
- A monthly pension equal to 66-2/3% of the pension the member earned.

Surviving spouse pensions under all plans are increased each January 1. The increase is based on the original amount of the pension. The increase for the first year is prorated for the number of months the surviving spouse or the member received a pension. For Tier 1, the annual increase is three percent. For Tier 2, the annual increase is 3% or one-half the increase in the Consumer Price Index, whichever is less.

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TABLE VIII

Changes in Fiduciary Net Position (Last ten years)

Additions						
Employer Contributions						
Calendar Year	Investment Earnings Net of Direct Investment Expense	Dollars	Percent of Annual Covered Payroll	Member Contributions	Other	Total Additions
2013	\$ 5,583,120,005	\$ 930,969,056	14.10%	\$ 338,934,421	\$ 8,455	\$ 6,853,031,937
2014	2,001,420,871	923,382,825	13.72	351,089,445	19,157	3,275,912,298
2015	200,727,209	900,476,884	13.01	368,005,271	464,050	1,469,673,414
2016	2,664,864,774	933,937,321	13.33	380,385,015	12,340	3,979,199,450
2017	5,718,221,626	903,482,031	12.68	393,747,860	13,200	7,015,464,717
2018	(1,747,217,132)	947,568,823	12.94	413,901,691	13,850	(385,732,768)
2019	7,517,792,605	780,149,698	10.34	437,930,911	15,300	8,735,888,514
2020	6,722,889,252	927,591,609	12.26	449,724,661	12,925	8,100,218,447
2021	8,449,144,804	969,420,117	12.41	471,392,017	14,750	9,889,971,688
2022	(7,867,022,837)	808,087,538	9.73	501,784,408	125,213	(6,557,025,678)

Deductions					Change in Fiduciary Net Position
Calendar Year	Benefits	Refunds	Administrative Expenses	Total Deductions	
2013	\$ 1,503,374,148	\$ 36,944,214	\$ 25,463,299	\$ 1,565,781,661	\$ 5,287,250,276
2014	1,626,821,250	39,191,090	26,431,652	1,692,443,992	1,583,468,306
2015	1,758,184,358	36,748,509	28,707,981	1,823,640,848	(353,967,434)
2016	1,902,139,898	37,690,098	38,702,237	1,978,532,233	2,000,667,217
2017	2,043,613,657	42,552,060	31,038,134	2,117,203,851	4,898,260,866
2018	2,194,961,403	48,028,752	32,213,168	2,275,203,323	(2,660,936,091)
2019	2,347,237,088	51,372,047	38,373,543	2,436,982,678	6,298,905,836
2020	2,494,317,158	52,178,126	31,776,955	2,578,272,239	5,521,946,208
2021	2,673,448,177	60,073,886	28,318,297	2,761,840,360	7,128,131,328
2022	2,842,823,093	73,175,000	36,225,509	2,952,223,602	(9,509,249,280)

TABLE IX
Benefit Expense by Type (Last ten years)

Calendar Year	Death				Disability	
	Supplemental	Refund	Burial	Residual	Permanent	Temporary
2013	\$ 9,681,776	\$ 9,155,295	\$ 8,369,090	\$ 1,850,712	\$ 3,949,374	\$ 7,265,126
2014	8,159,700	9,697,948	8,941,815	1,785,250	3,688,052	7,214,455
2015	7,115,125	9,142,480	9,578,310	1,935,771	3,526,820	6,267,477
2016	9,066,318	9,154,917	9,350,020	2,199,715	3,480,432	6,227,065
2017	7,632,879	9,128,002	9,832,334	2,077,934	3,058,374	6,393,159
2018	9,957,323	10,217,863	10,111,870	2,516,138	3,065,933	6,374,393
2019	9,970,090	12,630,012	10,011,054	2,735,846	2,712,027	6,167,549
2020	8,891,181	10,589,258	11,040,634	3,562,281	2,769,573	5,613,563
2021	10,578,556	12,428,656	12,140,537	4,139,509	2,637,053	6,697,669
2022	13,068,205	15,282,899	11,832,662	2,621,415	2,456,792	5,633,286

Calendar Year	Annuities				Refunds		Total
	Retirement	Surviving Spouse	Beneficiary	Supplemental	Separation	Other	
2013	\$1,337,638,438	\$81,839,499	\$2,669,383	\$40,955,455	\$33,987,457	\$2,956,757	\$1,540,318,362
2014	1,453,666,782	88,033,643	2,944,873	42,688,732	35,250,093	3,940,997	1,666,012,340
2015	1,580,255,793	93,884,986	3,233,682	43,243,914	32,618,840	4,129,669	1,794,932,867
2016	1,713,504,074	100,899,288	3,539,931	44,718,138	30,955,185	6,734,913	1,939,829,996
2017	1,849,014,473	108,313,203	3,831,348	44,331,951	33,412,072	9,139,988	2,086,165,717
2018	1,987,168,560	115,681,971	4,185,900	45,681,452	35,164,167	12,864,585	2,242,990,155
2019	2,126,647,074	124,331,675	4,720,509	47,311,252	33,672,230	17,699,817	2,398,609,135
2020	2,265,445,917	132,627,404	5,197,450	48,579,897	32,885,092	19,293,034	2,546,495,284
2021	2,427,956,084	142,577,422	5,425,454	48,867,237	33,700,370	26,373,516	2,733,522,063
2022	2,582,313,394	153,663,061	5,914,084	50,037,295	38,697,369	34,477,631	2,915,998,093

TABLE X
Net Cash Flow from Contributions After Benefits (Last ten years)

Year	Employer Contributions	Member Contributions	Total Contributions	Total Benefit Payments	Net Cash Flow
2013	\$ 930,969,056	\$ 338,934,421	\$ 1,269,903,477	\$ 1,540,318,362	\$ (270,414,885)
2014	923,382,825	351,089,445	1,274,472,270	1,666,012,340	(391,540,070)
2015	900,476,884	368,005,271	1,268,482,155	1,794,932,867	(526,450,712)
2016	933,937,321	380,385,015	1,314,322,336	1,939,829,996	(625,507,660)
2017	903,482,031	393,747,860	1,297,229,891	2,086,165,717	(788,935,826)
2018	947,568,823	413,901,691	1,361,470,514	2,242,990,155	(881,519,641)
2019	780,149,698	437,930,911	1,218,080,609	2,398,609,135	(1,180,528,526)
2020	927,591,609	449,724,661	1,377,316,270	2,546,495,284	(1,169,179,014)
2021	969,420,117	471,392,017	1,440,812,134	2,733,522,063	(1,292,709,929)
2022	808,087,538	501,784,408	1,309,871,946	2,915,998,093	(1,606,126,147)

TABLE XI
Operating Statistics - Number of Initial Benefit Payments (Last ten years)

Calendar Year	Annuity	Disability	Death	Refund	Total
2013	7,791	2,166	3,228	10,530	23,715
2014	7,959	2,123	3,413	11,139	24,634
2015	8,347	1,936	3,644	10,571	24,498
2016	8,222	1,841	3,599	10,125	23,787
2017	8,372	1,679	3,680	10,775	24,506
2018	8,267	1,655	3,795	11,111	24,828
2019	8,037	1,770	3,793	10,954	24,554
2020	8,143	1,443	4,067	10,068	23,721
2021	8,565	1,553	4,423	7,473	22,014
2022	8,142	1,426	4,344	8,640	22,552

TABLE XII
Number of Employees (Last ten years)

Calendar Year End	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Administration (2)	4	4	4	5	6	6	2	2	2	2
Benefits (3)	28	28	31	31	35	33	19	20	20	14
Communications	6	7	9	9	8	8	9	9	9	9
Customer Service (2)	-	-	-	-	-	-	1	1	1	1
Disability (3)	-	-	-	-	-	-	15	13	13	11
Employer Services (4,7)	-	-	-	-	-	-	12	11	8	23
Finance (7)	29	27	27	20	25	25	24	27	25	20
Human Resources	3	4	4	4	4	4	4	5	5	5
Information Services	35	33	34	32	40	43	41	43	44	43
Internal Audit (1)	7	7	7	8	8	8	8	8	4	3
Investments	10	13	13	14	14	14	17	17	15	16
Legal (1,5)	4	5	5	5	5	6	8	8	13	12
Member Services (4)	30	33	35	37	38	40	28	29	30	28
Office Services (5)	21	19	19	19	19	19	18	18	18	16
Organizational Excellence (2)	-	-	-	-	-	-	3	3	3	2
Program Management (6)	5	5	6	6	-	-	-	-	-	-
Total	182	185	194	190	202	206	209	214	210	205

(1) The Compliance unit moved from Internal Audit to Legal in 2021
 (2) The Customer Service and Organizational Excellence departments separated from Administration in 2019
 (3) The Disability department separated from Benefits in 2019
 (4) The Field Services department separated from Member Services in 2019 and was reorganized again in 2022
 (5) The Procurement unit moved from Office Services to Legal in 2019
 (6) The Program Management department merged with Information Systems in 2017
 (7) The Employer Relations Unit moved from Finance to Employer Services

TABLE XIII
Number of Actively Participating Employers (Last ten years)

Calendar Year End	Cities	Villages	Counties	School Districts	Townships	Other	Total
2013	258	413	101	858	480	867	2,977
2014	258	414	101	855	478	870	2,976
2015	259	415	101	850	478	869	2,972
2016	259	417	101	851	488	871	2,987
2017	259	419	101	850	478	890	2,997
2018	260	419	101	850	481	899	3,010
2019	261	420	101	850	481	912	3,025
2020	261	422	101	850	483	914	3,031
2021	261	423	101	850	484	913	3,032
2022	262	425	101	850	486	903	3,027

TABLE XIV
Principal Participating Employers (Current year and ten years ago)

Employer	2022			2013		
	Active Members	Rank	Percentage of Total Active Members	Active Members	Rank	Percentage of Total Active Members
DuPage County	3,160	1	1.80%	2,994	1	1.72%
Will County	2,720	2	1.55	2,323	3	1.34
Lake County	2,478	3	1.41	2,448	2	1.41
Union School District 46	2,236	4	1.28	1,916	4	1.10
Rockford School District 205	1,532	5	0.87	1,487	6	0.86
Winnebago County	1,468	6	0.84	1,493	5	0.86
Kane County	1,464	7	0.84	1,259	8	0.72
Township High School District 211	1,287	8	0.73	1,126	9	0.65
McHenry County	1,019	9	0.58	1,298	7	0.75
Planfield School District 202	998	10	0.57	N/A*	N/A*	N/A**
Peoria School District 150	N/A**	N/A**	N/A**	1,107	10	0.64

*In 2013, this entity did not rank in the Top Ten.
 ** In 2022, this entity did not rank in the Top Ten.

TABLE XV
Number of Actively Participating Members (Last ten years)

Calendar Year End	Male Participants	Female Participants	Total
2013	64,889	108,936	173,825
2014	65,029	108,939	173,968
2015	65,104	108,994	174,098
2016	65,379	109,640	175,019
2017	65,085	110,480	175,565
2018	65,120	111,397	176,517
2019	65,543	112,266	177,809
2020	63,687	107,048	170,735
2021	64,037	108,273	172,310
2022	65,257	109,967	175,224

TABLE XVI
Participating Members' Length of Service (Last ten years)

Calendar Year	Total Active Members	Under 1 Year	1 to 7 Years	8 to 14 Years	15 Years and Over	Percent Vested
2013	173,825	16,990	65,389	45,062	46,384	52.6%
2014	173,968	18,391	63,714	44,256	47,607	52.8
2015	174,098	18,515	63,413	43,470	48,700	52.9
2016	175,019	18,732	64,487	57,727	34,073	52.5
2017	175,565	19,347	67,173	39,978	49,067	50.7
2018	176,517	20,535	69,940	37,905	48,137	48.7
2019	177,809	20,633	73,257	36,395	47,524	47.2
2020	170,735	13,705	75,580	34,680	46,770	47.7
2021	170,310	22,720	70,446	33,437	45,707	46.5
2022	175,224	25,073	72,654	32,404	45,093	44.2

TABLE XVII
Active Members by Age

Age	All Plans			Sheriff's Law Enforcement Personnel			Elected County Official		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 20	361	428	789	4	-	4	-	-	-
20 to 24	3,238	4,405	7,643	145	30	175	-	-	-
25 to 29	5,621	7,538	13,159	450	62	512	-	-	-
30 to 34	6,416	8,953	15,369	539	87	626	-	-	-
35 to 39	7,031	10,581	17,612	555	86	641	1	-	1
40 to 44	7,374	12,569	19,943	608	86	694	3	-	3
45 to 49	7,063	13,191	20,254	520	107	627	2	1	3
50 to 54	8,104	15,521	23,625	414	55	469	5	5	10
55 to 59	8,001	16,249	24,250	158	28	186	11	8	19
60 to 64	6,896	13,489	20,385	76	14	90	10	5	15
65 to 69	3,213	4,971	8,184	28	4	32	5	2	7
70 and Over	1,939	2,072	4,011	7	-	7	2	2	4
Total	65,257	109,967	175,224	3,504	559	4,063	39	23	62

TABLE XVIII
Annuitants by Age

Age	Retirees			Surviving Spouses			Beneficiaries		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 55	405	60	465	14	102	116	131	178	309
55 to 59	3,013	5,027	8,040	44	220	264	27	78	105
60 to 64	6,807	13,860	20,667	149	610	759	33	103	136
65 to 69	10,390	21,941	32,331	404	1,013	1,417	42	82	124
70 to 74	9,628	20,340	29,968	726	1,445	2,171	24	67	91
75 to 79	6,335	14,397	20,732	898	1,761	2,659	21	54	75
80 to 84	3,734	8,903	12,637	1,019	1,941	2,960	5	29	34
85 to 89	1,942	5,009	6,951	823	1,572	2,395	5	20	25
90 to 94	686	2,418	3,104	516	991	1,507	-	8	8
95 to 99	165	713	878	128	314	442	1	1	2
100 and over	20	102	122	14	60	74	-	-	-
Total	43,125	92,770	135,895	4,735	10,029	14,764	289	620	909

TABLE XIX
Average Initial Benefit Payment Amounts (Last ten years)

Calendar Year	Single Sum Payments		Recurring Payments	
	Separation Refunds	Lump Sum Death Benefit	Annual Disability (1)	Annual Retirement (2)
2013	\$ 3,229	\$ 34,853	\$ 18,898	\$ 15,781
2014	3,164	35,795	20,048	16,877
2015	3,127	35,141	19,696	17,301
2016	3,075	32,018	20,386	17,128
2017	3,119	34,645	20,632	17,878
2018	3,202	37,502	21,297	18,480
2019	3,092	43,031	22,155	18,738
2020	3,313	40,927	23,169	19,554
2021	4,538	46,606	22,999	21,376
2022	4,525	50,210	23,990	20,759

(1) Prior to Social Security and workers' compensation offsets.

(2) Includes voluntary additional benefits.



TABLE XX Analysis of Initial Retirement Benefits: Regular Plan (Last ten years)

Table with columns for Years of Credited Service (8-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35+) and Total, and rows for Avg Monthly Annuity, Avg Monthly FRE, and Number of Retirees for years 2013-2022.

FRE = Final Rate of Earnings used to calculate retirement benefit.

Note: This schedule excludes members retiring with money purchase benefits, reciprocal benefits, or multiple plans.

TABLE XXI Analysis of Initial Retirement Benefits: Sheriff's Law Enforcement Personnel (SLEP) Plan (Last ten years)

Table with columns for Years of Credited Service (10-14, 15-19, 20-24, 25-29, 30-34, 35+) and Total, and rows for Avg Monthly Annuity, Avg Monthly FRE, and Number of Retirees for years 2013-2022.

FRE = Final Rate of Earnings used to calculate retirement benefit.

Note: This schedule excludes members retiring with money purchase benefits, reciprocal benefits, or multiple plans.

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TABLE XXII

Analysis of Initial Retirement Benefits: Elected County Official (ECO) Plan (Last ten years)

	Years of Credited Service							Total
	8-9	10-14	15-19	20-24	25-29	30-34	35+	
2013								
Avg Monthly Annuity	\$ 992	\$ 1,070	\$ -	\$ 3,590	\$ -	\$ -	\$ -	\$ 2,304
Avg Monthly FRE	\$ 3,958	\$ 2,144	\$ -	\$ 4,487	\$ -	\$ -	\$ -	\$ 3,920
Number of Retirees	4	2	-	6	-	-	-	12
2014								
Avg Monthly Annuity	\$ -	\$ 840	\$ 553	\$ 2,204	\$ 891	\$ 330	\$ 3,877	\$ 647
Avg Monthly FRE	\$ -	\$ 1,940	\$ 779	\$ 2,756	\$ 1,136	\$ 413	\$ 4,846	\$ 844
Number of Retirees	-	3	7	6	5	1	2	24
2015								
Avg Monthly Annuity	\$ -	\$ 1,204	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,204
Avg Monthly FRE	\$ -	\$ 2,988	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,988
Number of Retirees	-	2	-	-	-	-	-	2
2016								
Avg Monthly Annuity	\$ -	\$ 990	\$ 3,088	\$ 4,568	\$ 4,725	\$ 966	\$ -	\$ 3,126
Avg Monthly FRE	\$ -	\$ 2,170	\$ 5,537	\$ 5,711	\$ 5,907	\$ 1,207	\$ -	\$ 4,378
Number of Retirees	-	6	2	6	4	1	-	19
2017								
Avg Monthly Annuity	\$ 481	\$ 405	\$ 2,323	\$ 1,104	\$ -	\$ -	\$ -	\$ 1,432
Avg Monthly FRE	\$ 1,953	\$ 854	\$ 3,403	\$ 1,380	\$ -	\$ -	\$ -	\$ 2,175
Number of Retirees	1	3	6	4	-	-	-	14
2018								
Avg Monthly Annuity	\$ 635	\$ 2,701	\$ 3,295	\$ 4,126	\$ 6,215	\$ 5,565	\$ 12,608	\$ 4,414
Avg Monthly FRE	\$ 2,215	\$ 5,447	\$ 4,632	\$ 5,157	\$ 7,768	\$ 6,957	\$ 15,760	\$ 5,941
Number of Retirees	2	1	2	5	2	1	1	14
2019								
Avg Monthly Annuity	\$ 151	\$ 192	\$ -	\$ 6,368	\$ 3,672	\$ -	\$ -	\$ 2,824
Avg Monthly FRE	\$ 606	\$ 461	\$ -	\$ 7,959	\$ 5,325	\$ -	\$ -	\$ 3,795
Number of Retirees	1	2	-	2	1	-	-	6
2020								
Avg Monthly Annuity	\$ -	\$ 4,372	\$ -	\$ 1,641	\$ 4,284	\$ -	\$ -	\$ 2,611
Avg Monthly FRE	\$ -	\$ 9,775	\$ -	\$ 2,052	\$ 5,355	\$ -	\$ -	\$ 4,495
Number of Retirees	-	2	1	3	1	-	-	7
2021								
Avg Monthly Annuity	\$ -	\$ 5,686	\$ -	\$ -	\$ 10,867	\$ -	\$ 5,291	\$ 6,784
Avg Monthly FRE	\$ -	\$ 10,746	\$ -	\$ -	\$ 13,584	\$ -	\$ 6,614	\$ 9,390
Number of Retirees	-	1	-	-	1	-	2	4
2022								
Avg Monthly Annuity	\$ 626	\$ 247	\$ -	\$ 3,141	\$ -	\$ -	\$ -	\$ 2,245
Avg Monthly FRE	\$ 2,000	\$ 701	\$ -	\$ 3,926	\$ -	\$ -	\$ -	\$ 3,262
Number of Retirees	1	1	3	2	-	-	-	7

FRE = Final Rate of Earnings used to calculate retirement benefit.

Note: This schedule excludes members retiring with money purchase benefits, reciprocal benefits, or multiple plans.

TABLE XXIII

Distribution of Current Annuitants by Pension Amount

Monthly Pension Amount	Retirement Number of		Survivor Number of		All Annuities Number of	
	Males	Females	Males	Females	Males	Females
Under \$100	813	4,410	467	449	1,280	4,859
\$100 to under \$250	1,825	9,972	1,192	1,382	3,017	11,354
\$250 to under \$500	4,001	17,579	1,327	2,080	5,328	19,659
\$500 to under \$750	3,848	13,478	724	1,459	4,572	14,937
\$750 to under \$1,000	3,327	10,116	423	1,095	3,750	11,211
\$1,000 to under \$2,000	9,359	21,536	508	2,358	9,867	23,894
\$2,000 to under \$3,000	6,026	8,733	68	789	6,094	9,522
\$3,000 to under \$4,000	4,744	3,774	16	257	4,760	4,031
\$4,000 to under \$5,000	3,327	1,705	7	97	3,334	1,802
\$5,000 to under \$6,000	2,296	778	3	37	2,299	815
\$6,000 and over	3,559	689	-	26	3,559	715
Total	43,125	92,770	4,735	10,029	47,860	102,799

Note: Counts do not include disabilities.

TABLE XXIV

Membership By Tier

Annuitants/Beneficiaries	2022			2021		
	Tier 1	Tier 2	Total	Tier 1	Tier 2	Total
Total Retirees	151,085	483	151,568	146,940	194	147,134
Active						
Vested	61,418	6,493	67,911	67,201	3,258	70,459
Non-Vested	13,114	94,199	107,313	13,813	88,038	101,851
Total	74,532	100,692	175,224	81,014	91,296	172,310
Inactive						
Vested	14,834	547	15,381	15,344	201	15,545
Non-Vested	66,100	66,647	132,747	66,663	56,183	122,846
Total	80,934	67,194	148,128	82,007	56,384	138,391
Active/Inactive						
Vested	76,252	7,040	83,292	82,545	3,459	86,004
Non-Vested	79,214	160,846	240,060	80,476	144,221	224,697
Total Active/Inactive	155,466	167,886	323,352	163,021	147,680	310,701
Total Membership	306,551	168,369	474,920	309,961	147,874	457,835

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