City of Ann Arbor Employees' Retirement System

Financial Statements

June 30, 2017

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Independent Auditors' Report

To the Board of Directors
City of Ann Arbor Employees' Retirement System

We have audited the accompanying statements of fiduciary net position of the City of Ann Arbor Employees' Retirement System (the "System") as of June 30, 2017, and the related statements of changes in fiduciary net position for the year then ended, and the related notes to the financial statements.

In Relation to Opinion on Accompanying 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 opinions 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. 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 opinions.

Reporting Entity

As discussed in Note 1, the financial statements present only the City of Ann Arbor Employees' Retirement System pension trust fund and do not purport to, and do not, present fairly the financial position of the City of Ann Arbor as of June 30, 2017, and the changes in its financial position for the year 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.

Other Matters:

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the schedules of pension information, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Yeo & Yeo, P.C.

Ann Arbor, Michigan
November 30, 2017

City of Ann Arbor
Employees' Retirement System
Statement of Fiduciary Net Position
June 30, 2017

Assets	
Investments, at fair value	
Equities	$ 259,351,359
Fixed income	157,572,414
Other	56,990,478
Total investments	473,914,251
Equity in City of Ann Arbor pooled cash and investments	4,187,040
Accrued interest and dividends	519,338
Due from broker for securities sold	16,070,078
Capital assets, net	362,391
Other assets	19,766
Total assets	495,072,864
Deferred Outflows of Resources	
Deferred amount of pension expense related to net pension liability	356,121
Total assets and deferred outflows of resources	495,428,985
Liabilities	
Accounts payable and accrued liabilities	3,086,879
Due to broker for securities purchased	246,849
Mortgage payable, due in one year	28,601
Mortgage payable, due in more than one year	163,503
Net pension liability	488,020
Total liabilities	4,013,852
Deferred Inflows of Resources	
Deferred amount on net pension liability	141,475
Total liabilities and deferred inflows of resources	4,155,327
Net position restricted for pensions	**$ 491,273,658**

City of Ann Arbor
Employees' Retirement System
Statement of Changes in Fiduciary Net Position
For the Year Ended June 30, 2017

Additions	
Investment income	
From investing activities	
Net appreciation in fair value of investments	$ 51,407,585
Interest and dividends	3,627,696
Total investment income	55,035,281
Investment management fees	(802,859)
Net investment income from investing activities	54,232,422
From securities lending activities	
Gross earnings	22,953
Borrower rebates paid	(7,952)
Securities lending fees	(4,482)
Net investment income from securities lending activities	10,519
Total net investment income	54,242,941
Contributions	
Employer	13,273,156
Plan members	3,325,000
Total contributions	16,598,156
Total Additions	70,841,097
Deductions	
Benefits	34,408,549
Refunds	1,027,656
Administrative expenses	751,555
Total Deductions	36,187,760
Change in net position	34,653,337
Net position - beginning of year	456,620,321
Net position - end of year	$ 491,273,658

See Accompanying Notes to the Financial Statements

Note 1 - Plan Description

Plan administration

The City of Ann Arbor Employees' Retirement System (the "System") is a single employer defined benefit retirement plan established and administered by the City of Ann Arbor which provides pension, disability and death benefits to general, police and firefighter employees and their beneficiaries. Cost of living adjustments may be provided to members and beneficiaries. The City Charter assigns the authority to establish and amend benefit provisions to the City Council. The financial statements of the System are included as a pension trust fund in the City's financial statements.

Management of the System is vested in the City of Ann Arbor Employees' Retirement System Board of Trustees, which consists of nine members, three are elected (representing fire, police and general City employees), five are appointed by the City Council of the City of Ann Arbor and one is the Chief Financial Officer of the City of Ann Arbor, who serves as ex-officio member.

Plan membership

At June 30, 2017, System membership consisted of the following:

	2017
Retirees and beneficiaries currently receiving benefits	1,040
Terminated employees entitles to but not yet receiving benefits	150
Active members	696
Total Membership	1,886

Benefits provided

The System provides retirement, disability, and death benefits. Retirement benefits for general plan members are calculated as 2.5 percent of the member's final three-year average salary or five-year average salary depending on hire date, times the member's years of service. Benefits for public safety plan members (police and fire) are calculated as 2.75 percent of the member's final three-year average salary or five-year average salary depending on hire date, times the member's years of service. Effective January 1, 2017, the Retirement System was amended and restated to add to the existing defined benefit plan (to be called the "Traditional Retirement Plan"), a defined contribution money purchase pension plan (the "Dual Retirement Plan") which will only apply to non-union, AFSCME, and Teamsters Civilian Supervisor employees first hired or rehired on or after January 1, 2017. Employees who are members of the Dual Retirement Plan will also participate in and accrue benefits under the Traditional Retirement Plan, but at a rate of accruals that is 50% of the rate of accruals for members of the Traditional Retirement Plan who were hired or rehired prior to January 1, 2017. Certain collective bargaining units may agree that newly hired or rehired members of that union will be covered by the Dual Retirement Plan on dates after January 1, 2017. The Traditional Retirement Plan and the Dual Retirement Plan are together called the City of Ann Arbor Employees Retirement System (CAAERS).

General plan members with 20 years of service are eligible to retire at age 50 with an early retirement reduction of .333 percent for each month that retirement precedes the normal retirement date. Public safety plan members with 20 years of service are eligible to retire at age 50 with an early retirement reduction of .333 percent for each month that retirement precedes the normal retirement date.

General plan members may retire with an unreduced benefit at age 50 after 25 years of service, or age 60 with 5 or 10 years of service depending on hire date. Public safety plan members may retire at any age after 25 years of service, or at age 55 with 5 or 10 years of service depending on hire date. Deferred members may retire at age 60 with 5 or 10 years of service depending on date of hire. All plan members are eligible for non-duty disability benefits after 5 or 10 years depending on date of hire, and for duty-related disability benefits upon hire. Disability retirement benefits are determined in the same manner as retirement benefits but are payable immediately without an actuarial reduction.

A plan member who leaves City service may withdraw his or her contributions plus any accumulated interest. A withdrawal may reduce or even eliminate any future benefit payable under a deferred vested retirement.

The System offers a minimum benefit of $9,800 adjusted by a cost of living factor each year and prorated for less than 20 years of service. In addition, annually, the Board of Trustees, in consultation with its actuary and upon receipt of the actuarial report for each fiscal year, determines whether to grant a permanent pension benefit adjustment or pay a one-time supplemental benefit based upon the amount, if any, of funds in the pension adjustment account which may be distributed to eligible retirees and beneficiaries. The aggregate cost of such benefit adjustment or supplemental benefit distribution is funded by a transfer from the pension adjustment account to the pension reserve. No pension benefit adjustment or supplemental benefit can be paid unless the amount available in the pension adjustment account is equal to or greater than 1% of the total pension payroll. The term "total pension payroll" means the total amount of pension benefits paid to retirees and beneficiaries in the prior fiscal year as reflected in the annual actuarial report.

Contributions

The City is required to contribute at an actuarially determined rate; the rate for 2017 was 21.73%. Plan provisions and contribution requirements are established and can be amended by the City Council. System administrative costs are financed through investment earnings.

All plan members hired after January 1, 2017, except for Ann Arbor Police Officers' Association, Command Officers' Association of Michigan, and Fire union employees, are required to participate in a hybrid pension plan administered by the City of Ann Arbor Employees' Retirement System. The hybrid pension plan is comprised of two components: a defined benefit plan and a defined contribution plan. Under the defined benefit plan, the City contributes at an actuarially determined rate and employees contribute 3% of their wages. Retirement benefits under the defined benefit plan within the hybrid are calculated as 1.25% of the employee's final five-year average compensation multiplied by the years of service for General members (non-Safety personnel). Employees vest 100% in the defined benefit plan after 10 years of service.

Under the defined contribution plan, the employees contribute 3% of their wages and the employer contributes 5.2% for General members. Employees vest 100% in the defined contribution plan after five years of service.
In accordance with these requirements, the City employees contributed $9,067 towards the defined benefit component, and for the defined contribution plan, the City contributed $15,404 and the employees contributed $9,089 for the year ended June 30, 2017.

Note 2 - Summary of Significant Accounting Policies

Basis of Accounting

The System's financial statements are prepared on the accrual basis of accounting. Member contributions are recognized in the period in which they are due. The City's contributions are recognized when due and the employer has made a formal commitment to provide them. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Valuation of Investments

The System's investments are stated at fair value which is determined as follows: (a) short-term investments are reported at cost, which approximates fair value; (b) securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates; (c) investments for which market quotations are not readily available are valued at their fair values as determined by the custodian under the direction of the System's governing body, with the assistance of a valuation service; and (d) cash deposits are reported at carrying amounts which reasonably approximates fair value.

Deferred Outflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to one or more future periods and so will not be recognized as an outflow of resources (expense) until then. The System reports deferred outflows of resources for changes in expected and actual investment returns, assumptions, and benefits provided in its pension plan. Further information regarding deferred outflows of resources and the pension plan to which it relates is presented in the City of Ann Arbor's comprehensive annual financial report.

Deferred Inflows of Resources

This separate financial statement element represents an acquisition of net position that applies to one or more future periods and so will not be recognized as an inflow of resources (revenue) until that time. These amounts are deferred and recognized as an inflow of resources in the period that the amounts become available. Further information regarding deferred inflows of resources and the pension plan to which it relates is presented in the City of Ann Arbor's comprehensive annual financial report.

Capital Assets

Capital assets are reported (net of accumulated depreciation) in the statement of fiduciary net position. Capital assets are defined by the System as assets with an initial, individual cost of more than $5,000 and an estimated useful life in excess of two years. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at estimated fair value at the date of donation.

The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend asset life are not capitalized. Major outlays for capital assets and improvements are capitalized as projects are constructed. Interest incurred during the construction phase of capital assets, if any, is included as part of the capitalized value of the assets constructed. No such interest expense was incurred during the current or prior fiscal year.

Capital assets are depreciated using the straight-line method over the following estimated useful lives: building and improvements - 40 years; equipment and furniture - 3 to 15 years.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make significant estimates and assumptions that could affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Note 3 - Deposits, Investments, and Securities Lending

The System does not maintain any checking or other demand/time deposit accounts. Amounts reported as cash or equity in the City of Ann Arbor pooled cash and investments in the statements of fiduciary net position are composed entirely of amounts held by the City of Ann Arbor as part of its cash pool. As a result, the insured and uninsured amounts related to these accounts cannot be determined.

The Michigan Public Employees Retirement Systems' Investment Act, Public Act 314 of 1965, as amended, authorizes the System to invest in stocks, government and corporate securities, mortgages, real estate, and various other investment instruments, subject to certain limitations. The System's governing body has the responsibility and authority to oversee the investment portfolio. Various professional investment managers are contracted to assist in managing the System's investments; all investment decisions are subject to Michigan law and the investment policy established by the governing body.

Investment allocation policy

The System's policy in regard to the allocation of invested assets is established and may be amended by the Retirement System Board of Trustees. The policy pursues an investment strategy that protects the financial health of the System and reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. System assets will be invested in the broad investment categories and asset classes to achieve the allocation targets below. Recognizing that asset returns may vary, causing fluctuations in the relative dollar value levels of assets within classes, the System may not maintain strict adherence to the targets in the short-term, but may allow the values to fluctuate within these ranges. Over the long-term, the System will strive to adhere to the given targets as financially practicable and move toward target allocations in a prudent manner consistent with its fiduciary duty.

The adopted asset allocation policy as of June 30, 2017 is as follows:

Asset Class	Target Allocation	Allocation Range
Equities		
Domestic equities	31%	25% to 37%
Developed foreign equities	12%	9% to 15%
Emerging markets equities	6%	0% to 9%
Private equities	3%	0% to 5%
Total equities	52%	34% to 66%
Fixed income		
Investment grade bonds	19%	15% to 24%
TIPS (Treasury inflation-protected securities)	8%	0% to 10%
High yield bonds	3%	1% to 5%
Bank loans	2%	0% to 4%
Emerging market debts	2%	0% to 4%
Total fixed income	34%	16% to 47%
Other investments		
Real estate	9%	2% to 12%
Natural resources	3%	0% to 5%
Hedge funds	2%	1% to 5%
Cash	0%	<5%
Total other investments	14%	3% to 27%
Total investments	100%	

The investment allocation policy will be reviewed periodically to ensure that the objectives and constraints remain relevant. However, the Trustees recognize the need for a stable long-term policy for the System and major changes to this policy will be made only when significant developments in the circumstances, objectives or constraints of the System occur.

Investment holdings

The System's investments are held by an independent trust company. Following is a summary of the System's investments as of June 30, 2017: (investments at fair value, as determined by quoted market price).

	Domestic	Foreign	Total	On Loan
Equities				
Common stock	$ 14,025,123	$ 138,897	$ 14,164,020	$ 2,293,014
Common stock funds	169,037,601	66,287,693	235,325,294	-
Private equity	9,862,045	-	9,862,045	-
Total equities	192,924,769	66,426,590	259,351,359	2,293,014
Fixed income				
Government agency funds	86,696,788	-	86,696,788	-
Corporate bonds	-	3,220,516	3,220,516	-
Corporate bond funds	20,561,333	7,374,681	27,936,014	-
Bank loan participation	15,081,281	-	15,081,281	-
Private credit	4,728,739	-	4,728,739	-
Index linked government bonds	19,909,076	-	19,909,076	-
Total fixed income	146,977,217	10,595,197	157,572,414	-
Other investments				
Real estate	35,647,391	-	35,647,391	-
Hedge funds	6,401,041	7,901,659	14,302,700	-
Short-term investment funds	7,040,387	-	7,040,387	-
Total other investments	49,088,819	7,901,659	56,990,478	-
Total investments	$ 388,990,805	$ 84,923,446	$ 473,914,251	$ 2,293,014

Custodial Credit Risk

For investments, custodial credit risk 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 its investments or collateral securities that are in the possession of an outside party. The System's investment policy requires that securities be held in trust by a third-party institution in the System's name. As such, although uninsured and unregistered, the System's investments are not exposed to custodial credit risk since the securities are held by the counterparty's trust department in the System's name. Short-term investments in money market funds are not exposed to custodial credit risk because their existence is not evidenced by securities that exist in physical or book form.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Investments in any particular asset class may or may not be consistent with the objectives of the System. The investment policy statement specifically indicates permissible asset classes, including high yield fixed income and alternatives, in appropriate target percentages.

The System's investments in government agency funds, corporate bond funds, bank loan participation, private credit, and index linked government bonds (each of which are essentially funds) are not rated.

The System's fixed income securities consisted of the following at June 30, 2017:

Government agency funds	$	86,696,788
Corporate bonds		3,220,516
Corporate bond funds		27,936,014
Bank loan participation		15,081,281
Private credit		4,728,739
Index linked government bonds		19,909,076
	$	157,572,414

The System's investments in corporate bond funds and hedge funds are not rated; also, the other fixed income securities at June 30, 2017 were essentially in "funds" and therefore not rated, with the exception of corporate bonds.

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. The System's investment policy requires that no more than 5 percent of the total fund be invested in any one company or governmental agency.

Interest Rate Risk
Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The System's investment policy requires a maximum term to maturity of 30 years for any single fixed income security. The System's investment policy does not address weighted average portfolio maturities.

Inasmuch as all of the debt or fixed income securities as of June 30, 2017, except for the corporate bonds, are essentially held in funds by the portfolio managers, maturity information is not available. For the year ended June 30, 2017 the System's only corporate bond fund was a partnership hedge fund. As such, the System had no maturities to report.

Rate of Return
For the year ended June 30, 2017, the annual money-weighted rate of return on plan investments, net of investment expenses, was 11.93 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Securities Lending
A contract approved by the System's Board of Trustees, permits the System to lend its securities to broker-dealers and other entities (borrowers) for collateral that will be returned for the same securities in the future. The System's custodial trust company manages the securities lending program and receives securities, cash or irrevocable bank letters of credit as collateral. The collateral securities cannot be pledged or sold by the System unless the borrower defaults. Collateral is initially pledged at 102 percent of the market value of the securities lent, and may not fall below 100 percent during the term of the loan. There are no restrictions on the amount of securities that can be loaned.

At year end, the System has no credit risk exposure to borrowers because the amounts the System owes the borrowers exceeds the amounts the borrowers owe the System. The contract with the System's custodian requires it to indemnify the System if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities lent) or fail to pay the System for income distributions by the securities' issuers while the securities are on loan.

At June 30, 2017, the total collateral received from borrowers had a fair value of $2,342,376, all of which was cash.

Fair Value Measurements

The System categorizes the fair value measurements of its investments 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 – 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 manager at the fund level based on a review of the investment's class, structure, and what kind of securities are held in funds. The investment manager will request the information from the fund manager, if necessary.

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

	Level 1	Level 2	Level 3	Total
Equities				
Common stock	$ 14,164,020	$ -	$ -	$ 14,164,020
Common stock funds	20,603,202	214,722,092	-	235,325,294
Private equity	-	-	9,862,045	9,862,045
Total equities	34,767,222	214,722,092	9,862,045	259,351,359
Fixed income				
Government agency funds	-	86,696,788	-	86,696,788
Corporate bonds	-	-	3,220,516	3,220,516
Corporate bond funds	7,374,681	20,561,333	-	27,936,014
Bank load participation	-	-	15,081,281	15,081,281
Private credit	-	-	4,728,739	4,728,739
Index linked government bond	19,909,076	-	-	19,909,076
Total fixed income	27,283,757	107,258,121	23,030,536	157,572,414
Other investments				
Real estate	-	-	35,647,391	35,647,391
Hedge funds	-	-	14,302,700	14,302,700
Short-term investment funds	7,040,387	-	-	7,040,387
Total other investments	7,040,387	-	49,950,091	56,990,478
Total investments	$ 69,091,366	$ 321,980,213	$ 82,842,672	$ 473,914,251

Note 4 - Capital Assets

Capital asset activity for the year ended June 30, 2017 was as follows:

	Beginning Balance	Additions	Reductions	Ending Balance
Capital assets being depreciated:				
Buildings and improvements	$ 463,416	$ -	$ -	$ 463,416
Equipment and furniture	22,634	-	22,634	-
Total capital assets	486,050	-	22,634	463,416
Less accumulated depreciation for:				
Buildings and improvements	(89,459)	(11,566)	-	(101,025)
Equipment and furniture	(22,634)	-	(22,634)	-
Total accumulated depreciation	(112,093)	(11,566)	(22,634)	(101,025)
Total capital assets, net	$ 373,957	$ (11,566)	$ -	$ 362,391

Note 5 - Long-Term Debt

On September 1, 2008, the System acquired real property through a $400,000 mortgage that requires semiannual payments of $18,417 through March 1, 2023 that includes interest at 4.45 percent. The outstanding balance on the mortgage as of June 30, 2017 was $192,104 after a principal payment of $27,369 for 2017.

The annual requirement to pay principal and interest on the mortgage is as follows:

Year Ending June 30,	Principal	Interest
2018	$ 28,601	$ 8,233
2019	29,887	6,947
2020	31,232	5,602
2021	32,637	4,197
2022	34,105	2,729
2023	35,642	1,192
	$ 192,104	$ 28,900

Note 6 - Net Pension Liability of the City

The components of the net pension liability of the City at June 30, 2017, are as follows:

Total pension liability	$ 559,385,658
Plan fiduciary net position	(491,273,658)
City's net pension liability	$ 68,112,000
Plan fiduciary net position as a percentage of the total pension liability	87.82%

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

Inflation	3.5 percent
Salary increases	3.5 percent, average, including inflation
Investment rate of return	7.0 percent, net of pension plan investment expense, including inflation
Mortality rates	RP-2000 Combined Table

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period July 1, 2008 through June 30, 2013.

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 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.

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2017 (see the discussion of the System's investment allocation policy) are summarized in the following table:

Asset Class	Long-term Expected Real Rate of Return
Equities	
Domestic equities	5.7%
Developed foreign equities	6.3%
Emerging markets equities	9.6%
Private equities	9.3%
Fixed income	
Investment grade bonds	2.5%
TIPS (Treasury inflated-protected securities)	3.0%
High yield bonds	5.0%
Bank loans	5.1%
Emerging market debts	5.4%
Other investments	
Real estate	5.7%
Natural resources	4.8%
Hedge funds	3.8%
Cash	1.5%

Discount Rate

The discount rate used to measure the total pension liability was 7.0 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that City contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current 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.

Sensitivity of the Net Pension Liability to Changes in Discount Rate

The following presents the net pension liability of the City, calculated using the discount rate of 7.0 percent, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.0 percent) or 1-percentage-point higher (8.0 percent) than the current rate:

	1% Decrease (6.0%)	Current Discount (7.0%)	1% Increase (8.0%)
City's net pension liability	$ 128,860,000	$ 68,112,000	$ 16,792,000

City of Ann Arbor
Employees' Retirement System
Required Supplementary Information
Schedule of Investment Returns
Last Five Fiscal Years

Fiscal Year Ended June 30,	Annual Money-Weighted Rate of Return, Net of Investment Expense
2013	12.69%
2014	14.01%
2015	4.35%
2016	0.50%
2017	11.93%

Note: GASB 67 was implemented in fiscal 2014. This schedule is being built prospectively; ultimately, 10 years of data will be presented.

City of Ann Arbor
Employees' Retirement System
Required Supplementary Information
Schedule of Changes in the City's Net Pension Liability and Related Ratios
Last Four Fiscal Years

	2017	2016	2015	2014
Change in total pension liability				
Service cost	$ 8,869,000	$ 8,729,000	$ 9,760,000	$ 9,802,000
Interest on the total pension liability	37,755,000	36,925,458	35,978,096	34,400,755
Experience differences	3,488,000	(3,826,000)	279,000	3,834,000
Other changes	30,337	-	-	-
Benefit payments and refunds	(35,436,000)	(33,960,032)	(32,667,512)	(32,011,444)
Net change in total pension liability	14,706,337	7,868,426	13,349,584	16,025,311
Total pension liability - beginning	544,679,321	536,810,895	523,461,311	507,436,000
Total pension liability - ending (a)	559,385,658	544,679,321	536,810,895	523,461,311
Change in plan fiduciary net position				
Employer contributions	13,253,000	13,352,412	13,091,474	11,227,290
Employee contributions	3,325,000	3,139,266	3,013,353	2,948,177
Pension plan net investment income	54,243,000	2,434,399	20,144,251	60,253,683
Benefit payments and refunds	(35,436,000)	(33,960,032)	(32,667,512)	(32,011,444)
Pension plan administrative expense	(748,000)	(719,561)	(683,980)	(644,051)
Other	16,337	-	-	-
Net change in plan fiduciary net position	34,653,337	(15,753,516)	2,897,586	41,773,655
Plan fiduciary net position - beginning	456,620,321	472,373,897	469,685,311	427,911,656
Restatement for pension liability	-	-	(209,000)	-
Plan fiduciary net position - ending (b)	491,273,658	456,620,321	472,373,897	469,685,311
City's net pension liability (a-b)	$ 68,112,000	$ 88,059,000	$ 64,436,998	$ 53,776,000
Plan fiduciary net position as a percentage of the total pension liability	87.82%	83.83%	88.00%	89.73%
Covered employee payroll	$ 53,583,000	$ 50,057,000	$ 49,638,000	$ 47,956,745
City's net pension liability as a percentage of covered payroll	127.11%	175.92%	129.81%	112.13%

City of Ann Arbor
Employees' Retirement System
Required Supplementary Information
Schedule of City Contributions
Last Four Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
6/30/2014	$ 11,217,000	$ 11,227,290	$ (10,290)	$ 47,956,745	23.4%
6/30/2015	12,327,000	13,091,474	(764,474)	49,638,000	26.4%
6/30/2016	12,233,000	13,352,412	(1,119,412)	50,057,000	26.7%
6/30/2017	11,348,853	13,253,000	(1,904,147)	53,583,000	24.7%

Note: GASB 67 was implemented in fiscal 2014. This schedule is being built prospectively; ultimately, 10 years of data will be presented.

Notes to Schedule of Employer Contributions

Valuation date	Actuarially determined contribution rates are calculated as of June 30 that is 12 months prior to the beginning of the fiscal year for which the contributions are reported.
Other information	There were no benefit changes during the year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age normal
Amortization method	Level percentage of payroll, closed
Remaining amortization period	24 years
Asset valuation method	5-year smoothed market
Inflation	3.5%
Salary increases	3.5% including inflation
Investment rate of return	7.0% net of pension plan investment expense, including inflation
Retirement age	50 to 60 dependent on years of service
Mortality rates	RP-2000 combined table