

**EMPLOYES' RETIREMENT SYSTEM
OF THE CITY OF MILWAUKEE**

**Basic Financial Statements and
Supplementary Information as of and for the
Year Ended December 31, 2017 and
Independent Auditors' Report**

Employees' Retirement System of the City of Milwaukee

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INTRODUCTORY SECTION



City of Milwaukee
Employees' Retirement System

Bernard J. Allen
Executive Director

David M. Silber, CFA, CAIA
Chief Investment Officer

Melody Johnson
Interim Deputy Director

Executive Director's Letter of Transmittal

July 12, 2018

On behalf of the Annuity and Pension Board of the Employees' Retirement System (ERS) of the City of Milwaukee, I am pleased to present the Basic Financial Statements for ERS for the year ended December 31, 2017. ERS provides retirement and disability benefits, counseling and other services to 27,176 members, beneficiaries and annuitants. ERS was created under Chapter 396 of the Laws of Wisconsin of 1937 and the City of Milwaukee Charter, Chapter 36. This report fulfills the legal reporting requirements of those laws.

It is the responsibility of ERS management to fairly present all financial information in conformity with generally accepted accounting principles. ERS has internal controls in place to provide reasonable assurance that these statements are free from material misstatement. The Independent Auditors' Report, found in the Financial Section of this report, also provides reasonable assurance that ERS financial statements are free from material misstatement.

As of December 31, 2017, the ERS funded ratio was 93.7%. Pursuant to the Government Accounting Standards Board (GASB) Statement No. 67, the ERS funded status is measured by comparing the market value of plan assets with the ERS actuarial accrued liability using the actuarial method prescribed in GASB Statement No. 67. This actuarial method differs from that employed by the ERS' independent actuary for funding purposes.

Lastly, I acknowledge the staff of ERS for rising to meet all the challenges we have faced and for their continuing dedication in providing superior customer service to all of our members.

A handwritten signature in black ink that reads "Bernard J. Allen".

Bernard J. Allen
Executive Director



List of Principal Officials

Annuity & Pension Board Members as of December 31, 2017:

Elected Representative - Active:

John Barmore - Board Chairman	Milwaukee Fire Department
Thomas Bell	City of Milwaukee - General Employee
Vacant	Milwaukee Police Department

Elected Representative - Retirees:

Thomas Klusman	Retired
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Appointed by the President of the Common Council:

Nik Kovac	Alderman for 3rd District
Deborah Ford	Retired
Rudolph Konrad	Retired

Appointed by the Mayor:

Mark Nicolini	Retired
Himanshu Parikh	Milwaukee Public Schools
Larry Holland	Principal of Holland Properties LLC

Ex-Officio Member:

Martin Matson	City of Milwaukee Comptroller
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Employes' Retirement System Administrative Personnel:

Bernard J. Allen
Executive Director and Secretary

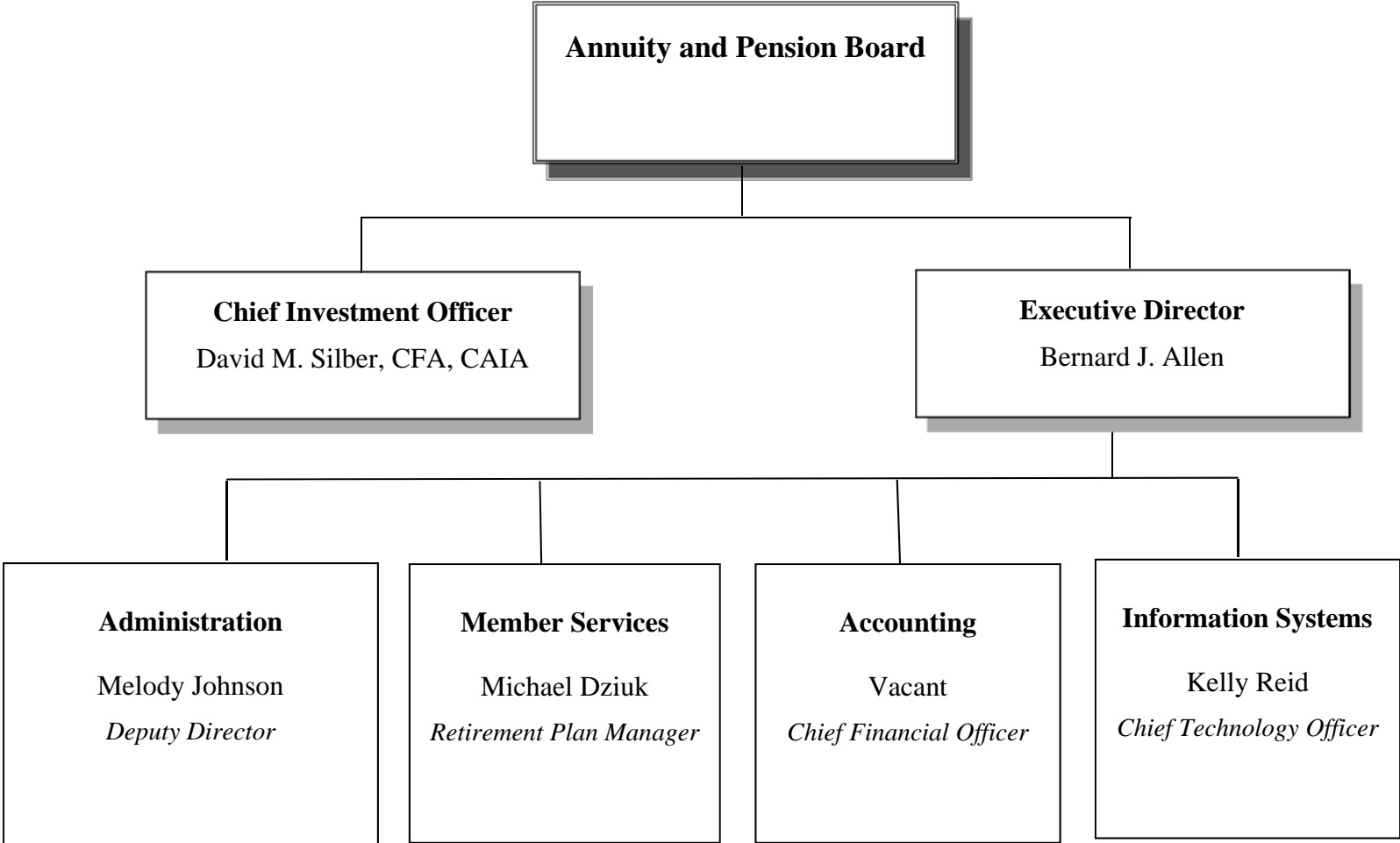
Melody Johnson
Deputy Director

David M. Silber, CFA, CAIA
Chief Investment Officer

G. Spencer Coggs
Custodian of Funds
City of Milwaukee Treasurer

Grant F. Langley
Legal Advisor
City of Milwaukee Attorney

Employes' Retirement System Organization Chart



FINANCIAL SECTION

INDEPENDENT AUDITORS' REPORT

To the Annuity and Pension Board of the Employees'
Retirement System of the City of Milwaukee
Milwaukee, Wisconsin

Report on the Financial Statements

We have audited the accompanying statement of fiduciary net position of the Employees' Retirement System of the City of Milwaukee (the "Retirement System"), as of December 31, 2017, the statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, which collectively comprise the Retirement System's 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.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 auditors' 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 over financial reporting relevant to the Retirement System'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 Retirement System'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 Retirement System as of December 31, 2017, and the changes in fiduciary net position of the Retirement System for the year then ended in conformity 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, the Schedules of Changes in Net Pension Liability, Net Pension Liability, Contributions, and Investment Returns, and the notes to the required supplementary information as listed in the table of contents be presented to supplement the basic 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 basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Retirement System's basic financial statements. The Non-Consenter Combining Statement of Fiduciary Net Position and the Combining Non-Consenter Statement of Changes in Fiduciary Net Position are presented for purposes of additional analysis and are not a required part of the basic financial statements. The information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Non-Consenter Combining Statement of Fiduciary Net Position and the Non-Consenter Combining Statement of Changes in Fiduciary Net Position are fairly stated in all material respects, in relation to the basic financial statements as a whole.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Retirement System's basic financial statements. The Executive Directors Letter of Transmittal, List of Principal Officers, and Organization Chart are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated July 12, 2018 on our consideration of the Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Retirement System's internal control over financial reporting and compliance.

Baker Tilly Virchow Krause, LLP

Milwaukee, Wisconsin
July 12, 2018

**MANAGEMENT'S DISCUSSION AND
ANALYSIS SECTION (UNAUDITED)**

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

This Management Discussion is provided to facilitate a better understanding of the Employees' Retirement System of the City of Milwaukee (ERS) financial condition as of December 31, 2017, the results of operations for the year then ended, and the fiscal policies that govern its significant business operations. This narrative is a supplement to the audited financial statements presented in this document and, as such, should be read in conjunction with these statements.

ERS is primarily responsible for administering retirement and disability benefits for employees of the City of Milwaukee and the following City Agencies (Agencies): Milwaukee Metropolitan Sewerage District, Wisconsin Center District, Veolia Water Milwaukee LLC, Milwaukee Housing and Redevelopment Authorities, non-certified staff of Milwaukee Public Schools, and some retirees of the Milwaukee Area Technical College.

The ERS pension trust fund is a defined benefit pension plan that provides monthly benefits to eligible retirees who have reached a minimum retirement age, and also provides monthly benefits to those eligible for disability.

ERS was initially created under the provisions of Chapter 396, laws of Wisconsin 1937. It is a section 401(a), Internal Revenue Code, qualified cost-sharing, multiple-employer defined benefit plan for participating public employees. Separate funds have been established to comply with legislation governing the ERS. During April 2000, the Common Council of the City of Milwaukee adopted legislation known as the Global Pension Settlement (GPS). GPS increased benefits to current and future retirees and also allowed changes to ERS administration, including permitting the use of ERS funds to pay costs related to plan administration. Members enrolled prior to June 28, 2000 can elect whether to consent to the provisions of GPS, while members enrolled on or after that date are automatically subjected to the provisions of GPS.

Discussion of Funds within the Employees' Retirement System Plan

Global Combined Fund

The Global Combined Fund provides retirement and disability benefits to members who consented to GPS, and members enrolled on or after June 28, 2000. Approximately 98.9% of ERS membership is accounted for in the Global Combined Fund.

Employers' Reserve Fund

The City of Milwaukee and Agencies participating in ERS may voluntarily contribute to the Employers' Reserve Fund. Deposits to the Employers' Reserve Fund may be used to fund contribution requirements, but this requires a formal resolution from the City or Agency directing a fund transfer.

Securities Lending Fund

Northern Trust, the custodian for ERS, administers the securities lending program. In this program, ERS earns fees for lending out securities. All borrowers are required to provide cash collateral.

Revenue generated from the program is deposited in the Securities Lending Fund and is restricted for payment of ERS administration and operation expenses. Any revenue not expended by the end of the year is transferred to the Retirement Fund in the following year.

(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

Non-Consenter Funds

Non-Consenter Funds provide retirement and disability benefits for members who have not consented to GPS. Benefits paid from these funds do not include the enhanced benefits provided by GPS.

- **Retirement Fund:** The Retirement Fund provides for retirement and ordinary (non-work related) disability benefits for non-consenting members enrolled prior to February 1, 1996.
- **Combined Retirement Fund:** The Combined Retirement Fund provides for retirement and disability benefits (both ordinary and duty related) for non-consenting members enrolled on or after February 1, 1996.
- **General Employees' Duty Disability Fund:** The General Employees' Duty Disability Fund provides for duty disability benefits for non-consenting general (non-fire and police) members enrolled prior to February 1, 1996.

Dormant Non-Consenter Funds

The two Dormant Non-Consenter Funds have no members and no member balances, and, as a result, these funds are not disclosed in the financial statements. Since it is remotely possible that current non-consenting members could qualify for benefits in the future, the Board has not officially closed these funds.

- **Firemen and Policemen's Duty Disability Fund:** This fund provides for duty disability benefits for non-consenting fire and police members enrolled prior to February 1, 1996. As of December 31, 2004, all former members had consented to GPS, and their balances were transferred to the Global Combined Fund. The fund is still active, but is not likely to be used again.
- **Firemen's Heart and Lung Fund:** This fund accounts for fire heart and lung duty disability benefits of non-consenters. As of December 31, 2002, all former members had either consented to GPS or were deceased. The fund is still active, but is not likely to be used again.

Fiduciary Funds

Fiduciary Funds are for assets held in a trustee capacity for others and cannot be used to support the primary government's own interests.

- **Policemen's Annuity and Benefit Fund:** As discussed in Note 10, on December 14, 2005, the Policemen's Annuity and Benefit Fund (PABF) board adopted a resolution to dissolve and to liquidate all assets of the fund, and transfer the assets and full administrative control to ERS. Assets were transferred to the ERS custodian, Northern Trust, in early 2006 and the ERS board assumed custodial authority and responsibility for the fund's assets on January 3, 2006.

PABF is accounted for as a separate fiduciary fund, and starting in 2017, the City of Milwaukee pays retiree benefits as due. The PABF is funded by an annual tax levy, or reimbursements from the City. During 2017, benefits totaling \$186,262 were paid to 25 annuitants and widows.

Due to nominal activity within the PABF, it is not included in the Analysis of Financial Position and Results of Operations section of the Management Discussion and Analysis.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

Financial Highlights

- Total assets of ERS increased by \$586,300,000 and 11.1% during 2017. Contributions and income from investments exceeded benefit payments, causing an increase in total assets held for investment.
- As members consent to the Global Pension Settlement, their member balances are transferred from the Non-consenter fund to the Global Combined Fund. Balances transferred for 2017 totaled \$1,097,000.
- As of December 31, 2017, pursuant to GASB Statement No. 67, the ERS funded ratio is 93.7%.
- For 2017, Northern Trust, the ERS custodian, reported a positive 16.4% annual net of fees total fund return, while in 2016 the return was 8.8%. As of December 31, 2017, the fund's five-year performance ranked in the top quartile of the Callan Associates database. This database consists of public employee pension funds, including both Callan client funds and surveyed non-client funds.

(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

Overview of the Financial Statements

The ERS Financial Statements contain the following:

- 1.) Basic Financial Statements
- 2.) Notes to Basic Financial Statements
- 3.) Required Supplementary Information
- 4.) Supplementary Information
- 5.) Other Information.

This information presents the net position restricted for pensions and all funds under ERS administration. Currently, the Annuity and Pension Board is responsible for the administration of plan assets for ERS and the Policemen's Annuity and Benefit Fund (PABF). Due to nominal activity, PABF is reported as a fiduciary fund in these statements.

- 1.) Basic Financial Statements.** Basic Financial Statements consist of the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position.

Statement of Fiduciary Net Position: Total assets minus total liabilities at year-end equals the net position restricted for pensions, which is also found on the Statement of Changes in Fiduciary Net Position. Total assets include cash balances, investments itemized by category, accounts receivable and other assets. Total liabilities include benefits payable, reimbursements due to the City for costs to administer the plan, and amounts for investment purchases that were initiated but not settled at year-end.

Statement of Changes in Fiduciary Net Position: Contributions and net investment income are additions, and expenses and benefit payments are deductions. Fund transfers are also reported as changes in fund balances to arrive at the end of year net position restricted for pensions. The Statement of Changes in Fiduciary Net Position explains how the net position reserved for pensions changed during the year.

- 2.) Notes to Basic Financial Statements.** The financial statement notes provide additional information that is essential to understanding the basic financial statements. The notes are described below:

- Note 1: Provides a general description of ERS and an overview of the common benefits available to various groups of members.
- Note 2: Summarizes significant ERS accounting policies.
- Note 3: Describes consent status changes in relation to the Global Pension Settlement.
- Note 4: Summarizes employer transactions in the Employers' Reserve Fund.
- Note 5: Summarizes the net pension liability of participating retirement plans.
- Note 6: Discusses expenses paid as a part of administering ERS, including manager fees and administrative costs.
- Note 7: Discusses ERS' income tax status per the Internal Revenue Service determination letter.
- Note 8: Discusses ERS' investments and the associated types of risk exposure. It also discusses securities lending requirements and amounts on loan.
- Note 9: Describes contingencies involving ERS.

(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

2.) Notes to Basic Financial Statements (cont.)

- Note 10: Describes the transfer of fiduciary responsibility of the Policemen's Annuity and Benefit Fund to ERS.
- Note 11: Describes the required actuarial contributions due from the member agencies.
- Note 12: Discusses subsequent events that may impact the financial statements

3.) Required Supplementary Information. Required supplementary information presents the actuarial performance and financial condition of funds administered by ERS. The following is presented for both the Employees' Retirement System of the City of Milwaukee and the Policemen's Annuity and Benefits Fund - The City of Milwaukee:

- Schedule of Changes in Net Pension Liability,
- Schedules of Net Pension Liability and Investment Returns,
- Schedule of Contributions,
- Notes to Required Supplementary Information for the ERS & PABF,
- Management's Discussion and Analysis

4.) Supplementary Information. Additional information separately reports the Combining Statement of Fiduciary Net Position and the Combining Statement of Changes in Fiduciary Net Position for all the non-consenter retirement and disability funds.

5.) Other Information. Other information includes the Executive Director's Letter of Transmittal, a List of Principal Officers, the ERS Organizational Chart and the Independent Auditors' Report.

(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

Analysis of Fiduciary Net Position

Changes in Assets

(\$ in thousands)

	2017	2016	Percentage Change
Assets			
Cash and cash equivalents	\$ 82,067	\$ 91,257	-10.1%
Investments	5,352,416	4,835,776	10.7%
Receivables	78,386	33,676	132.8%
Software development and equipment (net of depr)	540	280	92.9%
Securities lending collateral	351,401	317,521	10.7%
Total Assets	\$ 5,864,810	\$ 5,278,510	11.1%
Liabilities			
Benefits payable	\$ 318	\$ 159	100.0%
Unearned Contributions	215	17,808	100.0%
City of Milwaukee	1,640	963	70.3%
Securities lending obligation	351,416	317,485	10.7%
Investments purchased	114,694	55,426	106.9%
Total Liabilities	\$ 468,283	\$ 391,841	19.5%
Net Position Restricted for Pensions	\$ 5,396,527	\$ 4,886,669	10.4%

Presented above are the total assets for 2017 and 2016, respectively. Income from investments and contributions exceeded benefit payments, causing an increase in total assets held for investment.

Receivable increases are primarily due to the increase in investment sales that were initiated but not settled at year-end. The liabilities increase is primarily due to increases in investment purchases that were initiated but not settled at year-end. Unearned Contributions decreased from 2016 to 2017, due to employers prepaying 2017 actuarial contributions in 2016.

During the current year, ERS capitalized computer equipment totaling \$470,469. Maintenance costs are expensed in the year they are incurred.

(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

Analysis of Changes in Fiduciary Net Position

Analysis of Operations

(\$ in thousands)

	2017	2016	Percentage Change
Additions			
Employer contributions	\$ 83,524	\$ 74,095	12.7%
Member contributions	32,494	35,918	-9.5%
Net appreciation in fair value of investments	735,547	317,937	131.3%
Interest, dividends and other investment income	94,435	102,159	-7.6%
Less: investment expense	(42,173)	(36,349)	16.0%
Total Additions:	\$ 903,827	\$ 493,760	83.0%
Deductions			
Administrative expenses	\$ (8,637)	\$ (8,096)	6.7%
Benefits paid	(380,001)	(346,937)	9.5%
Refund of contributions	(5,331)	(4,366)	22.1%
Total Deductions	\$ (393,969)	\$ (359,399)	9.6%
Net Increase after Net Position Transfers	\$ 509,858	\$ 134,361	
Net Position Restricted for Pensions			
Beginning of year	4,886,669	4,752,308	
End of year	\$ 5,396,527	\$ 4,886,669	

Employer contributions required of the City and Agencies, as determined by the actuary, totaled \$89,590,432 in 2017, and \$80,288,433 in 2016. Employer payments are due by January 31 of the following year. Early payment by the City and some Agencies resulted in discounts totaling \$6,235,085 and \$6,409,708 in 2017 and 2016, respectively. Investments earned net income of \$787,809,000 in 2017, compared to net income of \$383,747,000 in 2016. Market conditions experienced during 2017 account for the increase.

Administrative expenses increased by \$541,000 and 6.7% in 2017, when compared to 2016. This is due to a general increases in operating expenses incurred by the plan. Benefits paid increased to \$380,001,000 in 2017 from \$346,937,000 in 2016, due primarily to pension escalators and an increase in the number of retirees.

In 2017, \$1,097,000 was reallocated from the non-consenter funds to the Global Combined Fund for non-consenter members who consented to GPS during 2017. The January 1, 2018, valuation reflects the impact of this change.

(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

Analysis of Investment Position and Strategies

ERS has one strategy that governs asset allocation for all funds, except the Employer's Reserve Fund for the City of Milwaukee. The Employer's Reserve Fund is subject to investment guidelines approved by the City. ERS fund resources are pooled and invested according to the strategy. Net income from investments is allocated to individual funds based on fund balances at the beginning of the year.

The table below reports investment and benchmark returns for each Asset Class for 2017 and 2016, net of fees. Callan Associates, the ERS real estate consultant for 2017, provided return information for Real Estate. Northern Trust, the ERS custodian, provided information for the other asset classes.

In 2017, the Total Fund produced a positive return, and outperformed when compared to the overall benchmark. Within the fund, all asset classes produced positive returns. Fixed Income, Real Estate, and Absolute Return outperformed their respective benchmarks. Private Equity and Real Assets underperformed their respective benchmarks.

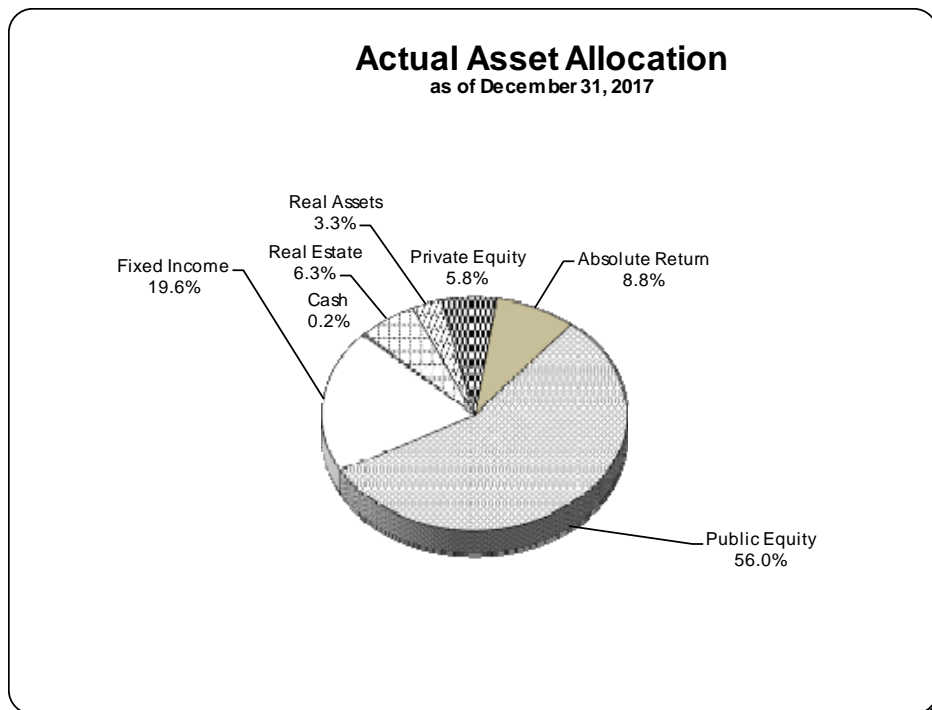
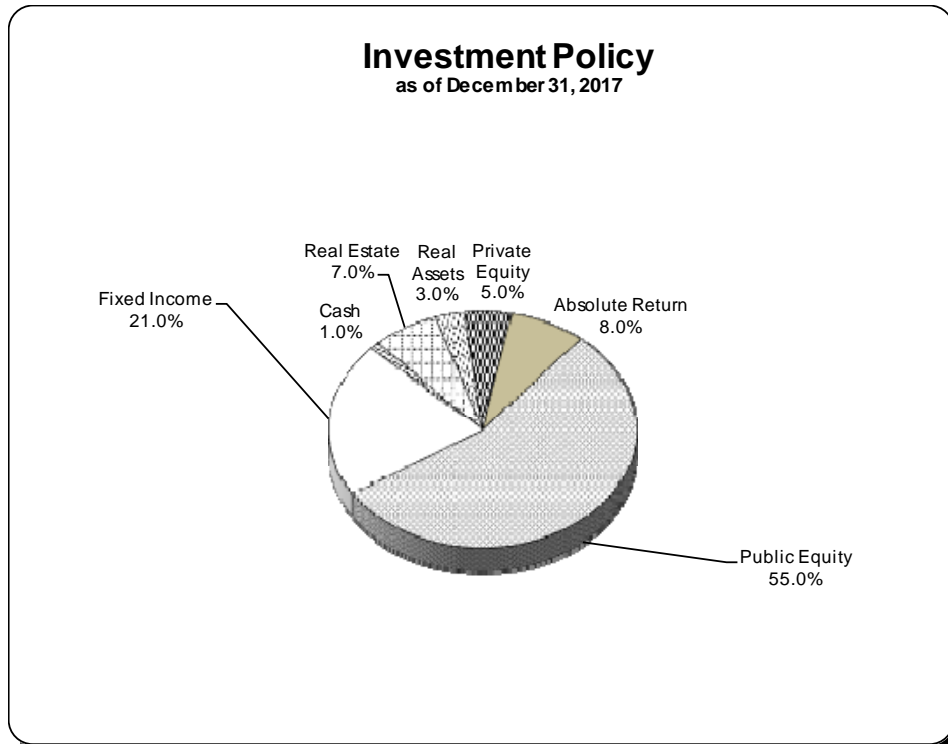
Asset Class	Benchmark	2017 Returns		2016 Returns	
		Net	Benchmark	Net	Benchmark
Public Equity	ACWI IMI	24.0%	24.0%	9.4%	8.4%
Fixed Income	Barclays Capital Aggregate	5.2%	3.5%	7.4%	2.7%
Real Estate	NCREIF Fund Index ODCE	8.3%	6.7%	9.0%	7.8%
Real Assets	Blended Benchmark*	10.2%	10.4%	6.6%	12.4%
Private Equity	Cambridge Private Equity Index	17.3%	17.4%	9.1%	13.0%
Absolute Return	90 Day Treasury Bill + 3%	5.8%	4.0%	5.1%	3.3%
Total Fund	Reference Index	16.4%	15.8%	8.8%	7.3%

**35% Barclays U.S. TIPS, 20% S&P Global Infrastructure, 20% S&P Global Natural Resources, 15% Bloomberg Commodity, 10% FTSE NAREIT*

(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

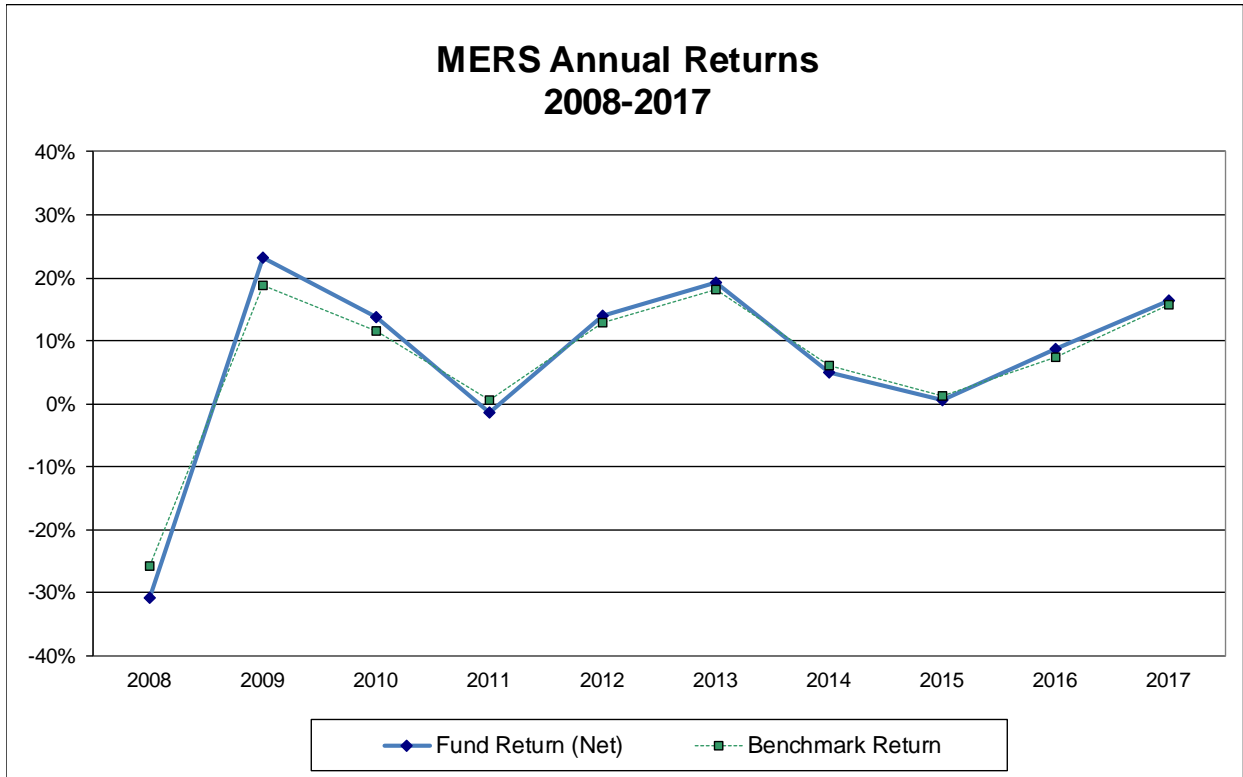
As of December 31, 2017, the asset allocation for all ERS funds complied with the allocation tolerance ranges established at the Board's December 21, 2017 meeting, and the Employer's Reserve Fund complied with the investment guidelines approved by the City of Milwaukee.



(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

Over the ten-year period ending December 31, 2017, the Fund returned 5.7% annually net of fees, and the benchmark returned 5.9%.



Requests for Information

Members of the Annuity and Pension Board and ERS senior management are fiduciaries of the pension fund, and therefore, are responsible for ensuring that ERS assets are used exclusively for the benefit of plan participants and their beneficiaries. This financial report is designed to provide an overview of the financial condition of ERS, and to account for the resources entrusted to ERS for the benefit of its stakeholders. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

Bernard J. Allen
Executive Director and Secretary
Employees' Retirement System - City of Milwaukee
789 North Water Street, Suite 300
Milwaukee, WI 53202

(See Independent Auditors' Report)

BASIC FINANCIAL STATEMENTS

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

Statement of Fiduciary Net Position As of December 31, 2017 (in thousands)

	Employees' Retirement System Funds				Fiduciary Fund		Total
	Global Combined Fund	Non-consenter Retirement Funds	Employers' Reserve Fund	Securities Lending Fund	Total Employees' Retirement System Fund	Total Policemen's Annuity & Benefit Fund	
ASSETS							
CASH AND CASH EQUIVALENTS	\$ 79,225	\$ 957	\$ 353	\$ 1,532	\$ 82,067	\$ 3	\$ 82,070
INVESTMENTS (Notes 2 and 8)							
Bonds and collateralized mortgage obligations	1,057,754	3,324	15,266	-	1,076,344	-	1,076,344
Common and preferred stocks	1,481,858	4,658	-	-	1,486,516	-	1,486,516
Blackrock Global Alpha Tilts	324,139	1,018	-	-	325,157	-	325,157
Blackrock Russell 1000 Value Fund	176,761	555	-	-	177,316	-	177,316
Blair William Emerging	74,425	235	-	-	74,660	-	74,660
COLTV Stock Index Fund	361,811	1,137	-	-	362,948	-	362,948
DFA Invt Dimensions	216,055	679	-	-	216,734	-	216,734
DFA Small Cap Fund	218,253	686	-	-	218,939	-	218,939
Newton	116,643	367	-	-	117,010	-	117,010
Principal	174,227	547	-	-	174,774	-	174,774
AQR Emerging Equities Fund	107,093	337	-	-	107,430	-	107,430
Hedge Funds	351,503	1,105	-	-	352,608	-	352,608
Real estate investments	340,150	1,070	-	-	341,220	-	341,220
Private equity	319,755	1,005	-	-	320,760	-	320,760
Total Investments	5,320,427	16,723	15,266	-	5,352,416	-	5,352,416
RECEIVABLES AND OTHER ASSETS							
Employer (Note 2)	88	-	-	-	88	-	88
Member (Note 2)	886	-	-	-	886	-	886
Actuarially determined contributions (Note 11)	5,428	149	-	-	5,577	-	5,577
Interest, dividends and foreign tax recoverable (Note 2)	7,724	24	18	-	7,766	-	7,766
Investments sold	63,868	201	-	-	64,069	-	64,069
Software development and equipment, net of depreciation (Note 2)	540	-	-	-	540	-	540
Securities lending collateral (Note 8)	-	-	-	351,401	351,401	-	351,401
Total Receivables and Other Assets	78,534	374	18	351,401	430,327	-	430,327
Total Assets	5,478,186	18,054	15,637	352,933	5,864,810	3	5,864,813
LIABILITIES							
Benefits payable	318	-	-	-	318	-	318
Unearned contributions	215	-	-	-	215	-	215
City of Milwaukee (Notes 4 and 6)	1,640	-	-	-	1,640	-	1,640
Securities lending obligation (Note 8)	-	-	-	351,416	351,416	-	351,416
Investments purchased	114,334	360	-	-	114,694	-	114,694
Total Liabilities	116,507	360	-	351,416	468,283	-	468,283
NET POSITION RESTRICTED FOR PENSIONS	\$ 5,361,679	\$ 17,694	\$ 15,637	\$ 1,517	\$ 5,396,527	\$ 3	\$ 5,396,530

See Independent Auditors' Report.

The accompanying notes to financial statements are an integral part of these financial statements.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

**Statement of Changes in Fiduciary Net Position
For the Year Ended December 31, 2017
(in thousands)**

	Employees' Retirement System Funds				Fiduciary Fund		Total
	Global Combined Fund	Non-consenter Retirement Funds	Employers' Reserve Fund	Securities Lending Fund	Total Employees' Retirement System Fund	Total Policemen's Annuity & Benefit Fund	
ADDITIONS							
Contributions							
Employer (Note 5)	\$ 83,362	\$ 162	\$ -	\$ -	\$ 83,524	\$ 200	\$ 83,724
Member	32,481	13	-	-	32,494	-	32,494
Total Contributions	115,843	175	-	-	116,018	200	116,218
Investment Income							
Net appreciation (depreciation) in fair value of investments	733,370	2,306	(34)	(95)	735,547	-	735,547
Interest, dividends and other investment income	89,700	281	217	4,237	94,435	-	94,435
Total Investment Income	823,070	2,587	183	4,142	829,982	-	829,982
Investment Expense (Note 6)	(39,452)	-	(16)	(2,705)	(42,173)	-	(42,173)
Net Investment Income	783,618	2,587	167	1,437	787,809	-	787,809
Total Additions	899,461	2,762	167	1,437	903,827	200	904,027
DEDUCTIONS							
Administrative expenses (Note 6)	(7,144)	-	-	(1,493)	(8,637)	(14)	(8,651)
Benefits paid	(379,864)	(137)	-	-	(380,001)	(186)	(380,187)
Refunds of contributions	(5,147)	(184)	-	-	(5,331)	-	(5,331)
Total Deductions	(392,155)	(321)	-	(1,493)	(393,969)	(200)	(394,169)
NET POSITION CHANGES							
Net increase (decrease) in net position before transfers	507,306	2,441	167	(56)	509,858	-	509,858
Net position transfers (Notes 3, 4 and 10)	1,097	(1,097)	-	-	-	-	-
Net Increase (Decrease) in Net Position	508,403	1,344	167	(56)	509,858	-	509,858
NET POSITION RESTRICTED FOR PENSIONS							
Beginning of Year	4,853,276	16,350	15,470	1,573	4,886,669	3	4,886,672
End of Year	\$ 5,361,679	\$ 17,694	\$ 15,637	\$ 1,517	\$ 5,396,527	\$ 3	\$ 5,396,530

See Independent Auditors' Report.

The accompanying notes to financial statements are an integral part of these financial statements.

NOTES TO BASIC FINANCIAL STATEMENTS

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

1. DESCRIPTION OF RETIREMENT SYSTEM

The following description of the more common provisions of the Employees' Retirement System of the City of Milwaukee (Retirement System or ERS) is provided for financial statement purposes only. The provisions reflect changes to the Retirement System enacted in 2000, known as the Global Pension Settlement (GPS). GPS increased benefits to current and future retirees and also allowed changes to the ERS administration, including permitting the use of ERS funds to pay costs related to plan administration. The 98.9% of existing members who have consented to GPS are accounted for in the Global Combined Fund. Members who have not consented are accounted for in one or more of the non-consenter funds. Refer to Chapter 36 of the City of Milwaukee Charter for more complete information.

GPS requires that members enrolled through June 28, 2000 provide written consent to ERS in order to be eligible for the benefit enhancements of GPS. Members enrolled after June 28, 2000, are automatically eligible and are included in the Combined Fund.

Subsequent to completion of the January 1, 2017 actuarial valuation, 9 members who were enrolled as of June 28, 2000 and had not consented to GPS, elected to consent. The January 1, 2018 actuarial valuation reflects the impact of this change.

Plan Administration

The Retirement System was established pursuant to the Retirement Act (Chapter 396 of the Laws of Wisconsin of 1937) to provide payment of retirement and other benefits to employees of the City of Milwaukee (City). Chapter 441 of the Laws of Wisconsin of 1947 made the benefits contractual and vested. The ERS is a cost-sharing, multi-employer plan, which provides benefits to employees of the Milwaukee Metropolitan Sewerage District, Wisconsin Center District, Veolia Water Milwaukee LLC, Milwaukee Housing and Redevelopment Authorities, and non-certified staff of Milwaukee Public Schools (Agencies). City employees comprise approximately 54.0% of the active participants in the Retirement System.

Member contributions to the ERS are required under Chapter 36-08-7. The City of Milwaukee in its legislative capacity has sole authority to make changes to Chapter 36, and to set contribution requirements and benefit terms. It is a section 401(a), Internal Revenue Code, qualified cost-sharing, multiple-employer defined benefit plan for participating public employees.

Contribution rates, as a percentage of earnable compensation, are as follows:

- | | |
|---------------------------|---|
| (a) General Employees | 5.5% (tier 1 – enrolled prior to January 1, 2014)
4.0% (tier 2 – enrolled on or after January 1, 2014) |
| (b) Firemen and Policemen | 7.0% |
| (c) Elected Officials | 7.0% (tier 1 – enrolled prior to January 1, 2014 and elected to an office prior to January 1, 2014; if enrolled prior to January 1, 2014, and elected for the first time to an office on or after January 1, 2014, and employee was paying contributions prior to being elected, employee pays contributions at the rate they were paying prior to becoming an elected official; if enrolled prior to January 1, 2014, and elected for the first time to an office on or after January 1, 2014, and employer was picking up contributions on behalf of the employee prior to being elected, employer pays 7.0%)
4.0% (tier 2 – enrolled on or after January 1, 2014) |

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

1. DESCRIPTION OF RETIREMENT SYSTEM (cont.)

Commencing in 1990, contributions of one dollar of each police officer's longevity pay per year are made by police officers on their own behalf. This excludes sergeant of police, detective lieutenant and any ranks above same.

In addition to the above percentage contributions, additional contributions were required of general city employees who were enrolled as active members after January 1, 2000. To participate in the Global Combined Fund, each new member was required to contribute 1.6% of his or her pensionable earnings for a period of eight years. However, the 1.6% required contributions does not apply to members required to make member contributions under 36-08-7-a or c.

The Annuity and Pension Board (Board) administers the Retirement System. The Board has eleven members consisting of the following:

- Three representatives appointed by the President of the Common Council
- Three representatives appointed by the Mayor of the City of Milwaukee
- One representative elected by retired members of the ERS
- The City Comptroller, who serves as an ex-officio voting member
- Three representatives elected by the active ERS members from each individual group; one each from the Fire Department, the Police Department, and the General City

Full-time employees, part-time employees who are eligible under adopted rules and regulations, and elected officials who have evidenced their intent to join are members of the Retirement System.

The 2011 Wisconsin Act 10, known as the governor's Budget Repair Bill, created Wis. Stat. 62.623 addresses payment of contributions in an employee retirement system of a first class city. The Act requires certain members to pay employee required contributions, and prohibits their employer from making contributions on their behalf.

Benefits Provided

The normal retirement benefit is a monthly pension for the life of the member. A service retirement allowance is payable to any member who meets one of the following eligibility criteria:

<u>Class</u>	<u>Enrollment Date</u>	<u>Eligibility for Service Retirement*</u>
General City	Prior to January 1, 2014	Age 60, or age 55 with 30 years of creditable service
General City	On/after January 1, 2014	Age 65, or age 60 with 30 years of creditable service
Fire	Prior to July 30, 2016	Age 57, or age 49 with 22 years of creditable fire or police service
Fire	On/after July 30, 2016	Age 57, or age 52 with 25 years of creditable fire service
Police	Prior to December 20, 2015	Age 57, or any age with 25 years of creditable fire or police service
Police	On/after December 20, 2015	Age 57, or age 50 with 25 years of creditable police service

**These eligibility criteria assume consent to the provisions of the Global Pension Settlement (GPS); most members have consented to GPS*

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

1. DESCRIPTION OF RETIREMENT SYSTEM (cont.)

For General City employees, the service retirement allowance is 2%, or 1.6% for members enrolled on or after January 1, 2014, of the member's final average salary (the highest average of earnable compensation during any 3 years preceding retirement, death or termination) for each year of creditable service. The service retirement allowance for General City employees who retire after January 1, 1989, cannot exceed 70% of their final average salary.

For police officers and firefighters, the retirement allowance is 2.5% of their final average salary (computed on the year of creditable service during which earnable compensation was highest) for each year of creditable service. The retirement allowance for firefighters hired after March 1, 1989, and police officers hired after July 1, 1989, is limited to 90% of their final average salary (excluding any imputed service credit provided under the GPS).

For elected officials enrolled prior to January 1, 2014, the retirement allowance is 2.6% of their final average salary for each year of creditable service as an elected official for years before 1996 and is limited to 70% of the final average salary. For the years 1996 and forward, the accrual rate is 2.5% (For the Mayor, the accrual rate is 2.0%) for creditable service, imputed military service, or seasonal service and is limited to 70% of their final average salary. However, elected officials who were enrolled prior to 2014 and are first elected to office on or after January 1, 2014, have an accrual rate of 2% for each year if they contribute 5.5% of their earnable compensation, or 2.5% for each year if they contribute 7% of their earnable compensation. For elected officials enrolled on or after January 1, 2014, the accrual rate is 1.6% of their final average salary for each year of creditable service as an elected official, and is limited to 70% of their final average salary.

Chapter 36 of the Milwaukee City Charter addresses pension escalators. General City employees participating in the Global Combined Fund and enrolled prior to January 1, 2014 and retiring on a service retirement allowance on or after January 1, 2000, are eligible for a pension escalator of 1.5% on the second, third and fourth anniversaries of their retirement, and 2% on each anniversary thereafter. Police officers and firefighters participating in the Global Combined Fund retiring on a service retirement allowance on or after January 1, 2000, are eligible for a pension escalator based upon the percentage increase in the prior year's Consumer Price Index-All Urban Consumers (CPI-U), effective on their first anniversary and each anniversary thereafter. The percentage increase is determined annually by measuring the change in the Index from November to November of each year. The pension escalator is guaranteed to be at least two percent, but is capped at three percent.

General City employees enrolled on or after January 1, 2014, retiring on a service retirement allowance are eligible for a pension escalator of 2% on their fifth anniversary of retirement and each anniversary thereafter.

Rules governing pension escalators provided to retirees retiring prior to January 1, 2000, before the Global Pension Settlement, differ from those described herein. In addition, a one-time "catch up" adjustment was provided in January of 1996 to employees who retired on a service retirement allowance on or before September 30, 1987, to partially offset the increase in inflation. For a complete description of the escalator rules, see Chapter 36 of the Milwaukee City Charter.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

- a. Basis of Accounting:** The financial statements are prepared using the accrual basis of accounting. Retirement and other contributions are recorded when due. Investment income is recognized when earned and expenditures are recorded when incurred.
- b. Reporting Entity:** This report includes all of the funds of the ERS and the PABF. The reporting entity for the ERS consists of the primary government and its component units. Component units are legally separate organizations for which the elected officials of the primary government are financially accountable or other organizations for which the nature and significance of their relationship with the primary government are such that their exclusion would cause the reporting entity's financial statements to be misleading. The primary government is financially accountable if:
- 1) It appoints a voting majority of the organization's governing body and it is able to impose its will on that organization;
 - 2) It appoints a voting majority of the organization's governing body and there is a potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the primary government; or
 - 3) The 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.

Certain legally separate, tax exempt organizations should also be reported as a component unit entity if all of the following criteria are met:

- 1) The economic resources received or held by the separate organization are entirely or almost entirely for the direct benefit of the primary government, its component units, or its constituents;
- 2) The primary government is entitled to, or has the ability to otherwise access, a majority of the economic resources received or held by the separate organization;
- 3) The economic resources received or held by an individual organization that the specific primary government, or its component units, is entitled to, or has the ability to otherwise access, are significant to that primary government.

Component units are reported using one of two methods, discrete presentation or blending. Generally, component units should be discretely presented in a separate column in the financial statements. A component unit should be reported as part of the primary government using the blending method if it meets any one of the following criteria:

- 1) The primary government and the component unit have substantively the same governing body and a financial benefit or burden relationship exists,
- 2) The primary government and the component unit have substantively the same governing body and management of the primary government has operational responsibility for the component unit,
- 3) The component unit serves or benefits, exclusively or almost exclusively, the primary government rather than its citizens, or
- 4) The total debt of the component unit will be paid entirely or almost entirely from resources of the primary government.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

Blended Component Units

CMERS Low Beta, LLC

CMERS Low Beta, LLC was created by the ERS to serve as a hedge fund of funds investment vehicle for the Retirement System. The LLC is a legally separate entity governed by a board of directors appointed by the Annuity and Pension Board of the ERS. UBS Hedge Fund Solutions serves as investment manager for the hedge fund of funds portfolio. Although it is a legally separate entity, the LLC is reported and included as part of the ERS because its sole purpose is for the benefit of the Retirement System. MUFG Alternative Fund Services (Cayman) Limited is the administrator and Ernst and Young is the external auditor for the LLC. Separate financial statements are issued annually for CMERS Low Beta, LLC.

- c. Contributions:** The Retirement System records employee contributions as they are earned. Contributions earned but not yet received from the City, participating city agencies and members are reported as contributions receivable. Overpayments and prepayments of contributions are reported as liabilities.

At January 1, 2017 the measurement date, membership of the plan was as follows:

Plan members currently receiving benefits	12,888
Inactive plan members entitled to, but not yet receiving benefits	3,416
Current employees:	
Vested	7,702
Non-vested	<u>3,381</u>
Total	<u><u>27,387</u></u>

This membership data is as of January 1, 2017, and reasonably approximates membership data through December 31, 2017.

- d. Cash and Cash Equivalents:** Cash and cash equivalents are composed of cash in local banks, cash held by the custodian, and cash equivalents. Cash equivalents are defined as short-term, highly liquid investments that are both (a) readily convertible to known amounts of cash and (b) so near maturity they present insignificant risk of changes in value due to changes in interest rates. Investments with an original maturity of three months or less are considered cash equivalents. Restricted securities held as collateral for Securities Lending are not included as cash equivalents.
- e. Investments:** Investments of the Retirement System are reported at fair value in accordance with applicable GASB statements. Fair value is defined as the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller. The fair value of investments is based on published market prices and quotations from major investment brokers at current exchange rates, as available. Many factors are considered in

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

arriving at that value. In general, however, bonds and mortgage obligations are valued based on yields currently available on comparable securities of issuers with similar credit ratings.

Receivables and payables relating to investment transactions that were initiated but not settled at year-end, are recorded as assets or liabilities.

Real estate consists of equity and debt participation in diversified real estate investments. The majority of properties in the portfolio are offices, industrial warehouses, multi-family and retail. Real estate investments are carried at market value, which approximates fair value, as of December 31, 2017. Annual assessments performed by independent professional appraisers are used for market values.

Private equity consists of equity and debt participation in diversified private equity investments. The majority of investments in the portfolio consist of buyouts and venture capital. Private equity investments are carried at market value, which approximates fair value, as of December 31, 2017.

The Retirement System has investments in certain derivative vehicles, including interest rate, credit, index volatility, and currency futures; bond futures; deliverable and non-deliverable forward contracts; bond forwards; currency forwards; currency options; options on bond futures, U.S. equity indices, U.S. equity index futures, volatility indices, volatility futures, and ETFs; total return swaps; and to-be-announced (TBA) securities. The ERS allows UBS Hedge Fund Solutions to allocate funds within CMERS Low Beta, LLC to hedge fund managers who may invest in derivatives including, but not limited to, the derivatives listed earlier. Derivative investments comply with the Annuity and Pension Board Investment Policy and Guidelines. Additional information on derivatives for ERS, including the notional and contractual amounts, market values and unrealized gains and losses of holdings, are contained in Note 8.

All investments are made in accordance with the provisions of Section 36-09 of Chapter 36 of the Milwaukee City Charter. The provisions require several funds of the Retirement System to be invested within the requirements of ss. 40.03(1) (n) and 62.63 (3) Wisconsin Statutes. During 2017, investments were in compliance with the Annuity and Pension Board Investment Policy and Guidelines.

Investments in stocks of corporations in 2017, as measured by their cost, did not exceed 54.6% of the total assets.

The Retirement System invests in financial instruments such as U.S. Treasury Strips, collateralized mortgage obligations and asset backed securities. Investment managers may temporarily invest small amounts of available cash in short-term investments prior to purchasing securities.

The Retirement System's international equity managers may invest in warrants and foreign exchange forward contracts as a hedge for foreign currency fluctuations. The unrealized gains and losses on these positions as of December 31, 2017, are detailed in Note 8.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

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

- f. Investment Income:** Dividends, interest and realized gains and losses are recorded as earned. Investment income is allocated to each individual fund based on fund balances at the beginning of the year.
- g. Estimates:** The financial statements are presented in conformity with generally accepted accounting principles. These principles require management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates.
- h. Capitalization:** The Retirement System capitalizes hardware and software development costs. Amounts incurred for hardware (including printers, monitors, disk drives, network infrastructure, switches) are capitalized in a yearly hardware pool and depreciated over three years. Capitalized costs are depreciated over their useful lives, with a half of a year's depreciation expensed in the year of acquisition.

Costs related to the development of the Pension Management Information System were capitalized as Software Development costs. The system went live in 2006 and as of December 31, 2014, the development costs were fully depreciated. As of December 31, 2017, the cost of the Retirement System's hardware and software development totaled \$18,004,414 and accumulated depreciation totaled \$17,464,178. During 2017, depreciation of \$210,412 was recognized and included in Administrative Expenses in the accompanying Statement of Changes in Fiduciary Net Position.

- i. Contingencies:** Claims and judgments are recorded if all the conditions of GASB pronouncements are met. Claims and judgments are recorded as expenses when the related liabilities are probable and management can reasonably estimate the amounts.
- j. New Pronouncements:** In December 2015, the GASB issued Statement No. 79, *Certain External Investment Pools and Pools Participants*. This statement addresses accounting and financial reporting for certain external investment pools and pools participants. Specifically, it establishes criteria for an external investment pool to qualify for making the election to measure all of its investments at amortized cost for financial reporting purposes. This Statement establishes additional note disclosure requirements for qualifying external investment pools that measure all of their investments at amortized cost for financial reporting purposes and for governments that participate in those pools. ERS reports its investments at fair value and ERS' adoption of this standard had no impact in 2017 on the basic financial statements or note disclosures.

In March 2016, the GASB issued Statement No. 82, *Pension Issues* (an amendment of GASB Statements No. 67, No. 68, and No.73). The objective of this Standard is to improve consistency

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

in the application of pension accounting and financial reporting requirements. The requirements of this Statement will improve financial reporting by enhancing consistency in the application of financial reporting requirements to certain pension issues. ERS adopted the guidance for the 2017 fiscal year and the adoption of the standard had no impact on the basic financial statements or note disclosures.

3. CONSENT STATUS CHANGES

Members who have not consented to the GPS have either objected to the settlement or never responded. The deadline to consent of April 24, 2004, has been extended indefinitely for those who never responded. Often, non-responders consent to GPS at the time they apply for benefits. As of the January 1, 2017, actuarial valuation, 234 members were non-consenting, including 79 active members, 139 inactive members, and 16 benefit recipients. During 2017, 9 members elected to consent to the GPS, resulting in a transfer of \$1,097,000 to the Global Combined Fund from the non-consenter funds.

4. EMPLOYERS' RESERVE FUND

The City of Milwaukee and other Agencies participating in the Retirement System may voluntarily contribute to the Employers' Reserve Fund which was established per Section 36-08-8 of Chapter 36. Deposits to the Employers' Reserve Fund may be used to fund contribution requirements, but this requires a formal resolution directing a fund transfer. Employers' Reserve Fund resources are invested according to City of Milwaukee investment policies.

For 2017, there was no transfer from the Employers' Reserve Fund. As of December 31, 2017, the City of Milwaukee is the only employer participating in the fund.

5. NET PENSION LIABILITY OF PARTICIPATING PLANS

Employees' Retirement System (ERS)

The components of the pension liability of the ERS at December 31, 2017, were as follows (in thousands):

Total pension liability	\$	5,759,071
Plan fiduciary net position		<u>(5,396,527)</u>
ERS's net pension liability	\$	<u><u>362,544</u></u>
Plan fiduciary net position as a percentage of the total pension liability		93.70%

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

5. NET PENSION LIABILITY OF PARTICIPATING PLANS (cont.)

Actuarial assumptions for ERS: The last actuarial valuation was performed as of January 1, 2017, and these amounts were used to roll-forward the total pension liability for the year ended December 31, 2017. The valuation was determined using the following actuarial assumptions, which were applied to all prior periods included in the measurement:

Valuation Date	January 1, 2017
Actuarial Cost Method	Entry Age Normal – Level Percentage of Pay
Amortization Method	For pension expense; the difference between expected and actual liability experience and changes of assumptions are amortized over the average of the expected remaining service lives of all members. The differences between projected and actual earnings are amortized over a closed period of five years.
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Investment Rate of Return	8.00% for calendar years through 2022, and 8.25% beginning with calendar year 2023
Projected Salary Increases	General City 2.5% - 5.5% Police & Fire 4.0% - 13.4%
Inflation Assumption	2.50%
Cost of Living Adjustments	Vary by Employee Group as explained in summary of plan provisions
Mortality Table	For regular retirees and for survivors, the RP-2014 Healthy Annuitant Mortality Table (using 111% of rates for males and 110% of rates for females) projected generationally with Scale MP-2016. For duty and ordinary disability retirees, the RP-2014 Disability Mortality Table (using 102% of rates for males and 98% of rates for females) projected generationally with Scale MP-2016 was used. For death in active service, the RP-2014 Non-annuitant Mortality Table projected generationally with Scale MP-2016.
Experience Study	The actuarial assumptions used in December 31, 2017 valuation were based on the results of an actuarial experience study for the period January 1, 2012-December 31, 2016.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

5. NET PENSION LIABILITY OF PARTICIPATING PLANS (cont.)

The long-term expected rate of return on the ERS investments was determined from the experience review performed by the consultants, Conduent HR Consulting, LLC. The results of the experience review were adopted by the Board at the October 23, 2017 meeting.

The rate of return assumption was based on the Retirement System's target asset allocation. In the experience review, the consultants developed best estimate ranges of expected future real rates of return (net of inflation) for the portfolio, based on the expected returns of each major asset class and their weights within the portfolio. The consultants used an econometric model that forecasts a variety of economic environments and then calculates asset class returns based on functional relationships between the economic variables and the asset classes. Expected investment expenses were subtracted and expected inflation was added to arrive at the long term expected nominal return. The rate for the long term expected return was selected for the portfolio such that there was a better than 50% likelihood of the emerging returns exceeding the expected return.

Best estimates of arithmetic real rates of return (net of inflation) for each major asset class included in the Retirement System's target asset allocation used in the most recent experience study are listed in the table below:

<u>Asset Class</u>	<u>Asset Allocation</u>	<u>Long-term Expected Real Rate of Return*</u>
Public Equity	49.00%	8.25%
Fixed Income	13.00%	1.83%
Cash	1.00%	0.94%
Real Estate	7.70%	6.91%
Real Assets	3.30%	5.38%
Private Equity	8.00%	12.54%
Absolute Return	18.00%	4.66%
	100.00%	

** Rates provided by Conduent HR Consulting, LLC.*

Discount Rate for ERS: The discount rate used to measure the total pension liability was 8.24 percent. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from the City and Agencies will be made at contractually required rates, as determined by the actuary. Based on those assumptions, the ERS' fiduciary net position was projected to be available to make projected future benefit payments for current members. The cross over analysis produced a single rate of 8.24 percent, which reflects the long-term expected rate of return on ERS investments. Based on the analysis, the discount rate was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the ERS net pension liability to changes in the discount rate: The following presents the net pension liability for the ERS calculated using the discount rate of 8.24 percent, a discount rate that is 1-percentage-point lower (7.24 percent), and a discount rate that is 1-percentage-point higher (9.24 percent) (in thousands):

	<u>1% Decrease (7.24%)</u>	<u>Current Discount (8.24%)</u>	<u>1% Increase (9.24%)</u>
ERS' net pension liability (asset) \$	1,018,101	\$ 362,544	\$ (186,511)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

5. NET PENSION LIABILITY OF PARTICIPATING PLANS (cont.)

Sensitivity of the ERS employer contributions to changes in the discount rate: The following presents the annual employer contributions as of January 1, 2018 using the discount rate of 8.24 percent, a discount rate that is 1-percentage-point lower (7.24 percent), and a discount rate that is 1-percentage-point higher (9.24 percent) (in thousands):

	1% Decrease (7.24%)	Current Discount (8.24%)	1% Increase (9.24%)
Annual employer contributions	\$ 142,403	\$ 82,144	\$ 27,069

Policemen's Annuity and Benefit Fund (PABF)

The components of the net pension liability of the PABF at December 31, 2017, were as follows (in thousands):

Total pension liability	\$ 680
Plan fiduciary net position	(3)
PABF's net pension liability	\$ 677

Plan fiduciary net position as a percentage of the total pension liability	0.44%
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Actuarial assumptions for PABF: The last actuarial valuation was performed as of January 1, 2017, and these amounts were used to roll-forward the total pension liability for the year ended December 31, 2017. The valuation was determined using the following actuarial assumptions, which were applied to all prior periods included in the measurement:

Valuation Date	January 1, 2017
Actuarial Cost Method	Entry Age Normal – Level dollar amount
Amortization Method	For pension expense; the difference between expected and actual liability experience and changes of assumptions are recognized immediately. The differences between projected and actual earnings are amortized over a closed period of five years.
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Investment Rate of Return	8.25% for calendar years through 2017, and 8.50% beginning with calendar year 2018
Projected Salary Increases	None - The Plan is Closed
Inflation Assumption	3.00%
Mortality Table	For regular retirees and for survivors, the RP-2000 Combined Mortality Table with nine years of projected improvements for males and females, include full generational projection using mortality improvement Scale AA.
Experience Study	The actuarial assumptions used in the December 31, 2017 valuation were based on the results of an actuarial experience study for the period January 1, 2007-December 31, 2011.

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5. NET PENSION LIABILITY OF PARTICIPATING PLANS (cont.)

The long-term expected rate of return on the PABF investments was determined from the experience review performed by the consultants, Conduent HR Consulting, LLC. The results of the experience review were adopted by the Board at the October 23, 2017 meeting.

The rate of return assumption was based on the target asset allocation. In the experience review, the consultants developed best estimate ranges of expected future real rates of return (net of inflation) for the portfolio, based on the expected returns of each major asset class and their weights within the portfolio. The consultants used an econometric model that forecasts a variety of economic environments and then calculates asset class returns based on functional relationships between the economic variables and the asset classes. Expected investment expenses were subtracted and expected inflation was added to arrive at the long term expected nominal return. The rate for the long term expected return was selected for the portfolio such that there was a better than 50% likelihood of the emerging returns exceeding the expected return.

Best estimates of arithmetic real rates of return (net of inflation) for each major asset class included in the Retirement System's target asset allocation used in the most recent experience study mentioned above are listed in the table below:

Asset Class	Asset Allocation	Long-term Expected Real Rate of Return*
Public Equity	49.00%	8.25%
Fixed Income	13.00%	1.83%
Cash	1.00%	0.94%
Real Estate	7.70%	6.91%
Real Assets	3.30%	5.38%
Private Equity	8.00%	12.54%
Absolute Return	18.00%	4.66%
	100.00%	

** Rates provided by Conduent HR Consulting, LLC.*

Discount rate for PABF: The discount rate used to measure the total pension liability was 3.16 percent. The PABF is closed to new members and PABF's fiduciary net position was projected to be insufficient to make all projected future benefit payments for current annuitants. Therefore, the 20-year Municipal Bond Rate was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the PABF net pension liability to changes in the discount rate: The following presents the net pension liability of the PABF calculated using the discount rate of 3.16 percent, a discount rate that is 1-percentage-point lower (2.16 percent), and a discount rate that is 1-percentage-point higher (4.16 percent) than the current rate (in thousands):

	1% Decrease (2.16%)	Current Discount (3.16%)	1% Increase (4.16%)
PABF's net pension liability	\$ 696	\$ 677	\$ 659

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
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6. EXPENSES

Under the Milwaukee City Charter, as provided in the GPS, administrative and investment expenses of the Retirement System are the direct obligation of the Global Combined Fund. Expenses are normally paid by the City of Milwaukee and then reimbursed to the City by ERS.

Investment manager fees of approximately \$39,452,000 and administrative expenses of approximately \$7,144,000 were charged to the Global Combined Fund in 2017. In addition, the Annuity and Pension Board authorized the payment of \$1,493,000 of administrative costs from the Securities Lending Fund during 2017. This reduced the amount needed from the Global Combined Fund for costs to administer the Retirement System (see Note 8).

7. INCOME TAX STATUS

The most recent determination letter is dated February 7, 2017, with the Internal Revenue Service (IRS) stating that the Retirement System, as then designed and in conjunction with the proposed amendments required by the IRS, was in compliance with the applicable requirements of the Internal Revenue Code. The Retirement System's management believes that the plan is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code. Therefore, the accompanying basic financial statements reflect no provision for income taxes.

8. INVESTMENTS

Investment Policies

The Retirement System's policy for the allocation of invested assets is established, and amended, as needed, by the ERS Board. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the Retirement System. The following was the ERS Board's adopted asset allocation policy as of December 31, 2017:

<u>Asset Class</u>	<u>Policy</u>
Public Equity	55.00%
Fixed Income	21.00%
Cash	1.00%
Real Estate	7.00%
Real Assets	3.00%
Private Equity	5.00%
Absolute Return	8.00%
	<hr style="width: 50%; margin-left: auto; margin-right: 0;"/> 100.00%

Rate of return: For the year ended December 31, 2017, the annual money-weighted rate of return on ERS investments, net of pension plan investment expenses, was 16.41 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

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8. INVESTMENTS (cont.)

Fair Value Measurement

The Retirement System categorizes their fair value measurements within the fair value hierarchy established by generally accepted accounting principles. ERS had the following recurring fair value measurements as of December 31, 2017 (in thousands):

Investment Type	Fair Market Value	Fair Value Measurements Using		
		Level 1	Level 2	Level 3
Bonds and collateralized mortgage obligations	\$ 1,076,344		\$ 1,076,343	
Common and preferred stocks	1,486,516	1,474,607	11,769	140
Blackrock Global Alpha Tilts	325,157		325,157	
Blackrock Russell 1000 Value Fund	177,316		177,316	
Blair William Emerging	74,660		74,659	
COLTV Stock Index Fund	362,948		362,949	
DFA Invt Dimensions	216,734		216,734	
DFA Small Cap Fund	218,939		218,940	
Newton	117,010		117,009	
Principal	174,774		174,775	
AQR Emerging Equities Fund	107,430			107,430
Hedge Funds	352,608			352,607
Total assets in the Fair Value Hierarchy	\$ 4,690,436	\$ 1,474,607	\$ 2,755,651	\$ 460,177
Investments measured at Net Asset Value *	661,980			
Investments at Fair Value	\$ 5,352,416			

** Per GASB 72, investments that are measured using the net asset value per share (or its equivalent) are not classified in the fair value hierarchy. The fair value presented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the Statement of Fiduciary Net Position.*

The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority (Level 1) to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority (Level 3) to unobservable inputs.

Level 1: Unadjusted quoted prices for identical instruments in active markets.

Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3: Valuations derived from valuation techniques in which significant inputs are unobservable.

The following is a description of the valuation methodologies used for assets measured at fair value. There were no changes to the methodologies during the year ended December 31, 2017.

U.S. treasury securities, equity securities, Real Estate Investment Trusts, and Exchange Traded Funds classified in Level 1 are valued using prices quoted in active markets for those securities.

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8. INVESTMENTS (cont.)

Debt and debt derivative securities classified in Level 2 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features and ratings. Matrix pricing is used to value securities based on the securities relationship to benchmark quoted prices. Index linked debt securities are valued by multiplying the external market price feed by the applicable day's Index Ratio. Level 2 debt securities also have nonproprietary information from multiple independent sources that were readily available to market participants who are known to be actively involved in the market. Equity and equity derivative securities classified in Level 2 are securities whose values are derived daily from associated traded securities.

The System's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. When inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation.

Real estate and private equity are valued using the net asset value (NAV) per share (or its equivalent). These investments are considered "alternative investments" and, unlike more traditional investments, generally do not have readily obtainable market values and take the form of limited partnerships. These investments are valued based on the partnerships' audited financial statements. If December 31 statements are available, those values are used. If December 31 values are not available, the valuation is adjusted from the most recently available valuation taking into account subsequent calls and distributions, adjusted for unrealized appreciation/depreciation, other income, and fees.

The summary of unfunded commitments for these types of alternative investments is reported below (in thousands).

Investment Type	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Private Equities	\$ 320,760	\$ 256,897	NA	NA
Real Estate Investments - Non-Core	84,575	27,519	NA	NA
Real Estate Investments - Core	256,645	110,800	Quarterly	90 Days
Totals	<u>\$ 661,980</u>	<u>\$ 395,216</u>		

Private Equities. This consists of four "fund of funds" managers that invest in a multitude of underlying private equity funds. The primary investment type of the underlying funds is buyout and venture capital. Investments can never be redeemed from the funds. Instead, distributions are received through the liquidation of the underlying assets of the funds. It is expected that the funds will be liquidated over the next 15-20 years. The funds are valued on a quarterly basis using appraisals based on the best estimate of market value.

Real Estate Investments – Non-Core. This consists of 24 closed-end funds that invest primarily in U.S. commercial real estate. Investments can never be redeemed from the funds. Instead, distributions are received through the liquidation of the underlying assets of the funds. It is expected that the funds will be liquidated over the next 7 to 10 years. The funds are valued on a quarterly basis using appraisals based on the best estimate of market value.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
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8. INVESTMENTS (cont.)

Real Estate Investments – Core. This consists of five open-end funds that invest primarily in U.S. commercial real estate. Investments can be redeemed from the funds on a quarterly basis with 90 days' notice, subject to availability of sufficient capital to cover the redemption. The funds are valued on a quarterly basis using appraisals based on the best estimate of market value.

Deposits and Custodial Credit Risk

Custodial credit risk is the risk that, in the event a financial institution or counterparty fails, the Retirement System will not be able to recover the value of its deposits, investments, or securities. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the Retirement System's name, and held by the counterparty. As of December 31, 2017, no investments or securities were exposed to custodial credit risk.

The Retirement System is also exposed to custodial credit risk for uncollateralized cash and cash equivalents that are not covered by federal depository insurance. As of December 31, 2017, no cash and cash equivalents were exposed to custodial credit risk.

The Retirement System was established to provide for the present and future retirement, disability, and death and survivor benefit payments for all city and city agency employees. All of the funds of the Retirement System taken in the aggregate constitute a special trust subject to applicable local, state, and federal laws, including but not limited to sections 36-15, 36-09-1, and 36-09-6 of the Milwaukee City Charter.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to magnitude of an entity's investment in a single issuer. As of December 31, 2017, the Retirement System has no single issuer that exceeds 5% of total investments. Investments issued or explicitly guaranteed by the U.S. Government and investments in mutual funds, external investment pools, and other pooled investments are excluded.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
NOTES TO BASIC FINANCIAL STATEMENTS
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8. INVESTMENTS (cont.)

As of December 31, 2017, the fair market carrying value of the investments are as follows (in thousands):

<u>Investment Type</u>	<u>Carrying Value</u>
Short Term Bills & Notes	\$ 10,828
Common Stock	1,457,197
Preferred Stock	17,287
Convertible Equity	1,791
Corporate Convertible Bonds	9,978
COLTV Stock Index Fund	362,948
Blair William Emerging	74,660
DFA Small Cap Fund	218,939
DFA Invt Dimensions	216,734
Blackrock Global Alpha Tilts	325,157
Blackrock Russell 1000 Value	177,316
Newton	117,010
Principal	174,774
AQR Emerging Equities Fund	107,430
Right & Warrants	263
Government Bonds	254,706
Municipal/Provincial Bonds	18,822
Corporate Bonds	680,019
Gov Mortgage Backed Sec	76,469
Gov Issued Comm Mort	15,588
Comm Mortgage Backed Sec	8,524
Asset Backed Securities	3,384
Other Fixed Income	8,004
Real Estate Investments	341,220
Private Equities	320,760
Hedge Funds	352,608
Total	<u>\$ 5,352,416</u>

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

**NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017**

8. INVESTMENTS (cont.)

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Retirement System's investment guidelines limit how much each fixed income manager may deviate duration from their respective benchmarks. Duration is the approximate percentage change in price for a 100-basis-point change in yield. Depending on the investment manager, the duration of the Retirement Systems active fixed income managers must either be between 80% and 250% of the duration of the Barclays Capital Aggregate Index or +/- 2 years of the Barclays Capital Aggregate Index. As of December 31, 2017, the segmented time distribution of the various investment types of debt securities for the Retirement System is as follows (in thousands):

Investment Type	Fair Market Value	1 Year or Less	1 to 5 Years	6 to 10 Years	More than 10 Years
Asset Backed Securities	\$ 4,784	\$ -	\$ 4,784	\$ -	\$ -
Commercial Mortgage-Backed	8,524	-	-	-	8,524
Corporate Bonds	428,603	27,274	168,824	142,719	89,787
Corporate Convertible Bonds	9,978	1,698	2,234	1,931	4,115
Government Bonds	401,190	61,625	193,647	95,331	50,587
Government Mortgage Backed Securities	187,764	2,642	59,994	49,636	75,492
Gov't-issued Commercial Mortgage-Backed	15,589	1,550	10,767	3,272	-
Municipal/Provincial Bonds	18,822	10,596	-	-	8,226
Short Term Bills and Notes	11,068	11,068	-	-	-
Totals	\$1,086,322	\$ 116,453	\$440,250	\$292,889	\$ 236,731

Assets held in commingled funds are classified based on the individual fund's characteristics as of 12/31/2017. As a result, Fair Market Values for individual Investment Type within this table may differ from the Values by Investment Type provided on page 40.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

**NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017**

8. INVESTMENTS (cont.)

Foreign Currency Risk

Foreign currency risk is the risk that changes in currency exchange rates will adversely affect the fair value of an investment or deposit. ERS investment guidelines allow foreign currency contracts for defensive hedging purposes. In addition, the guidelines recommend adequate diversification by country and currency. As of December 31, 2017, the Retirement System's exposure to foreign currency risk, expressed in U.S. Dollars, is as follows (in thousands):

Foreign Currency	Equities	Fixed Income	Real Estate and Private Equity	Total Fair Market Value
Australian dollar	\$ 946	\$ 670	\$ -	\$ 1,616
Brazilian real	12,142	1,992	-	14,134
British pound sterling	162,240	999	4,966	168,205
Canadian dollar	19,556	11,716	-	31,272
Danish krone	13,259	-	-	13,259
Euro	225,138	-	4,332	229,470
Hong Kong dollar	19,241	-	-	19,241
Indian rupee	907	-	-	907
Japanese yen	128,721	-	3,138	131,859
Mexican peso	6,222	7,837	-	14,059
New Israeli shekel	526	-	-	526
New Zealand dollar	-	4,360	-	4,360
Norwegian krone	-	484	-	484
South African rand	2,566	-	-	2,566
South Korean won	26,779	-	-	26,779
Swedish krona	13,937	-	-	13,937
Swiss franc	56,630	-	-	56,630
Totals	\$ 688,810	\$ 28,058	\$ 12,436	\$ 729,304

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

**NOTES TO BASIC FINANCIAL STATEMENTS
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017**

8. INVESTMENTS (cont.)

Credit Risk of Debt Securities

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Retirement System's investment guidelines require its fixed income managers to have an Investment Grade average portfolio. The Retirement System's active fixed income managers are allowed to hold a maximum of 20% of their respective portfolio's market value in issues rated B- or B3, and an additional 5% may be invested in non-rated issues. The quality ratings of investments in fixed income securities of the Retirement System as described by Standard & Poor's as of December 31, 2017, are as follows (in thousands):

Investment Type	Fair Market Value	Fair Market Value									Not Rated			
		AAA	AA	A	BBB	BB	B	CCC	D	US Government Guaranteed	Quality Rating Not Available			
Asset Backed Securities	\$ 4,784	\$ 1,845	\$ 700	\$ 580	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,659	**	
Commercial Mortgage-Backed	8,523	1,729	-	-	-	-	-	-	-	-	-	-	6,794	**
Corporate Bonds	428,604	22,100	37,729	108,748	143,155	67,058	39,948	9,376	415	-	-	-	75	**
Corporate Convertible Bonds	9,978	-	-	-	3,159	4,078	2,741	-	-	-	-	-	-	-
Government Bonds	401,190	485	3,404	7,445	-	1,992	-	-	-	-	385,808	-	2,056	**
Government Mortgage Backed Securities	187,764	-	-	-	-	-	-	-	-	-	187,764	-	-	-
Gov't-issued Commercial Mortgage-Backed	15,588	-	-	-	-	-	-	-	-	-	15,588	-	-	-
Municipal/Provincial Bonds	18,823	-	-	10,597	-	-	8,226	-	-	-	-	-	-	-
Short Term Bills and Notes	11,068	-	-	-	-	-	-	-	-	-	11,068	-	-	-
Totals	\$ 1,086,322	\$ 26,159	\$ 41,833	\$ 127,370	\$ 146,314	\$ 73,128	\$ 50,915	\$ 9,376	\$ 415	\$ 600,228	\$ 10,584			

** Bonds listed as Not Rated by S&P are rated Investment Grade by Moody's.

Assets held in commingled funds are classified based on the individual fund's characteristics as of 12/31/2017. As a result, Fair Market Values for individual Investment Type within this table may differ from the Values by Investment Type provided on page 40.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

NOTES TO BASIC FINANCIAL STATEMENTS AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

8. INVESTMENTS (cont.)

Derivatives

The ERS' Statement of Investment Policy written objectives and guidelines governing the investment of Fund assets allows separate account investment managers to use forward contracts and derivatives traded on a recognized derivatives exchange for hedging and efficient portfolio management purposes if the Board approves their use within the individual manager's written guidelines. No assets shall be committed to futures, options, options on futures, forwards and other derivatives unless approved by the Board.

Prohibited investments in separate accounts include mortgage interest only, principal only, inverse floaters or other CMO derivatives that have uncertain or volatile duration or price movement.

In 2017, the Retirement System's separate account investment managers utilized currency forwards, bond forwards, bond futures, and credit default swaps. Currency forwards are necessary to purchase or sell non-U.S. securities. Bond forwards and futures are sometimes more liquid and easier to trade than the respective underlying security and can allow an investment manager to reduce the costs of constructing an efficient portfolio.

Currency Forwards

A foreign currency forward is a contractual agreement between two parties to pay or receive amounts of foreign currency at a future date in exchange for another currency at an agreed upon exchange rate. The Retirement System's International Equity and Global Equity managers entered into foreign exchange positions, such as forward and spot contracts, to hedge foreign currency exposure or obtain a currency for a pending cash transaction. The ERS has two Fixed Income managers who are allowed to invest globally. One of them only enters into spot contracts to obtain a currency for a pending cash transaction. The other global fixed income manager enters into currency forward and spot contracts for the purposes of achieving a positive return in addition to the reasons stated above. The majority of the contracts are short-term in duration and mature within 90 days. However, as of December 31, 2017, some contract positions had longer durations that do not exceed 3 years.

Bond Forwards

A bond forward is a non-standardized contractual agreement between two parties to buy or sell a pre-determined amount of a bond at a future date in exchange for a price agreed upon today. The Retirement System's Global Fixed Income manager entered into bond forward contracts for the purposes of hedging and achieving a positive return. The ERS' bond forward contracts held as of December 31, 2017, had maturities of up to 30 years.

Bond Futures

A futures contract is a standardized contractual agreement between two parties, made through an organized exchange, to buy or sell a pre-determined amount of a bond at a future date in exchange for a price agreed upon today. The counterparty credit risk for a futures contract is generally less than privately negotiated forward contracts because the organized exchange acts as a clearinghouse that typically settles net changes to futures contract values daily. ERS had no futures contracts as of December 31, 2017.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

**NOTES TO BASIC FINANCIAL STATEMENTS
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8. INVESTMENTS (cont.)

The following table summarizes the aggregate notional or contractual amounts for the ERS' separate account managers as of December 31, 2017 (in thousands):

	Notational/ Contractual Amounts	Fair Market Value	Gain/(Loss)
Foreign exchange forward spot contracts receivable	\$ 1,193	\$ 1,195	\$ 2
Foreign exchange forward spot contracts payable	(1,193)	(1,194)	(1)
Foreign exchange forward long-term receivable	152	152	-
Foreign exchange forward long-term payable	(152)	(152)	-

Fixed Income Index Credit Default Swaps

A credit default swap is a type of swap designed to transfer the credit exposure of a fixed income product from one party to another. ERS grants one of its managers the ability to sell protection on the CDS index. This position is equivalent to the credit risk of holding the underlying bonds, but carries significantly lower trading costs. The CDS may not be used to create leverage, and must be fully collateralized by cash or US Treasury securities. The ERS did not have any CDS exposure as of December 31, 2017.

The total exposure of all hedges is limited to 100% of the total portfolio value, at market. Shorting currency exposure in countries without any underlying security exposure is prohibited.

The ERS is also exposed to market risk, the risk that future changes in market conditions may make an instrument less valuable. Exposure to market risk is managed through the limits placed on an investment manager within the Statement of Investment Policy.

The ERS is exposed to credit risk in the event of non-performance by counterparties to financial instruments. Typical counterparties for ERS are major financial institutions and broker-dealers. A counterparty's financial condition, cash on hand, and general credit worthiness is evaluated prior to entering into a transaction. In addition, ratings agencies' evaluations are reviewed.

The following table summarizes the counterparty credit risk amounts for the ERS' for derivatives as of December 31, 2017 (in thousands):

Investment Type		A	BBB	Exchange Traded	Not Rated Quality Rating Not Available
Assets					
Warrants	Equity Contracts	\$ -	\$ -	\$ -	\$ 263
Liabilities					
Forwards	Foreign Exchange Contracts	-	-	-	-
Total Value by Rating		\$ -	\$ -	\$ -	\$ 263

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

NOTES TO BASIC FINANCIAL STATEMENTS AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

8. INVESTMENTS (cont.)

Securities Lending

ERS started the securities lending program in 1993. Eligible securities are loaned out through the ERS custodian, Northern Trust. ERS earns a daily fee for securities loaned and incurs a reduction in earnings per the indemnification agreement with the custodian. Each security loan is initially collateralized by securities or cash for at least 102% of its market value (105% for international securities). Collateral is held by the custodian. Cash collateral received from borrowers is invested in a short-term investment pool, which is managed by Northern Trust

Revenue earned from securities lending is used to offset expenses of the Retirement System. If revenues are not expended within one calendar year following receipt, the remaining amount is distributed to the Non-Consenter Retirement Fund. For the year ended December 31, 2017, the Retirement System earned revenue from securities lending of approximately \$4,142,000, and paid custodian fees and rebates of \$2,705,073. The ERS also disbursed \$1,493,000 to offset some of the Retirement System's administrative costs.

As of December 31, 2017, ERS has securities on loan with a fair value of \$342,592,017 and the short-term collateral investment pool has a fair value of \$351,401,065.

<u>Investment Type</u>	<u>Securities on Loan Fair Value</u>
Global Equities	\$ 40,754,376
US Corporate Fixed	29,629,339
US Equities	89,678,224
US Government Fixed	182,530,079
Totals	<u>\$ 342,592,018</u>

The two main risks in securities lending are counterparty risk and collateral investment risk. Counterparty risk is the risk that the borrower defaults on a loan and is unable to return the security. The ERS' contract with Northern Trust indemnifies ERS of any losses suffered as a result of the securities lending program due to counterparty default. Collateral investment risk is the risk that an investment in a collateral option becomes impaired or decreases in value. ERS is responsible to refund any losses to the borrower as a result of losses in the collateral pool. As of December 31, 2017, the ERS' collateral pool was trading at or near fair market value with no impairments.

9. COMMITMENTS AND CONTINGENCIES

The Retirement System is involved in litigation and disputes arising during the normal course of operations. Management does not believe the settlement of such matters will have a material impact on the Retirement System's basic financial statements.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

NOTES TO BASIC FINANCIAL STATEMENTS AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2017

10. FIDUCIARY RESPONSIBILITY OF THE POLICEMEN'S ANNUITY & BENEFIT FUND

On December 14, 2005, the Policemen's Annuity and Benefit Fund (PABF) board adopted a resolution to dissolve and to liquidate all assets of the fund, and transfer the assets and full administrative control to the ERS. Charter Ordinances ss. 35-01-3-b and 36-15-1-e, enacted under common council file #050744, transferred the administrative and managerial responsibilities of the PABF to the ERS, authorizing the ERS Annuity and Pension Board to invest the assets of the PABF and to manage its operations. All assets of the PABF were transferred to the systems custodian, Northern Trust, early in 2006. The ERS board assumed custodial authority and responsibility for the fund's assets on January 3, 2006. These resources are disclosed as a separate fiduciary fund and valuations were prepared by the ERS actuary.

The plan's funding policy is specified in the Milwaukee City Charter, Chapter 35, as amended by Charter Ordinances, Numbers 356 and 357. The annual requirement consists of an amount sufficient to amortize the present value of benefits to all active and retired employees less the value of actuarial assets in the Fund by a series of level payments over the remainder of the funding period. File numbers 950930 and 970052 provide that the Board shall adopt the assumptions which the actuary uses in the annual valuation and tax levy certification. This contribution will comply with GASB, which requires that the annual required contributions (ARC) of the employer should be actuarially determined and have a provision for amortizing the unfunded liability. In general, GASB allows an amortization period of up to 30 years, but 10 years was deemed appropriate for this Fund. No tax levy was budgeted for 2017.

As of December 31, 2017, the composition of the PABF consisted of 3 annuitants and 20 widows. When all annuitants and widows are deceased, the fund is to be closed and remaining funds are to be remitted back to the City of Milwaukee.

The Policemen's Annuity and Benefit Fund may become insolvent on an actuarial basis. Because of this, the City of Milwaukee began funding the benefits and administrative expenses on a monthly basis.

11. ACTUARIALLY DETERMINED CONTRIBUTIONS FROM MEMBER AGENCIES

The Retirement System requires regular payroll contributions from its agencies and members for all active employees covered by the plan on a biweekly basis. To provide for disciplined, predictable and stable funding of pension obligations as a percentage of covered compensation, the City amended its charter to revise the method used to determine employer contributions to the ERS Combined Fund (referred to as the Stable Employer Contribution Policy). This amendment repealed the full-funding limit. The amendment achieves stable and predictable contribution levels.

12. SUBSEQUENT EVENTS

The Retirement System evaluated events occurring through July 12, 2018, the date the financial statements were available to be issued, for subsequent events requiring recording or disclosure in the Plan's financial statements. Management feels no material events occurred.

REQUIRED SUPPLEMENTARY INFORMATION

(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
Required Supplementary Information
Schedule of Changes in the Net Pension Liability
Last Four Fiscal Years
(in thousands)

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability				
Service cost	\$ 77,681	\$ 70,377	\$ 70,500	\$ 69,693
Interest	441,811	430,745	418,874	409,899
Differences between expected and actual experience	67,154	(9,921)	(30,035)	-
Changes of assumptions	244,993	-	(5,206)	-
Benefit payments including refunds of member contributions	(385,331)	(351,303)	(347,889)	(342,569)
Net change in total pension liability	446,308	139,898	106,244	137,023
Total pension liability - beginning	5,312,763	5,172,865	5,066,621	4,929,598
Total pension liability - ending	<u>\$ 5,759,071</u>	<u>\$ 5,312,763</u>	<u>\$ 5,172,865</u>	<u>\$ 5,066,621</u>
Plan fiduciary net position				
Contributions - employer	\$ 83,524	\$ 74,095	\$ 72,198	\$ 72,844
Contributions - member	32,494	35,918	49,553	43,663
Net investment income	787,809	383,747	34,982	238,985
Benefit payments, including refunds of member contributions	(385,332)	(351,303)	(347,889)	(342,569)
Administrative expense	(8,637)	(8,096)	(9,686)	(10,831)
Net change in plan fiduciary net pension	509,858	134,361	(200,842)	2,092
Plan fiduciary net position - beginning	4,886,669	4,752,308	4,953,150	4,951,058
Plan fiduciary net position - ending	<u>\$ 5,396,527</u>	<u>\$ 4,886,669</u>	<u>\$ 4,752,308</u>	<u>\$ 4,953,150</u>
Net pension liability - ending	<u>\$ 362,544</u>	<u>\$ 426,094</u>	<u>\$ 420,557</u>	<u>\$ 113,471</u>

The plan implemented GASB Statement No. 67 in the fiscal year 2014. Information calculated utilizing GASB 67 prior to fiscal year 2014 is not available.

See independent auditors' report and notes to required supplementary information.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
Required Supplementary Information
Schedules of Net Pension Liability and Investment Returns
Last Four Fiscal Years
(in thousands)

Schedule of Net Pension Liability

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability	\$ 5,759,071	\$ 5,312,763	\$ 5,172,865	\$ 5,066,621
Plan fiduciary net position	(5,396,527)	(4,886,669)	(4,752,308)	(4,953,150)
Net pension liability	<u>\$ 362,544</u>	<u>\$ 426,094</u>	<u>\$ 420,557</u>	<u>\$ 113,471</u>
Plan fiduciary net position as a percentage of total pension liability	93.70%	91.98%	91.87%	97.76%
Covered employee payroll	\$ 577,119	\$ 583,950	\$ 535,802	\$ 529,939
Net pension liability as a percentage of covered employee payroll	62.82%	72.97%	78.49%	21.41%

Schedule of Investment Returns

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of investment expense	16.41%	8.77%	0.63%	5.17%

The plan implemented GASB Statement No. 67 in the fiscal year 2014. Information for calculating the effects of GASB 67 prior to fiscal year 2014 is not available.

See independent auditors' report and notes to required supplementary information.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
Required Supplementary Information
Schedule of Contributions
Last 10 Fiscal Years
(in thousands)

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>
Actuarially Determined Contributions	\$ 83,524	\$ 74,095	\$ 72,198	\$ 72,844	\$ 79,533	\$ 73,159	\$ -	\$ -	\$ 60,098	\$ -
Contributions in relation to the actuarially determined contribution	83,524	74,095	72,198	72,844	79,533	73,159	-	-	60,098	-
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered employee payroll	\$ 577,119	\$ 583,950	\$ 535,802	\$ 529,939	\$ 521,651	\$ 523,738	\$ 525,181	\$ 538,218	\$ 553,846	\$ 536,558
Contributions as a percentage of covered-employee payroll	14.47%	12.69%	13.47%	13.75%	15.25%	13.97%	0.00%	0.00%	10.85%	0.00%

See independent auditors' report and notes to required supplementary information.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
Notes to Required Supplementary Information
As of and for the year ended December 31, 2017

1. This information presented in the required supplementary schedules, for pension funding purposes, was based on the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation is as follows:

Valuation Date	January 1, 2017
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Closed – Level Percent of Pay Pay assumed to grow 3% per year
Remaining Amortization Period	17 Years as of January 1, 2017
Asset Valuation Method	5-year smoothed market
Actuarial Assumptions:	
Investment Rate of Return	8.25% return for calendar years 2013 through 2017 and 8.50% beginning with calendar year 2018
Projected Salary Increases	General City 3.0% - 6.9% Police & Fire 3.0% - 10.5%
Inflation Assumption	3.00%
Cost of Living Adjustments	Vary by Employee Group as explained in summary of plan provisions
Mortality Table	For regular retirees and for survivors, the RP-2000 Combined Mortality Table with morality improvements projected to the year 2009 for males and females, including full generational projection using mortality improvement Scale AA.
Experience Study	The actuarial assumptions used in December 31, 2017 valuation were based on the results of an actuarial experience study for the period January 1, 2007-December 31, 2011.

2. The total pension liability contained in the Schedule of Net Pension Liability was provided by the Retirement Systems actuary, Conduent HR Consulting, LLC. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the Retirement System.
3. The required employer contributions and percent of contributions made are presented in the Schedule of Contributions.

See independent auditors' report and notes to required supplementary information.

POLICEMEN'S ANNUITY AND BENEFITS FUND – THE CITY OF MILWAUKEE
Required Supplementary Information
Schedule of Changes in the Net Pension Liability
Last Four Fiscal Years
(in thousands)

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability				
Interest	\$ 27	\$ 40	\$ 45	\$ 61
Differences between expected and actual experience	(119)	(14)	(29)	-
Changes of assumptions	10	(18)	7	-
Benefit payments including refunds of member contributions	(186)	(293)	(421)	(493)
Net change in total pension liability	(268)	(285)	(398)	(432)
Total pension liability - beginning	948	1,233	1,631	2,063
Total pension liability - ending	<u>\$ 680</u>	<u>\$ 948</u>	<u>\$ 1,233</u>	<u>\$ 1,631</u>
Plan fiduciary net position				
Contributions - employer	\$ 200	\$ 122	\$ 541	\$ 241
Net investment income	-	-	1	20
Benefit payments, including refunds of member contributions	(186)	(293)	(421)	(493)
Administrative expense	(14)	(11)	(82)	(34)
Net change in plan fiduciary net pension	0	(182)	39	(266)
Plan fiduciary net position - beginning	3	185	146	412
Plan fiduciary net position - ending	<u>\$ 3</u>	<u>\$ 3</u>	<u>\$ 185</u>	<u>\$ 146</u>
Net pension liability (asset) - ending	<u>\$ 677</u>	<u>\$ 945</u>	<u>\$ 1,048</u>	<u>\$ 1,485</u>

The plan implemented GASB Statement No. 67 in the fiscal year 2014. Information for calculating the effects of GASB 67 prior to fiscal year 2014 is not available.

See independent auditors' report and notes to required supplementary information.

POLICEMEN'S ANNUITY AND BENEFITS FUND – CITY OF MILWAUKEE
Required Supplementary Information
Schedules of Net Pension Liability and Investment Returns
Last Four Fiscal Years
(in thousands)

Schedule of Net Pension Liability

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Total pension liability	\$ 680	\$ 948	\$ 1,233	\$ 1,631
Plan fiduciary net position	(3)	(3)	(185)	(146)
Net pension liability (asset)	<u>\$ 677</u>	<u>\$ 945</u>	<u>\$ 1,048</u>	<u>\$ 1,485</u>
Plan fiduciary net position as a percentage of total pension liability	0.44%	0.32%	15.00%	8.95%
Covered employee payroll (Plan Closed)	\$ -	\$ -	\$ -	\$ -
Net pension liability (asset) as a percentage of covered employee payroll	N/A	N/A	N/A	N/A

Schedule of Investment Returns

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of investment expense	16.41%	8.77%	0.63%	5.17%

The plan implemented GASB Statement No. 67 in the fiscal year 2014. Information for calculating the effects of GASB 67 prior to fiscal year 2014 is not available.

See independent auditors' report and notes to required supplementary information.

POLICEMEN'S ANNUITY AND BENEFITS FUND – CITY OF MILWAUKEE
Required Supplementary Information
Schedule of Contributions
Last 10 Fiscal Years
(in thousands)

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>
Actuarially Determined Contributions	\$ 111	\$ 133	\$ 188	\$ 207	\$ 228	\$ 222	\$ 209	\$ 269	\$ 330	\$ 41
Contributions in relation to the actuarially determined contribution	111	133	188	207	228	222	209	269	330	41
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered employee payroll	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contributions as a percentage of covered-employee payroll	-	-	-	-	-	-	-	-	-	-

See independent auditors' report and notes to required supplementary information.

POLICEMEN’S ANNUITY AND BENEFITS FUND – THE CITY OF MILWAUKEE
Notes to Required Supplementary Information
As of and for the year ended December 31, 2017

1. This information presented in the required supplementary schedules, for pension funding purposes, was based on the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation is as follows:

Valuation Date	January 1, 2017
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Open – Level Dollar
Remaining Amortization Period	10 Years
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Investment Rate of Return	8.50% return for calendar years 2000 through 2012, 8.25% for calendar years 2013 through 2017, and 8.50% beginning with calendar year 2018
Projected Salary Increases	None - The Plan is Closed
Inflation Assumption	3.00%
Mortality Table	For regular retirees and for survivors, the RP-2000 Combined Mortality Table with nine years of projected improvements for males and females, include full generational projection using mortality improvement Scale AA.
Experience Study	The actuarial assumptions used in December 31, 2017 valuation were based on the results of an actuarial experience study for the period January 1, 2007-December 31, 2011.

2. The total pension liability contained in the Schedule of Net Pension Liability was provided by the Retirement System’s actuary, Conduent HR Consulting, LLC. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the Retirement System.
3. The required employer contributions and percent of those contributions actually made are presented in the Schedule of Contributions.

See independent auditors' report and notes to required supplementary information.

SUPPLEMENTARY INFORMATION

(See Independent Auditors' Report)

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
Combining Statement of Fiduciary Net Position
Non-Consenter Funds
As of December 31, 2017
(in thousands)

	Retirement Fund	Combined Retirement Fund	General Employees' Duty Disability Fund	Firemen's and Policemen's Duty Disability Fund	Firemen's Heart and Lung Fund	Firemen's and Policemen's Survivorship Fund	Total
ASSETS							
CASH AND CASH EQUIVALENTS	\$ 731	\$ 219	\$ 7	\$ -	\$ -	\$ -	\$ 957
INVESTMENTS (Notes 2 and 8):							
Bonds and collateralized mortgage obligations	2,429	875	20	-	-	-	3,324
Common and preferred stocks	3,403	1,226	29	-	-	-	4,658
Blackrock Global Alpha Tilts	744	268	6	-	-	-	1,018
Blackrock Russell 1000 Fund	406	146	3	-	-	-	555
Blair William Emerging	171	62	2	-	-	-	235
COLTV Stock Index Fund	831	299	7	-	-	-	1,137
DFA Invt Dimensions	496	179	4	-	-	-	679
DFA Small Cap Fund	501	181	4	-	-	-	686
Newton	268	97	2	-	-	-	367
Principal	400	144	3	-	-	-	547
AQR Emerging Equities Fund	246	89	2	-	-	-	337
Hedge funds	807	291	7	-	-	-	1,105
Real estate investments	781	282	7	-	-	-	1,070
Private equity	734	265	6	-	-	-	1,005
Total Investments	12,217	4,404	102	-	-	-	16,723
RECEIVABLES AND OTHER ASSETS							
Actuarially determined contributions (Note 11)	-	149	-	-	-	-	149
Interest, dividends and foreign tax recoverable (Note 2)	18	6	-	-	-	-	24
Investments sold	147	53	1	-	-	-	201
Total Receivables and Other Assets	165	208	1	-	-	-	374
Total Assets	13,113	4,831	110	-	-	-	18,054
LIABILITIES							
Investments purchased	263	95	2	-	-	-	360
Total Liabilities	263	95	2	-	-	-	360
NET POSITION RESTRICTED FOR PENSIONS	\$ 12,850	\$ 4,736	\$ 108	\$ -	\$ -	\$ -	\$ 17,694

See Independent Auditors' Report.

EMPLOYEES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE
Combining Statement of Changes in Fiduciary Net Position
Non-Consenter Funds
For the Year Ended December 31, 2017
(in thousands)

	Retirement Fund	Combined Retirement Fund	General Employees' Duty Disability Fund	Firemen's and Policemen's Duty Disability Fund	Firemen's Heart and Lung Fund	Firemen's and Policemen's Survivorship Fund	Total
ADDITIONS							
Contributions							
Employer (Note 5)	\$ -	\$ 162	\$ -	\$ -	\$ -	\$ -	\$ 162
Member	7	6	-	-	-	-	13
Total Contributions	7	168	-	-	-	-	175
Investment Income							
Net appreciation in fair value of investments	1,684	607	15	-	-	-	2,306
Interest, dividends and other investment income	205	74	2	-	-	-	281
Total Investment Income	1,889	681	17	-	-	-	2,587
Investment Expense (Note 6)	-	-	-	-	-	-	-
Net Investment Income	1,889	681	17	-	-	-	2,587
Total Additions	1,896	849	17	-	-	-	2,762
DEDUCTIONS							
Benefits paid	(105)	(32)	-	-	-	-	(137)
Refunds of contributions	(86)	(98)	-	-	-	-	(184)
Total Deductions	(191)	(130)	-	-	-	-	(321)
NET POSITION CHANGES							
Net increase (decrease) in net position before transfers	1,705	719	17	-	-	-	2,441
Net position transfers (Notes 3, 4 and 10)	(860)	(226)	(11)	-	-	-	(1,097)
Net Increase in Net Position	845	493	6	-	-	-	1,344
NET POSITION RESTRICTED FOR PENSIONS							
Beginning of Year	12,005	4,243	102	-	-	-	16,350
End of Year	\$ 12,850	\$ 4,736	\$ 108	\$ -	\$ -	\$ -	\$ 17,694

See Independent Auditors' Report.