

Years Ended June 30, 2017 and 2016

# Financial Statements



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#### INDEPENDENT AUDITORS' REPORT

November 6, 2017

Board of Trustees City of Grand Rapids General Retirement System Grand Rapids, Michigan

#### **Report on the Financial Statements**

We have audited the financial statements of the *City of Grand Rapids General Retirement System* (the "System", a pension trust fund of the City of Grand Rapids, Michigan), as of and for the years ended June 30, 2017 and 2016, which collectively comprise the 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.

#### Independent 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 relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the City of Grand Rapids General Retirement System as of June 30, 2017 and 2016, and the change in fiduciary net position thereof for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

#### Reporting Entity

As discussed in Note 1, the financial statements present only the City of Grand Rapids General Retirement System and do not purport to, and do not, present fairly the financial position of the City of Grand Rapids, Michigan as of June 30, 2017 and 2016 or the change in its financial position for the years then ended, in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

#### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules of pension 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.

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 6, 2017 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is 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 the System's internal control over financial reporting and compliance.

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Management's Discussion and Analysis

### City of Grand Rapids General Retirement System Management's Discussion and Analysis For the Year Ended June 30, 2017

This section of the City of Grand Rapids General Retirement System's (the System) annual financial statements presents a discussion and analysis of the financial performance of the System for the fiscal year ended June 30, 2017. This discussion has been prepared by management and should be read in conjunction with the financial statements. This discussion and analysis is designed to focus on current activities, resulting changes and current known facts. The financial statements and this discussion are the responsibility of management.

#### **Overall Fund Structure and Objectives**

The System exists to pay benefits to its retirees and beneficiaries. Active members earn service credit that entitles them to receive benefits in the future. Generally speaking, benefits paid out in any given year are significantly greater than the contributions received. The excess of benefits over contributions must be funded through investment income. The employer contribution rate was 24.38% from July 1, 2015 through June 30, 2016 and 29.15% from July 1, 2016 through June 30, 2017, and will be 32.25% from July 1, 2017 through June 30, 2018.

#### Asset Allocation

The System has established asset allocation policies, which are expected to deliver sufficient investment income over a very long period of time to satisfy the obligations to pay the benefits promised to its members. The following is a summary of the System's asset allocation policy as of June 30, 2017 and 2016:

	2017	2016
	22.5%	22.5%
U.S. equity Fixed income	25.0	22.J <sup>‰</sup> 25.0
Non-U.S. equity	15.0	15.0
American Depository Receipts (ADRs)	7.5	7.5
Real estate securities	5.0	5.0
Private equity	5.0	5.0
Commodities	5.0	5.0
Treasury Inflation Protected Securities	10.0	10.0
Master Limited Partnerships	5.0	5.0

#### Investment Results

The System's performance consultant, Wilshire Associates, reported a market rate of return of 10.06% and 0.26% on retirement system assets for the years ended June 30, 2017 and 2016, respectively. Had the assets all been invested passively, the return would have been 9.27% and -0.32%, which means that the System's assets outperformed their benchmark by 0.79% and 0.58% for the years ended June 30, 2017 and 2016, respectively.

Management believes, and actuarial studies concur, that the System is in a solid financial position to meet its current obligations. We believe that the current financial position will continue to improve due to a prudent investment program, cost controls and strategic planning.

#### Using the Financial Statements

The System's financial report includes two financial statements: the Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position. These statements include all assets and liabilities using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, all revenues and expenses are taken into account regardless of when cash is received or paid.

The Statements of Fiduciary Net Position present all of the System's assets and liabilities, with the difference between the two reported as net position. Over time, increases and decreases in net position measure whether the System's financial position is improving or deteriorating. The Statements of Changes in Fiduciary Net Position present how the System's net position changed during the most recent fiscal year. These two financial statements should be reviewed along with the Required Supplementary Information to determine whether the System is becoming financially stronger or weaker, and to understand changes over time in the funded status of the System.

#### Statements of Fiduciary Net Position

The following table shows, in a condensed format, the current year's fiduciary net position compared to the prior two years:

				Change From Pri	or Year
	2015	2016	2017	In Dollars	As %
Assets					
Cash and money market funds	\$ 5,784,639	\$ 4,925,891	\$ 4,133,132	\$ (792,759)	-16.1%
Stocks, equity mutual funds and partnerships	261,054,376	243,247,847	258,571,314	15,323,467	6.3%
Fixed Income	103,127,139	97,223,045	97,540,292	317,247	0.3%
Real estate	18,040,247	19,770,678	19,240,626	(530,052)	-2.7%
Private equity partnerships	7,632,179	9,762,068	13,247,350	3,485,282	35.7%
Commodities	16,859,122	14,675,001	14,371,330	(303,671)	-2.1%
Securities lending collateral	25,377,034	23,395,335	15,606,539	(7,788,796)	-33.3%
Total cash and investments	437,874,736	412,999,865	422,710,583	9,710,718	2.4%
Receivables	3,144,229	2,252,422	3,068,585	816,163	36.2%
Total Assets	441,018,965	415,252,287	425,779,168	10,526,881	2.5%
Liabilities					
Administrative expenses and					
investment management fees payable	335,618	333,052	336,473	3,421	1.0%
Pending trades - purchases	642,308	1,334,139	667,352	(666,787)	-50.0%
Amounts due broker under	,	, ,			
securities lending agreement	25,377,034	23,395,335	15,606,539	(7,788,796)	-33.3%
Total Liabilities	26,354,960	25,062,526	16,610,364	(8,452,162)	-33.7%
Net Position Restricted for Pension Benefits	\$ 414,664,005	\$ 390,189,761	\$ 409,168,804	\$ 18,979,043	4.9%

Cash and money market funds decreased slightly in both 2016 and 2017. The changes are, for the most part, attributable to timing of cash flows. Stocks, equity mutual funds and partnerships decreased in 2016, primarily due to a weaker equity market, but returns were stronger in 2017.

Fixed income decreased from 2015 to 2016 due to rebalancing. The large increases in private equity for both years were due to an increase in capital calls of previously committed funds. Commodities experienced decreases in both years, due to negative returns in the commodities market. The difference from one year to the next in receivables is simply a timing issue related to when funds are received, as well as pending securities sales.

The System participates in a securities lending program. The Northern Trust Company is the exclusive agent of the System. The agent fully indemnifies the System against borrower default in compliance with state statutes. At year-end, the market value of securities on loan was approximately \$15.3 million.

When a security is placed on loan, the System receives cash collateral in an amount not less than 102% of the market value of the security loaned. Loans are marked-to-market daily. Cash collateral is invested by the agent in a separately managed account. Borrowers receive a daily interest rebate on the cash collateral provided to the agent. Earnings from securities lending represent the difference, or spread, between the earnings on the cash collateral and the interest rebate paid to the borrower. Securities lending income is used to offset the System's custody and benefit payment expenses.

The market value of the collateral invested is carried as an asset, and the amount of collateral repayable to the borrower upon return of the securities from loan is carried as a liability in the financial statements. The increase in assets caused by securities lending always will be offset by a corresponding liability of the same amount, so that the two amounts cancel each other out.

Because the number of securities out on loan under the System's lending program can fluctuate greatly depending on demand and available securities, the assets and liabilities can be expected to vary widely from one year to the next, or not much at all, depending on how many securities are out on loan on June 30 of each year.

#### Statements of Changes in Fiduciary Net Position

The following table shows, in a condensed format, the changes in fiduciary net position compared to the prior two years:

				0	hange From P	rior Year
	2015	2016	2017		In Dollars	As %
Additions						
Contributions	\$ 14,801,086	\$ 12,723,273	\$ 13,250,010	\$	526,737	4.1%
Net investment income	11,438,747	203,162	38,183,387		37,980,225	18694.6%
Securities lending	39,933	85,942	112,728		26,786	31.2%
Total Additions	26,279,766	13,012,377	51,546,125		38,533,748	296.1%
Deductions						
Benefits	39,853,430	36,917,726	32,009,058		(4,908,668)	-13.3%
Administrative expense	567,869	568,895	558,024		(10,871)	-1.9%
Total Deductions	40,421,299	37,486,621	32,567,082		(4,919,539)	-13.1%
Net Increase (Decrease)	(14,141,533)	(24,474,244)	18,979,043		43,453,287	177.5%
Net Position Restricted for Pension Benefits,						
beginning of year	428,805,538	414,664,005	390,189,761		(24,474,244)	-5.9%
Net Position Restricted for Pension Benefits,						
end of year	\$ 414,664,005	\$ 390,189,761	\$ 409,168,804	\$	18,979,043	4.9%

The changes in net investment income were primarily due to a weaker investment environment from 2015 to 2016 and a very strong investment environment from 2016 to 2017. Contributions decreased in 2016 due to a lower payroll base (fewer members) and increased in 2017 due to an increase in the employer contribution rate. The fluctuation in benefit payments was primarily due to a decline in the amount of the 13<sup>th</sup> Check distribution in 2016 as compared to 2015, and no 13<sup>th</sup> Check distribution in 2017.

#### Other Important Matters

The System made an additional \$6.0 million private equity commitment with Adams Street Partners, which was approved in May 2017. Capital calls began the following month.

#### Contacting System Financial Management

This financial report is designed to provide the Board of Trustees, our membership, taxpayers and creditors with a general overview of the System's finances and to demonstrate the System's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact the Retirement Systems office, 233 E. Fulton, Suite 216, Grand Rapids, Michigan, 49503.

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**Financial Statements** 

Statements of Fiduciary Net Position

June 30,	2017	2016
Assets		
Receivables		
Plan member contributions	\$ 108,104	\$ 162,856
Employer contributions	346,564	295,836
Interest and dividends	430,754	431,446
Pending trades - sales	2,183,163	1,362,284
Total Receivables	3,068,585	2,252,422
Investments		
Cash and money market funds	4,133,132	4,925,891
Government obligations	22,314,525	20,491,860
State and municipal bonds	460,678	216,498
Corporate bonds and fixed income commingled funds	68,470,272	68,664,904
Common stocks and equity mutual funds	258,571,314	243,247,847
Real estate	19,240,626	19,770,678
Asset-backed securities	6,294,817	7,849,783
Commodities	14,371,330	14,675,001
Private equity partnerships	13,247,350	9,762,068
Investments held as collateral for securities lending	15,606,539	23,395,335
Total Investments	422,710,583	412,999,865
Total Assets	425,779,168	415,252,287
Liabilities		
Administrative expenses payable	82,939	83,773
Investment management fees payable	253,534	249,279
Pending trades - purchases	667,352	1,334,139
Amounts due broker under securities lending agreement	15,606,539	23,395,335
Total Liabilities	16,610,364	25,062,526
Net Position Restricted for Pension Benefits	\$ 409,168,804	\$ 390,189,761

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

Year Ended June 30,	2017	2016
Additions		
Contributions:		
Plan members	\$ 3,012,472	\$ 3,428,169
Employer	10,237,538	9,295,104
Total Contributions	13,250,010	12,723,273
Investment Income:	4 007 040	4 7 42 0 40
Interest and dividends	4,907,312	4,742,849
Net appreciation (depreciation) in fair value of investments	34,287,484	(3,577,784)
Securities lending income	112,728	85,942
Net investment income	39,307,524	1,251,007
Less investment expense	(1,011,409)	(961,903)
	(1,011,400)	(501,505)
Net investment income, less investment expense	38,296,115	289,104
Total Additions	51,546,125	13,012,377
Deductions		
Benefits	32,009,058	36,917,726
Administrative expenses	558,024	568,895
Total Deductions	32,567,082	37,486,621
	40.070.040	
Net Increase (Decrease) in Net Position	18,979,043	(24,474,244)
Net Position,		
Beginning of year	390,189,761	414,664,005
Net Position,		
End of year	\$ 409,168,804	\$ 390,189,761

# Statements of Changes in Fiduciary Net Position

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

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## 1. Summary of Significant Accounting Policies

#### Reporting Entity

The City of Grand Rapids (the City) sponsors the City of Grand Rapids General Retirement System (the System), which is a contributory single-employer retirement plan. The System, which is administered by the System's Board of Trustees, is a defined benefit plan. The System provides retirement, disability and survivor benefits to plan members and beneficiaries.

The Pension System of the City of Grand Rapids General Retirement System is an independent trust qualified under applicable provisions of the Internal Revenue Code and is an independent entity (separate and distinct from the employer/plan sponsor) as required by: (1) state law and (2) IRC provisions setting forth qualified plan status. The Trustees of the plan have fiduciary obligations and legal liability for any violations of fiduciary duties as independent Trustees. There are seven Trustees: three elected by plan members, one member of the City Commission to be appointed by the City Commission, one person appointed by the Mayor, two persons appointed by the City Commission and three persons appointed by the mayor, subject to the approval of the City Commission.

The financial statements of the System are included in the basic financial statements of the City of Grand Rapids as a Pension Trust Fund. The assets of the Pension Trust Fund include no securities or loans to the City or any other related party.

#### Basis of Accounting

The System's financial statements are prepared using the accrual basis of accounting. Employer contributions are recognized when due according to the formal commitment made by the City to provide the contributions. Plan member contributions are recognized when due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

#### Methods Used to Value Investments

Investments are reported at estimated fair value. Short-term investments are reported at cost, which approximates fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. For private equity funds, commodities funds, real estate funds, and fixed income commingled funds, values are based on net asset values provided by underlying investment managers and/or their administrators.

#### Use of Estimates

The preparation of the System's financial statements in conformity with generally accepted accounting principles requires management to make significant estimates and assumptions that affect the reported amounts of net position available for benefits at the date of the financial statements. Significant estimates are made for investments, the actuarial present value of accumulated plan benefits as of the benefit information date, the changes in net position available for benefits during the reporting period and, when applicable, the disclosures of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

#### Risks and Uncertainties

System contributions and the actuarial present value of accumulated plan benefits are calculated based on certain assumptions pertaining to interest rates, inflation rates and employee demographics, all of which are subject to change. Investments are exposed to various risks, such as interest rate, market and credit risks. Due to uncertainties inherent in the estimations and assumptions process and the level of uncertainty related to changes in the value of investments, it is possible that changes in these estimates, assumptions and risks in the near term would be material to the financial statements.

## 2. Plan Description and Contribution Information

### Plan Description

The System is a single-employer, defined benefit pension plan, which provides retirement and disability benefits to plan members and beneficiaries. Benefits are established or amended via collective bargaining between the City and System members. Benefit provisions are outlined in the City's ordinance and administered by Trustees. Eligible members consist of persons regularly employed by the City, including the 61<sup>st</sup> District Court and Grand Rapids Public Library, but excluding uniformed police and fire employees. New hires are not eligible for the plan. The actual closing date differs by bargaining unit. Benefit provisions are established and amended by City ordinance and provide for either a 13<sup>th</sup> Check or an annual escalator increase to each member's retirement allowance subsequent to his/her retirement date. The adjustment is a 1% non-compounding escalator. The specified waiting period is four years for members of the APAGR, APAGR 61<sup>st</sup> District Court, GREIU, GREIU 61st District Court, GREIU Public Library Rank & File and Supervisory Units. The specified waiting period is six years for members of the Crime Scene Technicians/Latent Print Examiners and Emergency Communication Supervisors units. The specified waiting period for members in the Non-Represented group is seven years. Members of the Emergency Communication Operators (ECO) I, II, and III groups are not eligible for the escalator program; they are eligible for the plan's 13<sup>th</sup> Check program. Eligibility for the escalator depends upon the member's bargaining unit and termination date. Annual post-retirement benefit increases are paid to eligible groups as described below:

Covered Group	Termination Date
APAGR and APAGR 61 <sup>st</sup> District Court	On or after October 21, 2008
GREIU, GREIU 61 <sup>st</sup> District Court	On or after March 24, 2009
Crime Scene Technicians/Latent Print Examiners	On or after May 12, 2009
GREIU Public Library Rank & File and Supervisory Units	On or after July 9, 2009
Emergency Communication Supervisors	On or after September 13, 2011
Non-Represented Members	On or after July 1, 2014

For members not eligible for automatic post-retirement increases, one-half of net investment income over 8% which is attributable to retired life assets is distributed annually (in January) to retired members and beneficiaries who have been on the retirement rolls for 5 years in the form of a 13<sup>th</sup> check. Net investment income is based on a market value rate of return averaged over the preceding 5 plan years. The distribution is in proportion to points. An individual's points are determined by multiplying (i) the number of full years of retirement, to a maximum of 15, by (ii) the number of years, and fractions thereof, of service at retirement.

### Notes to Financial Statements

### Eligibility

An eligible employee becomes a participant in the System as of his or her date of permanent employment. The System provides for 100% vesting in System benefits with eight years of credited service. Employees may elect to retire after attaining age 62 and completing eight years of credited service, or after completing 30 years of service regardless of age. The yearly allowance, payable monthly for life to the retired member, equals the applicable benefit multiplier selected by the member multiplied by the member's final average compensation, multiplied by the years and months of credited service. For members of the Crime Scene Technicians/Latent Print Examiners group, final average compensation shall be increased by 9.5% for the period July 1, 2016 to June 30, 2017 and 8.3% for the period July 1, 2015 to June 30, 2016. For members of the ECO I, II, and III group, final average compensation shall be increased by 51.1% for the period July 1, 2016 to June 30, 2017 and 46.9% for the period July 1, 2015 to June 30, 2016. For purposes of benefit calculations, the final average compensation is based on the member's three highest compensated calendar years of credited service, before the year-end of the calendar year in which the employee attains 40 years of credited service or reaches his or her credited service cap. All plan members are eligible for non-duty disability benefits after completing ten or more years of credited service and before attaining minimum service retirement age. All plan members are eligible for duty disability retirement benefits prior to attaining minimum service retirement age. Disability retirement benefits are determined in the same manner as retirement benefits and are not subject to an actuarial reduction. Duty disability allowances shall not be less than 50% of the member's final average salary: if the member is a part of the Crime Scene Technicians/Latent Print Examiners or ECO I, II, and III group, the allowance shall not be less than 62% of the member's final average salary. Death benefits are available if a member dies while in employer service, before retiring, but after becoming eligible to retire with an immediate allowance.

June 30,	2017	2016
Retirees and beneficiaries receiving pension benefits	1,183	1,159
Terminated plan members entitled to but not receiving benefits	100	102
Active plan members	533	586
Total	1,816	1,847

At June 30, 2017 and 2016, the System's membership consisted of the following:

#### Contributions

The City is required by City ordinance to contribute at an actuarially determined rate, calculated to be 29.15% and 24.38% of covered payroll for the years ended June 30, 2017 and June 30, 2016 respectively.

Plan member contributions, which are required by ordinance, are based on compensation. Contributions currently range from 3.00% to 11.54% of regular compensation paid by the City, depending on the bargaining unit and individual benefit multiplier selection. These contributions are 100% vested. Plan members retain the right upon termination to withdraw their contributions plus regular interest, as defined by City Code, in lieu of any pension rights they may have.

### Legally Required Reserves

The System maintains a member deposit fund, which is used to accumulate contributions made by plan members and related accrued interest. As detailed in City ordinance, the fund is legally required to distribute individual employee contributions and related interest upon request by a terminated plan member. The balance in the member deposit fund at June 30, 2017 and 2016 was \$34,090,592 and \$33,863,938, respectively.

### 3. Deposits and Investments

The investments of the System are designed to comply with requirements of the State of Michigan, which has numerous investment limitations depending on the type of investment. The investment policy adopted by the Board is in accordance with state law and has authorized investments according to Michigan Public Act 314 of 1965, as amended. The most significant requirements as they impact the System are as follows:

- 1. Investments in stock are limited to 70.0% of the System's assets; investments in the stock of any one corporation are limited to 5.0% of the System's assets. Per the investment policy, the total plan target weight for domestic equity is 22.5%. The style factor breakdown is as follows: Active Core 5.5%; Passive/Index 14.5%; and Enhanced Indexing 2.5%. The size factor breakdown is as follows: large stocks 17.0% and small stocks 5.5%.
- 2. Investments in real estate are limited to 10.0% of the System's assets. Per the investment policy, the total plan target weight for global real estate investments is 5.0%.
- 3. Investments in state and local government obligations are limited to 5.0% of the System's assets.
- 4. Investments in global securities (securities traded outside of the United States) are limited to 20.0% of the System's assets. Per the investment policy, the total plan target weight for the non-U.S. equity is 15.0%.

The following was the Board's adopted asset allocation policy as of June 30, 2017 and 2016:

	Target Allo	Target Allocation		
Asset Class	2017	2016		
U.S. equity	22.5%	22.5%		
Fixed income	25.0	25.0		
Non-U.S. equity	15.0	15.0		
American Depository Receipts	7.5	7.5		
Real estate securities	5.0	5.0		
Master Limited Partnerships	5.0	5.0		
Treasury Inflation Protected Securities	10.0	10.0		
Private equity	5.0	5.0		
Commodities	5.0	5.0		

The Board of Trustees voted at the May 17, 2017 Joint Board meeting to further diversify the asset allocation per the private equity pacing model recommendation provided by the System's investment consultant, Wilshire Associates. The portfolio was restructured to commit an additional \$6.0 million to the Adams Street Partners 2017 Global Fund, which began in June 2017.

For years ended June 30, 2017 and 2016, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 10.23% and 0.22% respectively. The money-weighted rate of return expresses investment performance net of investment expense, adjusted for the changing amounts actually invested.

The System's cash and investments are subject to several types of risk, which are examined in more detail below.

#### Custodial Credit Risk

Custodial credit risk for investments is the risk that in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. This portfolio will minimize custodial credit risk by limiting investments to those permitted by Michigan Public Act 314 of 1965, as amended, which include: (a) United States Treasury and Agency; (b) Mortgages (Collateral and CMOS); (c) Corporate Bonds (industrial, finance, asset-backed, utilities, telephone and Yankee); (d) Derivatives (futures, swaps, option contracts on the S&P 500 Index and U.S. Interest Rates, and futures and option contracts on U.S. Treasury and Agency securities); (e) American Depository Receipts; (f) Non-Dollar Bonds; (g) Emerging Market Debt; (h) Cash equivalent investments (including repurchase agreements); (i) Short-term investment funds; (j) International Depository Receipts; (k) Global Depository Receipts; (l) Convertible Bonds; (m) Open and Closed-End country funds; and (n) Warrants.

In addition, the System will conduct business only with investment management firms that will: comply with all relevant provisions contained in Michigan Public Act 314 of 1965, as amended; support the overall investment policies of the System; understand and accept their designated "role" within the System's investment structure; construct a portfolio of securities that reflect the execution of their assigned investment strategy; and adhere to the guidelines of this document and/or any additional written instructions that amend the Investment Policy Statement. As of June 30, 2017 and 2016, no deposits or investments were exposed to custodial credit risk.

#### Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This portfolio structures its fixed income allocation to be approximately neutral in duration and interest rate risk to that of the benchmark (Barclays Aggregate Index). This should mitigate the relative over- or under-performance of the fixed income composite as a result of changing interest rates.

## As of June 30, 2017, the System had the following investments and maturities.

	Fair Value	Less Than 1 Year	1-6 Years	6-10 Years	More Than 10 Years	No Maturity
Equities						
Common stocks and equity mutual						
funds	\$ 258,571,314 \$	- \$	- \$	- \$	- Ş	258,571,314
Private equity partnerships	13,247,350	-	-	-	-	13,247,350
Total	271,818,664	-	-	-	-	271,818,664
Fixed Income						
Government obligations	22,314,525	-	4,873,983	2,703,706	14,736,836	-
State and municipal bonds	460,678	-	44,996	-	415,682	-
Corporate bonds and fixed income						
commingled funds	68,470,272	837,266	8,269,001	54,348,891	5,015,114	-
Asset-backed securities	6,294,817	-	1,435,187	705,378	4,154,252	-
Total	97,540,292	837,266	14,623,167	57,757,975	24,321,884	-
Other						
Cash and money market funds	4,133,132	4,133,132	-	-	-	-
Real estate securities	19,240,626	-	-	-	-	19,240,626
Commodities	14,371,330	-	-	-	-	14,371,330
Investments held as collateral for	, ,					, ,
securities lending	15,606,539	15,606,539	-	-	-	-
Total	53,351,627	19,739,671	-	-	-	33,611,956
Grand Total	\$ 422,710,583 \$	20,576,937 \$	14,623,167 \$	57,757,975 \$	24,321,884 \$	305,430,620

As of June 30, 2016, the System had the following investments and maturities.

	Fair Value	Less Than 1 Year	1-6 Years	6-10 Years	More Than 10 Years No Maturity
Equities		i icui	i o rears	0 10 10415	To really no maturity
Common stocks and equity mutual					
funds	\$ 243,247,847 \$	- \$	- \$	- \$	-\$ 243,247,847
Private equity partnerships	9,762,068	- '	-	-	- 9,762,068
Total	253,009,915	-	-	-	- 253,009,915
Fixed Income					
Government obligations	20,491,860	-	4,032,030	1,357,666	15,102,164 -
State and municipal bonds	216,498	-	-	55,952	160,546 -
Corporate bonds and fixed income					
commingled funds	68,664,904	1,277,744	58,185,782	4,193,948	5,007,430 -
Asset-backed securities	7,849,783	-	2,446,083	844,718	4,558,982 -
Total	97,223,045	1,277,744	64,663,895	6,452,284	24,829,122 -
<u>Other</u>					
Cash and money market funds	4,925,891	4,925,891	-	-	
Real estate securities	19,770,678	-	-	-	- 19,770,678
Commodities	14,675,001	-	-	-	- 14,675,001
Investments held as collateral for					
securities lending	23,395,335	23,395,335	-	-	
Total	62,766,905	28,321,226	-	-	- 34,445,679
Grand Total	\$ 412,999,865 \$	29,598,970 \$	64,663,895 \$	6,452,284 \$	24,829,122\$ 287,455,594

### Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The fixed income portfolio invests in both investment grade bonds and high yield bonds. However, the overall credit rating for the composite is not to be below an "A" rating. At June 30, 2017 and 2016, the System held debt investments with the following credit ratings.

	June 30,			
		2017		2016
S&P AAA	\$	2,525,172	\$	3,774,716
S&P AA		2,677,568		2,693,592
S&P A		58,195,542		58,997,952
S&P BBB		7,275,104		6,763,538
S&P BB		499,050		503,602
S&P B		213,490		191,000
S&P CCC		426,513		451,393
S&P CC		14,901		23,881
S&P D		28,261		42,710
Not subject to credit risk		22,218,918		13,630,722
Unrated		3,465,772		10,149,939
Total	\$	97,540,291	\$	97,223,045

#### Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. It is the System's policy that no single holding will represent more than 5% of the total fund. As of June 30, 2017 and 2016, no single holding within this portfolio represented more than 5% of the total fund.

#### Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. In general, the foreign currency exposure resulting from international investments is not hedged. This exposes the portfolio to foreign currency risk, which is not expected to harm or help the performance of the fund in a significant way over the long-term.

As of June 30, 2017 and 2016, the System had the following foreign investments:

June 30, 2017	Amount (currency in U.S. dollar)
Common and preferred stocks and equity mutual funds	\$ 94,123,961
Private equity partnerships	4,990,161
Government obligations	95,608
Corporate bonds and fixed income commingled funds	8,708,358
Total	\$ 107,918,088
June 30, 2016	Amount (currency in U.S. dollar)
Common stocks and equity mutual funds	\$ 83,477,290
Private equity partnerships	2,661,240
Government obligations	101,438
Corporate bonds and fixed income commingled funds	10,510,625
	10,510,025

#### Securities Lending Risk

As of June 30, 2017, the System had the following investment types on loan for securities lending purposes, and received the following cash collateral for those loans:

	Loane	Fair Value of ed Securities ollateralized by Cash	Cash
Investment Type		Collateral	Collateral
U.S. corporate fixed U.S. equities U.S. government fixed	\$	1,912,049 10,705,943 2,688,956	\$ 1,958,189 10,900,540 2,747,810
Total	\$	15,306,948	\$ 15,606,539

As of June 30, 2016, the System had the following investment types on loan for securities lending purposes, and received the following cash collateral for those loans:

	Loane	Fair Value of ed Securities ollateralized	
			Cash
		by Cash	Cash
Investment Type		Collateral	Collateral
U.S. corporate fixed U.S. equities U.S. government fixed	\$	1,587,788 15,759,147 5,673,226	\$ 1,622,089 16,005,744 5,767,502
Total	\$	23,020,161	\$ 23,395,335

Michigan Public Act 314 of 1965, as amended, permits, and Trustees have implemented, a securities lending program whereby the System, through The Northern Trust Company, lends its securities to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future. The System has authorized The Northern Trust Company to utilize the Core U.S.A. Collateral Section in which all collateral is in U.S. dollars only and available to participating lenders who are domiciled or reside in the U.S.A. The System only receives cash collateral. Initial collateral levels will not be less than 102% of the market value of the borrowed securities, or not less than 105% if the borrowed securities and the collateral are denominated in different currencies.

The Northern Trust Company will indemnify the System if it is unable to recover borrowed securities and distributions made during the term of the loan or loans with respect to those securities as a result of The Northern Trust Company's failure to: (1) make a reasonable determination of the creditworthiness of a borrower, (2) demand adequate and appropriate collateral on a prompt and timely basis, perfect a security interest, obtain equivalent rights in the collateral or maintain control of the collateral, or (3) otherwise perform its duties and responsibilities under its agreement with the System or applicable law.

All securities loans can be terminated on demand by either the System or The Northern Trust Company and are subject to the performance by both parties of any of their respective obligations that remain outstanding at the time of termination. Upon termination of this program by either party, The Northern Trust Company shall terminate all outstanding loans of the System's securities and shall make no further loans. There are no restrictions on the amount of the loans that can be made. Cash collateral may also be invested separately in "term loans," in which case the investments match the loan term. These loans can be terminated on demand either by lender or borrower.

#### Fair Value Measurements

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are inputs - other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. Finally, Level 3 inputs are unobservable and are based on estimates and assumptions. These levels are determined by the System's investment consultant. These are determined at the fund level based on a review of the investment's class, structure, and what kind of securities are held in the funds. The investment consultant will request the information from the fund manager if necessary.

The System had the following fair value measurements as of June 30, 2017 and 2016:

Investments Measured at Fair Value

June 30, 2017	Level 1	Level 2	Level 3	Total
Government obligations	\$ 22,314,525	ş -	\$ -	\$ 22,314,525
State and municipal bonds Corporate bonds and fixed income	460,678	-	-	460,678
commingled funds	18,511,853	49,958,419	-	68,470,272
Common stocks and equity mutual funds	114,319,037	144,252,277	-	258,571,314
Real estate	-	19,240,626	-	19,240,626
Asset backed securities	6,294,817	-	-	6,294,817
Commodities	-	14,371,330	-	14,371,330
Private equity partnerships	-	-	13,247,350	13,247,350
Securities lending collateral pool	15,606,539	-	-	15,606,539
	\$ 177,507,449	\$ 227,822,652	\$ 13,247,350	418,577,451
Investments measured at amortized cost -				_
Cash and money market funds				4,133,132
Total Investments				\$ 422,710,583
Investments Measured at Fair Value				
June 30, 2016	Level 1	Level 2	Level 3	Total
Government obligations	\$ 20,491,860	) \$ -	\$ -	\$ 20,491,860
State and municipal bonds	216,498		-	216,498
Corporate bonds and fixed income commingled				
funds	19,408,969		-	68,664,904
Common stocks and equity mutual funds	105,184,781		-	243,247,847
Real estate	-	19,770,678	-	19,770,678
Asset backed securities	7,849,783		-	7,849,783
Commodities	-	14,675,001	-	14,675,001
Private equity partnerships	-	· -	9,762,068	9,762,068
Securities lending collateral pool	23,395,335		-	23,395,335
	\$176,547,226	\$221,764,680	\$ 9,762,068	408,073,974
Investments measured at amortized cost -				
Cash and money market funds				4,925,891
Total Investments				\$412,999,865

### Notes to Financial Statements

#### Fund Investments - Mutual Funds & Separately Managed Accounts (SMAs)

An open-ended mutual fund, a registered investment company, produces a daily net asset value (NAV) that is validated with a sufficient level of observable activity (i.e., purchases and sales at NAV) to support classification of the fair value measurement as Level 1 in the fair value hierarchy. In this case, the NAV represents the exit value of the security at the measurement date.

The primary rationale to support the classification of Mutual Funds as Level 1 in the fair value hierarchy are: (1) the investments in the funds are required to be measured at fair value (SEC regulated), (2) the NAV is unadjusted and is in all cases the transaction price for purchases and sales (the NAV represents the exit value of the security at the measurement date), (3) there are no restrictions on redemptions and (4) the NAV is made publicly available daily.

The System's investment consultant also typically views SMAs as being reasonably considered Level 1 in the fair value hierarchy. The Fund Investment provides look-through capability to the underlying holdings, which can then be valued at fair market prices with strong liquidity.

#### Fund Investments - Commingled Funds & Trusts

Commingled Funds and Common Trust Funds do not all meet these criteria listed above for mutual funds. A fund administrator typically does not have the transparency into valuation methodology and valuation frequency of each of these pooled investment vehicles to make an accurate appraisal of whether the NAV does represent the exit value of the fund at each measurement date.

For this reason, the System's investment consultant takes a conservative approach with the default position being to consider these investments as Level 2 in the fair value hierarchy.

The (NAV) of an open-ended fund, whether a registered investment company fund, such as a mutual fund, or certain alternative investment funds, such as a hedge fund, serves as the basis for subscription and redemption transactions for investors in such funds. For investments in funds for which the underlying assets and liabilities are required to be measured at fair value, and where NAV is available, the NAV is generally the most appropriate starting point when determining the fair value measurement for an interest in such fund. However, when valuing such an investment, the holder must estimate the fair value of the interest held, which at times may be different from a value based solely on the NAV of the fund. The holder should also consider various factors including, but not limited to, the attributes of the interest held, including any restrictions or illiquidity on the disposition of the interest, and the holders' requirements to understand and accept the valuations provided by the fund (or modify them if appropriate), to determine the fair value of the interest itself. Depending on the facts and circumstances, the NAV may need to be adjusted depending upon the rights and obligations of the ownership interest and/or other factors. Furthermore, any adjustments to NAV based on unobservable inputs may result in the fair value measurement being categorized as a Level 3 measurement, if those inputs are significant to the overall fair value measurement.

#### Private Equity

The valuation of nonpublic private equity investments requires significant management judgment due to the absence of quoted market prices, inherent lack of liquidity and the long-term nature of such assets. As such, private equity investments are often valued initially based upon cost. Each quarter, valuations are reviewed utilizing available market data to determine if the carrying value of these investments should be adjusted. Such market data primarily includes observations of the trading multiples of public companies considered comparable to the private companies being valued. Valuations are adjusted to account for company-specific issues, the lack of liquidity inherent

### Notes to Financial Statements

in a nonpublic investment and the fact that comparable public companies are not identical to the companies being valued. Such valuation adjustments are necessary because in the absence of a committed buyer and completion of due diligence similar to that performed in an actual negotiated sale process, there may be company-specific issues that are not fully known that may affect value. In addition, a variety of additional factors are reviewed by management, including, but not limited to, financing and sales transactions with third parties, current operating performance and future expectations of the particular investment, changes in market outlook and the third-party financing environment.

As a result of these characteristics, the System's investment consultant believes private equity investments should be included in Level 3 of the fair value hierarchy.

The Adams Street Partners agreement provides that the term of each partnership fund will begin on the initial closing date of the applicable partnership fund for a 12 - 15-year commitment. Generally, investors may not withdraw from the Global Fund, the feeder vehicles or a fund, except under very limited circumstances.

The Aberdeen Asset Management agreement provides for a 12 - 15-year commitment from the initial capital call. Limited partners may not withdraw from the fund, nor may they sell, transfer or assign their interests except with the consent of the General Partner.

### 4. Capital Funding Commitment

At June 30, 2017 and 2016, the System had the following approximate amounts (in millions) outstanding on initial commitments of \$16.5 million with Adams Street Partners and \$5.0 million with Aberdeen Asset Management. The Board of Trustees voted at the Joint Board meeting on May 17, 2017 to commit an additional \$6.0 million to Adams Street Partners 2017 Global Fund, beginning in June 2017.

	2017	2016
Adam Street Partners (2010)	\$ 0.9	\$ 2.2
Aberdeen Asset Management Adams Street Partners (2013)	0.8 1.9	1.6 2.8
Adams Street Partners (2015) Adams Street Partners (2017)	4.8 5.9	6.2 N/A

#### 5. Net Pension Liability

#### Net Pension Liability

The components of the net pension liability at June 30, 2017 and 2016, were as follows:

June 30	2017	2016
Total pension liability	\$517,035,103	\$510,324,266
Plan fiduciary net position	409,168,804	390,189,761
Net Pension Liability	\$107,866,299	\$120,134,505
Plan Fiduciary Net Position as a Percentage of the		
Total Pension Liability	79.14%	76.46%

#### Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of June 30, 2017 and 2016, using the following actuarial assumptions, applied to all periods included in the measurement:

	2017	2016
Inflation	2.50% - approximate	2.75% - approximate
	no explicit price inflation	no explicit price inflation
Salary Increases	3.25% - 7.45% including inflation	3.50% - 7.70% including inflation
Investment rate of return	7.25% as of June 30, 2017	7.25% as of June 30, 2016

Per the most recent experience study for the period July 1, 2009 - June 30, 2014, mortality rates were based on the RP-2014 Healthy Annuitant Mortality Table projected to 2019 using the MP-2014 Mortality Improvement Scale as of June 30, 2016. Per the experience study for the period July 1, 2004 - June 30, 2009, they were based on the 1983 Group Annuity Male and Female Mortality Tables set back 3 years for males and 2 years for females.

#### Long-Term Expected Rate of Return

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

Based on information provided by the System's investment advisor, capital market expectations for each major asset class that was included in the plan's current asset allocation as of June 30, 2015 were used; the best estimates for the long-term expected return are summarized in the following table:

	T	Long-Term Expected
Asset Class	Target Allocation	Real Rate of Return
U.S. equity	22.50%	6.10%
Non-U.S. equity	22.50%	6.60%
Core Fixed Income	25.00%	1.90%
Treasury Inflation Protected Securities	10.00%	1.20%
Real estate	5.00%	5.00%
Private equity	5.00%	11.30%
Commodities	5.00%	2.70%
Master Limited Partnerships	5.00%	8.50%
Cash	0.00%	0.00%
Total	100.00%	

Total Real Rate of Return	4.84%
Plus: Price Inflation - Actuary's Assumption	2.50%
Less: Investment Expenses (Passive)	<u>0.09</u> %
Net Expected Return	7.25%

#### Discount Rate

A single discount rate of 7.25% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on System investments of 7.25%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate.

Based on these assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the net pension liability, calculated using a single discount rate of 7.25%, as well as what the net pension liability would be if it were calculated using a single discount rate that is 100 basis points lower or 100 basis points higher:

#### Sensitivity of Net Pension Liability to the Single Discount Rate Assumption - June 30, 2017

Current Single Discount				
1	100 Basis Point	-	100 Basis Point	
	Decrease	Rate Assumption	Increase	
	6.25%	7.25%	8.25%	
Total Pension Liability	\$573,315,806	\$517,035,103	\$469,404,589	
Plan Net Position	409,168,804	409,168,804	409,168,804	
Net Pension Liability	\$164,147,002	\$ 107,866,299	\$ 60,235,785	

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption - June 30, 2016

	Cui	rrent Single Discount		
	100 Basis Point	-	100 Basis Point	
	Decrease	Rate Assumption	Increase	
	6.25%	7.25%	8.25%	
Total Pension Liability	\$566,599,996	\$510,324,266	\$462,756,645	
Plan Net Position	390,189,761	390,189,761	390,189,761	
Net Pension Liability	\$176,410,235	\$ 120,134,505	\$ 72,566,884	

Required Supplementary Information

# Required Supplementary Information Schedule of Changes in the Employer's Net Pension Liability and Related Ratios

Year ended June 30,	201	7 2016	2015
Total Pension Liability Service cost Interest on the total pension liability Changes in benefit terms Difference between expected and actual	\$    5,161,510 36,025,286 -	\$    5,546,388 35,127,721 -	\$    6,348,067 33,287,484 20,882
experience Assumption changes Benefit payments Refunds	(971,718) (1,495,183) (31,894,361) (114,697)	(36,708,882)	,
Net Change in Total Pension Liability	\$ 6,710,837	\$ 10,118,312	\$ 39,620,153
Total Pension Liability, beginning	\$ 510,324,266	\$ 500,205,954	\$ 460,585,801
Total Pension Liability, ending (a)	\$ 517,035,103	\$ 510,324,266	\$ 500,205,954
Plan Fiduciary Net Position Contributions - employer Contributions - member Pension plan net investment income (loss) Benefit payments Refunds Pension plan administrative expense	\$ 10,237,538 3,012,472 38,296,115 (31,894,361) (114,697) (558,024)	3,428,169 289,104 (36,708,882) (208,843)	3,473,382 11,478,680 (39,570,343) (283,087)
Net Change in Plan Fiduciary Net Position	18,979,043	(24,474,244)	(14,141,533)
Plan Fiduciary Net Position, beginning	390,189,761	414,664,005	428,805,538
Plan Fiduciary Net Position, ending (b)	\$ 409,168,804	\$ 390,189,761	\$ 414,664,005
Net Pension Liability - Ending (a) - (b)	\$ 107,866,299	\$120,134,505	\$ 85,541,949
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	79.14%	76.46%	82.90%
Covered Payroll	\$ 33,647,390	\$ 35,760,078	\$ 38,492,586
Net Pension Liability as a Percentage of Covered Payroll	320.58%	335.95%	222.23%

# Required Supplementary Information Schedule of Changes in the Employer's Net Pension Liability and Related Ratios

Year ended June 30,	2014	1	2013
Total Pension Liability Service cost Interest on the total pension liability Changes in benefit terms Difference between expected and actual	\$ 6,904,650 33,394,709 -		7,294,537 32,920,147 -
experience Assumption changes Benefit payments	(7,420,169) - (28,055,439)		(6,012,166) - (27,037,516)
Refunds	(152,273)		,
Net Change in Total Pension Liability	\$ 4,671,478	\$	7,050,086
Total Pension Liability, beginning	\$ 455,914,323	\$	448,864,237
Total Pension Liability, ending (a)	\$ 460,585,801	\$	455,914,323
Plan Fiduciary Net Position Contributions - employer Contributions - member Pension plan net investment income (loss) Benefit payments Refunds Pension plan administrative expense	\$ 8,771,032 3,737,014 65,316,255 (28,055,439) (152,273) (523,086)		
Net Change in Plan Fiduciary Net Position	49,093,503		28,483,638
Plan Fiduciary Net Position, beginning	379,712,035		351,228,397
Plan Fiduciary Net Position, ending (b)	\$ 428,805,538	\$	379,712,035
Net Pension Liability - Ending (a) - (b)	\$ 31,780,263	\$	76,202,288
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	93.10%		83.29%
Covered Payroll	\$ 40,510,955	\$	43,783,450
Net Pension Liability as a Percentage of Covered Payroll	78.45%		174.04%

GASB 67 was implemented for the plan year ending June 30, 2013; this schedule is being built prospectively. Ultimately, 10 years of data will be presented.

# Required Supplementary Information Schedule of Employer Contributions

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency <u>(Excess)</u>	Covered <u>Payroll</u>	Actual Contribution as a % of <u>Covered Payroll</u>
2008	\$6,008,558	\$6,008,558	\$0	\$49,970,419	12.02%
2009	\$3,833,164	\$3,833,164	\$0	\$51,808,141	7.40%
2010	\$4,708,020	\$4,708,020	\$0	\$49,336,606	9.54%
2011	\$6,162,363	\$6,162,363	\$0	\$49,040,518	12.57%
2012	\$8,949,239	\$8,949,239	\$0	\$46,167,958	19.38%
2013	\$8,135,843	\$8,135,843	\$0	\$43,783,450	18.58%
2014	\$8,771,032	\$8,771,032	\$0	\$40,510,955	21.65%
2015	\$11,327,704	\$11,327,704	\$0	\$38,492,586	29.43%
2016	\$9,295,104	\$9,295,104	\$0	\$35,760,078	25.99%
2017	\$10,237,538	\$10,237,538	\$0	\$33,647,390	30.43%

# Methods and Assumptions Used to Determine Contribution Rates

Valuation Date	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported.
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level dollar, closed for plan years ending 06/30/13 through present (was level percent closed for plan years ending 06/30/08 - 06/30/12)
Remaining Amortization Period	28 - 30 years per City Commission (was 30 years for the plan year ending 06/30/08; 29 years for the plan year ending 06/30/09; 28 years for the plan year ending 06/30/10); 27 years for the plan year ending 06/30/11; 26 years for the plan year ending 06/30/12; 25 years for the plan year ending 06/30/13; 24 years for the plan year ending 06/30/14; 30 years for the plan year ending 06/30/15; 29 years for the plan year ending 06/30/16).
Asset Valuation Method	5-Year Smoothed Market for plan years ending 06/30/09 to present (was 3-year smoothed market for the plan year ending 06/30/08)
Inflation	2.50% approximate; no explicit price inflation assumption (wage inflation was at 0.00% for the plan year ending 06/30/13; 3.5% for the plan years ending 06/30/08 - 06/30/12 and 06/30/14 - 06/30/16).
Salary Increases	3.25% to 7.45% including inflation (was 4.0% to 8.0% for the plan years ending 06/30/08 - 06/30/13; 3.5% to 7.7% including inflation for plan years 06/30/14 - 06/30/16)
Investment Rate of Return	7.25% for plan years 06/30/15 to present (was 7.50% for the plan years ending 06/30/08 - 06/30/09; was blended rate of 7.34%

# Required Supplementary Information Schedule of Employer Contributions

	for the plan year ending 06/30/10; a blended rate of 7.38% for the plan years ending 06/30/11 - 06/30/13; a blended rate of 7.39% for the plan year ending 06/30/14)
Cost-of-Living Adjustments	<ul> <li>Ad hoc "13<sup>th</sup> check" tied to plan investments for benefit recipients who do not have an automatic benefit increase.</li> <li>1.0% simple escalator for GREIU and GREIU 61<sup>st</sup> District Court members retired on or after March 24, 2009 with commencement delayed 4 years after retirement.</li> <li>1.0% simple escalator for GREIU Public Library Rank and File and Supervisory Unit members retired on or after July 9, 2009 with commencement delayed 4 years after retirement.</li> <li>1.0% simple escalator for Crime Scene Technicians/Latent Print Examiners retired on or after May 12, 2009 with commencement delayed 6 years after retirement.</li> <li>1.0% simple escalator for APAGR and APAGR 61<sup>st</sup> District Court members retired on or after October 21, 2008 with commencement delayed 4 years after retirement.</li> <li>1.0% simple escalator for Emergency Communication Supervisors retired on or after retirement.</li> <li>1.0% simple escalator for Non-Represented members retired on or after July 1, 2014 with commencement delayed 7 years after retirement.</li> </ul>
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	RP-2014 Healthy Annuitant Mortality Table projected to 2019 using the MP-2014 Mortality Improvement Scale as of June 30, 2015. Prior to that, the 1983 Group Annuity Male and Female Mortality Tables set back 3 years for males and 2 years for females was used.

# Required Supplementary Information Schedule of Investment Returns Annual Money-Weighted Rate of Return, Net of Investment Expense Last Eight Years

_	2017	2016	2015	2014	2013	2012	2011	2010
_	10.23%	0.22%	2.80%	17.75%	12.99%	2.19%	26.17%	0.16%

This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

# Required Supplementary Information Schedule of the Employer's Net Pension Liability

FY Ending June 30,	Total Pension <u>Liability</u>	Plan Fiduciary <u>Net Position</u>	Net Pension <u>Liability</u>	Plan Fiduciary Net Position as a % of Total <u>Pension Liability</u>	Covered <u>Payroll</u>	Net Pension Liability as a % of <u>Covered Payroll</u>
2013	\$455,914,323	\$379,712,035	\$76,202,288	83.29%	\$43,783,450	174.04%
2014	\$460,585,801	\$428,805,538	\$31,780,263	93.10%	\$40,510,955	78.45%
2015	\$500,205,954	\$414,664,005	\$85,541,949	82.90%	\$38,492,586	222.23%
2016	\$510,324,266	\$390,189,761	\$120,134,505	76.46%	\$35,760,078	335.95%
2017	\$517,035,103	\$409,168,804	\$107,866,299	79.14%	\$33,647,390	320.58%

GASB 67 was implemented for the plan year ending June 30, 2013; this schedule is being built prospectively. Ultimately, 10 years of data will be presented.

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Internal Control and Compliance

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### INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

November 6, 2017

Board of Trustees of the City of Grand Rapids General Retirement System Grand Rapids, Michigan

We have audited, in accordance with the 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, the financial statements of the *City of Grand Rapids General Retirement System* (the "System", a pension trust fund of the City of Grand Rapids, Michigan), as of and for the years ended June 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the System's basic financial statements, and have issued our report thereon dated November 6, 2017.

#### Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the Plan's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control such that set there is a reasonable possibility that a material misstatement of the antity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

#### **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the System's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

#### Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Rehmann Loham LLC