2019

IMRF™

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE YEARS ENDED DECEMBER 31, 2019 & DECEMBER 31, 2018

Malcolm Baldrige National Quality Award
2019 Award Recipient

OAKBROOK, ILLINOIS

SPRINGFIELD, ILLINOIS

FOR THE YEARS ENDED
DECEMBER 31, 2019 & DECEMBER 31, 2018

PREPARED BY
The Finance Department of the
Illinois Municipal Retirement Fund

OAK BROOK OFFICE
2211 York Road, Suite 500,
Oak Brook, IL 60523-2337

SPRINGFIELD REGIONAL
COUNSELING CENTER
3000 Professional Drive, Suite 101,
Springfield, IL 62703-5934

CONTACT IMRF
1-800-ASK-IMRF (275-4673)
www.imrf.org

Brian Collins
Executive Director

IMRF

COVID-19 PANDEMIC & IMRF

IMRF is secure, agile, and proactive.

IMRF wants all stakeholders to know the organization is making changes that prioritize the health and safety of its members, employers, and staff, in response to the COVID-19 pandemic.

At the same time, all stakeholders should have confidence IMRF will continue to deliver all its most critical business processes, including delivering promised benefit payments, processing new applications and enrollments, and managing the new contributions and existing investments entrusted to the pension fund.

THE IMRF INVESTMENT PORTFOLIO

A number of stakeholders have expressed concern about the state of the global economy and its impact on the IMRF investment portfolio. IMRF's investment portfolio has not been immune to the negative impact COVID-19 has had on the global economy. That being said, IMRF is a long-term investor with a portfolio of more than $40 billion. We have planned for downturns in the market and IMRF has sufficient resources to meet all benefit payment requirements. IMRF has confidence that in the long-term, the global economy will recover.

IMRF APPRECIATES YOUR FLEXIBILITY

We know that this is a challenging time for all IMRF stakeholders. We appreciate your flexibility and understanding as we implement changes that prioritize health and safety. Please be assured IMRF will continue to deliver all critical services, albeit a bit differently for the time being. You can count on us.

For the latest updates regarding services, investments, and any other questions log onto go to www.imrf.org

Malcolm Baldrige
National Quality Award
2019 Award Recipient

We are pleased to announce that in 2019 IMRF received the Malcolm Baldrige National Quality Award. A Presidential-level honor, the award recognizes exemplary U.S. organizations and businesses that demonstrate operational excellence. This is the culmination of a decade-long journey recognizing, rewarding, and honoring our commitment to innovation and improvement.

We've made great advancements in many areas of our operation over the years, and with the help of the Baldrige program, we have a culture in place that can grow and evolve for many years to come.

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

TABLE OF CONTENTS

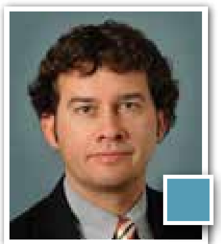
BOARD OF TRUSTEES

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.

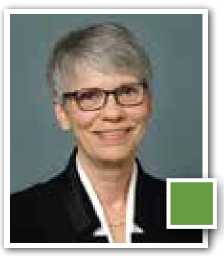


DAVID MILLER
2020 PRESIDENT
EXECUTIVE TRUSTEE
Current term ending Dec. 31, 2021

North Shore Water Reclamation District

NATALIE COPPER
2020 VICE PRESIDENT
EMPLOYEE TRUSTEE
Current term ending Dec. 31, 2024

Dawes School in Evanston



TRUDY WILLIAMS
2020 SECRETARY
EMPLOYEE TRUSTEE
Current term ending Dec. 31, 2020

Fulton County State's Attorney's Office

TOM KUEHNE
EXECUTIVE TRUSTEE
Current term ending Dec. 31, 2022

Village of Arlington Heights

ALEX WALLACE, JR.
EMPLOYEE TRUSTEE
Current term ending Dec. 31, 2020

Oswego Community Unit School District 308

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

Naperville Park District

GWEN HENRY
EXECUTIVE TRUSTEE
Current term ending Dec. 31, 2020

DuPage County

WILLIAM STAFFORD
ANNUITANT TRUSTEE
Current term ending Dec. 31, 2020

Formerly Evanston

Township High School District 202

IMRF DIRECTORS

Listed from left to right.

DHVANI SHAH, CFA
Chief Investment Officer

MARK NANNINI
Chief Financial Officer

DAWN SEPUTIS
Customer Service Director

BRIAN COLLINS
Executive Director

CARA BANNON
Director of Human Resources

BETH JANICKI CLARK
General Counsel

KEYLA VIVAS
Chief Information Services Officer

ORGANIZATION CHART

BOARD OF TRUSTEES

CONSULTANTS

- INVESTMENT CONSULTANTS
- INVESTMENT MANAGERS
- MASTER TRUSTEE
- EXTERNAL AUDITOR
- ACTUARY
- MEDICAL CONSULTANTS

STAFF

EXECUTIVE DIRECTOR
BRIAN COLLINS

- **ADMINISTRATIVE ASSISTANT TO THE EXECUTIVE DIRECTOR AND THE BOARD OF TRUSTEES**
  MAUREEN ENRIGHT

INTERNAL AUDIT OFFICER
ELISA JUHASZ

ORGANIZATIONAL EXCELLENCE OFFICER
KATHY GOERDT

CHIEF FINANCIAL OFFICER
MARK NANNINI

- **COMPTROLLER**
  DAVID ADAMSKI
- **FINANCIAL RELATIONS MANAGER**
  AUDREY BROWN-RYCE

CHIEF INFORMATION SERVICES OFFICER
KEYLA VIVAS

- **MANAGER, TECHNOLOGY INFRASTRUCTURE**
  BARRY MCGREER
- **MANAGER, ENTERPRISE BUSINESS SOLUTIONS**
  PAM ARNDT

DIRECTOR OF HUMAN RESOURCES
CARA BANNON

- **COMMUNICATIONS OFFICER**
  JOHN KRUPA

CUSTOMER SERVICE DIRECTOR
DAWN SEPUTIS

- **DISABILITY MANAGER**
  LARRY DIXON
- **MEMBER SERVICES MANAGER**
  CONNIE FOX
- **OFFICE SERVICES MANAGER**
  DENISE STREIT
- **FIELD SERVICES MANAGER**
  KATE SETCHELL
- **BENEFITS MANAGER**
  AMY CLAUSSEN

GENERAL COUNSEL
BETH JANICKI CLARK

- **ASSOCIATE GENERAL COUNSEL**
  VLADIMIR SHULIGA
- **LEGISLATIVE LIAISON**
  BONNIE SHADID
- **CHIEF SECURITY OFFICER**

CHIEF INVESTMENT OFFICER
DHVANI SHAH, CFA

Consultants – Investment Consultants are listed on pages 68 and 69, investment commisions and fees are listed on pages 78 through 80.

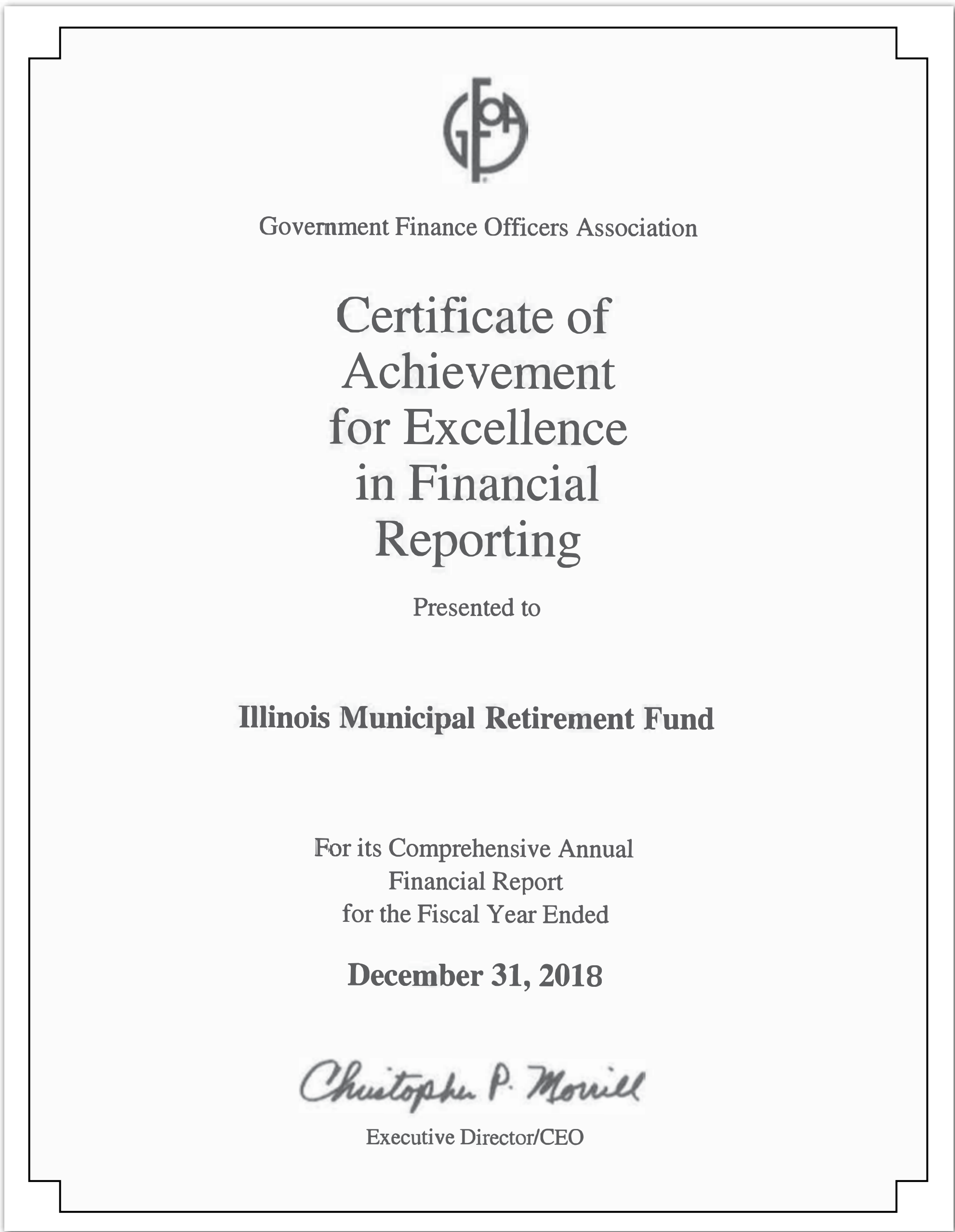
Actuary	*External Auditors*	*Master Trustee*	*Medical Consultants*	*Adjudicators*
Gabriel, Roeder, Smith & Company	RSM US LLP	The Northern Trust	Marianjoy Medical Group	Ottosen Britz Kelly Gilbert & Dinolfo, LTD
Brian B. Murphy, F.S.A.	Joseph Evans	Kimberly Miller	Wheaton, Illinois	Susan Davis Brunner, LLC
Mark Buis, F.S.A.	William Sarb	Senior Vice President	Northwest Psychiatric, S.C.	
Southfield, Michigan	Schaumburg, Illinois	Chicago, Illinois	Buffalo Grove, Illinois	

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.

In 2018, IMRF received the Certificate of Achievement for Excellence in Financial Reporting for the 39th 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.



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Illinois Municipal Retirement Fund

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

December 31, 2018

Christopher P. Morrill

Executive Director/CEO

2211 York Road, Suite 500 Oak Brook, IL 60523-2337 1-800-ASK-IMRF (275-4673)

www.imrf.org

June 3, 2020

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

FORMAL TRANSMITTAL

We are pleased to submit the Comprehensive Annual Financial Report of the Illinois Municipal Retirement Fund (IMRF) for the year ended December 31, 2019. 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 eight full-time employees, including an Internal Audit Officer. The Internal Audit department uses detailed internal audit programs that encompass examination of internal controls, employer compliance, and the Fund's financial transactions and records. IMRF engages an independent accounting 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. Currently five Board members serve on the committee. 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 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.

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 and approved by the State Auditor General. IMRF satisfied this requirement, and the independent accountants' unmodified audit report on IMRF's 2019 Financial Statements is included in this report. The independent accountants 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.

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 in order 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 3,025 different employers, 177,809 participating members, and 138,089 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 2019 and 2018.

	2019 (millions)	2018 (millions)	Dollar Change (millions)	Percent Change
Additions	$ 8,735.9	$ (385.7)	$ 9,121.6	(2,364.9)%
Deductions	2,437.0	2,275.2	161.8	7.1%
Net Change	**$ 6,298.9**	**$ (2,660.9)**	**$ 8,959.8**	**(336.7)%**

The increase in Additions between 2019 and 2018 is primarily due to a $9,265 million increase in investment income. The 2019 financial markets vastly rebounded from the losses in 2018 boosted mostly from a hot technology sector and a lowering of interest rates from the Federal Reserve. The increase in Deductions is primarily due to increased benefit payment amounts and an increase in the number of benefit recipients from 133,261 to 138,089. 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, 2019, valuation, the aggregate actuarial value of assets was $42.9 billion. The aggregate actuarial liability for all IMRF employers was $47.4 billion. The aggregate actuarial funding ratio is currently 90.7% (an increase from the 2018 ratio of 90.0%). If the market value of assets is used (i.e., no actuarial smoothing), the aggregate funding ratio is 95.1% as of December 31, 2019, an increase from 85.4% as of December 31, 2018. 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, 2019, IMRF's market-based funding ratio was higher than the actuarial funding ratio since there were $1,987.3 million of unrecognized actuarial investment gains, which will be reflected in the 2020 through 2023 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 2019 with new mortality tables being adopted for the 2019 valuation. Beginning with the 2018 actuarial valuation, the assumed investment rate of return was reduced from 7.5% to 7.25%.

INVESTMENTS

The investment portfolio is a major contributor to the Fund. Year 2019 investment returns resulted in a gain of $7,399 million or 19.6%. Looking at it from a long term perspective of 3, 5, and 10 years, the rates of return are 9.8%, 7.4%, and 8.8%, respectively. The 2019 investment gain represented 85.9% of the Plan Additions for the year. In the past five years—2015 through 2019—investment income represented the following percentage of additions to fiduciary net position::

Year	Percentage of Additions
2019	85.9%
2018	(452.8)%
2017	81.5%
2016	67.0%
2015	13.7%

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 41 professional investment management firms handling 45 mandates. These firms make investment decisions under the Prudent Man 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 56 investment firms across 153 separate funds. These firms make investment decisions under the Prudent Man Rule, authorized by Article 1 of the Illinois Pension Code and by investment policy guidelines adopted by the Board of Trustees.

In 2019, the Investment department added an Internal Equity Management unit. This team of three staff handled approximately $50 million in assets for 2019.

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. As of January 1, 2020, the Board selected Wilshire Associates to replace Callan and Associates as the investment consultant.

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, and a summary of the investment objectives and policies.

CURRENT AND FUTURE DEVELOPMENTS

A. BOARD OF TRUSTEES

Natalie Copper, who has served as Trustee since 2010, was elected to her second term as Executive Trustee. Her third term will run from January 1, 2020, through December 31, 2024.

Sadly, Annuitant Trustee Sharon U. Thompson passed suddenly on October 3, 2019. Ms. Thompson's term is being filled by the Board appointment of William Stafford. His term will run from January 1, 2020 through December 31, 2020.

B. LEGISLATIVE ACTIVITY APPLICABLE TO IMRF (PASSED IN 2018)

Seven bills that affect IMRF passed the General Assembly in 2019:

Public Act 101-0151

This law allows members to retain disability eligibility if they have up to a three-month gap in employment prior to disability, and return to participation with a different employer. Prior to this law, the member had to return to the same employer to retain eligibility. Effective July 26, 2019.

Public Act 101-0473

This law requires all public agencies and units of government in Illinois to consider specific sustainability goals. Effective January 1, 2020.

Public Act 101-0492

This law extends to members participating with certain educational employers the ability to roll over unused, unpaid sick leave between multiple employers. Effective August 23, 2019.

Public Act 101-0504

This law requires IMRF to post certain employer cost and participation information on its website. Effective July 1, 2020.

Public Act 101-0546

This law requires all pension systems to send an annual report to the State Treasurer's Office regarding unclaimed assets. Effective January 1, 2020, but the initial report is not due until November 1, 2020.

Public Act 101-0610

In the provision that applies to IMRF, opens a twelve-month window allowing certain surviving spouses of deceased annuitants to establish eligibility for a surviving spouse annuity. Effective January 1, 2020, but the 12-month window opens May 1, 2020.

Public Act 101-0544

This law prohibits an elected official who is receiving an IMRF pension based on service in the same position from also receiving a salary for that position. If the official was receiving an IMRF pension on August 23, 2019, effective at the beginning of their next term of office they must either suspend their IMRF pension or their salary will be reduced to zero.

C. SYSTEMS DEVELOPMENT

IMRF's major 2019 system development priorities focused on:

- Continuing the Horizon Project system implementation, including the completion of Phase 3 "Purchase and Installation of Software and Hardware" and the continuation of Phase 4 "Build and Deploy". Planned Go Live is for late summer 2021.
- Implementing enhanced telephony tools to support IMRF's Customer Service Goals.
- Installing additional computer hardware to support the Horizon project.
- Installing replication networks between our primary site (Oak Brook) and disaster recovery site (Wood Dale).
- Implementing of site-to-site data replication between Oak Brook and Wood Dale disaster recovery site for open systems data and mainframe backup data.
- Upgrading the IMRF Active Directory environment software.

IMRF's major 2020 system development priorities will focus on:

- Continuing the Horizon Project system implementation, including the creation of four new environments, and the continuation of Phase 4 "Build and Deploy" segments three and four.
- Completing the implementation of enhanced telephony tools to support IMRF's Customer Service Goals.
- Replacing our Cisco core network.
- Implementing Office 365 and migrating email from Exchange Server to O365.
- Finalizing site-to-site data replication between Oak Brook and Wood Dale disaster recovery site for open systems data and mainframe backup data.
- Implementing a Generator on-site to ensure business continuity in case of power outages.
- Upgrading CSM SiteCore where imrf.org and intranet COMPASS reside.

D. INVESTMENT ACTIVITIES

On February 21, 2020, IMRF staff and its consultant presented the 2020 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 21, 2020. The 2019 and 2020 asset allocation targets are listed in the table below:

Asset Class	2020 Target	2019 Target
U.S. equities	37%	37%
International equities	18%	18%
Fixed income	28%	28%
Real estate	9%	9%
Alternative investments	7%	7%
Short term	1%	1%

Major investment activities in 2019 through February 29, 2020, were as follows:

- The 2020 IMRF Investment Committee Charter and Statement of Investment Policy (which includes the consolidation of the Real Estate Statement of Investment Policy into the 2020 Statement of Investment Policy) were revised by staff and approved by the Board.
- Additional commitments were made to 5 follow-on funds of 5 existing real estate managers.
- Additional commitments were made to 14 follow-on funds of 10 existing private equity managers.
- New commitments were made to 2 funds of 2 new private equity firms.
- A mandate for an internally managed domestic equity portfolio was established. This included authorizing staff to work with Net Alpha Advisors on implementation, and with ERI Scientific Beta to provide index data. A consent was provided to Northern Trust, as lending agent, to claim adherence to ISDA 2018 US Resolution Stay Protocol on IMRF's behalf. Staff was also authorized to update IMRF's securities lending agreement with Northern Trust. A revised commitment was made to a private equity global fund-of-funds. This replaced the original authorization for an evergreen separate account that included an initial commitment, and additional annual commitments consistent with IMRF's strategic plan.
- Following the conclusion of an investment consultant search, Wilshire Associates, Inc., was appointed as IMRF's Investment Consultant and Performance Service Provider for a 5-year term beginning January 1, 2020.
- Funds withdrawn from a terminated large-cap value equity manager were approved for allocation to a new, internally-managed domestic equity portfolio that will be benchmarked to the Scientific Beta US Value Factor Index.
- Capital Markets Assumptions and 2020 Annual Asset Allocation Review presented by Staff and Consultant was approved by the Board. No recommendations for changes were made.

- Finally, the 2019 Asset Liability Modeling Study presented by staff and consultant was approved by the Board. It resulted in maintaining asset class exposure and reaffirmation of the existing strategic asset allocation targets for the investment portfolio in the chart above, effective January 1, 2020.

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 2017-2019 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 implemented a series of action plans that support our four Strategic Objectives during 2019. We include the following four key result areas on our leadership scorecard to measure our progress towards meeting our objectives:

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

F. ILLINOIS PERFORMANCE EXCELLENCE \ BALDRIGE CRITERIA FOR PERFORMANCE EXCELLENCE

Illinois Performance Excellence (ILPEx/IMEC) is a non-profit organization that seeks to help organizations improve their performance 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 ILPEx 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 ILPEx provides additional guidance on how IMRF can further leverage our strengths and pursue opportunities for improvement.

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 submitted an application to MBNQA in April 2018, qualified for a site visit, and received a comprehensive feedback report. IMRF again submitted an application 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 demonstrates IMRF's continued dedication to delivering excellent customer service to our members, annuitants, and employers.

Malcolm Baldrige National Quality Award

In November 2019 IMRF staff received notice that IMRF is a proud recipient of the Malcolm Baldrige National Quality Award, the first public pension fund in the nation to receive this prestigious 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 43 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 2019 and 2018 activity. We provided Employer Statements every month. We issued annuitant statements in November 2019, Active Member Statements in February 2020, and Inactive Member Statements in March 2020. 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 2020 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 Comprehensive Annual Financial Report for the year ended December 31, 2018. IMRF has received a Certificate of Achievement from the GFOA for the last 39 consecutive years (fiscal years 1980-2018).

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized Comprehensive Annual 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, 2018.

IMRF received the GFOA Distinguished Budget Award for its 2019 budget. The Government Finance Officers Association of the United States and Canada (GFOA) awarded the Distinguished Budget Presentation Award for the fifth consecutive time to IMRF. The award is for a one year period. IMRF has applied again for this prestigious award for the 2020 budget document.

In 2019, 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.

In March 2019, IMRF was awarded the 2019 Plan Sponsor of the Year honor. The PLANSPONSOR, a national publication dedicated to retirement and benefit programs, recognized IMRF with "Awards for Excellence in Retirement" in the Defined Benefit category for exceptional funding level, disciplined investment approach, and a focus on continuous improvement.

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 3,025 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.

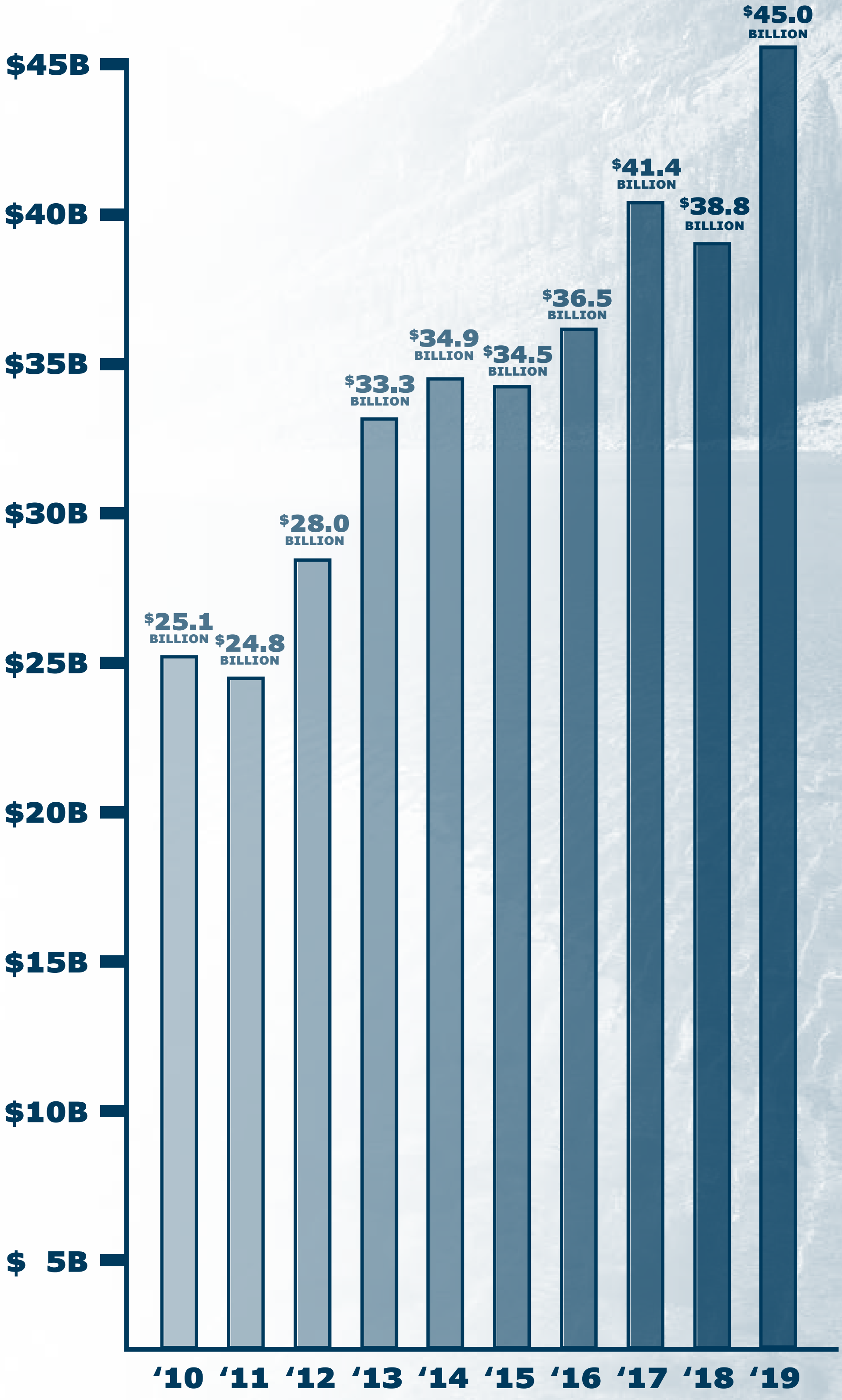
Respectfully submitted,

Brian Collins
Executive Director

Mark F. Nannini
Chief Financial Officer

2020 | 2010 | 2019

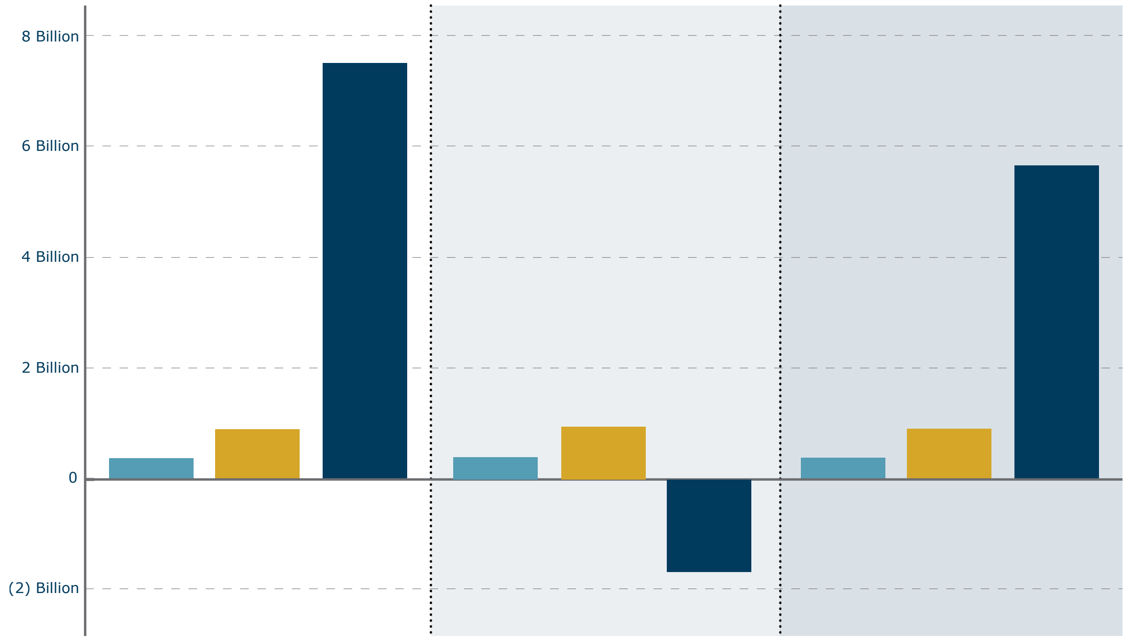
FIDUCIARY NET POSITION OVER THE LAST TEN YEARS



IMRF's financial position has grown steadily over the past 10 years.

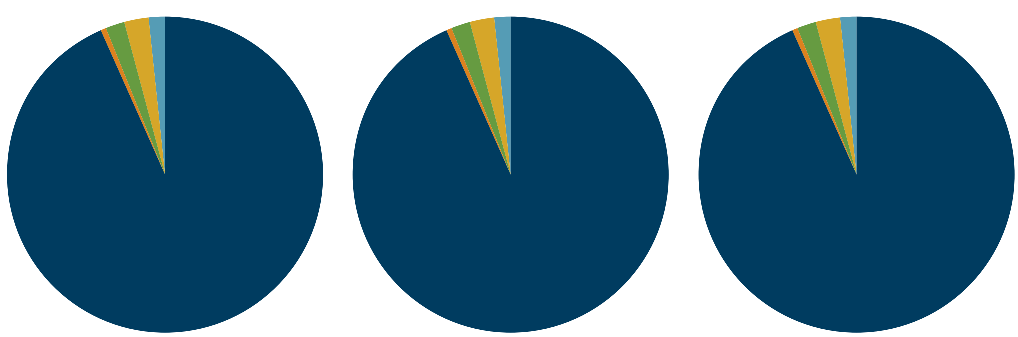
IMRF will continue to provide secure and stable retirements for thousands of public employees in Illinois while limiting employer costs long into the future.

REVENUES BY SOURCE



	2019	2018	2017
Members	$ 437,930,911	$ 413,901,691	$ 393,747,860
Employers	780,149,698	947,568,823	903,482,031
Investments	7,517,807,905	(1,747,203,282)	5,718,234,826
Total	**$ 8,735,888,514**	**$ (385,732,768)**	**$ 7,015,464,717**

EXPENSES BY TYPE



	2019	2018	2017
Annuities	$ 2,303,010,509	$ 2,152,717,883	$ 2,005,490,975
Disability	8,879,576	9,440,326	9,451,533
Death	35,347,003	32,803,194	28,671,149
Refunds	51,372,047	48,028,752	42,552,060
Administrative	38,373,543	32,213,168	31,038,134
Total	**$ 2,436,982,678**	**$ 2,275,203,323**	**$ 2,117,203,851**

Malcolm Baldrige
National Quality Award

2019 Award Recipient

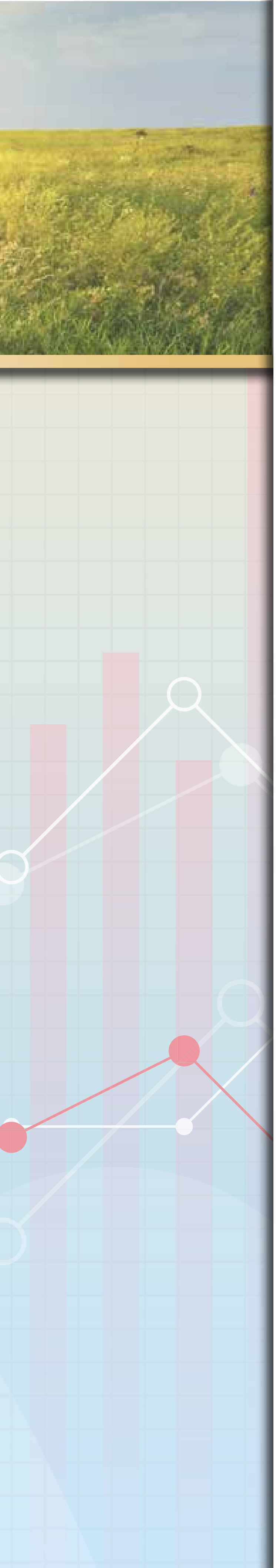
MEMBER-FOCUSED IMPROVEMENTS

VOICE OF THE CUSTOMER SURVEY PROGRAM

IMRF's Voice of the Customer (VOC) survey program outlines how we listen and respond to feedback provided by our members and employers. This feedback is important, because it helps the Fund improve so that we can continue to achieve our vision to provide the highest quality retirement services to our members, their beneficiaries, and employers.

IMRF currently surveys members on seven different transactional services and one member workshop. The results of these surveys are analyzed monthly, by a team of leaders from each department, and are benchmarked against other pension funds and industries in order to identify improvement opportunities to better serve our members.

In the past 10 years, improvements to our member experience, based on survey feedback have included: an employer specific 800 number line, adjusted frequency of customer surveys, and an increase in Field Services staff to meet member educational needs across the state.



FINANCIAL

RSM US LLP

Independent Auditor's Report

The Board of Trustees
Illinois Municipal Retirement Fund

Report on the Financial Statements
We have audited the accompanying Statements of Fiduciary Net Position of the Illinois Municipal Retirement Fund (the Fund), as of December 31, 2019 and 2018, and the related Statements of Changes in Fiduciary Net Position for the years then ended, and the related notes to the basic financial statements as listed in the table of contents.

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

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

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

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

Opinion
In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Illinois Municipal Retirement Fund as of December 31, 2019 and 2018, and the changes in fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information:

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 21 through 24, the schedule of changes in the net pension liability and related ratios, the schedule of employer contributions, the schedule of money-weighted rate of returns and schedule of changes in the total OPEB liability and related ratios and the notes to the required supplementary information on pages 57 through 61 be presented to supplement the financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required 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 financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information:

Our audit for the years ended December 31, 2019 and 2018, were conducted for the purpose of forming an opinion on the Fund's financial statements. The other supplementary information consisting of Supporting Schedules in the financial section, and the accompanying introduction, investments, actuarial, and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplementary information for the years ended December 31, 2019 and 2018 is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The other supplementary information has been subjected to the auditing procedures applied in the audit of the financial statements for the years ended December 31, 2019 and 2018 and certain additional procedures, including comparing and reconciling such information directly to underlying accounting and other records used to prepare the financial statements, or to the 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 financial statements as a whole for the years ended December 31, 2019 and 2018.

The introduction, investments, actuarial, and statistical sections have not been subjected to the auditing procedures applied in the audit of the financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

RSM US LLP

Schaumburg, Illinois
June 3, 2020

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, 2019, and December 31, 2018. 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 2019, contributions of $1,218 million, investment gain of $7,518 million, and deductions to fiduciary net position of $2,437 million resulted in a net increase of $6,299 million. This net increase brought the Fund's fiduciary net position to $45.0 billion.

COVID-19 IMPACT

The COVID-19 pandemic has led to significant volatility and declines in the global public equity and debt markets. As of March 31, 2020, the fair value of IMRF's investments was down approximately 14.0% since year end. Preliminary results as of May 31, 2020 shows the rebound the markets have taken since then, estimating the fair value to be down only 5.6% compared to year end. The potential impacts, including the possibility of a global, national, and/or regional economic recession, are increasingly uncertain and difficult to assess. The resulting financial and economic market uncertainty could have a significant adverse impact on the financial results of IMRF, including contributions received and the fair value of its investments.

FIDUCIARY NET POSITION

To begin the financial analysis, summarized comparisons of IMRF's Fiduciary Net Position for 2019 versus 2018 and 2018 versus 2017 are presented below.

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

	2019	2018	Dollar Change	Percent Change
Cash and cash equivalents	$ (3.5)	$ 1.3	$ (4.8)	(369.2)%
Receivables and prepaids	507.7	533.7	(26.0)	(4.9)
Investments	44,755.8	38,511.0	6,244.8	16.2
Invested securities lending cash collateral	217.7	248.6	(30.9)	(12.4)
Capital assets, net	36.4	23.9	12.5	52.3
Total assets	**45,514.1**	**39,318.5**	**6,195.6**	**15.8**
Deferred outflow of resources	**4.3**	**0.1**	**4.2**	**4,200.0**
Liabilities	**463.3**	**567.0**	**(103.7)**	**(18.3)**
Deferred inflow of resources	**5.1**	**0.5**	**4.6**	**920.0**
Fiduciary net position	**$ 45,050.0**	**$ 38,751.1**	**$ 6,298.9**	**16.3%**

As the table shows, fiduciary net position increased by by $6,299 million, or 16.3% in 2019.

This increase reflects the increase in investment returns in 2019. The increase in receivables and prepaids in 2019 is largely due to the increase in the receivables, from brokers for unsettled trades at year-end due to a larger number of trades outstanding at year-end 2019 compared to 2018. The increase in liabilities in 2019 is due primarily to the increase in the payables to brokers for unsettled trades at year-end 2019.

The following table presents the investment allocation as of year-end 2019 and 2018 as compared to IMRF's target allocation.

	2019	Target	2018
U.S. equities	40.1%	37.0%	39.6%
International equities	19.3	18.0	18.0
Fixed income	28.2	28.0	29.5
Real estate	6.6	9.0	7.2
Alternative investments	5.4	7.0	4.0
Short-term	0.4	1.0	1.7

The variance in the real estate allocation is due to the fact that IMRF is in the process of recapitalizing its real estate portfolio, and actual investments trail commitments. IMRF is also looking to increase its allocation to alternative investment strategies. The current target allocations were reconfirmed during Investment Committee meetings in 2019. IMRF continuously monitors its actual investment allocations in relation to its targets and rebalances as appropriate.

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

	2018	2017	Dollar Change	Percent Change
Cash and cash equivalents	$ 1.3	$ 1.6	$ (0.3)	(18.8)%
Receivables and prepaids	533.7	394.5	139.2	35.3
Investments	38,511.0	41,214.8	(2,703.8)	(6.6)
Invested securities lending cash collateral	248.6	350.7	(102.1)	(29.1)
Capital assets, net	23.9	15.2	8.7	57.2
Total assets	**39,318.5**	**41,976.8**	**(2,658.3)**	**(6.3)**
Deferred outflow of resources	**0.1**	**0.1**	**-**	**-**
Liabilities	**567.0**	**564.7**	**2.3**	**0.4**
Deferred inflow of resources	**0.5**	**0.2**	**0.3**	**150.0**
Fiduciary net position	**$ 38,751.1**	**$ 41,412.0**	**$ (2,660.9)**	**(6.4)%**

As the table shows, fiduciary net position decreased by $2,661 million, or a negative 6.4% in 2018.

This decrease reflects the decline in investment returns in 2018. The increase in receivables and prepaids in 2018 is largely due to the increase in the receivables from brokers for unsettled trades at year-end due to a larger number of trades outstanding at year-end 2018 compared to 2017. The increase in liabilities in 2018 is due primarily to the increase in the payables to brokers for unsettled trades at year-end 2018.

CHANGES IN FIDUCIARY NET POSITION

Summarized comparisons of IMRF's Changes in Fiduciary Net Position for 2019 versus 2018 are presented below.

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

	2019	2018	Dollar Change	Percent Change
Additions				
Member contributions	$ 437.9	$ 413.9	$ 24.0	5.8%
Employer contributions	780.2	947.6	(167.4)	(17.7)
Net investment gain (loss)	7,517.8	(1,747.2)	9,265.0	(530.3)
Total additions	**8,735.9**	**(385.7)**	**9,121.6**	**(2,364.9)**
Deductions				
Benefits	2,347.2	2,195.0	152.2	6.9
Refunds	51.4	48.0	3.4	7.1
Administrative expenses	38.4	32.2	6.2	19.3
Total deductions	**2,437.0**	**2,275.2**	**161.8**	**7.1**
Net increase (decrease) in fiduciary net position	**$ 6,298.9**	**$ (2,660.9)**	**$ 8,959.8**	**(336.7)%**

ADDITIONS

Additions needed to fund benefits are accumulated through contributions and returns on invested funds. Contributions for 2019 totaled $1,218 million which was 10.5% less than 2018. The decrease reflects the decrease in the average employer contribution rate to 11.2% in 2019 from 11.6% in 2018. The member contribution rate remained at 4.5% of earnings for Regular members and 7.5% for Sheriff's Law Enforcement Personnel (SLEP) and the optional Elected County Official (ECO) members. For rate-setting purpose there is a two-year lag between the date that data is used to compute employer contribution rates and the effective date of those rates.

Investment gains for 2019 were 19.6%. The $7,518 million investment gain in 2019 represents a $9,265 million change from the $1,747 million loss in 2018. IMRF's 2019 total investment portfolio return was up due to lowering of interest rates by the Federal Reserve and large gains in the technology markets in 2019.

In 2019, IMRF had net appreciation in the value of investments of $6,697, a $9,152 million change from the $2,455 million of depreciation recorded in 2018. Interest, dividends, and equity fund income totaled $955 million, an increase from $827 million in 2018. Securities lending income net of related expenses was $7.1 million for 2019, a decrease of $142 thousand from 2018. Direct investment expenses increased to $142 million in 2019 from $127 million in 2018.

The total rate of return for the portfolio in 2019 was 19.6% compared to negative 4.4% in 2018. IMRF's U.S. stock portfolio returned a 29.0% compared to 31.0% custom benchmark. The fixed income portfolio returned a 9.4% compared to 8.7% for the Bloomberg Aggregate Bond Index. The international stock portfolio returned 23.4% compared to 21.5% for the MSCI All-Country World Index ex-US. The real estate portfolio returned 9.8% compared to 4.4% for the custom benchmark. The alternative investment portfolio returned 9.5%.

DEDUCTIONS

The expenses paid by IMRF include benefit payments, refunds, and administrative expenses. Expenses for 2019 totaled $2,437 million, $161.8 million over 2018. The increase in benefit payments to members and beneficiaries resulted primarily from growth in the number of annuitants to 138,089 in 2019 from 133,261 in 2018, as well as an increase in the amount of the average benefit.

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

	2018	2017	Dollar Change	Percent Change
Additions				
Member contributions	$ 413.9	$ 393.7	$ 20.2	5.1%
Employer contributions	947.6	903.5	44.1	4.9
Net investment (loss) gain	(1,747.2)	5,718.3	(7,465.5)	(130.6)
Total additions	**(385.7)**	**7,015.5**	**(7,401.2)**	**(105.5)**
Deductions				
Benefits	2,195.0	2,043.6	151.4	7.4
Refunds	48.0	42.6	5.4	12.7
Administrative expenses	32.2	31.0	1.2	3.9
Total deductions	**2,275.2**	**2,117.2**	**158.0**	**7.5**
Net (decrease) increase in fiduciary net position	**$ (2,660.9)**	**$ 4,898.3**	**$ (7,559.2)**	**(154.3)%**

ADDITIONS

Additions needed to fund benefits are accumulated through contributions and returns on invested funds. Contributions for 2018 totaled $1,361 million which was 5.0% more than 2017. The increase reflects the increase in total member payroll to $7,321 million in 2018 from $7,127 million in 2017. The member contribution rate remained at 4.5% of earnings for Regular members and 7.5% for Sheriff's Law Enforcement Personnel (SLEP) and the optional Elected County Official (ECO) members. For rate-setting purpose there is a two-year lag between the date that data is used to compute employer contribution rates and the effective date of those rates.

Investment losses for 2018 were a negative 4.4%. The $1,747 million investment loss in 2018 represents a $7,465 million change from the $5,718 million gain in 2017. IMRF's 2018 total investment portfolio return was down due to weak and uncertain markets at the end of 2018.

In 2018, IMRF had net depreciation in the value of investments of $2,455 million, a $7,479 million change from the $5,024 million of appreciation recorded in 2017. Interest, dividends, and equity fund income totaled $827 million, an increase from $801 million in 2017. Securities lending income net of related expenses was $7.3 million for 2018, a decrease of $2.5 million from 2017. Direct investment expenses increased to $127.0 million in 2018 from $116.1 million in 2017.

The total rate of return for the portfolio in 2018 was a negative 4.4% compared to 15.7% in 2017. IMRF's U.S. stock portfolio returned a negative 6.3% compared to a negative 5.2% custom benchmark. The fixed income portfolio returned a negative 0.4% compared to 0.0% for the Bloomberg Aggregate Bond Index. The international stock portfolio returned a negative 14.4% compared to a negative 14.2% for the MSCI All-Country World Index ex-US. The real estate portfolio returned 8.4% compared to 7.4% for the custom benchmark. The alternative investment portfolio returned 17.3%.

DEDUCTIONS

The expenses paid by IMRF include benefit payments, refunds, and administrative expenses. Expenses for 2018 totaled $2,275 million, an increase of $158 million over 2017. The increase in benefit payments to members and beneficiaries resulted primarily from growth in the number of annuitants to 133,261 in 2018 from 128,264 in 2017, as well as an increase in the amount of the average benefit.

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. IMRF's money-weighted rate of return of the periods ending:

For the year ended	Return
December 31, 2019	19.82%
December 31, 2018	(4.19)%
December 31, 2017	15.93%

STATEMENTS OF FIDUCIARY NET POSITION

Years Ended December 31	2019	2018
Assets		
Cash and cash equivalents	**$ (3,472,629)**	**$ 1,257,209**
Receivables and prepaid expenses		
Contributions	68,229,990	76,209,767
Investment income	104,455,321	96,845,127
Receivables from brokers for unsettled trades	157,778,830	194,848,811
Prepaid expenses	177,193,463	165,804,813
Total receivables and prepaid expenses	**507,657,604**	**533,708,518**
Investments, at fair value		
Fixed income	12,384,559,767	11,349,000,125
Stocks	26,181,173,943	22,182,142,216
Short-term investments	671,877,130	663,791,748
Real estate	3,298,006,160	2,756,158,340
Alternative investments	2,220,169,417	1,559,870,360
Total investments	**44,755,786,417**	**38,510,962,789**
Invested securities lending cash collateral	**217,716,823**	**248,571,446**
Capital assets		
Equipment, at cost	55,397,642	40,764,428
Accumulated depreciation	(19,015,040)	(16,830,396)
Total capital assets	**36,382,602**	**23,934,032**
Total assets	**45,514,070,817**	**39,318,433,994**
Total deferred outflow of resources	**4,325,530**	**101,447**
Liabilities		
Accrued expenses and benefits payable	41,647,637	31,579,700
Securities lending cash collateral	217,716,823	248,571,446
Payables to brokers for unsettled trades	203,970,295	286,825,855
Total liabilities	**463,334,755**	**566,977,001**
Total deferred inflow of resources	**5,085,353**	**488,037**
Net position restricted for pensions	**$ 45,049,976,239**	**$ 38,751,070,403**

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

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

Years Ended December 31	2019	2018
Additions		
Contributions		
Members for retirement coverage	$ 437,930,911	$ 413,901,691
Employers for benefit plan coverage	780,149,698	947,568,823
Total contributions	**1,218,080,609**	**1,361,470,514**
Investment income		
From investing activities		
Interest	380,330,748	290,738,595
Dividends	387,113,103	356,756,590
Equity fund income, net	188,013,712	180,072,636
Net appreciation (depreciation) in fair value of investments	6,697,249,523	(2,455,079,445)
Investment activity gain (loss)	**7,652,707,086**	**(1,627,511,624)**
Less: Direct investment expense	(142,042,364)	(126,975,171)
Net investment activity gain (loss)	**7,510,664,722**	**(1,754,486,795)**
From security lending activity		
Securities lending income	9,727,179	9,555,135
Securities lending management fees and borrower rebates	(2,599,296)	(2,285,472)
Net security lending activity income	**7,127,883**	**7,269,663**
Total investment gain (loss)	**7,517,792,605**	**(1,747,217,132)**
Other	**15,300**	**13,850**
Total additions	**8,735,888,514**	**(385,732,768)**
Deductions		
Annuities	2,303,010,509	2,152,717,883
Disability benefits	8,879,576	9,440,326
Death benefits	35,347,003	32,803,194
Refunds	51,372,047	48,028,752
Administrative expenses	38,373,543	32,213,168
Total deductions	**2,436,982,678**	**2,275,203,323**
Net increase (decrease)	**6,298,905,836**	**(2,660,936,091)**
Net position restricted for pensions		
Beginning of year	**38,751,070,403**	**41,412,006,494**
End of year	**$ 45,049,976,239**	**$ 38,751,070,403**

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

NOTES TO BASIC FINANCIAL STATEMENTS *(December 31, 2019 and 2018)*

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. However, the Illinois Pension Code requires the Auditor General to approve appointment of independent public accountants as the external auditors.

1. EMPLOYERS

	2019	2018
Participating employers	3,025	3,010

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

	2019	2018
Inactive members		
Retirees and beneficiaries currently receiving benefits	138,089	133,261
Terminated members entitled to benefits but not yet receiving them	14,229	14,086
Terminated members—non-vested	109,941	105,853
Total inactive members	**262,259**	**253,200**
Active members		
Non-vested	93,890	90,475
Vested	83,919	86,042
Total active members	**177,809**	**176,517**
Grand total	**440,068**	**429,717**

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, 2019, and December 31, 2018. 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 $119,951.83 for 2019 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 $119,951.83 for 2019 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 $119,951.83 for 2019 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. An employer may not adopt an ERI more frequently than once every five years after the close of a prior ERI.

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

An eligible spouse of a deceased retired member receives a one-time death benefit of $3,000 plus a monthly pension equal to one-half (66-2/3% for ECO retirees and Tier 2 members) of the member's pension. The beneficiaries of a participating member who had at least one year of service receive a lump sum death 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 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. 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 values for directly owned real estate investments are determined by appraisals. Fair value for the majority of derivative instruments is determined principally by using quoted market prices provided by independent pricing services. 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 position that applies to a future period(s) and as such, 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 position that applies to a future period(s) and as such, will not be recognized as an inflow of resources (addition) until that time.

C. NEW ACCOUNTING PRONOUNCEMENTS

In January 2017, GASB issued Statement No. 84, *"Fiduciary Activities."* The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported by primary governments. IMRF will adopt GASB Statement No. 84 for its December 31, 2020, financial statements.

In June 2017, GASB issued Statement No. 87, *"Leases."* The objective of this Statement is to improve accounting and financial reporting for leases by governments. This statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underling asset. IMRF will adopt Statement No. 87 for its December 31, 2021 financial statements.

In June 2018, GASB issued Statement No. 89, *"Accounting for Interest Cost Incurred before the End of a Construction Period."* The objective of this Statement is (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. IMRF does not borrow funds for construction projects and therefore there is no impact to its financial statements.

In May 2019, GASB issued Statement No. 91, *"Conduit Debt Obligations."* The primary objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. This Statement achieves those objectives by clarifying the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. IMRF does not issue debt instruments in its own name, therefore there is no impact to its financial statements.

In January 2020, GASB issued Statement No. 92, "*Omnibus 2020.*" The objectives of this Statement are to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing practice issues that have been identified during implementation and application of certain GASB Statements. This Statement addresses a variety of topics and includes specific provisions about the following:

- The effective date of Statement No. 87, Leases, and Implementation Guide No. 2019-3, Leases, for interim financial reports
- Reporting of intra-entity transfers of assets between a primary government employer and a component unit defined benefit pension plan or defined benefit other postemployment benefit (OPEB) plan
- The applicability of Statements No. 73, Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68, as amended, and No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, as amended, to reporting assets accumulated for postemployment benefits
- The applicability of certain requirements of Statement No. 84, Fiduciary Activities, to postemployment benefit arrangements
- Measurement of liabilities (and assets, if any) related to asset retirement obligations (AROs) in a government acquisition
- Reporting by public entity risk pools for amounts that are recoverable from reinsurers or excess insurers
- Reference to nonrecurring fair value measurements of assets or liabilities in authoritative literature
- Terminology used to refer to derivative instruments.

IMRF is currently reviewing how this statement will impact its future financial statements.

In March 2020, GASB issued Statement No. 93, "*Replacement of Interbank Offered Rates.*" The objective of this Statement is to address those and other accounting and financial reporting implications that result from the replacement of an Interbank Offered Rate (IBOR). IMRF is currently reviewing how this statement will impact its future financial statements.

In March 2020, GASB issued Statement No. 94, "*Public-Private and Public-Public Partnerships and Availability Payment Arrangements*." The primary objective of this Statement is to improve financial reporting by addressing issues related to public-private and public-public partnership arrangements (PPPs). As used in this Statement, a PPP is an arrangement in which a government (the transferor) contracts with an operator (a governmental or nongovernmental entity) to provide public services by conveying control of the right to operate or use a nonfinancial asset, such as infrastructure or other capital asset (the underlying PPP asset), for a period of time in an exchange or exchange-like transaction. This Statement also provides guidance for accounting and financial reporting for availability payment arrangements (APAs). As defined in this Statement, an APA is an arrangement in which a government compensates an operator for services that may include designing, constructing, financing, maintaining, or operating an underlying nonfinancial asset for a period of time in an exchange or exchange-like transaction. IMRF is currently reviewing how this statement will impact its future financial statements.

In May 2020, GASB issued Statement No. 95, *"Postponement of the Effective Dates of Certain Authoritative Guidance."* The primary objective of this Statement is to provide temporary relief to governments and other stakeholders in light of the COVID-19 pandemic. That objective is accomplished by postponing the effective dates of certain provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018, and later.

The effective dates of certain provisions contained in the following pronouncements are postponed by one year:

- The applicability of certain requirements of Statement No. 84, Fiduciary Activities, to postemployment benefit arrangements
- Measurement of liabilities (and assets, if any) related to asset retirement obligations (AROs) in a government acquisition
- Reporting by public entity risk pools for amounts that are recoverable from reinsurers or excess insurers
- Reference to nonrecurring fair value measurements of assets or liabilities in authoritative literature
- Terminology used to refer to derivative instruments.

The effective dates of certain provisions contained in the following pronouncements are postponed by one year:

- Statement No. 87, Leases
- Implementation Guide No. 2019-3, Leases.

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 account 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.

	2019	2018
Carrying amounts at December 31		
Cash and cash equivalents	$ (3,472,629)	$ 1,257,209
Bank balances at December 31		
Bank balances	$ 289,591	$ 193,455
Amount exposed to custodial credit risk		
Cash balance held with investment manager exposed to custodial credit risk	$ 1,322,997	$ 901,433

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

The Illinois Pension Code prescribes the "Prudent Man 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 man" 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, 2019.

	Asset Class					
	U.S. equities	International equities	Fixed income	Real estate	Alternative investments	Short term
Target	37%	18%	28%	9%	7%	1%

For the year ended December 31, 2019, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 19.82%. For the year ended December 31, 2018, it was a negative 4.30%. 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, 2019 and 2018:

	2019	2018
U.S. government & agency fixed income	$ 3,823,800,631	$ 3,433,644,294
U.S. corporate fixed income	3,619,657,525	3,285,130,878
U.S. fixed income funds	3,605,524,429	3,289,209,657
Foreign fixed income securities	759,903,472	778,452,892
Foreign fixed income funds	575,673,710	562,562,404
U.S. equities	13,911,547,161	11,173,622,777
U.S. equity funds	3,874,360,305	4,066,565,206
Foreign equities	5,319,418,312	4,251,576,651
Foreign equity funds	3,075,848,165	2,690,377,582
Foreign currency forward contracts	(3,032,063)	(1,995,250)
Pooled short-term investment funds	658,169,353	658,977,986
Real estate	3,298,006,160	2,756,158,340
Private equity	2,219,677,446	1,559,208,716
Absolute return funds	491,971	661,644
Swaps	5,131,867	(249,787)
Options	121,392	(1,177,008)
Other	11,486,581	8,235,807
Total investments at fair value	**$44,755,786,417**	**$38,510,962,789**

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 and the NT Collective EAFE Index Fund do represent greater than 5% of fiduciary net position for each year end.

	2019	2018
MFB NT Collective Aggregate Bond Index Fund	$ 1,809,158,439	$1,663,255,569
BlackRock US Debt Index Fund	1,734,360,670	1,594,104,141
NT Collective U.S. Marketcap Equity Index Fund	2,622,330,010	2,515,871,313
NT Collective EAFE Index Fund	2,010,705,163	1,972,067,710

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:

	2019	2018
Investments in foreign currency	$ 13,326,733	$ 12,261,095

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 market value.

D. Generally, no more than 30% of a manager's assets at market 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 market 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

	2019	2018
Corporate and International		
AAA	$ 271,036,121	$ 261,545,747
AA	527,064,577	284,099,560
A	1,001,720,052	921,005,868
BBB	1,390,186,294	1,211,643,796
BB	730,208,327	675,519,636
B	324,266,966	329,578,078
CCC	36,459,118	34,848,048
CC	5,715,279	1,402,699
C	-	1,393,147
D	1,537,336	1,480,168
Not Rated	79,484,763	107,326,634
Government and Agencies		
Agencies	2,363,491,414	2,048,949,682
AAA	67,633,742	389,283,941
AA	1,376,543,148	1,210,527,143
A	22,207,554	15,438,425
BBB	3,903,783	3,185,492
BB	844,350	-
Not Rated	1,058,804	-
Fixed Income Funds		
Index	4,181,198,139	3,851,772,061
Total	**$ 12,384,559,767**	**$ 11,349,000,125**

The “Agencies” 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 AA for 2019 and 2018. The international fixed income fund had an average quality rating of B for 2019 and 2018.

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 Barclays Aggregate Bond Index. At December 31, 2019 and December 31, 2018, the effective duration of the Barclays Aggregate Bond Index was 5.87 and 5.79, respectively. At the same points in time, the effective duration of IMRF debt securities portfolio was 4.70 and 4.67, respectively.

Investment	2019 Fair Value	Effective Weighted Duration Rate	2018 Fair Value	Effective Weighted Duration Rate
U.S. Corporate	$ 3,619,657,525	4.24	$ 3,285,130,878	4.23
U.S. Government & Agencies	3,823,800,631	5.47	3,433,644,294	6.65
U.S. Fixed Income Funds	3,605,524,429	5.61	3,289,209,657	3.63
International	759,903,472	2.17	778,452,892	5.28
International Fixed Income Fund	575,673,710	0.20	562,562,404	0.40
Total	**$ 12,384,559,767**	**4.70**	**$ 11,349,000,125**	**4.67**

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:

	2019	2018
Foreign Equities		
Australian dollar	$ 157,765,715	$ 145,344,011
Brazilian real	115,644,015	93,186,352
British pound sterling	762,742,384	605,591,004
Canadian dollar	202,219,942	154,761,429
Chilean peso	7,613,479	7,261,045
Colombian peso	1,487,013	731,561
Czech koruna	4,888,727	5,301,675
Danish krone	117,009,183	64,464,495
Euro	1,442,832,494	1,216,667,708
Hong Kong dollar	404,499,431	322,706,440
Hungarian forint	7,234,796	5,339,313
Indian rupee	56,449,641	59,596,304
Indonesian rupiah	20,593,352	28,266,593
Japanese yen	806,161,580	619,139,030
Malaysian ringgit	6,797,286	6,001,393
Mexican peso	70,347,331	41,917,972
New Israeli shekel	8,087,708	9,330,433
New Taiwan dollar	151,348,565	87,231,751
New Zealand dollar	13,322,156	13,872,018
Norwegian krone	33,181,628	35,688,633
Philippine peso	254,065	1,208,977
Polish zloty	8,700,359	7,370,954
Qatari riyal	-	706,686
Russian ruble	2,920,060	-
Singapore dollar	45,483,753	39,758,150
South African rand	20,812,503	24,996,565
South Korean won	151,184,020	110,766,950
Swedish krona	128,173,887	76,216,336
Swiss franc	279,919,847	225,287,990
Thai baht	25,656,639	25,864,920
Turkish lira	18,775,715	7,803,122
United Arab Emirates dirham	1,820,169	4,260,247
United States dollar	3,321,339,034	2,895,314,176
Total Foreign Equities	**$ 8,395,266,477**	**$ 6,941,954,233**

	2019	2018
Foreign Fixed Income		
Argentine peso	$ 2,501,212	$ 7,725,754
Brazilian real	20,215,033	16,584,652
British pound sterling	-	1,199,671
Canadian dollar	845,509	-
Chilean peso	2,222,822	2,147,225
Colombian peso	7,147,331	7,489,228
Czech koruna	1,318,067	5,471,908
Euro	1,620,421	692,023
Hungarian forint	1,311,525	4,299,408
Indian rupee	968,616	947,162
Indonesian rupiah	18,816,903	9,033,214
Japanese yen	4,758,950	4,748,141
Kazakhstan tenge	321,187	297,135
Malaysian ringgit	7,254,265	3,002,018
Mexican peso	30,547,474	19,554,654
Norwegian krone	1,058,414	-
Peruvian nuevo sol	5,244,306	3,457,735
Polish zloty	9,742,413	5,473,895
Romanian new leu	-	2,109,596
Russian ruble	26,894,070	20,626,464
South African rand	13,806,908	7,804,750
Swedish krona	-	443,922
Thai baht	9,469,741	6,016,734
Turkish lira	3,982,082	5,441,678
United States dollar	1,165,529,933	1,206,448,329
Total Foreign Fixed Income	**1,335,577,182**	**1,341,015,296**
Total	**$ 9,730,843,659**	**$ 8,282,969,529**

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. 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 versus collateral that may include cash, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned versus 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 206 days as of December 31, 2019, and 87 days as of December 31, 2018. 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.

The 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 25 days as of December 31, 2019, and 27 days as of December 31, 2018. 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 has failed 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 2019 and 2018, 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.

Securities lent are included in the Statements of Fiduciary Net Position. The fair value of collateral received includes cash collateral of $217,716,823 and $248,571,446 at December 31, 2019 and December 31, 2018, respectively.

Loans outstanding as of	December 31, 2019	December 31, 2018
Market value of securities loaned	$ 1,239,985,027	$ 1,402,919,885
Market value of collateral received	$ 1,277,448,670	$ 1,448,535,964

F. DERIVATIVES

IMRF's investment managers may enter into derivative 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 financial 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 derivatives, the prices of which are constantly fluctuating, is regulated by imposing strict limits as to the types, amounts, and degree 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 derivatives with borrowed funds.

During the year, IMRF's derivative 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 financial 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, 2019 and December 31, 2018 is as follows:

Fair Value as of	December 31, 2019	December 31, 2018
Pending Foreign Exchange Purchases		
Argentine peso	$ -	$ 814,688
Australian dollar	7,667,437	35,926,812
Brazilian real	11,346,583	22,023,872
British pound sterling	50,941,850	21,364,520
Canadian dollar	63,973,131	35,205,133
Chilean peso	4,717,659	3,239,480
Chinese yuan renminbi	5,373,181	36,058
Colombian peso	8,691,673	1,318,569
Czech koruna	7,441,246	6,306,106
Danish krone	5,621,316	7,825,396
Euro	32,050,876	25,834,661
Hong Kong dollar	8,693,884	10,964,600
Hong Kong offshore Chinese yuan renminbi	20,581,905	-
Hungarian forint	2,504,265	-
Indian rupee	30,083,919	3,358,508
Indonesian rupiah	12,453,752	11,781,076
Japanese yen	39,777,381	14,744,399
Malaysian ringgit	1,699,083	-
Mexican peso	4,626,409	3,837,387
New Israeli shekel	617,920	1,153,721
New Romanian leu	3,014,521	-
New Taiwan dollar	5,258,599	101,765
New Zealand dollar	40,968,201	12,553,298
Norwegian krone	13,454,744	13,303,999
Peruvian nuevo sol	66,380	-
Philippine peso	659,931	-
Polish zloty	10,537,295	3,672,297
Russian ruble	1,560,290	1,163,911
Singapore dollar	6,232,559	9,152,244
South African rand	7,123,925	2,305,998
South Korean won	1,244,373	353,654
Swedish krona	9,017,920	1,504,590
Swiss franc	28,720,766	19,244,790
Thai baht	3,134,876	4,215,251
Turkish lira	1,070,477	438,221
United States dollar	527,626,757	239,684,210
Total Purchases	**$ 978,555,084**	**$ 513,429,214**

Fair Value as of	December 31, 2019	December 31, 2018
Pending Foreign Exchange Sales		
Argentine peso	$ -	$(3,161,318)
Australian dollar	(45,758,151)	(9,496,034)
Brazilian real	(15,942,197)	(2,891,231)
British pound sterling	(30,306,362)	(12,062,033)
Canadian dollar	(8,397,846)	(2,662,895)
Chilean peso	(1,874,369)	-
Chinese yuan renminbi	(1,479,992)	-
Danish krone	(27,499,594)	(11,123,594)
Euro	(104,649,804)	(74,105,137)
Hong Kong dollar	(17,605,261)	(17,125,160)
Hungarian forint	(1,442,035)	(1,713,744)
Indian rupee	(5,703,932)	-
Indonesian rupiah	(9,954,104)	(766,739)
Japanese yen	(20,256,335)	(41,012,586)
Malaysian ringgit	-	(1,569,762)
Mexican peso	(7,924,986)	(2,648,020)
New Israeli shekel	(1,903,740)	(3,985,038)
New Romanian leu	-	(117,737)
New Taiwan dollar	(35,156,133)	-
New Zealand dollar	(19,545,518)	(2,911,187)
Norwegian krone	(7,068,521)	(3,863,084)
Peruvian nuevo sol	(5,995,284)	(4,246,902)
Philippine peso	(10,525,425)	(9,389,743)
Polish zloty	(9,314,019)	(473,812)
Russian ruble	(24,299,177)	(2,081,949)
Singapore dollar	(7,913,997)	(1,004,298)
South African rand	(15,852,264)	-
South Korean won	(32,007,887)	(2,869,904)
Swedish krona	(22,675,149)	(12,404,194)
Swiss franc	(36,133,148)	(17,647,693)
Thai baht	(1,121,044)	-
Turkish lira	(8,753,994)	(933,045)
United States dollar	(444,526,879)	(273,157,625)
Total Sales	**(981,587,147)**	**(515,424,464)**
Net Unrealized Gain	**$ (3,032,063)**	**$ (1,995,250)**

Financial futures are similar to forward contracts, except futures contracts are standardized and traded on organized exchanges. As the market 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 at December 31, 2019 and December 31, 2018 are as follows:

Fair Value as of	December 31, 2019		December 31, 2018		Change
	Amount	Number of Contracts	Amount	Number of Contracts	Amount
Fixed income derivative futures sold	$ 149,161,980	726	$210,416,894	1,075	$(61,254,914)
Fixed income derivative offset futures purchased	149,161,980	726	210,416,894	1,075	(61,254,914)
Fixed income derivative offset futures sold	408,344,090	3,148	257,728,404	1,802	150,615,686
Fixed income derivative futures purchased	408,344,090	3,148	257,728,404	1,802	150,615,686
Equity derivative offset futures sold	$ 35,865,210	-	$23,799,400	-	$ 12,065,810
Equity derivative futures purchased	35,865,210	222	23,799,400	190	12,065,810
Cash and cash equivalent derivative futures sold	$ 49,455,162	201	$48,146,275	211	$ 1,308,887
Cash and cash equivalent derivative offset futures purchased	49,455,162	201	48,146,275	211	1,308,887
Cash and cash equivalent derivative offset futures sold	277,166,325	1,127	566,614,575	2,327	(289,448,250)
Cash and cash equivalent derivative futures purchased	277,166,325	1,127	566,614,575	2,327	(289,448,250)

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, 2019, and December 31, 2018 are as follows:

Fair Value as of	December 31, 2019		December 31, 2018		Change
	Amount	Notional Value	Amount	Notional Value	Amount
Financial put options	$151,672	$459	$(73,874)	$989	$(530)
Financial call options	(30,280)	1,858	(1,103,134)	2,628	(770)

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 at December 31, 2019, and December 31, 2018 are as follows:

Fair Value as of	December 31, 2019	December 31, 2018	Change
Swaps, gain/(loss)	$5,131,867	$(249,788)	$5,381,655

As of December 31, 2019				Change in Fair Value
Type of Swap	**Notional Value**	**Fair Value**	**Counterparty Credit Rating**	**Amount**
Credit Default Swap	$ 822,000	$ 24,835	AA	$ 24,835
Credit Default Swap	822,000	-	AA	-
Credit Default Swap	199,599,000	1,852,802	A	1,182,673
Credit Default Swap	-	-	A	230,146
Credit Default Swap	36,815,000	966,968	NR*	966,968
Credit Default Swap	5,568,750	(545,898)	NR*	(147,876)
Interest Rate Swap	-	-	A	(3,843,262)
Interest Rate Swap	-	-	A	4,370,443
Interest Rate Swap	616,876,700	3,207,079	NR*	2,793,136
Interest Rate Swap	530,599,700	(373,919)	NR*	(195,408)
Total	**$1,391,103,150**	**$ 5,131,867**		**$5,381,655**

As of December 31, 2018			
Type of Swap	**Notional Value**	**Fair Value**	**Counterparty Credit Rating**
Credit Default Swap	$ -	$ -	AA
Credit Default Swap	-	-	AA
Credit Default Swap	123,431,000	670,129	A
Credit Default Swap	123,431,000	(230,146)	A
Credit Default Swap	11,500,000	-	NR*
Credit Default Swap	11,500,000	(398,022)	NR*
Interest Rate Swap	1,758,033,700	3,843,262	A
Interest Rate Swap	1,758,033,700	(4,370,443)	A
Interest Rate Swap	609,678,000	413,943	NR*
Interest Rate Swap	609,678,000	(178,511)	NR*
Total	**$ 5,005,285,400**	**$ (249,788)**	

NR = Not rated.*

G. FUTURE INVESTMENT COMMITMENTS

At December 31, 2019 and December 31, 2018, IMRF had future commitments for additional contributions to real estate and alternative investment managers totaling $3,525,875,201 and $2,752,538,633, respectively. This includes unfunded commitments to directly owned real estate managers totaling $36,532,311 and $133,002,705 as of December 31, 2019 and December 31, 2018, 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.

Securities lending cash collateral and short-term investments consisting of money market funds, certificates of deposit, and highly liquid cash equivalents 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 using significant unobservable inputs, proprietary information, inputs that cannot be corroborated by observable market data and/or due to limited trading volume.

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 though 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 Changes in 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, 2019, and December 31, 2018.

	As of December 31, 2019				
	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	$ 3,823,800,631	$ 1,670,652,448	$ 2,096,698,516	$ 56,449,667	$ -
U.S. corporate fixed income	3,619,657,525	-	3,483,240,492	136,417,033	-
U.S. fixed income funds	3,605,524,429	-	1,809,158,439	-	1,796,365,990
Foreign fixed income funds	1,335,577,182	-	740,133,793	19,769,679	575,673,710
Fixed income	**12,384,559,767**	**1,670,652,448**	**8,129,231,240**	**212,636,379**	**2,372,039,700**
U.S. equities	13,911,547,161	13,905,601,034	912,004	5,034,123	-
U.S. equity funds	3,874,360,305	3,874,360,305	-	-	-
Foreign equities	5,319,418,312	5,319,418,312	-	-	-
Foreign equity funds	3,075,848,165	3,075,848,165	-	-	-
Equity	**26,181,173,943**	**26,175,227,816**	**912,004**	**5,034,123**	**-**
Real estate	**3,298,006,160**	**-**	**-**	**1,065,910,863**	**2,232,095,297**
Private equity	**2,219,677,446**	**-**	**-**	**-**	**2,219,677,446**
Absolute return funds	**491,971**	**-**	**-**	**-**	**491,971**
Options	**121,392**	**121,392**	**-**	**-**	**-**
Swaps	**5,131,867**	**-**	**5,131,867**	**-**	**-**
Investments measured at fair value	**$ 44,089,162,546**	**$27,846,001,656**	**$8,135,275,111**	**$1,283,581,365**	**$6,824,304,414**
Investments measured at amortized cost	**666,623,871**				
Total	**$ 44,755,786,417**				

	Investments measured at Net Asset Value (NAV)			
Year Ended December 31, 2019	Fair Value	Unfunded Commitments	Redemption Frequency (if currently eligible)	Redemption Notice Period
U.S. fixed income funds	$ 1,796,365,990	$ -	Daily	0-2 Days
Foreign fixed income	575,673,710	-	Daily	30 Days
Commingled Fixed Income Funds Total	**2,372,039,700**	**-**		
Real estate	**2,232,095,297**	**1,398,249,358**	**Quarterly, Not Eligible**	**30-60 days, N/A**
Private equity	**2,219,677,446**	**2,091,093,532**	**Quarterly, Not Eligible**	**60 days, N/A**
Absolute return funds	**491,971**	**-**	**Monthly, Quarterly**	**Notice in Place**
Investments measured at NAV	**$6,824,304,414**	**$3,489,342,890**		

	As of December 31, 2018				
	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	$ 3,433,644,294	$ 1,407,029,227	$ 1,918,012,693	$ 108,602,374	$ -
U.S. corporate fixed income	3,285,130,878	-	3,033,677,181	251,453,697	-
U.S. fixed income funds	3,289,209,657	-	1,663,255,569	-	1,625,954,088
Foreign fixed income funds	1,341,015,296	-	757,832,437	20,620,455	562,562,404
Fixed income	**11,349,000,125**	**1,407,029,227**	**7,372,777,880**	**380,676,526**	**2,188,516,492**
U.S. equities	11,173,622,777	11,173,215,230	59,864	347,683	-
U.S. equity funds	4,755,858,900	4,755,858,900	-	-	-
Foreign equities	4,251,576,651	4,251,270,314	-	306,337	-
Foreign equity funds	2,001,083,888	2,001,083,888	-	-	-
Equity	**22,182,142,216**	**22,181,428,332**	**59,864**	**654,020**	**-**
Real estate	**2,756,158,340**	**-**	**-**	**815,914,015**	**1,940,244,325**
Private equity	**1,559,132,880**	**-**	**-**	**-**	**1,559,132,880**
Absolute return funds	**737,480**	**-**	**-**	**-**	**737,480**
Options	**(1,177,008)**	**(1,177,008)**	**-**	**-**	**-**
Swaps	**(249,787)**	**-**	**(249,787)**	**-**	**-**
Investments measured at fair value	**$ 37,845,744,246**	**$ 23,587,280,551**	**$ 7,372,587,957**	**$ 1,197,244,561**	**$ 5,688,631,177**
Investments measured at amortized cost	**665,218,543**				
Total	**$ 38,510,962,789**				

	Investments measured at Net Asset Value (NAV)			
Year Ended December 31, 2018	**Fair Value**	**Unfunded Commitments**	**Redemption Frequency (if currently eligible)**	**Redemption Notice Period**
U.S. fixed income funds	$ 1,625,954,088	$ -	Daily	0-2 Days
Foreign fixed income	562,562,404	-	Daily	30 Days
Commingled Fixed Income Funds Total	**2,188,516,492**	**-**		
Real estate	**1,940,244,325**	**1,193,444,467**	**Quarterly, Not Eligible**	**30-60 days, N/A**
Private equity	**1,559,132,880**	**1,242,927,449**	**Quarterly, Not Eligible**	**60 days, N/A**
Absolute return funds	**737,480**	**-**	**Monthly, Quarterly**	**Notice in Place**
Investments measured at NAV	**$ 5,688,631,177**	**$ 2,436,371,915**		

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 have 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, 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.

Commingled Equity Funds. This type includes domestic equity funds and an international equity fund that are considered to be commingled in nature. The fair value of the investments in this type have 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, based upon the fair value of the underlying investments. Overall, IMRF's strategy for domestic equities is to earn an equity risk premium to enhance the long-term returns of the Fund. The domestic equity portfolio's objective is to achieve a total return that exceeds the total return of the Russell 3000 Index net of fees. IMRF's investments in equity 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 have 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 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 NCREIF gross of fees (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 have been determined using the NAV per share (or equivalent) of the Funds' ownership interest in the partners' capital at the end of the period 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 a multi-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. IMRF issues a publicly available Comprehensive Annual Financial Report that includes financial statements, detailed information about the pension plan's fiduciary net position, and required supplementary information. The report is available for download at www.imrf.org.

B. BENEFITS PROVIDED

IMRF has three benefit plans. The vast majority of IMRF members participate in the Regular Plan (RP). The Sheriff's Law Enforcement Personnel (SLEP) plan is for sheriffs, deputy sheriffs, and selected police chiefs. Counties could adopt the Elected County Official (ECO) plan for officials elected prior to August 8, 2011 (the ECO plan was closed to new participants after that date).

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. EMPLOYEES COVERED BY BENEFIT TERMS

As of December 31, 2019, the following employees were covered by the benefit terms:

	2019
Retirees and Beneficiaries currently receiving benefits	173
Inactive Plan Members entitled to but not yet receiving benefits	65
Active Plan Members	211
Total	**449**

D. CONTRIBUTIONS

As set by statute, the 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 its own employees. IMRF's annual contribution rate for calendar years 2019 was 8.72%. For the fiscal year ended December 31, 2019, IMRF contributed $1,394,822 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

IMRF's net pension liability of $6,119,662 was measured as of December 31, 2019. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The amount is included in the Accrued Expense on the Statement of Fiduciary Net Position.

A. ACTUARIAL ASSUMPTIONS

The following are the methods and assumptions used to determine total pension liability at December 31, 2019:

- The Actuarial Cost Method used was Entry Age Normal.
- The Asset Valuation Method used was Market Value of Assets.
- The Inflation Rate was assumed to be 2.5%.
- Salary Increases were expected to be 3.35% to 14.25%, including inflation.
- The Investment Rate of Return was assumed to be 7.25%.
- Projected Retirement Age was from the Experience-based table of rates, specific to the type of eligibility condition, last updated for the 2017 valuation pursuant to an experience study from years 2014 to 2016.
- The IMRF-specific rates for Mortality (for non-disabled retirees) were 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.
- 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, 2019:

	2019	
	Portfolio Target Percentage	Long-Term Expected Real Rate of Return
Domestic Equity	37%	5.75%
International Equity	18%	6.50%
Fixed Income	28%	3.25%
Real Estate	9%	5.20%
Alternative Investments	7%	3.60%-7.60%
Cash Equivalents	1%	1.85%
Total	**100%**	

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. 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 2.75% as of December 31, 2019, and the resulting single discount rate is 7.25% as of December 31, 2019.

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, 2018	**$ -**	**$ -**	**$ -**
Changes for 2019			
Cumulative effect of the prospective change in accounting policy	88,665,351	75,380,202	13,285,149
Service Cost	1,513,237	-	1,513,237
Interest on the Total Pension Liability	6,323,492	-	6,323,492
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience of the Total Pension Liability	2,443,448	-	2,443,448
Changes of Assumptions	-	-	-
Contributions - Employer	-	1,461,295	(1,461,295)
Contributions - Employees	-	734,433	(734,433)
Net Investment Income	-	14,073,185	(14,073,185)
Benefit Payments, including Refunds of Employee Contributions	(4,402,776)	(4,402,776)	-
Other (Net Transfer)	-	1,176,751	(1,176,751)
Net Changes	**94,542,752**	**88,423,090**	**6,119,662**
Balances at December 31, 2019	**$94,542,752**	**$88,423,090**	**$6,119,662**

A. SENSITIVITY OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

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

	December 31, 2019		
	Current Single Discount Rate Assumption		
	1% Decrease (6.25%)	Current Rate (7.25%)	1% Increase (8.25%)
Total Pension Liability	$ 105,897,938	$ 94,542,752	$ 85,120,256
Plan Fiduciary Net Position	88,423,090	88,423,090	88,423,090
Net Pension Liability/(Asset)	**$ 17,474,848**	**$ 6,119,662**	**$ (3,302,834)**

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

For the year ended December 31, 2019, IMRF recognized pension income of $(4,526,871). At December 31, 2019, IMRF reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	As of Decmber 31, 2019	
	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	$ 2,650,593	$ -
Changes of assumptions	1,440,033	1,112,441
Net difference between projected and actual earnings on pension plan investments	-	3,537,678
Total	**$ 4,090,626**	**$ 4,650,119**

As of December 31, 2019 and December 31, 2018 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:

	As of Decmber 31, 2019
	Net Deferred Outflows of Resources
2020	$ (218,974)
2021	(404,616)
2022	1,387,323
2023	(1,323,226)
2024	-
Thereafter	-
Total	**$ (559,493)**

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 meet 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, 2019 and 2018:

	2019	2018
Inactive employees or beneficiaries currently receiving benefits	23	17
Inactive employees entitled to but not yet receiving benefits	0	0
Active employees	209	196
Total	**232**	**213**

2. TOTAL OPEB LIABILITY

IMRF's total OPEB liability of $2,147,099 and $1,961,967 was measured as of December 31, 2019 and 2018, respectively, and was determined by an actuarial valuation as of those dates. The amount is included in the Accrued Expense on the Statement of Fiduciary Net Position.

The total OPEB liability in the December 31, 2019 and December 31, 2018 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	2019 - 2.75% 2018 – 3.71% 2017 – 3.31%
Price Inflation	2.50%
Wage Inflation	3.25%
Salary Increases	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, 2016, as conducted for the Illinois Municipal Retirement System.
Mortality	
Active members*	IMRF specific mortality rates with 2-dimensional, fully generational improvements using MP-2017 (base year 2015) Mortality Improvement Scale.
Retirees*	IMRF specific mortality rates with 2-dimensional, fully generational improvements using MP-2017 (base year 2015) Mortality Improvement Scale.
Health Care Trend Rates	Initial trend of 8.25% (9.00% in 2017) gradually decreasing to an ultimate trend rate of 3.50% in year 10
Aging 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, 2016 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

	2019	2018
Total OPEB Liability – Beginning of the Year	$ 1,961,967	$ 2,244,234
Service Cost	101,836	119,612
Interest on the Total OPEB Liability	72,003	74,519
Changes of Benefit Terms	-	-
Differences Between Expected and Actual Experience	(10,076)	(393,995)
Changes in Assumptions	165,579	23,037
Benefit Payments	(144,210)	(105,440)
Net Changes	**185,132**	**(282,267)**
Total OPEB Liability – End of the Year	**$ 2,147,099**	**$ 1,961,967**

Changes in assumptions for 2019 and 2018 reflect a change in the discount rate from 3.31% in 2017 to 3.71% in 2018 to 2.75% 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 one 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
2019	1.75%	$2,257,945	2.75%	$2,147,099	3.75%	$2,035,753
2018	2.71%	$2,072,993	3.71%	$1,961,967	4.71%	$1,852,568

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 one percentage point from the current health-care cost trend rates:

	Total OPEB Liability		
		Current Health Care Cost	
	1% Decrease	Trend Rate Assumption	1% Increase
2019	$1,959,123	$2,147,099	$2,362,025
2018	$1,785,937	$1,961,967	$2,162,710

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

For the years ended December 31, 2019 and December 31, 2018, IMRF recognized OPEB expense of $143,082 and $145,985, respectively. At December 31, 2019 and December 31, 2018, IMRF reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources

	December 31, 2019		December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 435,234	$ -	$488,037
Changes in assumptions or other inputs	234,904	-	101,447	-
Total	**$234,904**	**$435,234**	**$101,447**	**$488,037**

As of December 31, 2019 and December 31, 2018, the amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense as follows:

	As of Decmber 31, 2019
	Net Deferred Outflows of Resources
2020	$ (30,757)
2021	(30,757)
2022	(30,757)
2023	(30,757)
2024	(30,757)
Thereafter	(46,545)
Total	**$ (200,330)**

	As of Decmber 31, 2018
	Net Deferred Outflows of Resources
2019	$ (48,146)
2020	(48,146)
2021	(48,146)
2022	(48,146)
2023	(48,146)
Thereafter	(145,860)
Total	**$ (386,590)**

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. In 2019 the present value of expected retirement benefits exceeded the retirement reserves for all employers combined by $2,307,925,029. In 2018 the present value of expected retirement benefits exceeded the retirement reserves for all employers combined by $6,603,040,250.

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

	2019	2018
Member Contribution Reserve		
Balance at December 31	**$ 7,372,122,859**	**$ 7,141,346,061**
Annuity Reserve		
Balance at December 31	**25,719,545,459**	**24,106,296,051**
Employer Reserves		
Retirement contribution reserve	11,858,393,017	7,457,203,059
Earnings and experience reserve	77,903,787	17,386,015
Supplemental retirement benefit reserve	1,698,731	1,616,810
Death benefit reserve	11,876,041	17,035,176
Disability benefit reserve	8,436,345	10,187,231
Balance at December 31	**$ 11,958,307,921**	**$ 7,503,428,291**

L. OTHER NOTES

1. 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, 2019			
	Beginning Balance	Additions	Deletions	Ending Balance
Capital Assets				
Leasehold improvements	$ 907,169	$ 139,388	$ -	$ 1,046,557
Furniture and equipment	12,749,545	485,294	(122,613)	13,112,226
Software	13,359,154	5,205	-	13,364,359
Total in service	**27,015,868**	**629,887**	**(122,613)**	**27,523,142**
Software under development	13,748,560	14,125,939	-	27,874,499
Total ending balance	**40,764,428**	**14,755,826**	**(122,613)**	**55,397,641**
Accumulated Depreciation & Amortization				
Leasehold improvements	656,671	68,656	-	725,327
Furniture and equipment	8,139,365	921,165	(117,513)	8,943,017
Software	8,034,360	1,312,336	-	9,346,696
Ending balance	**16,830,396**	**2,302,157**	**(117,513)**	**19,015,040**
Capital Assets, net	**$ 23,934,032**	**$ 12,453,669**	**$ (5,100)**	**$36,382,602**

	Year ended December 31, 2018			
	Beginning Balance	Additions	Deletions	Ending Balance
Capital Assets				
Leasehold improvements	$ 854,322	$ 52,847	$ -	$ 907,169
Furniture and equipment	11,074,994	1,856,781	(182,230)	12,749,545
Software	13,359,894	-	(740)	13,359,154
Total in service	**25,289,210**	**1,909,628**	**(182,970)**	**27,015,868**
Software under development	4,789,470	8,959,090	-	13,748,560
Total ending balance	**30,078,680**	**10,868,718**	**(182,970)**	**40,764,428**
Accumulated Depreciation & Amortization				
Leasehold improvements	603,323	53,348	-	656,671
Furniture and equipment	7,562,350	756,829	(179,814)	8,139,365
Software	6,717,206	1,317,894	(740)	8,034,360
Ending balance	**14,882,879**	**2,128,071**	**(180,554)**	**16,830,396**
Capital Assets, net	**$ 15,195,801**	**$ 8,740,647**	**$ (2,416)**	**$23,934,032**

2. PREPAID EXPENSES

	2019	2018
Prepaid administrative expenses	$ 2,001,479	$ 1,860,627
January 1 benefits charged to bank account in December	175,191,984	163,944,186
Balance at December 31	**$ 177,193,463**	**$ 165,804,813**

3. 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, 2019, a liability existed for accumulated annual leave calculated at the employee's December 31, 2019 pay rate in the amount of $908,973. 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, 2019, a liability existed for accumulated and accrued sick leave, calculated at the employee's December 31, 2019 pay rate in the amount of $2,840,158. The total leave liability of $4,115,135 and $4,150,065 as of December 31, 2019, and December 31, 2018, 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.

4. LEASE AGREEMENTS

The Fund leases its headquarters facilities at the Drake Oak Brook Plaza under an agreement with the building's management. In 2015 the Fund entered into an agreement covering the period November 1, 2016, through October 31, 2023. The lease contained an abatement clause. The Fund will amortize the abated rent, operating expenses, and real estate taxes over the period covered by the agreement. Total rental expense for 2019 and 2018 was $1,002,456 and $972,130, respectively.

The Fund also leases office space in Springfield for its Regional Counseling Center. In 2016 the Fund entered into an agreement covering the period November 1, 2016 through March 31, 2024. The new agreement also increased the total square footage. Total rental expense for the Springfield office for 2019 and 2018 was $64,088 and $68,337, respectively.

The minimum commitments for the remainder of these leases are as follows:

2020	$ 1,135,956
2021	1,169,060
2022	1,203,391
2023	1,041,375
2024	17,215

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.

7. SUBSEQUENT EVENTS

On January 30, 2020, the World Health Organization declared a novel strain of a coronavirus outbreak, known as COVID-19, as a "Public Health Emergency of International Concern" and on March 11, 2020, declared it to be a pandemic. Actions taken around the world to help mitigate the spread of the coronavirus include restrictions on travel, quarantines in certain areas, and forced closures for certain types of public places and businesses. COVID-19 and actions taken to mitigate it, have had and are expected to continue to have, an adverse impact on the economies and financial markets of many countries. This includes many of the geographic areas globally that IMRF invests in. This has also led to significant volatility and declines in the global public equity and debt markets and it is uncertain how long this volatility will continue. Additionally, due to the Stay At Home Order by the State of Illinois, many IMRF employers, have had to furlough their employees resulting in a loss of contributions. The potential impacts, including the possibility of a global, national, and/or regional economic recession, are increasingly uncertain and difficult to assess. The resulting financial and economic market uncertainty could have a significant adverse impact on the financial results of IMRF, including contributions received and the fair value of its investments. Due to the daily volatility in the markets, it is difficult to estimate what the eventual financial effect of COVID-19 on the fair value of investments will be at this stage.

REQUIRED SUPPLEMENTARY INFORMATION*

** Unaudited; see accompanying Independent Auditor's Report*

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS *(Last calendar year)*

Calendar Year Ended December 31,	2019
Total Pension Liability	
Cumulative effect of the prospective change in accounting policy	$88,665,351
Service Cost	1,513,237
Interest on the Total Pension Liability	6,323,492
Changes of Benefit Terms	-
Differences Between Expected and Actual Experience of the Total Pension Liability	2,443,448
Changes of Assumptions	-
Benefit Payments, including Refunds of Employee Contributions	(4,402,776)
Net Change in Total Pension Liability	**94,542,752**
Total Pension Liability - Beginning	**-**
Total Pension Liability - Ending (A)	**$94,542,752**
Plan Fiduciary Net Position	
Cumulative effect of the prospective change in accounting policy	$75,380,202
Contributions - Employer	1,461,295
Contributions - Employees	734,433
Net Investment Income	14,073,185
Benefit Payments, including Refunds of Employee Contributions	(4,402,776)
Other (Net Transfers)	**1,176,751**
Net Change in Plan Fiduciary Net Position	**88,423,090**
Plan Fiduciary Net Position - Beginning	**-**
Plan Fiduciary Net Position - Ending (B)	**$88,423,090**
Net Pension Liability - Ending (A) - (B)	**$6,119,662**
Net Investment Income	93.53%
Benefit Payments, including Refunds of Employee Contributions	$16,320,688
Other (Net Transfers)	37.50%

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.

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
2010	$ 1,288,068	$ 1,261,258	$ 26,810	$ 11,838,856	10.65%
2011	1,336,652	1,329,143	7,509	11,955,742	11.12
2012	1,359,252	1,410,864	(51,612)	11,860,837	11.90
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

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							
2019	2018	2017	2016	2015	2014	2013	2012
19.82%	(4.25)%	15.69%	7.81%	0.50%	6.19%	20.15%	13.18%

(Ten year trend not available)

SCHEDULE OF CHANGES IN THE TOTAL OPEB LIABILITY AND RELATED RATIOS

Total OPEB Liability	2019	2018	2017
Service Cost	$ 101,836	$ 119,612	$ 112,513
Interest on the Total OPEB Liability	72,003	74,519	84,042
Changes of Benefit Terms	-	-	-
Differences Between Expected and Actual Experience	(10,076)	(393,995)	(174,577)
Changes of Assumptions	165,579	23,037	103,110
Health Insurance Subsidy Payments *	(144,210)	(105,440)	(95,870)
Net Change in the Total OPEB Liability	**185,132**	**(282,267)**	**29,218**
Total OPEB Liability – Beginning	**1,961,967**	**2,244,234**	**2,215,016**
Total OPEB Liability – Ending	**$ 2,147,099**	**$ 1,961,967**	**$ 2,244,234**
Covered Employee Payroll	**$ 17,067,031**	**$ 15,549,200**	**$ 15,627,422**
Total OPEB Liability as a Percentage of Covered Employee Payroll	**12.58%**	**12.62%**	**14.36%**

(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.*

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS USED IN THE CALCULATION OF THE 2019 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 2018 Contribution Rates:	
Actuarial Cost Method:	Aggregate entry age normal
Amortization Method:	Level percentage of payroll, closed
Remaining Amortization Period:	24-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:	7.50%
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

** Based on Valuation Assumptions used in the December 31, 2017, actuarial valuation; note two year lag between valuation and rate setting.*

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS USED IN THE CALCULATION OF THE 2018 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 2018 Contribution Rates:	
Actuarial Cost Method:	Aggregate entry age normal
Amortization Method:	Level percentage of payroll, closed
Remaining Amortization Period:	25-year closed period
Asset Valuation Method:	5-year smoothed market; 20% corridor
Wage Growth:	3.50%
Price Inflation:	2.75%
Salary Increases:	3.75% to 14.50%, including inflation
Investment Rate of Return:	7.50%
Retirement Age:	Experience-based table of rates that are specific to the type of eligibility condition; last updated for the 2014 valuation pursuant to an experience study of the period 2011 to 2013.
Mortality:	For non-disabled retirees, an IMRF specific mortality table was used with fully generational projection scale MP-2014 (base year 2012). 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-2014 (base year 2012). 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-2014 (base year 2012). The IMRF specific rates were developed from the RP-2014 Employee Mortality Table with adjustments to match current IMRF experience.

** Based on Valuation Assumptions used in the December 31, 2016, 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
2019	2.75%
2018	3.71%
2017	3.31%
2016	3.78%

(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	2019	2018
Personnel services	$ 27,106,753	$ 20,385,116
Supplies	462,255	481,153
Professional services	1,708,415	1,753,408
Occupancy and utilities	2,198,607	2,190,757
Postage and delivery	1,169,142	1,212,809
Equipment service and rental	1,368,194	1,317,159
Expendable equipment	384,747	942,976
Miscellaneous	1,673,273	1,801,643
Depreciation	2,302,157	2,128,147
Total	**$ 38,373,543**	**$ 32,213,168**

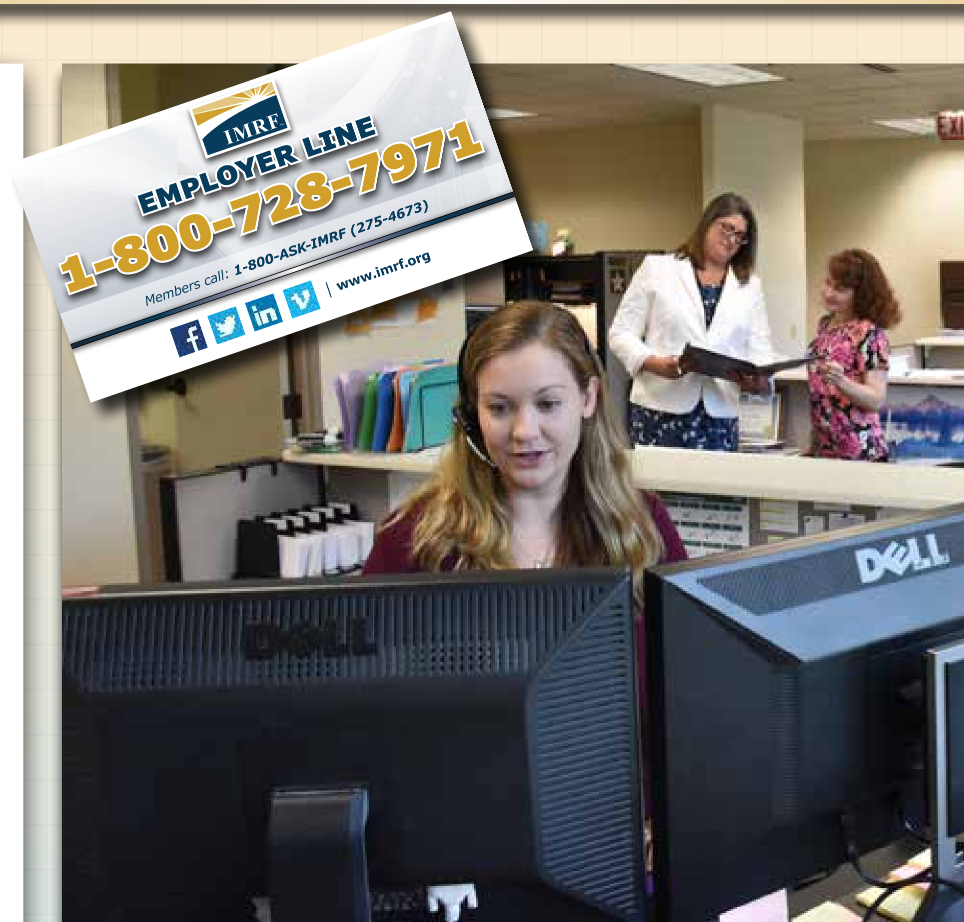
Schedule of Payments for Professional Services	2019	2018
Actuary	$ 609,637	$ 600,969
External auditor	343,497	325,928
Modernization consulting	99,479	165,956
Compensation and benefit consultants	72,754	120,120
Internal auditing	109,361	112,802
Medical consultant	45,997	97,364
Legal services	30,894	93,668
Other consulting	159,740	73,738
Legislative lobbying consultant	75,213	73,100
IT consultants	137,130	52,888
Hearing officer	21,022	29,536
Tax consultant	2,426	5,084
Public relations consultant	1,265	2,255
Total	**$ 1,708,415**	**$ 1,753,408**

Schedule of Investment Expenses	2019	2018
Investment manager fees	$ 139,699,546	$ 124,899,237
Equity Internal Management expenses	342,481	-
Master trustee fees	280,000	280,000
Investment consultants	1,143,502	1,191,019
Investment information service providers	213,893	-
Investment legal fees	224,806	497,588
Tax preparation fees	39,740	30,740
Miscellaneous	98,396	76,587
Total	**$ 142,042,364**	**$ 126,975,171**

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

Malcolm Baldrige
National Quality Award
2019 Award Recipient

EMPLOYER-FOCUSED IMPROVEMENTS



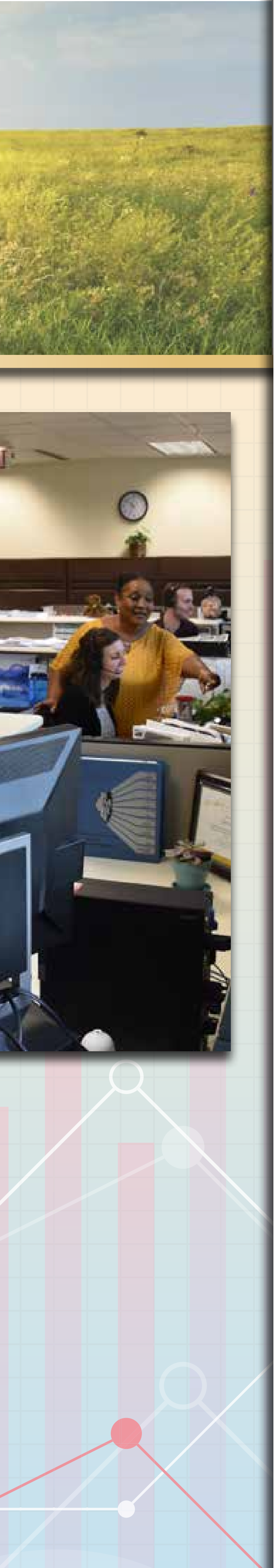
EMPLOYER FOCUSED VOICE OF THE CUSTOMER PROGRAM

IMRF's Journey of Excellence has led to improvements to the services we provide our Employers. As part of our Voice of the Customer program, Employers are surveyed on a quarterly basis in order to gain insight on satisfaction and engagement levels with our organization. Each survey covers a specific topic, which allows our Employers to provide feedback on a wide breadth of services throughout the year including Wage Reporting, Field Representatives, IMRF's 800 Employer line, Employer communications, and Modernization efforts.

Improvements to services directly related to Employer feedback have included: implementing capability for Employers to complete multiple year adjustments in Employer Access, reviewing calls to the employer-only phone line to improve the quality of answers, and increasing Field Service staff availability to address employer needs in certain territories.

Feedback from our Employers will be critical and valuable in the coming years as we continue efforts at IMRF to modernize our pension administration system. We will turn to our Authorized Agents as partners in providing us with feedback on how effective the new systems tools and processes are once Horizon rolls out so that we can ensure our customer engagement and satisfaction targets are still being met.

As a Malcolm Baldrige National Quality Award recipient, a strong feedback loop with our Employers will always be a vital process in our operating model, in order to ensure we are continuously improving our services to meet the evolving needs of our customers.



INVESTMENTS

Callan

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www.callan.com

February 24, 2020

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

Dear Trustees and Executive Director:

Callan is pleased to report the results of the Illinois Municipal Retirement Fund (IMRF) investment program for the calendar year 2019.

The U.S. Federal Reserve Bank cut interest rates during the year which fueled risk appetite contributing to all major asset classes posting above-average returns for the year—many of them in double-digit territory. Unemployment lingered at historically low levels, GDP growth hovered around 2%, consumers continued to spend, and inflation remained benign. The manufacturing sector continued to be a relatively lone point of weakness. The U.S. economy closed the year with the unemployment rate at a 50-year low of 3.5%. The U.S. equity market, as measured by the Russell 3000 Index, gained an impressive 31.0%. International equity markets, as measured by the MSCI All Country World ex-U.S. Index, advanced an impressive 21.5% but still lagged the large gain in the U.S. The declining interest rate environment was also generally favorable for bonds with the Bloomberg Aggregate Index up 8.7% during the year.

The Illinois Municipal Retirement Fund reported assets of $44.7 billion as of December 31, 2019. This represented an increase of roughly $6.3 billion from December 31, 2018 as investment gains more than offset cash outflows for benefit payments.

The Total Fund returned 19.57% net of fees in 2019, exceeding the Total Fund Benchmark of 18.68%. The Total Fund Benchmark is composed of the individual asset class benchmarks weighted in the same proportion as the target asset class allocations. On a gross of fee basis, the Total Fund ranked in the 18th percentile of Callan's Large Public Fund Sponsor Database for the one-year period, and in the 41st and 29th percentile for the trailing five- and ten-year periods, respectively. Real estate, alternative investments, and cash holdings also posted positive returns during the year but Total Fund results were mainly driven by the strong returns in the U.S. and international equity portfolios.

The domestic equity portfolio, with a current target allocation of 37%, gained 29.0% net of fees for the year ended December 31, 2019. This return trailed the Russell 3000 Index by 2.0%. IMRF's Domestic

Callan

Equity portfolio, gross of fees, ranked at the 75th percentile compared to other public fund domestic equity portfolios.

The IMRF international equity portfolio returned 23.4% net of fees over the one-year period, exceeding the MSCI All-Country World ex-U.S. Index by 1.9%. The gross of fee return of 23.8% ranked in the 32nd percentile compared to public fund international equity peers. This asset class, which has a current target allocation of 18%, is broadly invested and includes a dedicated allocation to non-U.S. small cap and emerging markets stocks.

In a period of declining interest rates, the Fund's fixed income portfolio returned 9.4% net of fees, outperforming the Barclays Aggregate Bond Index by 0.7%. The gross of fee return of 9.5% ranked in the 33rd percentile compared to peers. The fixed income portfolio has a current target allocation of 28% and was well diversified including dedicated investments in non-core fixed income strategies.

Investment measurements and comparisons have been made using standard performance evaluation methods and results are presented in a manner consistent with the investment industry. Rates of return were determined using a time-weighted return calculation.

Sincerely,

Brady O'Connell, CFA, CAIA
Senior Vice President

NORTHERN TRUST

March 4, 2020

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, 2019 through December 31, 2019. Also, a statement of assets together with their fair market value was provided, showing the properties held as of December 31, 2019. 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.

THE NORTHERN TRUST COMPANY

By: [signature]
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

Callan Associates Inc.
Janet Becker-Wold, Principal
Denver, Colorado

Investment Consultant

Callan Associates Inc.
Janet Becker-Wold, Principal
Denver, Colorado

Investment Managers

Abbott Capital Management, LLC
New York, New York

ABRY Partners
Boston, Massachusetts

Advent Capital Management, LLC
New York, New York

AEW Capital Management, L.P.
Boston, Massachusetts

Almanac Realty Investors
New York, New York

Ares Management, LLC
London, England

Arga Investment Management, LP
Stamford, Connecticut

Arrowstreet Capital, L.P.
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

Baring's L.L.C.
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, L.P.
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

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, L.P.
Houston, Texas

Estancia Capital Partners, L.P.
Scottsdale, Arizona

Fidelity Institutional Asset Management
Boston, Massachusetts

Forest Investment Associates
Atlanta, Georgia

Franklin Templeton Real Estate Advisors
New York, New York

Frontier Capital Management Co.
Boston, Massachusetts

Frontier Global Partners
La Jolla, California

Garcia Hamilton & Associates, L.P.
Houston, Texas

Genesis Asset Managers International, Ltd.
London, England

GIA Partners, LLC
New York, New York

GlobeFlex Capital, L.P.
San Diego, California

Goldman Sachs
New York, New York

GTIS Partners
New York, New York

Hancock Natural Resource Group, Inc.
Boston, Massachusetts

HarbourVest
Boston, Massachusetts

ICV Partners
New York, New York

INVESTMENT CONSULTANTS *(CONTINUED)*

IK Investment Partners
London, United Kingdom

Inflexion Private Equity Partners, LLP
London, England

Invesco Real Estate
Dallas, Texas

Investment Counselors of Maryland, LLC
Baltimore, Maryland

JLC
Chicago, Illinois

JP Morgan
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

MacKay Shields, LLC
New York, New York

Mayfield Fund
Menlo Park, California

Metis Global Partners
San Diego, California

Mondrian Investment Partners Limited
London, England

Muller & Monroe Asset Management, LLC
Chicago, Illinois

New Century Advisors, LLC
Bethesda, 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

Piedmont Investment Advisors, Inc.
Durham, North Carolina

Progress Investment Management Company
San Francisco, California

Pugh Capital Management
Seattle, Washington

Ramirez Asset Management, Inc.
New York, New York

Resolution Real Estate Advisors, LLP
London, England

Rockwood Capital, LLC
New York, New York

Rondure Global Advisors
Salt Lake City, Utah

Sands Capital Management, LLC
Arlington, Virginia

Security Capital Markets Group, Inc.
Chicago, Illinois

Smith Graham & Company Investment Advisors, L.P.
Houston, Texas

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

INVESTMENT POLICIES

The Board of Trustees, operating within the prudent man 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 (7.5% for 2018, 7.25% for 2019).
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 Russell 3000 Index.
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 Bloomberg Aggregate Bond Index.
8. To achieve in real estate investments a return that exceeds the National Council of Real Estate Investment Fiduciaries (NCREIF) Open-End Diversified Core gross of fees (ODCE) Index over a rolling three-year period.
9. To achieve in alternative investments an annualized return of 9%.
10. To achieve in internally managed short-term securities relative performance better than three-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 market 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 market value.
4. Sector exposure in the total portfolio shall generally not differ by more than five 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) 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 market 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 market value.
4. Sector exposure in the portfolio shall not exceed the higher of 25% or two times the benchmark weighting at market value.
5. Country exposure in the portfolio shall not exceed the higher of 25% or two times the benchmark weighting at market 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. Currency trading may not be used for speculative purposes unless otherwise specified in 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 percent of the total fixed income portfolio at market value.
4. Generally, no more than 30 percent of an investment manager's assets at market 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 percent of total fixed income portfolio.
6. Individual manager portfolios shall have an effective duration between 80-120 percent 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, 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.

RETURNS BY ASSET CLASS *(Periods ending December 31)*

						Annualized		
	2019	2018	2017	2016	2015	3 Yrs	5 Yrs	10 Yrs
Total Fund Time - Weighted Returns								
IMRF - Gross of Fees	19.77%	(4.25)%	15.96%	8.00%	0.44%	9.99%	7.64%	9.05%
IMRF - Net of Fees	19.57%	(4.41)%	15.73%	7.77%	0.20%	9.79%	7.42%	8.82%
CPI (Inflation)	2.29%	1.91%	2.11%	2.07%	0.73%	2.10%	1.82%	1.75%
Equities - U.S.								
IMRF - Gross of Fees	29.23%	(6.08)%	19.83%	12.62%	0.02%	13.30%	10.38%	13.12%
IMRF - Net of Fees	29.00%	(6.26)%	19.60%	12.35%	(0.24)%	13.09%	10.15%	12.86%
Russell 3000	31.02%	(5.24)%	21.13%	12.74%	0.48%	14.57%	11.24%	13.42%
Russell 2000	25.52%	(11.01)%	14.65%	21.31%	(4.41)%	8.59%	8.23%	11.83%
Equities - International								
IMRF - Gross of Fees	23.76%	(14.16)%	27.91%	3.54%	(1.90)%	10.78%	6.68%	6.66%
IMRF - Net of Fees	23.39%	(14.41)%	27.53%	3.21%	(2.21)%	10.43%	6.33%	6.33%
MSCI ACWI Ex-U.S.	21.51%	(14.20)%	27.19%	4.50%	(5.66)%	9.87%	5.51%	4.97%
MSCI EAFE	22.01%	(13.79)%	25.03%	1.00%	(0.81)%	9.56%	5.67%	5.50%
Fixed Income								
IMRF - Gross of Fees	9.50%	(0.28)%	4.80%	4.85%	0.09%	4.62%	3.78%	4.76%
IMRF - Net of Fees	9.37%	(0.41)%	4.67%	4.71%	(0.04)%	4.47%	3.63%	4.60%
Bloomberg Aggregate	8.72%	0.01%	3.54%	2.65%	0.55%	4.03%	3.05%	3.75%
Bloomberg Government/Credit	9.71%	(0.42)%	4.00%	3.05%	0.15%	4.35%	3.23%	3.96%
Merrill Lynch High Yield	14.40%	(2.26)%	7.48%	17.34%	(4.55)%	6.32%	6.12%	7.49%
Real Estate								
IMRF - Net of Fees	9.78%	8.36%	9.10%	8.97%	11.99%	9.39%	9.91%	10.49%
Real Estate Benchmark	4.39%	7.36%	6.66%	7.79%	13.95%	6.13%	7.98%	10.49%
Alternative Investments								
IMRF - Gross of Fees	9.48%	17.32%	12.15%	5.43%	6.34%	12.92%	10.14%	9.53%
IMRF - Net of Fees	9.43%	17.14%	11.97%	5.11%	5.95%	12.78%	9.91%	9.27%
Cash & Cash Equivalents								
IMRF	3.59%	2.36%	1.67%	0.63%	0.29%	2.54%	1.60%	0.89%
U.S. Treasury Bills	2.28%	1.87%	0.86%	0.33%	0.05%	1.67%	1.07%	0.58%

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: Callan Associates Portfolio Evaluation Program.

SCHEDULE I

Investment Portfolio Summary *(In millions of dollars)*

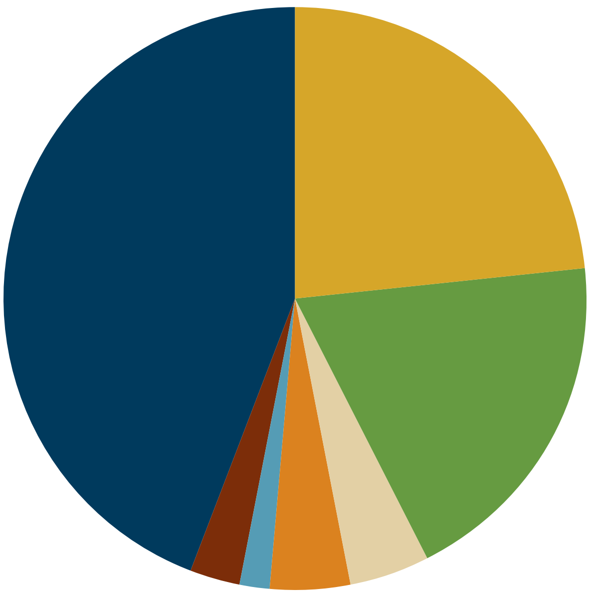
	As of December 31, 2019		As of December 31, 2018	
	Fair Value	Percent of Total Fair Value	Fair Value	Percent of Total Fair Value
Fixed Income				
Government & Agencies	$ 3,823.8	8.5%	$ 3,433.7	8.9%
Corporate	3,619.7	8.1	3,285.1	8.5
Index Funds	3,605.5	8.1	3,289.2	8.6
Foreign	1,335.6	3.0	1,341.0	3.5
Total Fixed Income	**12,384.6**	**27.7**	**11,349.0**	**29.5**
Stocks				
U.S. Common & Preferred	13,911.5	31.1	11,173.6	29.0
U.S. Stock Funds	3,874.4	8.6	4,066.5	10.6
Foreign Common & Preferred	5,319.4	11.9	4,251.6	11.0
Foreign Stock Funds	3,075.8	6.9	2,690.4	7.0
Total Stocks	**26,181.1**	**58.5**	**22,182.1**	**57.6**
Real Estate				
Commingled Funds	2,381.1	5.3	1,990.9	5.2
Directly Owned	916.9	2.0	765.3	2.0
Total Real Estate	**3,298.0**	**7.3**	**2,756.2**	**7.2**
Private Equity Investments	**2,220.2**	**5.0**	**1,559.9**	**4.0**
Short-Term Investments	**671.9**	**1.5**	**663.8**	**1.7**
Total Portfolio	**$ 44,755.8**	**100.0%**	**$ 38,511.0**	**100.0%**

SCHEDULE II
Asset Allocation ***(Last five years)***

	Fair Value as a Percent of Portfolio				
	2019	**2018**	**2017**	**2016**	**2015**
Fixed Income					
U.S. Government & Agencies	8.5%	8.9%	7.5%	8.9%	8.9%
Corporate	8.1	8.5	7.2	7.7	7.6
Index Fund	8.1	8.6	8.1	8.1	8.4
Foreign	3.0	3.5	3.4	2.8	2.8
Total Fixed Income	**27.7**	**29.5**	**26.2**	**27.5**	**27.7**
Stocks					
U.S. Common & Preferred	31.1	29.1	28.8	29.2	28.9
U.S. Stock Funds	8.6	10.6	13.9	14.2	13.1
Foreign Common & Preferred	11.9	11.0	12.5	10.4	10.4
Foreign Stock Funds	6.9	7.0	7.6	7.3	7.9
Total Stocks	**58.5**	**57.7**	**62.8**	**61.1**	**60.3**
Real Estate					
Commingled Funds	5.3	5.1	4.6	4.5	4.2
Directly Owned	2.0	2.0	1.6	1.8	1.8
Total Real Estate	**7.3**	**7.1**	**6.2**	**6.3**	**6.0**
Private Equity Investments	**5.0**	**4.0**	**3.2**	**3.1**	**4.1**
Short-Term Investments	**1.5**	**1.7**	**1.6**	**2.0**	**1.9**
Total Portfolio	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

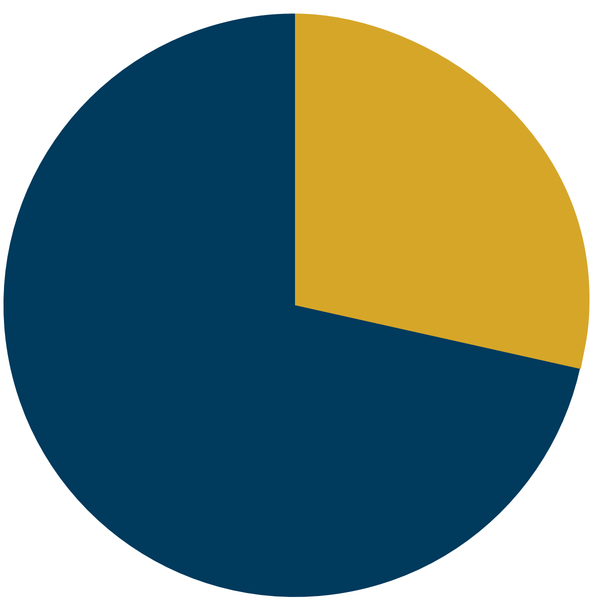
INVESTMENT PORTFOLIO *(AS OF DECEMBER 31, 2019)*

ALLOCATION BY ASSET CLASS



- U.S. Stocks - 39.7%
- U.S. Fixed Income - 24.7%
- International Stocks - 18.8%
- International Fixed Income - 3.0%
- Real Estate - 7.3%
- Alternative - 5.0%
- Short-Term Investments - 1.5%

TOTAL INVESTMENTS BY REGION



- Domestic - 78.2%
- International - 21.8%

TEN LARGEST FIXED INCOME INVESTMENT HOLDINGS

As of December 31, 2019 (Excludes commingled funds and short-term investments)

Investment Income Holdings	Market Value	Percent of Total Invested Market
U.S. Treasury Bonds 2.375% Due 5/15/2027	$ 184,751,226	0.41%
U.S. Treasury Bonds 2.5% Due 5/15/2046	106,400,623	0.24
U.S. Treasury Notes 2.375% Due 8/15/2024	92,797,475	0.21
U.S. Treasury Bonds 6.25% Due 5/15/2030	84,883,906	0.19
Federal Home Loan Bank Variable 1.729% due 5/8/2020	76,530,881	0.17
U.S. Treasury Bonds 2.25% Due 11/15/2027	72,175,744	0.16
U.S. Treasury Notes 2.875% Due 5/15/2028	71,409,762	0.16
U.S. Treasury Notes 2.0% Due 2/15/2025	69,997,265	0.16
U.S. Treasury Notes 1.625% Due 2/15/2026	68,016,895	0.15
U.S. Treasury Notes 2.625% Due 2/15/2029	63,357,071	0.14
	$ 890,320,848	**1.99%**

TEN LARGEST EQUITY INVESTMENT HOLDINGS *(Excludes commingled funds)*

Equity Investment Holdings	Market Value	Percent of Total Invested Market
Microsoft Corp.	$ 442,778,706	0.99%
Amazon, Inc.	344,808,792	0.77
Apple, Inc.	316,218,177	0.71
Visa, Inc.	265,675,944	0.60
Alphabet, Inc. Capital Stock Class A	213,127,755	0.48
Facebook, Inc.	205,856,103	0.46
JP Morgan Chase & Co	169,590,416	0.38
ServiceNow, Inc.	165,764,470	0.37
Adobe, Inc.	160,480,599	0.36
Alphabet, Inc. Capital Stock	147,088,244	0.33
Total	**$ 2,431,389,206**	**5.45%**

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

SCHEDULE OF 2019 DOMESTIC BROKERAGE COMMISSIONS

(In order of commission received)

Broker Name	Total Shares	Commission	Per Share
Loop Capital Markets, LLC	15,644,894.00	$ 324,130.40	$ 0.020
Capital Institutional Services, Inc.	7,385,159.00	248,087.43	0.030
Blaylock Robert Van, LLC	5,823,326.00	169,114.92	0.030
North South Capital, LLC	5,396,033.00	123,817.06	0.020
Penserra Securities, LLC	4,323,320.00	119,705.18	0.030
Liquidnet, Inc.	6,345,558.00	111,226.40	0.020
Wall Street Access	2,680,500.00	107,220.00	0.040
Robert W. Baird & Co., Inc.	3,319,032.00	103,226.45	0.030
C.L. King	3,107,060.00	90,328.28	0.030
Keybanc Capital Markets, Inc.	2,636,603.00	87,458.99	0.030
Raymond James & Associates, Inc.	3,031,783.00	84,470.39	0.030
Instinet, LLC	3,709,309.00	82,555.96	0.020
Credit Suisse Securities (USA), LLC	5,917,032.00	81,158.26	0.010
The Williams Capital Group L.P.	2,624,669.00	77274.09	0.030
Stifel, Nicolaus & Company, Inc.	2,331,998.00	71984.16	0.030
Sanford C. Bernstein & Co., LLC	8,718,576.00	62,868.88	0.010
Cabrera Capital Markets, LLC	4,603,365.00	59,309.70	0.010
Pershing, LLC	2,946,171.00	54,340.17	0.020
Drexel Hamilton, LLC	2,662,159.00	53,243.18	0.020
ITG, Inc.	2,708,814.00	49,620.26	0.020
Macquarie Bank Limited	3,303,821.00	40,932.25	0.010
The Northern Trust Company	3,977,344.00	39,773.44	0.010
Barclays Bank PLC	5,029,341.00	39,653.22	0.010
UBS Securities Asia Limited	5,928,724.00	25,660.65	0.000
Merrill Lynch International Limited	2,625,532.00	20,114.94	0.010
Siebert Cisneros Shank & Ci., LLC	3,772,825.00	20,057.33	0.010
Merrill Lynch Equities (Australia)	11,234,400.00	7,777.44	0.000
Merrill Lynch Far East,, Ltd.	7,882,000.00	5,491.64	0.000
Goldman Sachs New York	25,889,301.00	5,166.21	0.000
J.P. Morgan Securities, Inc.	12,406,847.00	0.00	0.000
Other Brokers	86,953,221.53	1,556,633.65	0.018
Total	**264,918,717.53**	**$ 3,922,400.93**	**$ 0.015**

SCHEDULE OF 2019 INTERNATIONAL BROKERAGE COMMISSIONS

(In order of commission received)

Broker Name	Total Shares	Commission	Per Share
BNY Convergex Execution Solutions	30,689,788.00	$ 371,796.61	$ 0.012
Instinet Europe Limited	14,560,064.00	127,629.00	0.009
UBSs Ag London Branch	20,671,163.00	85,208.33	0.004
CLSA Singapore Pte, Ltd.	15,143,730.00	79,771.27	0.005
Goldman, Sachs and Co.	10,507,435.00	78,548.33	0.007
J.P. Morgan Securities, PLC	9,545,416.00	78,483.74	0.008
North South Capital, LLC	6,632,689.00	69,318.48	0.010
Merrill Lynch International Limited	17,412,672.00	53,120.20	0.003
BNP Paribas Securities Services SA	5,708,999.00	43,026.80	0.008
CLSA Limited	56,071,782.00	42,983.56	0.001
Parel	6,642,653.00	42,285.44	0.006
Morgan Stanley And Co., LLC	8,238,431.00	41,403.46	0.005
Instinet Pacific Limited	83,627,662.00	37,548.21	0.000
BNP Paribas Securities Services, UN	7,678,906.00	32,660.13	0.004
UBS SG Stamford Branch	26,595,399.00	32,517.12	0.001
Sanford C. Bernstein Ltd	8,117,672.00	30,491.74	0.004
Credit Suisse Securities (USA) LLC	8,442,807.00	29,479.11	0.003
Nomura Financial Advisory	5,512,606.00	27,525.39	0.005
UBS Securities Asia Limited	30,045,907.00	24,933.63	0.001
Instinet Australia Pty, Ltd.	7,762,574.00	24,733.58	0.003
Citigroup Global Markets Limited	7,239,283.00	24,633.26	0.003
Citigroup Global Markets, Inc.	18,360,280.00	22,337.04	0.001
HSBC Bank, PLC	12,159,988.00	20,827.38	0.002
CLSA Australia Pty, Ltd	5,440,098.00	18,615.97	0.003
Macquarie Bank Limited	11,139,722.00	16,584.73	0.001
J.P. Morgan Securities (Asia Pacific)	8,039,209.00	15,504.38	0.002
UBS Warburg Securities Ltd Taiwan	8,977,261.00	12,471.67	0.001
ITG Australia Limited	5,810,479.00	11,557.82	0.002
SG Securities (HK) Limited	6,883,214.00	10,537.57	0.002
Credit Lyonnais Secs (Asia) Taiwan	9,563,000.00	10,516.17	0.001
Other Brokers	196,697,612.63	790,973.20	0.004
Total	**669,918,501.63**	**$ 2,308,023.32**	**$ 0.003**

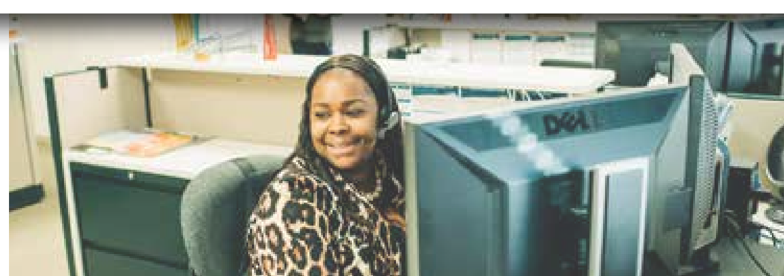
SCHEDULE OF INVESTMENT FEES

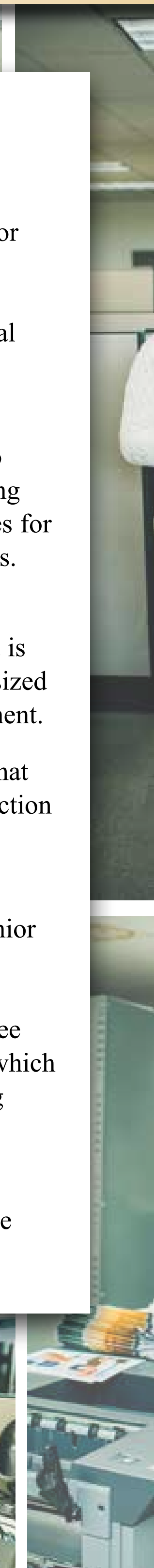
	2019 Fees	2019 Assets under management at year end (in thousands)*	Basis Points	2018 Fees	2018 Assets under management at year end (in thousands)*	Basis Points
Investment manager fees						
Fixed income managers	$ 14,208,061	$ 11,612,261	12	$ 13,647,780	$ 10,651,277	13
Stock managers	29,925,997	16,218,450	18	32,691,248	14,062,905	23
International managers	30,732,199	11,779,943	26	29,258,827	9,548,795	31
Real estate managers	31,920,019	3,014,183	106	28,069,223	2,501,808	112
Alternative investment managers	33,255,751	2,190,536	152	21,232,159	1,757,155	121
Total	**$140,042,027**	**$ 44,815,373**		**$124,899,237**	**$ 38,521,940**	
Other investment fees						
Master trustee fees	$ 280,000			$ 280,000		
Investment consulting fees	1,143,502			1,191,019		
Total investment fees	**141,465,529**			**126,370,256**		
Non-fee investment expenses	576,835			604,915		
Total direct investment expenses	**$142,042,364**			**$126,975,171**		

Securities lending fees						
Management fees and borrower rebates	**$ 2,599,296**			**$ 2,285,472**		

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

IMRF STAFF-FOCUSED IMPROVEMENTS





IMRF STAFF ENGAGEMENT SURVEY PROGRAM

Fostering and maintaining an engaged workforce is a critical focus for IMRF, an initiative that is embedded within IMRF's Strategic Plan. Identifying and measuring IMRF's staff engagement levels happens through the implementation of a thorough and comprehensive internal Employee Engagement Survey program.

Each year, IMRF staff members are encouraged to participate in an in-depth Employee Engagement Survey. This program is designed to help us better understand the employee experience at IMRF, providing us an opportunity to celebrate our strengths and identify opportunities for improvement, both at the organizational level and within departments.

The anonymous results are collected and organized by an outside vendor and then presented to leadership and staff. The data collected is compared to previous years for IMRF, as well as with other similar sized organizations, so that it becomes easy to identify areas for improvement.

IMRF leaders are required to work with staff to create action plans that address gaps discovered in the survey process. The results of these action plans are integrated into each leader's performance appraisal.

In response to survey results, IMRF created a senior leadership communications program to improve staffs' familiarity with their senior leadership team and to build trust between leaders and staff. IMRF has also implemented a partial work-from-home program as a result of engagement survey action plans. Results from the annual Employee Engagement Survey are included in IMRF's Leadership Scorecard, which puts a consistent focus on staff engagement, to ensure we are driving improvements in this key result area.

IMRF began sponsoring an annual staff event and other cross/departmental party's to celebrate the work staff has done and increase inner-office relationships.



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April 3, 2020

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 2021 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, 2019, and issued on March 13, 2020. 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 and Financial Section of the CAFR 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 CAFR Schedule.

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

Actuarial Section

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

Financial Section

- Schedules of Funding Status
- Schedule of Funding Progress
- Average Employer Contribution rates

The December 31, 2019 valuations were based upon assumptions that were recommended in connection with a study of experience covering the 2014-2016 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 90.7% funded based upon the smoothed value of assets and 94.9% 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, 2019 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.

Board of Trustees
Illinois Municipal Retirement Fund
April 3, 2020
Page 3

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 CAFR contains some, but not all, of the information in the valuation reports.

Brian B. Murphy, Mark Buis, and Francois Pieterse 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,

Brian B. Murphy, FSA, EA, FCA, MAAA

Mark Buis, FSA, EA, FCA, MAAA

Francois Pieterse, ASA, FCA, MAAA

BBM/MB/FP:sc
Enclosure

Brief Summary of Actuarial Assumptions Used in 2019 Valuations (Adopted as of December 31, 2017, except as noted below)

Investment Return — 7.25% per annum, compounded annually, net of expenses (effective December 31, 2018), including a price inflation component of 2.50%.

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, 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. Among the active members, 75% of males and 70% of females were assumed to be married.

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.

	Sample Probabilities				Pay Increase Next Year
	Active Mortality		Disability		
Age	Male	Female	Male	Female	(5+ Yrs. of Service)
20	0.06%	0.02%	0.00%	0.00%	5.75%
30	0.06%	0.02%	0.00%	0.00%	5.27%
40	0.10%	0.05%	0.02%	0.01%	4.23%
50	0.24%	0.12%	0.04%	0.02%	3.73%
60	0.64%	0.31%	0.08%	0.05%	3.39%
65	1.23%	0.49%	0.09%	0.06%	3.35%

	Separation			Retirement (Tier 1)					
	Regular (8+ Yrs. Serv.)		SLEP	Reduced Early		Normal Unreduced		SLEP Service	
Age	Male	Female	(7+ Yrs.)	Male	Female	Male	Female	(< 32 Yrs.)	(32+ Yrs.)
30	4.4%	7.3%	2.4%	-	-	-	-	-	-
35	3.5%	5.8%	1.8%	-	-	-	-	-	-
40	2.8%	4.4%	1.3%	-	-	-	-	-	-
45	2.3%	3.6%	1.2%	-	-	-	-	-	-
50	2.0%	3.0%	1.2%	-	-	-	-	27.0%	35.0%
55	-	-	-	7.10%	6.00%	37.0%	26.0%	24.0%	35.0%
60	-	-	-	-	-	13.0%	11.0%	20.0%	35.0%
65	-	-	-	-	-	25.0%	26.0%	30.0%	35.0%
70	-	-	-	-	-	22.0%	23.0%	100.0%	100.0%

FUNDED STATUS AND FUNDING PROGRESS

As of December 31, 2019, the most recent actuarial valuation date, the plan on an aggregate basis was 90.7% funded on an actuarial basis. The actuarial accrued liability for benefits was $47.4 billion, and the actuarial value of assets was $42.9 billion, resulting in an unfunded actuarial accrued liability (UAAL) of $4.5 billion. The covered payroll (annual payroll of active employees covered by the plan) was $7.5 billion, and the ratio of the UAAL to the covered payroll was 60.4%.

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, 2019
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, 22 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% (change effective January 2019)
Projected salary increases	3.39% to 14.25%
Assumed wage inflation rate	3.25%
Group size growth rate	0.0%
Assumed payroll growth rate	2.5%
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, an IMRF specific mortality table was used with 2-dimensional, fully generational improvements using the MP-2017 Mortality Improvement Scale (base year 2015). The IMRF specific rates were developed from the RP-2014 Blue Collar Mortality Table with adjustments to match current IMRF experience. For disabled retirees, an IMRF specific mortality table was used with 2-dimensional, fully generational improvements using the MP-2017 Mortality Improvement Scale. The IMRF specific rates were developed using the RP-2014 Disabled Mortality Table with adjustments to match current IMRF experience. For active members, the mortality rates are based on the RP-2014 Employee Mortality Table for both males and females with 2-dimensional, fully generational improvements using the MP-2017 Mortality Improvement Scale. Among active members, 75% of males and 70% of females were assumed to be married.

TABLE I

Schedule of Aggregate Funding Progress (Last ten years)

	Aggregate Actuarial Liabilities (AAL)			Unfunded Actuarial Liabilities (UAL)		
Actuarial Valuation Date December 31	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
2010	$29,129,228,239	$24,251,136,889	83.3%	$4,878,091,350	$6,391,164,701	76.3%
2011*	30,962,815,428	25,711,287,584	83.0	5,251,527,844	6,431,296,235	81.7
2012	32,603,244,099	27,491,809,785	84.3	5,111,434,314	6,496,076,569	78.7
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

** 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
2010	$483,792,012	$225,268,536	$ 20,582,277	$ 40,499,453	$770,142,278	91%
2011	486,731,753	254,898,222	18,654,559	40,519,719	800,804,253	95
2012	503,108,449	317,890,978	21,340,072	40,876,782	883,216,281	98
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

TABLE III
Solvency Test *(Last ten years)*

	Aggregate Actuarial Liabilities (AAL)				Portion of Actuarial Liabilities Covered by Assets		
Calendar Year	Active Member Contributions (1)	Annuitants (2)	Active Members (Employer Financed Portion) (3)	Actuarial Assets	(1)	(2)	(3)
2010	$ 5,153,902,881	$ 12,121,959,266	$ 11,853,366,092	$ 24,251,136,889	100.0%	100.0%	58.8%
2011	5,417,822,062	13,388,018,799	12,156,974,567	25,711,287,584	100.0	100.0	56.8
2012	5,705,336,025	14,482,560,758	12,415,347,316	27,491,809,785	100.0	100.0	58.8
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

Total obligation and actuarial value of assets calculated 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
2010	$ 6,391,164,701	(1.1)%	$ 36,277	1.4%	176,703	47.5	10.3
2011	6,431,296,235	0.6	36,701	1.2	175,844	47.7	10.4
2012	6,496,076,569	1.0	37,252	1.5	174,771	47.8	10.6
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

Source for salaries, average annual salary, attained age, and service is in the Actuarial Report.

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

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		End of Year Rolls			
Calendar Year	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits	Average Annual Benefit	Percent Change in Average Benefit
2010	7,518	$131,651,729	3,509	$28,512,198	96,067	$1,119,306,916	11,651	5.6%
2011	7,733	130,378,649	5,200	35,101,362	98,600	1,214,584,203	12,318	5.7
2012	7,912	137,928,914	3,736	37,015,540	102,776	1,315,497,577	12,800	3.9
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

Schedule of Disabilitants Added to and Removed from Rolls

	Added to Rolls		Removed from Rolls		End of Year Rolls			
Calendar Year	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits	Average Annual Benefit	Percent Change in Average Benefit
2010	2,407	$29,913,347	2,433	$29,158,561	1,214	$11,658,182	9,603	9.2%
2011	2,338	27,038,672	2,468	28,452,864	1,084	10,243,990	9,450	(1.6)
2012	2,207	25,996,458	2,138	25,600,824	1,153	10,639,624	9,228	(2.3)
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

TABLE VI
Average Employer Contribution Rates (Last five years)

Calendar Year	Normal Cost	Prior Service Cost	Disability and Death	Supplemental Retirement Benefit	Total
Regular members					
2017	6.71%	3.74%	0.27%	0.62%	11.34%
2018	6.80	3.63	0.19	0.62	11.24
2019	5.61	2.66	0.17	0.62	9.06
2020	5.98	4.10	0.21	0.62	10.91
2021	5.86	3.90	0.24	0.62	10.62
Sheriff's Law Enforcement Personnel (SLEP) members					
2017	11.77%	9.73%	0.27%	0.62%	22.39%
2018	11.63	9.05	0.19	0.62	21.49
2019	10.98	8.73	0.17	0.62	20.50
2020	11.94	11.71	0.21	0.62	24.48
2021	11.72	11.11	0.25	0.62	23.70
Elected County Official (ECO) members					
2017	16.83%	55.78%	0.27%	0.62%	73.50%
2018	16.85	65.03	0.22	0.62	82.72
2019	13.21	52.41	0.19	0.62	66.43
2020	13.79	58.02	0.23	0.62	72.66
2021	14.21	56.57	0.28	0.62	71.68

TABLE VII
Participating Member Contribution Rates (Last ten years)

	Regular IMRF			Sheriff's Law Enforcement Personnel				Elected County Official			
Year	**Normal**	**Survivor**	**Total**	**Normal**	**Survivor**	**SLEP**	**Total**	**Normal**	**Survivor**	**ECO**	**Total**
2010	3.75%	0.75%	4.50%	3.75%	0.75%	3.00%	7.50%	3.75%	0.75%	3.00%	7.50%
2011	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
2012	3.75	0.75	4.50	3.75	0.75	3.00	7.50	3.75	0.75	3.00	7.50
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

ACTUARIAL BALANCE SHEET

	December 31	
	2019	**2018**
Sources of Funds		
Actuarial value of assets	$ 42,936,185,938	$ 40,829,952,193
Actuarial present value of future contributions		
Member	2,756,417,390	2,664,003,754
Employer Normal Costs	3,527,198,587	3,499,482,076
Under Funded Actuarial Accrued Liability	4,421,715,330	4,524,158,460
Total Sources	**$ 53,641,517,245**	**$ 51,517,596,483**
Uses of Funds		
Retired members and beneficiaries	$ 25,719,545,459	$ 24,106,296,051
Inactive members	3,977,864,200	3,809,576,609
Active members	23,656,174,347	23,360,881,109
Voluntary additional members	267,207,484	212,299,709
Death and disability benefits	20,725,755	28,543,005
Total Uses	**$ 53,641,517,245**	**$ 51,517,596,483**

ANALYSIS OF UNDERFUNDED LIABILITY

	December 31	
	2019	**2018**
Underfunded liability beginning of year	$4,524,158,460	$2,991,680,344
Assumed net (payments) during year	(336,629,003)	(212,346,977)
Assumed interest	326,641,691	216,508,988
Expected underfunded liability	**$4,514,171,148**	**$2,995,842,355**
Increase(decrease) due to experience study	-	1,190,996,469
Loss/(gain) due to investment performance	(367,178,690)	385,776,439
(Gain) due to other sources	274,722,872	(48,456,803)
Underfunded liability end of year	**$4,421,715,330**	**$4,524,158,460**

DERIVATION OF EXPERIENCE GAIN (LOSS)

	2019	2018
Type of Risk Area		
Risks Related to Assumptions (in millions)		
Economic Risk Areas		
Investment Return/(Loss)	$ 367.2	$ (385.8)
Pay (Decreases)/Increases	(45.1)	(40.1)
Demographic Risk Areas		
Service Retirements	(20.2)	(19.5)
Early Retirements	(7.4)	(5.3)
Vested Deferred Retirements	(18.2)	(14.5)
Death and Survivor Benefits	(10.3)	(7.7)
Disability Benefits	17.0	11.5
Terminated with Refund	32.4	31.2
Changes due to Discount Rate (1)	**-**	**(1,191.0)**
Risks not Related to Assumptions (2)	**(222.9)**	**92.9**
Total Gain/(Loss) During Year	**$ 92.5**	**$ (1,528.3)**

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) Board of Trustees changed the discount rate effective January 1, 2019.

(2) 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 3,025 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 62% 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 member contributions if they stop working for an IMRF employer prior to age 55, or age 62 for Tier 2 members. Vested members age 55 or older (62 or older for Tier 2 members) may receive separation refunds if the member rolls over the refund 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 2019 will be $114,951.83 and for 2020 will be $113,9644.91. 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. An employer may only offer an ERI program once every five years.

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.

Malcolm Baldrige
National Quality Award

2019 Award Recipient

JOURNEY OF EXCELLENCE

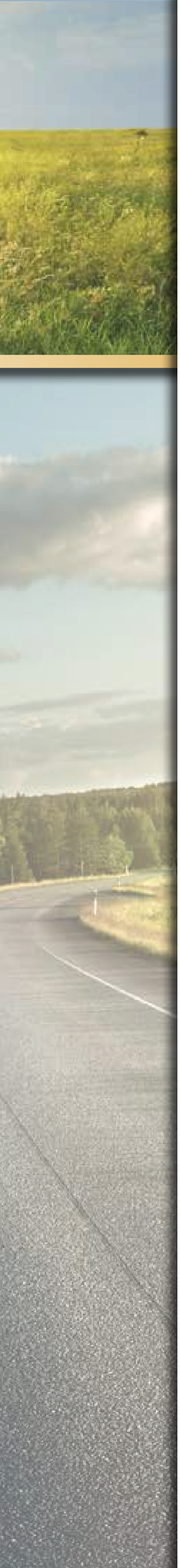
THIS IS OUR ROADMAP & PROCESS FOR RESPONDING TO FUTURE CHALLENGES.

Journey of Excellence
The Roads IMRF Travels to Success

Continuous Process Improvement
The Vehicle that Carries IMRF Forward

Baldrige Criteria
The Map IMRF Follows

SUCCESS IS IMRF'S CONTINUOUS DESTINATION.



STATISTICAL

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BENEFIT PAYMENT TABLES

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
2010	$2,976,549,317	$770,142,278	12.05%	$ 324,901,985	$ 7,032	$4,071,600,612
2011	(92,930,304)	800,804,253	12.45%	327,680,889	9,852	1,035,564,690
2012	3,393,689,073	883,216,281	13.60%	330,814,542	12,037	4,607,731,933
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

	Deductions				
Calendar Year	Benefits	Refunds	Administrative Expenses	Total Deductions	Change in Fiduciary Net Position
2010	$1,178,030,534	$32,201,577	$22,318,493	$1,232,550,604	$2,839,050,008
2011	1,284,405,609	32,900,105	23,086,712	1,340,392,426	(304,827,736)
2012	1,389,815,471	34,142,193	24,508,053	1,448,465,717	3,159,266,216
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

TABLE IX

Benefit Expense by Type (Last ten years)

	Death				Disability	
Calendar Year	Supplemental	Refund	Burial	Residual	Permanent	Temporary
2010	$ 10,313,306	$ 8,547,634	$ 7,726,161	$ 1,439,264	$ 4,286,549	$ 7,205,576
2011	9,664,027	9,184,487	8,435,071	1,328,589	4,157,671	7,471,493
2012	10,377,472	9,641,181	8,103,523	1,711,659	3,878,005	7,012,081
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

	Annuities				Refunds		
Calendar Year	Retirement	Surviving Spouse	Beneficiary	Supplemental	Separation	Other	Total
2010	$1,027,761,178	$66,174,661	$1,962,756	$42,613,449	$30,440,247	$1,761,330	$1,210,232,110
2011	1,130,473,927	71,188,507	2,208,709	40,293,128	31,515,077	1,385,028	1,317,305,714
2012	1,229,614,161	76,545,359	2,455,082	40,476,948	31,482,985	2,659,208	1,423,957,664
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

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
2010	$ 770,142,278	$ 324,901,985	$ 1,095,044,263	$ 1,210,232,111	$ 115,187,848)
2011	800,804,253	327,680,889	1,128,485,142	1,317,305,714	(188,820,572)
2012	883,216,281	330,814,542	1,214,030,823	1,423,957,664	(209,926,841)
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	1,626,821,250	(352,348,980)
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)

TABLE XI

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

Calendar Year	Annuity	Disability	Death	Refund	Total
2010	6,541	2,407	3,141	10,219	22,308
2011	6,751	2,338	3,308	10,001	22,398
2012	6,845	2,207	3,288	9,864	22,204
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	3795	11,111	24,828
2019	8,037	1,770	3793	10,954	24,554

TABLE XII
Number of Employees ***(Last ten years)***

Calendar Year End	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Administration (1)	4	4	4	4	4	4	5	6	6	2
Benefits (2)	27	28	28	28	28	31	31	35	33	19
Communications	6	7	7	6	7	9	9	8	8	9
Customer Service (1)	-	-	-	-	-	-	-	-	-	1
Disability (2)	-	-	-	-	-	-	-	-	-	15
Field Services (3)	-	-	-	-	-	-	-	-	-	12
Finance	30	27	28	29	27	27	20	25	25	24
Human Resources	4	4	4	3	4	4	4	4	4	4
Information Services	39	34	34	35	33	34	32	40	43	41
Internal Audit	1	4	4	7	7	7	8	8	8	8
Investments	11	10	9	10	13	13	14	14	14	17
Legal (4)	4	4	4	4	5	5	5	5	6	8
Member Services (3)	26	26	28	30	33	35	37	38	40	28
Office Services (4)	22	22	22	21	19	19	19	19	19	18
Organizational Excellence (1)	-	-	-	-	-	-	-	-	-	3
Program Management (5)	-	6	4	5	5	6	6	-	-	-
Total	**174**	**176**	**176**	**182**	**185**	**194**	**190**	**202**	**206**	**209**

(1) The Customer Service and Organizational Excellence departments separated from Administration in 2019
(2) The Disability department separated from Benefits in 2019
(3) The Field Services department separated from Member Services in 2019
(4) The Procurement unit moved from Office Services to Legal in 2019
(5) The Program Management department merged with Information Systems in 2017

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

Calendar Year End	Cities	Villages	Counties	School Districts	Townships	Other	Total
2010	257	410	101	864	477	854	2,963
2011	257	411	101	862	479	854	2,964
2012	258	411	101	859	479	861	2,969
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

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

Employer	2019 Active Members	2019 Rank	2019 Percentage of Total Active Members	2010 Active Members	2010 Rank	2010 Percentage of Total Active Members
DuPage County	3,105	1	1.75%	3,160	1	1.79%
Will County	2,744	2	1.54	2,333	3	1.32
Lake County	2,639	3	1.48	2,796	2	1.58
Union School District 46	2,469	4	1.39	1,647	4	0.93
Rockford School District 205	1,674	5	0.94	1,574	6	0.89
Township High School District 211	1,456	6	0.82	N/A*	N/A*	N/A*
Winnebago County	1,441	7	0.81	1,611	5	0.91
Kane County	1,432	8	0.81	1,290	8	0.73
Peoria School District 150	1,310	9	0.74	1,255	9	N/A*
McHenry County	1,304	10	0.73	1,336	7	0.76
City of Springfield	N/A**	N/A**	N/A**	1,226	10	0.69

**In 2010, this entity did not rank in the Top Ten.*

*** In 2019, 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
2010	65,543	111,160	176,703
2011	65,332	110,512	175,844
2012	64,918	109,853	174,771
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

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
2010	176,703	12,928	73,980	46,906	42,889	50.8%
2011	175,844	15,158	70,518	46,459	43,709	51.3
2012	174,771	15,994	67,735	45,777	45,265	52.1
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

TABLE XVII
Active Members by Age

	All Plans			Sheriff's Law Enforcement Personnel			Elected County Official		
Age	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Under 20	294	312	606	2	-	2	-	-	-
20 to 29	8,593	11,161	19,754	548	70	618	-	-	-
30 to 39	13,083	18,834	31,917	1,105	176	1,281	-	-	-
40 to 49	14,235	26,298	40,533	1,212	201	1,413	9	7	16
50 to 54	8,192	16,818	25,010	404	62	466	14	5	19
55 to 59	9,162	18,432	27,594	174	35	209	13	8	21
60 to 69	10,215	18,500	28,715	113	22	135	24	11	35
70 and Over	1,769	1,911	3,680	6	-	6	4	1	5
Total	**65,543**	**112,266**	**177,809**	**3,564**	**566**	**4,130**	**64**	**32**	**96**

TABLE XVIII
Annuitants by Age

	Retirees			Surviving Spouses			Beneficiaries		
Age	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Under 55	313	51	364	11	104	115	113	161	274
55 to 59	3,291	5,591	8,882	36	230	266	18	89	107
60 to 64	7,148	13,523	20,671	158	563	721	34	68	102
65 to 69	9,675	20,113	29,788	353	881	1,234	29	59	88
70 to 74	8,112	17,230	25,342	558	1,246	1,804	25	64	89
75 to 79	5,302	11,799	17,101	776	1,631	2,407	8	50	58
80 to 84	3,414	7,570	10,984	858	1,770	2,628	8	36	44
85 to 89	1,819	4,630	6,449	785	1,615	2,400	6	14	20
90 to 94	770	2,366	3,136	449	1,024	1,473	2	11	13
95 to 99	140	688	828	139	353	492	1	4	5
100 and over	16	112	128	15	61	76	-	-	-
Total	**40,000**	**83,673**	**123,673**	**4,138**	**9,478**	**13,616**	**244**	**556**	**800**

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

	Single Sum Payments		Recurring Payments	
Calendar Year	**Separation Refunds**	**Lump Sum Death Benefit**	**Annual Disability (1)**	**Annual Retirement (2)**
2010	$ 2,987	$ 30,817	$ 17,830	$ 17,014
2011(3)	3,154	30,592	17,958	16,490
2012(3)	3,218	34,500	18,475	15,718
2013(3)	3,229	34,853	18,898	15,781
2014(3)	3,164	35,795	20,048	16,877
2015(3)	3,127	35,141	19,696	17,301
2016(3)	3,075	32,018	20,386	17,128
2017(3)	3,119	34,645	20,632	17,878
2018(3)	3,202	37,502	21,297	18,480
2019(3)	3,092	43,031	22,155	18,738

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

(2) Includes voluntary additional benefits.

(3) Includes Tier 1 and Tier 2.

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

	Years of Credited Service							
	8-9	10-14	15-19	20-24	25-29	30-34	35+	Total
2010								
Avg Monthly Annuity	$ 340	$ 513	$ 895	$ 1,410	$ 1,935	$ 2,598	$ 3,703	$ 1,421
Avg Monthly FRE	$ 2,401	$ 2,583	$ 3,100	$ 3,686	$ 4,022	$ 4,514	$ 5,295	$ 3,486
Number of Retirees	601	1,029	767	826	645	524	459	4,851
2011								
Avg Monthly Annuity	$ 339	$ 543	$ 906	$ 1,352	$ 1,929	$ 2,731	$ 3,879	$ 1,437
Avg Monthly FRE	$ 2,401	$ 2,764	$ 3,163	$ 3,499	$ 4,044	$ 4,711	$ 5,529	$ 3,542
Number of Retirees	578	1,056	792	834	641	553	426	4,880
2012								
Avg Monthly Annuity	$ 345	$ 539	$ 848	$ 1,407	$ 1,961	$ 2,807	$ 3,780	$ 1,391
Avg Monthly FRE	$ 2,473	$ 2,758	$ 2,946	$ 3,670	$ 4,083	$ 4,808	$ 5,436	$ 3,503
Number of Retirees	576	1,096	895	774	636	493	398	4,868
2013								
Avg Monthly Annuity	$ 345	$ 560	$ 886	$ 1,425	$ 1,968	$ 2,812	$ 3,875	$ 1,378
Avg Monthly FRE	$ 2,445	$ 2,798	$ 3,087	$ 3,673	$ 4,109	$ 4,836	$ 5,555	$ 3,518
Number of Retirees	723	1,313	1,080	943	770	491	461	5,781
2014								
Avg Monthly Annuity	$ 361	$ 562	$ 930	$ 1,374	$ 2,020	$ 2,876	$ 3,960	$ 1,439
Avg Monthly FRE	$ 2,559	$ 2,782	$ 3,244	$ 3,573	$ 4,196	$ 4,947	$ 5,679	$ 3,608
Number of Retirees	687	1,251	1,206	984	808	455	551	5,942
2015								
Avg Monthly Annuity	$ 358	$ 568	$ 949	$ 1,429	$ 2,092	$ 2,873	$ 4,029	$ 1,479
Avg Monthly FRE	$ 2,549	$ 2,826	$ 3,311	$ 3,726	$ 4,347	$ 4,968	$ 5,756	$ 3,690
Number of Retirees	792	1,310	1,241	983	818	515	615	6,274
2016								
Avg Monthly Annuity	$ 367	$ 571	$ 934	$ 1,438	$ 2,135	$ 2,898	$ 4,224	$ 1,470
Avg Monthly FRE	$ 2,600	$ 2,865	$ 3,264	$ 3,738	$ 4,448	$ 5,027	$ 6,000	$ 3,708
Number of Retirees	786	1,252	1,323	974	793	490	547	6,165
2017								
Avg Monthly Annuity	$ 374	$ 569	$ 965	$ 1,495	$ 2,186	$ 3,059	$ 4,161	$ 1,548
Avg Monthly FRE	$ 2,661	$ 2,868	$ 3,341	$ 3,887	$ 4,522	$ 5,301	$ 5,879	$ 3,825
Number of Retirees	694	1,243	1,345	1,143	823	549	580	6,377
2018								
Avg Monthly Annuity	$ 384	$ 591	$ 1,004	$ 1,471	$ 2,245	$ 3,128	$ 4,263	$ 1,603
Avg Monthly FRE	$ 2,713	$ 2,966	$ 3,428	$ 3,826	$ 4,615	$ 5,386	$ 6,007	$ 3,913
Number of Retirees	561	1,232	1,305	1,204	786	594	549	6,231
2019								
Avg Monthly Annuity	$ 390	$ 600	$ 1,007	$ 1,514	$ 2,210	$ 3,211	$ 4,476	$ 1,638
Avg Monthly FRE	$ 2,739	$ 2,981	$ 3,457	$ 3,930	$ 4,577	$ 5,535	$ 6,300	$ 3,987
Number of Retirees	447	1,267	1,226	1,140	803	613	481	5,977

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)**

	Years of Credited Service				
	20-24	**25-29**	**30-34**	**35+**	**Total**
2010					
Avg Monthly Annuity	$ 2,974	$ 4,598	$ 5,500	$ 4,455	$ 4,347
Avg Monthly FRE	$ 5,620	$ 6,996	$ 7,348	$ 5,750	$ 6,636
Number of Retirees	30	43	26	4	103
2011					
Avg Monthly Annuity	$ 3,682	$ 4,624	$ 5,479	$ 5,015	$ 4,465
Avg Monthly FRE	$ 6,833	$ 6,868	$ 7,070	$ 6,269	$ 6,887
Number of Retirees	36	36	21	2	95
2012					
Avg Monthly Annuity	$ 3,085	$ 4,382	$ 4,844	$ 3,809	$ 3,752
Avg Monthly FRE	$ 6,024	$ 7,000	$ 6,363	$ 5,312	$ 6,340
Number of Retirees	38	21	11	2	72
2013					
Avg Monthly Annuity	$ 3,372	$ 4,639	$ 4,418	$ 5,497	$ 4,130
Avg Monthly FRE	$ 6,181	$ 7,101	$ 6,026	$ 6,871	$ 6,547
Number of Retirees	31	27	10	5	73
2014					
Avg Monthly Annuity	$ 3,439	$ 5,142	$ 5,220	$ 5,868	$ 4,547
Avg Monthly FRE	$ 6,430	$ 7,631	$ 6,706	$ 7,448	$ 6,998
Number of Retirees	39	39	18	6	102
2015					
Avg Monthly Annuity	$ 3,508	$ 5,179	$ 5,511	$ 7,123	$ 4,690
Avg Monthly FRE	$ 6,642	$ 7,685	$ 7,480	$ 8,904	$ 7,316
Number of Retirees	39	59	18	1	117
2016					
Avg Monthly Annuity	$ 3,613	$ 5,241	$ 6,012	$ 2,567	$ 4,825
Avg Monthly FRE	$ 6,964	$ 7,692	$ 7,859	$ 3,209	$ 7,448
Number of Retirees	38	59	20	1	118
2017					
Avg Monthly Annuity	$ 3,796	$ 5,580	$ 6,389	$ -	$ 5,116
Avg Monthly FRE	$7,328	$8,084	$8,436	$ -	$ 7,889
Number of Retirees	39	59	19	-	117
2018					
Avg Monthly Annuity	$ 4,092	$ 5,025	$ 5,706	$ 6,995	$ 4,851
Avg Monthly FRE	$ 7,575	$ 7,668	$ 7,576	$ 8,744	$ 7,649
Number of Retirees	46	38	23	4	111
2019					
Avg Monthly Annuity	$ 4,443	$ 6,085	$ 6,674	$ 5,921	$ 5,662
Avg Monthly FRE	$ 8,122	$ 8,808	$ 8,571	$ 7,402	$ 8,512
Number of Retirees	31	45	18	2	96

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 XXII

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

	Years of Credited Service							
	8-9	10-14	15-19	20-24	25-29	30-34	35+	Total
2010								
Avg Monthly Annuity	$ 123	$ 1,871	$ 2,243	$ 4,672	$ 4,039	$ 4,992	$ 3,872	$ 2,751
Avg Monthly FRE	$ 497	$ 4,411	$ 3,472	$ 5,859	$ 5,172	$ 6,241	$ 4,841	$ 4,097
Number of Retirees	4	6	9	5	4	2	1	31
2011								
Avg Monthly Annuity	$ 141	$ 320	$ 2,787	$ 4,394	$ 4,722	$ -	$ -	$ 2,279
Avg Monthly FRE	$ 580	$ 754	$ 4,182	$ 5,493	$ 6,139	$ -	$ -	$ 3,234
Number of Retirees	2	2	3	2	1	-	-	10
2012								
Avg Monthly Annuity	$ 687	$ 845	$ 762	$ 4,046	$ -	$ 4,598	$ -	$ 1,990
Avg Monthly FRE	$ 2,312	$ 1,934	$ 1,186	$ 5,058	$ -	$ 5,748	$ -	$ 2,967
Number of Retirees	2	9	5	8	-	1	-	25
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	$ 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

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

	Retirement Number of		Survivor Number of		All Annuities Number of	
Monthly Pension Amount	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**
Under $100	864	4,503	487	516	1,351	5,019
$100 to under $250	2,044	10,530	1,127	1,491	3,171	12,021
$250 to under $500	4,147	16,914	1,136	2,217	5,283	19,131
$500 to under $750	3,926	12,415	637	1,434	4,563	13,849
$750 to under $1,000	3,258	8,808	334	1,048	3,592	9,856
$1,000 to under $2,000	9,022	18,552	358	1,970	9,380	20,522
$2,000 to under $3,000	5,676	7,079	45	551	5,721	7,630
$3,000 to under $4,000	4,025	2,766	11	164	4,036	2,930
$4,000 to under $5,000	2,727	1,164	2	54	2,729	1,218
$5,000 to under $6,000	1,765	511	1	18	1,766	529
$6,000 and over	2,546	431	-	15	2,546	446
Total	**40,000**	**83,673**	**4,138**	**9,478**	**44,138**	**93,151**

Note: Counts do not include disabilities.

TABLE XXIV
Membership By Tier

	2019			2018		
	Tier 1	**Tier 2**	**Total**	**Tier 1**	**Tier 2**	**Total**
Annuitants/Beneficiaries						
Total Retirees	**138,077**	**12**	**138,089**	**133,261**	**-**	**133,261**
Active						
Vested	80,024	144	80,168	85,739	109	85,848
Non-Vested	16,607	81,034	97,641	17,695	72,974	90,669
Total	**96,631**	**81,178**	**177,809**	**103,434**	**73,083**	**176,517**
Inactive						
Vested	14,210	19	14,229	14,071	15	14,086
Non-Vested	68,548	41,393	109,941	70,378	35,475	105,853
Total	**82,758**	**41,412**	**124,170**	**84,449**	**35,490**	**119,939**
Active/Inactive						
Vested	94,234	163	94,397	99,810	124	99,934
Non-Vested	85,155	122,427	207,582	88,073	108,449	196,522
Total Active/Inactive	**179,389**	**122,590**	**301,979**	**187,883**	**108,573**	**296,456**
Total Membership	**317,466**	**122,602**	**440,068**	**321,144**	**108,573**	**429,717**

2020-2022 STRATEGIC OBJECTIVES

IMRF's Strategic Plan for 2020-2022 includes four Key Result Areas that address internal and external strategic advantages, challenges, and opportunities. The Strategic Plan not only highlights the four Strategic Objectives, it also provides an overview of the key strategies designed to support the objectives.

IMRF

2020-2022

STRATEGIC PLAN

Key Result Area: Financial Health

Strategic Objective: To achieve and maintain a funding level that sustains the Plan

- Achieving top decile funding level on a market-value basis relative to a universe of public pension funds
- Achieving progress toward a 100% funding goal
- Achieving or exceeding a 7.25% annual return over the long term (over 5, 10 and 15 year basis).
- Outperforming the total portfolio benchmark (over 3, 5 and 10 year basis)

Key Result Area: Customer Engagement

Strategic Objective: To foster and maintain engaged members and employers

- Achieving top decile "American Customer Satisfaction Index" (ACSI) ranking on Cobalt Survey
- Exceeding the 3 NPS Benchmarks (Financial, Business Services and Government) on Member and Employer engagement surveys

Key Result Area: Workforce Engagement

Strategic Objective: To foster and maintain an engaged workforce

- Achieving top decile ranking on the Employee Engagement Survey
- Achieving employee turnover levels below averages as measured by CompData Surveys

Key Result Area: Operational Excellence

Strategic Objective: To provide world class customer service at a reasonable cost

- Achieving top decile "Overall Service Score" ranking for the CEM Benchmarking Survey
- Achieving top decile "American Customer Satisfaction Index" (ACSI) ranking on Cobalt Survey
- Achieving 90% "Overall Satisfaction" ratings on member and employer satisfaction surveys
- Achieving per-member-cost at or below the median of the CEM administrative cost measure

IMRF will continue to develop and implement Strategic Plans to periodically reassess the best direction to take in fulfilling its promise of world-class service to our members, employers, and stakeholders.

2019

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