Financial

KPMG LLP
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Independent Auditors' Report

The Board of Trustees
Texas Municipal Retirement System:

We have audited the accompanying statements of fiduciary net position of the Texas Municipal Retirement System (TMRS), as of December 31, 2016 and 2015, and the related statements of changes in fiduciary net position for the years then ended and the related notes to the financial statements, which collectively comprise TMRS' 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 U.S. generally accepted accounting principles; 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 audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the 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.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Texas Municipal Retirement System as of December 31, 2016 and 2015, and the changes in fiduciary net position for the years then ended in accordance with U.S. generally accepted accounting principles.

Emphasis of Matters

As discussed in note 1 to the financial statements, TMRS implemented the provisions of Government Accounting Standards Board Statement No. 72, *Fair Value Measurement and Application*, for the year ended December 31, 2016. Our opinion is not modified with respect to this matter.

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Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that Management's Discussion and Analysis and Schedule of Investment Returns on pages 24-27 and 55 respectively be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise TMRS' basic financial statements. The Introductory Section on pages 6-20, Other Supplementary Information – Changes in Fiduciary Net Positions by Fund, Schedule of Administrative Expenses, Schedule of Professional Services, and Schedule of Investment Expenses on pages 56-60, the Investment Section on pages 61-74, the Actuarial Section on pages 75-104, and the Statistical Section on pages 105-158 are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Other Supplementary Information – Changes in Fiduciary Net Position by Fund, Schedule of Administrative Expenses, Schedule of Professional Services, and Schedule of Investment Expenses are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Other Supplementary Information – Changes in Fiduciary Net Position by Fund, Schedule of Administrative Expenses, Schedule of Professional Services, and Schedule of Investment Expenses are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Introductory, Actuarial, and Statistical Sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

KPMG LLP

Austin, Texas
June 15, 2017

Management's Discussion and Analysis (MD&A) of the Texas Municipal Retirement System (TMRS, or the System) for the years ended December 31, 2016 and 2015, provides a summary of the financial position and performance of TMRS, including highlights and comparisons. The MD&A is presented as a narrative overview and analysis in conjunction with the Letter of Transmittal, which is included in the Introductory Section of the TMRS *Comprehensive Annual Financial Report* (CAFR). For more detailed information regarding TMRS' financial activities, the reader should also review the actual financial statements, including the notes and supplementary schedules.

Overview of the Financial Statements

This MD&A is intended to serve as an introduction to the TMRS basic financial statements, which comprise the following components:

- Fund Financial Statements
- Notes to Financial Statements

This report also contains Required Supplementary Information and other supplemental information in addition to the basic financial statements. Collectively, this information presents the fiduciary net position and the changes in fiduciary net position of TMRS as of December 31, 2016 and 2015. The information contained in each of these fiduciary components is summarized as follows:

Fund Financial Statements. Two statements, both containing financial information for the Pension Trust Fund and the Supplemental Death Benefits Fund (SDBF), are provided. These funds are presented as fiduciary funds of the System and reflect the resources available for benefits to members, retirees, and their beneficiaries (Pension Trust Fund) and other benefits (SDBF). The Statements of Fiduciary Net Position as of December 31, 2016 and 2015 reflect the financial position of TMRS at a point in time. The Statements of Changes in Fiduciary Net Position for the years ended December 31, 2016 and 2015 present the activities that occurred during the respective periods.

Notes to Financial Statements. The financial statement notes provide additional information that is essential to a full understanding of the data provided in the fund financial statements.

Required Supplementary Information. Required supplementary information includes the 2016, 2015, and 2014 investment returns on pension plan investments.

Other Supplemental Schedules. Supplemental schedules include additional information regarding fund activity, administrative expenses, professional services, and investment expenses.

Financial Highlights

Net Position Restricted for Pensions – Pension Trust Fund

The following table displays a summary of assets, liabilities, and net position for the TMRS Pension Trust Fund at December 31, 2016, 2015, and 2014 (in millions). The overall financial condition of the Pension Trust Fund reflects an increase in net position from 2014 to 2016.

				2016-2015		2015-2014	
	2016	2015	2014	$ Change	% Change	$ Change	% Change
Investments, at fair value	$ 25,830.2	$ 24,289.1	$ 23,896.1	$ 1,541.1	6.3 %	$ 393.0	1.6 %
Invested securities lending collateral	-	864.1	1,030.8	(864.1)	(100.0)	(166.7)	(16.2)
Cash, receivables and other	1,331.0	1,465.8	1,602.6	(134.8)	(9.2)	(136.8)	(8.5)
Capital assets, net	9.8	9.9	7.9	(0.1)	(1.0)	2.0	25.3
Total assets	27,171.0	26,628.9	26,537.4	542.1	2.0	91.5	0.3
Securities lending collateral	-	866.8	1,033.5	(866.8)	(100.0)	(166.7)	(16.1)
Other liabilities	1,937.8	2,053.9	1,776.4	(116.1)	(5.7)	277.5	15.6
Total liabilities	1,937.8	2,920.7	2,809.9	(982.9)	(33.7)	110.8	3.9
Net Position Restricted for Pensions	$ 25,233.2	$ 23,708.2	$ 23,727.5	$ 1,525.0	6.4 %	$ (19.3)	(0.1) %

The increase in investments from 2014 to 2016 is due to the growth in the Trust Fund each year, primarily from investment returns and reinvestment of cash flows over the period. The fluctuation of receivables and other liabilities from year-to-year is due primarily to trade activity occurring near year-end, impacting the investment trade receivable and payable amounts reported. The increase in capital assets from 2014 to 2016 is due to the final phase of the finish-out of the TMRS building, which was completed in 2015. The fluctuation in securities lending collateral (both assets and liabilities) is due to the wind-down of the program during the period, with its termination in 2016.

A summary of the change in net position of the Pension Trust Fund for 2016, 2015, and 2014 is as follows (in millions):

				2016 - 2015		2015 - 2014	
	2016	2015	2014	$ Change	% Change	$ Change	% Change
Additions:							
Employer contributions	$ 768.3	$ 751.7	$ 719.9	$ 16.6	2.2 %	$ 31.8	4.4 %
Plan member contributions	389.9	376.1	355.4	13.8	3.7	20.7	5.8
Net investment income	1,602.2	35.0	1,285.3	1,567.2	4,477.7*	(1,250.3)	(97.3)
Total additions	2,760.4	1,162.8	2,360.6	1,597.6	137.4	(1,197.8)	(50.7)
Deductions:							
Retirement benefits	1,162.1	1,102.8	1,028.5	59.3	5.4	74.3	7.2
Refunds	54.2	57.0	58.7	(2.8)	(4.9)	(1.7)	(2.9)
Administrative & other costs	19.1	22.3	14.5	(3.2)	(14.3)	7.8	53.8
Total deductions	1,235.4	1,182.1	1,101.7	53.3	4.5	80.4	7.3
Net increase/(decrease) in net position	1,525.0	(19.3)	1,258.9	1,544.3	8,001.6*	(1,278.2)	(101.5)
Net position - beginning of year	23,708.2	23,727.5	22,468.6	(19.3)	(0.1)	1,258.9	5.6
Net position - end of year	$ 25,233.2	$ 23,708.2	$ 23,727.5	$ 1,525.0	6.4 %	$ (19.3)	(0.1)%

* Not considered meaningful for analysis.

The increase in employer and plan member contributions from 2014 to 2016 is due to the increase in covered payroll ($5.88 billion in 2016, $5.68 billion in 2015, and $5.37 billion in 2014). City membership also increased over the three-year period, totaling 872, 866, and 860 at December 31, 2016, 2015, and 2014, respectively.

Net investment income is presented after deduction of investment expenses and comprises interest and dividends, net appreciation in fair value of investments, and net income from securities lending activities. The changes in net investment income from 2014 to 2016 primarily result from the change in the net appreciation/(depreciation) in the fair value of investments during those periods ($1.3 billion appreciation, $284.6 million depreciation, and $980.5 million appreciation during the years ended 2016, 2015, and 2014, respectively). During the three years ended December 31, 2016, TMRS' investment portfolio was impacted by the market volatility experienced during that period, primarily in the public equities asset class.

The increase in retirement benefits is due primarily to growth in the number of retirement accounts each year (59,611, 56,481, and 53,455 in 2016, 2015, and 2014, respectively), as well as annuity increases (COLA adjustments) that may be applied each year.

The fluctuation in administrative and other costs from 2014 to 2016 is due to the recognition of the System's net pension liability as of December 31, 2015.

Net Position – Supplemental Death Benefits Fund

The following table displays a summary of net position and changes in net position for the Supplemental Death Benefits Fund at December 31, 2016, 2015, and 2014. The overall financial condition of the Supplemental Death Benefits Fund reflects a decrease in net position over the three-year period.

	2016	2015	2014
Total assets and net position	$ 20,628,050	$ 21,129,830	$22,720,056

A summary of the change in net position of the Supplemental Death Benefits Fund for 2016, 2015, and 2014 is as follows (in thousands):

				2016 - 2015		2015 - 2014	
	2016	2015	2014	$ Change	% Change	$ Change	% Change
Additions:							
Employer contributions	$ 6,983.5	$ 6,507.3	$ 6,126.8	$ 476.2	7.3 %	$ 380.5	6.2 %
Income allocation	1,000.9	1,057.2	1,132.8	(56.3)	(5.3)	(75.6)	(6.7)
Total additions	7,984.4	7,564.5	7,259.6	419.9	5.6	304.9	4.2
Deductions:							
Supplemental death benefits	8,486.2	9,154.8	8,450.0	(668.6)	(7.3)	704.8	8.3
Total deductions	8,486.2	9,154.8	8,450.0	(668.6)	(7.3)	704.8	8.3
Net decrease in net position	(501.8)	(1,590.3)	(1,190.4)	1,088.5	68.4	(399.9)	(33.6)
Net position - beginning of year	21,129.8	22,720.1	23,910.5	(1,590.3)	(7.0)	(1,190.4)	(5.0)
Net position - end of year	$ 20,628.0	$ 21,129.8	$ 22,720.1	$ (501.8)	(2.4) %	$ (1,590.3)	(7.0) %

Employer contributions are based on the covered payroll of the participating municipalities at actuarially determined rates. The increase in contributions from 2014 to 2016 is due to the increase in covered payroll as well as increased rates as a result of the aging population. The fluctuation in supplemental death benefits over the three-year period is a result of the change in total numbers of claims as well as type of claims in those years (active vs. retired). The Supplemental Death Benefits Fund receives a 5% statutory interest allocation from the Pension Trust Fund based on the fund's average balance during the year.

Requests for Information

This financial report is designed to provide a general overview of the Texas Municipal Retirement System's finances. Questions and requests for additional information should be addressed to the Finance Department of the Texas Municipal Retirement System, P.O. Box 149153, Austin, TX 78714-9153. ■

Statements of Fiduciary Net Position

As of December 31, 2016 and 2015	2016			2015		
	Pension Trust Fund	Supplemental Death Benefits Fund	Total	Pension Trust Fund	Supplemental Death Benefits Fund	Total
ASSETS						
Cash	$ 27,225,142	$ -	$ 27,225,142	$ 2,177,000	$ -	$ 2,177,000
Receivables						
Contributions	107,373,131	674,746	108,047,877	108,309,944	639,119	108,949,063
Interest and dividends	45,489,778	-	45,489,778	50,793,656	-	50,793,656
Securities lending income	-	-	-	259,809	-	259,809
Investment trades	129,821,718	-	129,821,718	100,441,119	-	100,441,119
Securities sold on a when-issued basis	1,020,688,455	-	1,020,688,455	1,203,617,112	-	1,203,617,112
Total Receivables	1,303,373,082	674,746	1,304,047,828	1,463,421,640	639,119	1,464,060,759
Investments, at fair value						
Short-term investments	1,069,322,539	-	1,069,322,539	1,403,300,204	-	1,403,300,204
Derivative contracts	1,569,348	-	1,569,348	(2,855,209)	-	(2,855,209)
Fixed income securities	6,161,634,182	-	6,161,634,182	8,610,840,995	-	8,610,840,995
Equities	11,339,458,615	-	11,339,458,615	10,483,078,643	-	10,483,078,643
Non-core fixed income funds	1,296,080,388	-	1,296,080,388	740,942,387	-	740,942,387
Real return funds	913,479,737	-	913,479,737	-	-	-
Absolute return funds	2,749,169,705	-	2,749,169,705	1,576,279,728	-	1,576,279,728
Private equity funds	116,403,554	-	116,403,554	13,805,553		13,805,553
Real estate funds	2,183,113,382	-	2,183,113,382	1,463,661,065	-	1,463,661,065
Total investments	25,830,231,450	-	25,830,231,450	24,289,053,366	-	24,289,053,366
Invested securities lending collateral	-	-	-	864,114,464	-	864,114,464
Property and equipment, at cost, net of accumulated depreciation of $18,093,381 and $17,411,442 at December 31, 2016 and 2015, respectively	9,766,674	-	9,766,674	9,909,170	-	9,909,170
Funds held by Pension Trust Fund	-	19,953,304	19,953,304	-	20,490,711	20,490,711
Other assets	368,307	-	368,307	222,581	-	222,581
TOTAL ASSETS	27,170,964,655	20,628,050	27,191,592,705	26,628,898,221	21,129,830	26,650,028,051
LIABILITIES						
Due to custodial and depository banks	5,602,640	-	5,602,640	5,370,041	-	5,370,041
Accounts payable and other accrued liabilities	21,984,528	-	21,984,528	22,181,406	-	22,181,406
Funds held for Supplemental Death Benefits Fund	19,953,304	-	19,953,304	20,490,711	-	20,490,711
Securities lending fees payable	-	-	-	105,128	-	105,128
Securities lending collateral	-	-	-	866,849,709	-	866,849,709
Investment trades payable	709,770,385	-	709,770,385	689,120,035	-	689,120,035
Securities purchased on a when-issued basis	1,180,448,025	-	1,180,448,025	1,316,618,611	-	1,316,618,611
TOTAL LIABILITIES	1,937,758,882	-	1,937,758,882	2,920,735,641	-	2,920,735,641
FIDUCIARY NET POSITION						
Net position restricted for pensions	25,233,205,773	-	25,233,205,773	23,708,162,580	-	23,708,162,580
Fiduciary net position held in trust for other benefits	-	20,628,050	20,628,050	-	21,129,830	21,129,830
TOTAL FIDUCIARY NET POSITION	$ 25,233,205,773	$ 20,628,050	$ 25,253,833,823	$ 23,708,162,580	$ 21,129,830	$ 23,729,292,410

See accompanying notes to financial statements.

For the Years Ended December 31, 2016 and 2015	2016			2015		
	Pension Trust Fund	Supplemental Death Benefits Fund	Total	Pension Trust Fund	Supplemental Death Benefits Fund	Total
ADDITIONS						
Contributions						
Employer	$ 768,252,338	$ 6,983,501	$ 775,235,839	$ 751,708,718	$ 6,507,371	$ 758,216,089
Plan member	389,919,391	-	389,919,391	376,103,505	-	376,103,505
Total contributions	1,158,171,729	6,983,501	1,165,155,230	1,127,812,223	6,507,371	1,134,319,594
Net investment income						
From investing activities						
Net appreciation/(depreciation) in fair value of investments	1,317,283,876	-	1,317,283,876	(284,634,170)	-	(284,634,170)
Interest and dividends	349,544,758	-	349,544,758	354,568,887	-	354,568,887
Total investing activities income	1,666,828,634	-	1,666,828,634	69,934,717	-	69,934,717
Less investment activities expense	(61,177,837)	-	(61,177,837)	(36,782,602)	-	(36,782,602)
Net income from investing activities	1,605,650,797	-	1,605,650,797	33,152,115	-	33,152,115
From securities lending activities						
Securities lending income	563,268	-	563,268	2,225,559	-	2,225,559
Securities lending expenses						
Borrower rebates	(184,211)	-	(184,211)	39,406	-	39,406
Agent fees	(43,091)	-	(43,091)	(315,630)	-	(315,630)
Net depreciation in fair value of collateral pool	(3,799,345)	-	(3,799,345)	(90,021)	-	(90,021)
Net income from securities lending activities	(3,463,379)	-	(3,463,379)	1,859,314	-	1,859,314
Net investment income	1,602,187,418	-	1,602,187,418	35,011,429	-	35,011,429
Other miscellaneous	25,956	-	25,956	3,900	-	3,900
Income allocation from Pension Trust Fund	-	1,000,892	1,000,892	-	1,057,178	1,057,178
TOTAL ADDITIONS	2,760,385,103	7,984,393	2,768,369,496	1,162,827,552	7,564,549	1,170,392,101
DEDUCTIONS						
Benefit payments						
Service retirement	1,005,485,139	-	1,005,485,139	937,848,878	-	937,848,878
Disability retirement	17,019,188	-	17,019,188	16,775,098	-	16,775,098
Partial lump sum distributions	139,559,781	-	139,559,781	148,161,053	-	148,161,053
Supplemental death benefits	-	8,486,173	8,486,173	-	9,154,775	9,154,775
Total benefit payments	1,162,064,108	8,486,173	1,170,550,281	1,102,785,029	9,154,775	1,111,939,804
Refunds of contributions	54,181,595	-	54,181,595	56,975,269	-	56,975,269
Administrative expenses	18,095,315	-	18,095,315	21,325,422	-	21,325,422
Income allocation to Supplemental Death Benefits Fund	1,000,892	-	1,000,892	1,057,178	-	1,057,178
TOTAL DEDUCTIONS	1,235,341,910	8,486,173	1,243,828,083	1,182,142,898	9,154,775	1,191,297,673
NET INCREASE/(DECREASE) IN NET POSITION	1,525,043,193	(501,780)	1,524,541,413	(19,315,346)	(1,590,226)	(20,905,572)
FIDUCIARY NET POSITION						
Net position restricted for pensions						
Beginning of year	23,708,162,580	-	23,708,162,580	23,727,477,926	-	23,727,477,926
End of year	25,233,205,773	-	25,233,205,773	23,708,162,580	-	23,708,162,580
Fiduciary net position held in trust for other benefits						
Beginning of year	-	21,129,830	21,129,830	-	22,720,056	22,720,056
End of year	-	20,628,050	20,628,050	-	21,129,830	21,129,830
TOTAL FIDUCIARY NET POSITION	$ 25,233,205,773	$ 20,628,050	$ 25,253,833,823	$ 23,708,162,580	$ 21,129,830	$ 23,729,292,410

See accompanying notes to financial statements.

1. Summary of Significant Accounting Policies

A. Background and Reporting Entity

The Texas Municipal Retirement System (TMRS, or the System) is an agency created by the State of Texas and administered in accordance with the Texas Municipal Retirement System Act, Subtitle G, Title 8, Texas Government Code (the TMRS Act) as an agent multiple-employer retirement and disability pension system for municipal employees in the State of Texas. As such, TMRS is a public trust fund that has the responsibility of administering the System in accordance with the TMRS Act and bears a fiduciary obligation to its members and their beneficiaries.

The System's financial statements have been prepared in accordance with generally accepted accounting principles (GAAP) as prescribed by the Governmental Accounting Standards Board (GASB). TMRS has no component units and is not a component unit of any other entity. The accompanying financial statements include only the operations of the System, which is comprised of two fiduciary trust funds — the Pension Trust Fund and the Supplemental Death Benefits Fund. The TMRS Act places the general administration and management of the System with a six-member Board of Trustees (the Board). Three Trustees are "Executive Trustees" who are either the chief executive officer, chief finance officer, or other officer, executive, or department head of a participating municipality. Three Trustees are "Employee Trustees" who are employees of a participating municipality. Although the Governor, with the advice and consent of the Senate, appoints the Board, TMRS is not fiscally dependent on the State of Texas.

B. New Accounting Pronouncements

In February 2015, the GASB issued Statement No. 72, *Fair Value Measurement and Application*, which establishes standards for determining fair value for certain investments and provides guidance for disclosures related to all fair value measurements. The requirements of this Statement are effective for financial statements with reporting periods beginning after June 15, 2015. All applicable provisions have been included in the Plan's financial statements as of December 31, 2016.

In January 2017, the GASB issued Statement No. 84, *Fiduciary Activities*. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. This Statement establishes criteria for identifying fiduciary activities of all state and local governments. Statement No. 84 is effective for the System's 2019 fiscal year, implementation of which is currently being evaluated.

In March 2017, the GASB issued Statement No. 85, *Omnibus 2017.* The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. Statement No. 85 is effective for the System's 2018 fiscal year, implementation of which is currently being evaluated.

C. Basis of Accounting

The Pension Trust Fund and the Supplemental Death Benefits Fund are maintained on the accrual basis of accounting. Revenue is recorded when earned, and expenses are recorded when incurred,

regardless of when payment is made. Employer and employee contributions are recognized in the period that the employer reports compensation for the employee, which is when contributions are legally due. Participant benefits are recorded when payable in accordance with the System's plan terms. Refunds are recorded and paid upon receipt of an approved application for refund.

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The System utilizes various investment instruments. Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term, and that any such changes could materially affect the amounts reported in the Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position.

D. Basis of Presentation

The financial statements are organized on the basis of funds, as required by the TMRS Act, each of which is considered to be a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts. These accounts are segregated for the purpose of carrying out specific activities or attaining certain objectives in accordance with applicable statutory guidelines or restrictions.

Each of the System's funds is considered a fiduciary fund. The following is a brief description of each fund category.

Fiduciary Fund — Pension Trust Fund

The Pension Trust Fund reports the resources held in trust for TMRS members and beneficiaries. The TMRS Act does not create legally required reserves, but establishes accounts that comprise the net position restricted for pensions as follows:

Benefit Accumulation Fund — The purpose of the Benefit Accumulation Fund (BAF) is to accumulate the activity impacting the balance of each municipality's reserve fund. The fund is increased by contributions made by employers and employee members, and decreased by benefit payments and refunds due to withdrawals and death. Effective each December 31, the Board of Trustees approves an interest credit to the BAF, allocated to each municipality in proportion to its BAF balance at January 1 of that year. The fund received an approximate 6.73% interest credit on December 31, 2016 and 0.06% on December 31, 2015.

Full Benefit Arrangement Fund — Section 415(b) of the Internal Revenue Code limits the amount of an annual benefit that may be paid by a tax-qualified pension plan trust to its retirees. This provision is known as the Section 415 limit, which is set by Congress and can be periodically adjusted by the IRS. Any portion of a retiree's annual benefit that exceeds the Section 415 limit cannot be paid from the TMRS pension trust fund. However, Internal Revenue Code Section 415(m) allows pension plans to create a separate fund, known as a qualified governmental excess benefit arrangement, to pay the benefits above the Section 415 limit.

Accordingly, the TMRS Act established such an arrangement, which is referred to as the "Full Benefit Arrangement." The purpose of the fund is to record the contributions from employers as well as the benefits paid from such contribution.

Supplemental Disability Benefits Fund — The TMRS Board of Trustees initiated legislation to amend the TMRS Act in 1987, which terminated all cities' participation in the Supplemental Disability Benefits Fund effective January 1, 1988. Consequently, there have been no contributions to this Fund since 1987. The fund continues to pay the remaining benefit payments that are obligations of the fund. Each December 31, the Supplemental Disability Benefits Fund receives a 5% interest credit on the mean balance of the fund during the year.

This fund will likely experience fluctuations in funding from year to year, as this is a small closed group; TMRS management will continue to annually monitor the balances and obligations of this fund.

Endowment Fund — The purpose of the Endowment Fund is to accumulate unallocated investment income (Interest Reserve Account), escheated accounts, and funds and assets accruing to the System that are not specifically required by the other funds.

Expense Fund — The purpose of the Expense Fund is to record the expenses incurred for the administration and maintenance of the System. The Board, as evidenced by a resolution of the Board and recorded in its minutes, may transfer from the Interest Reserve Account of the Endowment Fund to the Expense Fund the amount estimated to cover the System's administrative costs for the year.

Fiduciary Fund — Supplemental Death Benefits Fund

The Supplemental Death Benefits Fund (SDBF) reports the resources available to pay supplemental death claims for covered participants. Member cities may elect, by ordinance, to provide a Supplemental Death Benefit for their active members, including or not including retirees. The SDBF is a separate trust administered by the TMRS Board of Trustees. The TMRS Act requires the Pension Trust Fund to allocate a 5% interest credit to the SDBF each December 31 based on the mean balance in the SDBF during the year. Death benefit payments are payable only from this fund and are not an obligation of, or a claim against, the other funds of the System.

E. Investments

Investments at December 31, 2016 and 2015 include investments in short-term custodian-managed funds, certificates of deposit, repurchase agreements, domestic and international fixed income securities, comingled equity funds, domestic and international equity securities, private real estate funds, non-core fixed income funds, real return funds, absolute return funds, and private equity funds. Investments are reported at fair value, and securities transactions are reported on a trade-date basis. Forward currency contracts and futures contracts are considered derivative financial instruments and are reported at fair value, with valuation changes reported as investment income. Fixed income securities, including TBA securities, are valued by pricing vendors that utilize quoted market prices, broker prices, or other valuation methodologies. Equity securities are valued by the custodian using the last trade date "quoted market price" supplied by various pricing data vendors. Fair values of the comingled equity funds are determined based on the funds' net asset values at the date of valuation. Short-term investment funds and repurchase agreements are reported at cost, which approximates market value. Fair values of the investments in private real

estate funds, absolute return funds, non-core fixed income funds, real return funds, and private equity funds are reported at the net asset values as provided by the respective general partner, which are based on audited financial statements of the fund. Withdrawal from the private real estate, absolute return funds, non-core fixed income funds, real return funds, and private equity funds prior to liquidation is allowable, but is subject to certain constraints as defined in the respective Limited Partnership Agreement.

The TBA, or "to be announced," securities market is a forward, or delayed delivery market for 30-year and 15-year fixed-rate single-family mortgage-backed securities (MBS) issued by Fannie Mae, Freddie Mac, and Ginnie Mae. A TBA trade represents a purchase or sale of single-family mortgage-backed securities to be delivered on a specified future date; however, the specific pools of mortgages that will be delivered are unknown at the time of the trade. Parties to a TBA trade agree upon the issuer, coupon, price, product type, amount of securities, and settlement date for delivery. Settlement for TBA trades is standardized to occur on one specific day each month. Notification date occurs 48 hours prior to settlement date, where the seller communicates to the buyer the exact details of the MBS pools that will be delivered. Securities must meet "good delivery guidelines." Good delivery guidelines, notification, and settlement dates are established by the Securities Industry and Financial Markets Association (SIFMA). TBAs are an eligible security per the TMRS Investment Policy Statement. The policy requires purchases of TBAs to be backed by cash until settlement, and sales of TBAs to be backed by a deliverable security. The receivables and payables associated with the sale and purchase of TBAs are reflected in the accompanying statements of fiduciary net position as securities sold and purchased on a when-issued basis.

F. Property and Equipment

Property and equipment consisting of building and improvements, furniture, software, equipment, and land are recorded at cost. It is the System's policy to capitalize items that individually exceed $5,000. Depreciation on furniture, equipment, and software is calculated on a straight-line basis over their estimated useful lives, which range from three to ten years; depreciation for building and improvements is calculated on a straight-line basis over forty years.

G. Securities Lending

The Board of Trustees has authorized the System to participate in a securities lending program, whereby certain securities are loaned to an approved counterparty with a simultaneous agreement to return the collateral for the same securities. Collateral is in the form of cash or eligible securities and is initially equal to not less than 102% of the market value plus any accrued interest on the loaned securities, and is maintained at a minimum level of 100% of the market value plus any accrued interest. Securities received as collateral may not be pledged or sold without borrower default. The securities lending contract requires the securities lending agent to indemnify the System fully in the event a counterparty defaults on its obligations to the System.

The fair value of securities on loan totaled $845,378,653 at December 31, 2015. At December 31, 2015, TMRS had no credit risk exposure to borrowers as the collateral amounts received exceeded amounts on loan. Additionally, TMRS did not experience any losses from default of a borrower or lending agent during 2016 or 2015.

Cash collateral received is invested by the securities lending agent. At December 31, 2015, the cost basis of the System's collateral holdings totaled $866,849,709, which exceeded market values by $2,735,245. The change in unrealized loss on securities lending collateral is reported as net appreciation/(depreciation) in fair value of collateral on the Statements of Changes in Fiduciary Net Position.

During 2016, the System terminated its securities lending program with its third-party agent.

2. Plan Description

A. Pension Trust Fund

TMRS is a statewide agent multiple-employer public employee retirement system that administers 872 nontraditional, joint contributory, hybrid defined benefit plans covering all eligible employees of member cities in Texas. Membership in TMRS is summarized below as of December 31, 2016 and 2015:

	2016	2015
Inactive plan member accounts (or beneficiaries) currently receiving benefits	59,611	56,481
Inactive plan member accounts entitled to but not yet receiving benefits		
Vested	28,393	27,108
Non-vested	25,328	23,599
Total	53,721	50,707
Active plan member accounts		
Vested	65,751	65,726
Non-vested	43,140	41,168
Total	108,891	106,894
Total member municipalities	872	866

Benefits — Upon retirement, benefits depend on the sum of the employee's contributions, with interest, and the city-financed monetary credits, with interest. City-financed monetary credits are composed of three sources: prior service credits, current service credits, and updated service credits. Prior Service Credit, granted by each city joining TMRS, is a monetary credit equal to the accumulated value of the percentage of prior service credit adopted times an employee's deposits that would have been made, based on the average salary prior to participation, for the number of months the employee has been employed, accruing 3% annual interest, and including the matching ratio adopted by the city. Monetary credits for service since each plan began (or current service credits) are a percent (100%, 150%, or 200%) of the employee's accumulated contributions. In addition, each city can grant, either annually or on an annually repeating basis, another type of monetary credit referred to as Updated Service Credit. This monetary credit is determined by hypothetically re-computing the member's account balance by assuming that the current member deposit rate of the currently employing city (3%, 5%, 6%, or 7%) has always been in effect. The computation also assumes that the member's salary has always been the member's average salary — using a salary calculation based on the 36-month period ending a year before the effective date of calculation. This hypothetical account balance is increased by 3% each year (not the actual interest credited to the member's account in previous years), and increased by the city match currently in effect (100%, 150%, or 200%). The resulting sum is then compared to the

member's actual account balance increased by the actual city match and actual interest credited. If the hypothetical calculation exceeds the actual calculation, the member is granted a monetary credit (or Updated Service Credit) equal to the difference between the hypothetical calculation and the actual calculation times the percentage adopted.

At retirement, the benefit is calculated as if the sum of the employee's contributions with interest and the city-financed monetary credits with interest were used to purchase an annuity. Members may choose to receive their retirement benefit in one of seven payment options: retiree life only; one of three survivor lifetime options; or one of three guaranteed term options. Members may also choose to receive a portion of their benefit as a Partial Lump Sum Distribution (PLSD) in an amount equal to 12, 24, or 36 monthly payments under the retiree life only option, which cannot exceed 75% of the total member deposits and interest. A member city may elect to increase the annuities of its retirees, either annually or on an annually repeating basis, effective January 1 of a calendar year. Cities may adopt annuity increases at a rate equal to either 30%, 50%, or 70% of the increase (if any) in the Consumer Price Index – all Urban Consumers (CPI-U) between the December preceding the member's retirement date and the December one year before the effective date of the increase, minus any previously granted increases.

The plan provisions are adopted by the governing body of each city, within the options available in the state statutes governing TMRS. Members in most cities can retire at age 60 and above with 5 or more years of service or with 20 years of service regardless of age. Some cities have elected retirement eligibility with 25 years of service regardless of age. Most plans also provide death benefits, and all provide disability benefits. Effective January 1, 2002, members are vested after 5 years, unless a city opted to maintain 10-year vesting. Members may work for more than one TMRS city during their career. If an individual has become vested in one TMRS city, he or she is immediately vested upon employment with another TMRS city. Similarly, once a member has met the eligibility requirements for retirement in a TMRS city, he or she is eligible in other TMRS cities as well.

Contributions — The contribution rates for employees are either 5%, 6%, or 7% of employee gross earnings (three cities have a 3% rate, which is no longer allowed for new cities under the Act), and the city matching percentages are either 100%, 150%, or 200%, both as adopted by the governing body of each city. Under the state law governing TMRS, the contribution rate for each city is determined annually by the actuary, using the Entry Age Normal (EAN) actuarial cost method. This rate consists of the normal cost contribution rate and the prior service cost contribution rate, which is calculated to be a level percent of payroll from year to year. The normal cost contribution rate for an employee is the contribution rate which, if applied to a member's compensation throughout their period of anticipated covered service with the municipality, would be sufficient to meet all benefits payable on their behalf. The salary-weighted average of the individual rates is the total normal cost rate. The prior service contribution rate amortizes the unfunded (overfunded) actuarial liability (asset) over the applicable period for that city. Both the normal cost and prior service contribution rates include recognition of the projected impact of annually repeating benefits, such as Updated Service Credits and Annuity Increases. The employer contribution rate cannot exceed a statutory maximum rate, which is based on a combination of the employee contribution rate and the city matching percentage. There is an optional higher maximum that may be applied in certain circumstances if elected by the city, or a city may elect to remove the maximum rate. For example, with a 6% employee contribution rate and a city matching percentage of 200%, the maximum employer contribution rate is 12.5% (13.5% if the higher maximum is elected). The maximum does not apply at all for cities beginning participation on or after December 31, 1999.

Contributions are made monthly by both the employees and the member cities. Since each member city must know its contribution rate in advance for budgetary purposes, there is a one-year delay between the actuarial valuation that serves as the basis for the contribution rate and the calendar year when the rate goes into effect. Contributions totaling $762.4 million and $750.5 million were made in 2016 and 2015, respectively, by the member cities in accordance with the actuarially determined city contribution rates, based on the December 31, 2014 and 2013 actuarial valuations, respectively. In addition, effective January 1, 2008, member cities are allowed to make additional contributions to the Pension Trust Fund. During 2016 and 2015, thirteen cities contributed $4.7 million and seven cities contributed $266 thousand, respectively, in such additional contributions. If affected, a city may also pay contributions for the Full Benefit Arrangement (FBA). Such contributions totaled $1.2 million and $895 thousand in 2016 and 2015, respectively. Employees of the cities contributed $389.9 million and $376.1 million in 2016 and 2015 in accordance with the city-adopted employee contribution rate for each city.

Investment Policy — The pension plan's policy in regard to the allocation of invested assets is established and may be amended by the TMRS Board of Trustees. Plan assets are managed on a total return basis with an emphasis on both capital appreciation as well as the production of income, in order to satisfy the short-term and long-term funding needs of TMRS. The Board's adopted strategic asset allocation policy as of December 31, 2016 and 2015 is as follows:

Asset Class	Minimum %	Target %	Maximum %
U.S. Equities	12.5%	17.5%	22.5%
International Equities	12.5%	17.5%	22.5%
Core Fixed Income	5.0%	10.0%	15.0%
Non-Core Fixed Income	15.0%	20.0%	25.0%
Real Estate	5.0%	10.0%	15.0%
Real Return	5.0%	10.0%	15.0%
Absolute Return	5.0%	10.0%	15.0%
Private Equity	0.0%	5.0%	10.0%
Cash Equivalents	0.0%	0.0%	10.0%

For the years ended December 31, 2016 and 2015, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 7.55% and .08%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

B. Supplemental Death Benefits Fund

TMRS also administers a defined benefit group-term life insurance plan known as the Supplemental Death Benefits Fund (SDBF). This is a voluntary program in which participating member cities may elect, by ordinance, to provide group-term life insurance coverage (Supplemental Death Benefits) for their active members, including or not including retirees. Employers may terminate coverage under and discontinue participation in the SDBF by adopting an ordinance before November 1 of any year to be effective the following January 1.

Participation in the SDBF as of December 31, 2016 and 2015 is summarized as follows; these counts represent those eligible for the retiree death benefit only:

	2016	2015
Annuitants eligible for benefits	**26,864**	**25,819**
Terminated vested employees	8,513	7,921
Current employee accounts		
Vested	43,247	43,074
Non-vested	29,070	27,764
Total	72,317	70,838
Number of municipalities providing retiree coverage	750	740

Benefits — Payments from this fund are similar to group-term life insurance benefits, and are paid to the designated beneficiaries upon the receipt of an approved application for payment. The death benefit for active employees provides a lump sum payment approximately equal to the employee's annual salary (calculated based on the employee's actual earnings for the 12-month period preceding the month of death). The death benefit for retirees is considered an other employment benefit and is a fixed amount of $7,500. The obligations of this plan are payable only from the SDBF and are not an obligation of, or a claim against, the Pension Trust Fund.

Contributions — Contributions are made monthly based on the covered payroll of employee members of the participating member city. The contractually required contribution rate is determined annually for each city. The rate is based on the mortality and service experience of all employees covered by the SDBF and the demographics specific to the workforce of the city. There is a one-year delay between the actuarial valuation that serves as the basis for the employer contribution rate and the calendar year when the rate goes into effect. The contributions to the SDBF are pooled for investment purposes with those of the Pension Trust Fund. The TMRS Act requires the Pension Trust Fund to allocate investment income to the SDBF on an annual basis (see note 1-D). The funding policy of this plan is to assure that adequate resources are available to meet all death benefit payments for the upcoming year; the intent is not to prefund retiree term life insurance during employees' entire careers. As such, contributions are utilized to fund active member deaths on a pay-as-you-go basis; any excess contributions and investment income over payments then become net position available for benefits.

C. TMRS as Employer

Pension Trust Fund — TMRS, as an employer, participates as one of the 872 plans in the statewide agent multiple-employer plan administered by the System, providing pension benefits for all of its eligible employees. The plan provisions that have been adopted by the TMRS Board of Trustees are within the options available in the TMRS Act. Employees can retire at age 60 and above with 5 or more years of service, or with 20 years of service regardless of age. The contribution rate for employees is 7% and the matching percentage for TMRS is 200%. TMRS, as an employer, has also adopted 100% Updated Service Credit (USC) on a repeating basis and annuity increases (AI) on a repeating basis, at 70% of the change in the CPI. Employees are vested after 5 years of service, but their accumulated deposits and interest must remain in the plan to receive any employer-financed benefits. At retirement, death, or disability, the benefit is calculated by converting the sum of the employee's personal account balance and the employer-financed monetary credits to a monthly annuity using annuity purchase rates prescribed by the TMRS Act. Members may choose to receive their retirement benefit in one of seven payment options. Members may also choose to receive a portion of their benefit as a PLSD (see section A of this note for a full description of the pension benefits).

TMRS' Net Pension Liability (NPL) of $8,170,362 at December 31, 2016 and $6,078,398 at December 31, 2015, was measured as of the December 31, 2015 and 2014 actuarial valuation, respectively.

Supplemental Death Benefits Fund — TMRS, as an employer, participates in the defined benefit group-term life insurance plan it operates known as the Supplemental Death Benefits Fund (SDBF). TMRS elected to provide group-term life insurance coverage to both current and retired employees. The death benefit for active employees provides a lump sum payment approximately equal to the employee's annual salary (calculated based on the employee's actual earnings, for the 12-month period preceding the month of death). Retired employees are insured for $7,500.

TMRS contributes to the SDBF at a contractually required rate as determined by an annual actuarial valuation, which was 0.16% for 2016 and 2015, of which 0.02% represented the retiree-only portion for each year, as a percentage of annual covered payroll. The rate is equal to the cost of providing one-year term life insurance. The funding policy for the SDBF program is to assure that adequate resources are available to meet all death benefit payments for the upcoming year; the intent is not to prefund retiree term life insurance during employees' entire careers. As an employer, TMRS' contributions to the SDBF for the years ended December 31, 2016, 2015, and 2014 were $15,678, $14,347, and $12,281, respectively, representing contributions for both active and retiree coverage, which equaled the required contributions each year.

See section B of this note for a full description of the SDBF.

TMRS Insurance Plan — TMRS, as an employer, also participates in the Employees Retirement System of Texas (ERS) Group Benefits Program (GBP). ERS provides health, life, disability, and dental insurance benefits through the GBP; the GBP is administered through a trust (irrevocable per statute – Texas Insurance Code, Section 1551.401), which is governed and managed by a Board of Trustees. The State Retiree Health Plan (SRHP) is a cost sharing multiple-employer postemployment healthcare plan that covers retired employees of the State and other entities as specified by the state legislature, including TMRS. The plan assets are legally protected from creditors of the State of Texas and ERS. The ERS issues a publicly available financial report that includes financial statements and required supplementary information for SRHP. That report may be obtained by writing to ERS, P.O. Box 13207, Austin, TX 78711-3207 or by calling 877-275-4377.

As a cost sharing plan, all assets and risks are pooled and the contribution rates are the same for each participating employer. Contribution requirements or "premiums" are established and may be amended by the Texas Legislature. TMRS remits monthly premium contributions to ERS to cover both active employees and TMRS retirees that are covered under the plan. TMRS' contributions to ERS for the years ended December 31, 2016, 2015, and 2014 were $986,167, $892,293, and $837,716, respectively, for active employees and $42,815, $39,645, and $36,309, respectively, for TMRS retirees, which equaled the required contributions each year.

TMRS provides health coverage to TMRS retirees based on a tenure schedule approved by the TMRS Board of Trustees through the annual budget process. The retiree, at his/her own expense, may elect spouse health coverage, as well as dental and life insurance offered through the plan.

3. Deposits and Investments

A. Cash in Bank and Deposits

Cash balances represent both demand deposit accounts, held by a local banking institution under terms of a written depository contract, and cash on deposit with the custodian.

Demand deposits totaled $467,027 and $781,752, with carrying amounts of ($5,602,640) and ($5,370,041) at December 31, 2016 and 2015, respectively. Securities pledged had a market value of $10,260,960 and $18,758,657 at December 31, 2016 and 2015, respectively. The account, Due to Custodial and Depository Banks on the Statements of Fiduciary Net Position, includes benefit checks outstanding at each year-end.

Cash on deposit with the custodian totaled $27,225,142 and $2,177,000 at December 31, 2016 and 2015, respectively.

B. Fair Value of Investments

The Plan categorizes its fair value measurements within the fair value hierarchy as established by generally accepted accounting principles. These principles recognize a three-tiered fair value hierarchy, as follows:

- Level 1: Investments with values based on quoted prices (unadjusted) for identical assets in active markets at the measurement date.
- Level 2: Investments with inputs – other than quoted prices included within Level 1 – that are observable for an asset, either directly or indirectly.
- Level 3: Investments classified as Level 3 have unobservable inputs for an asset and may require a degree of professional judgment.

At December 31, 2016 and 2015, the Plan has the following recurring fair value measurements:

Investments and Derivative Instruments Measured at Fair Value				
		Fair Value Measurements Using		
	Fair Value at 12/31/2016	Level 1	Level 2	Level 3
Investments by fair value level				
Short-term investments				
Short-term investment funds	$ 287,500,681	$ -	$ 287,500,681	$ -
Repurchase agreements	419,700,000	-	419,700,000	-
	707,200,681	-	707,200,681	-
Fixed-income				
U.S. Treasury bonds/notes	993,210,007	-	993,210,007	-
U.S. Treasury inflation-protected	381,688,084	-	381,688,084	-
U.S. government agency	106,551,152	-	106,551,152	-
Municipal	147,813,124	-	147,813,124	-
Corporate	1,869,419,084	-	1,869,419,084	-
Residential mortgage-backed	1,388,405,075	-	1,388,405,075	-
Commercial mortgage-backed	734,857,487	-	734,857,487	-
Other asset-backed	68,947,415	-	68,947,415	-
Foreign government	126,367,531	-	126,367,531	-
Foreign government inflation-linked	344,375,223	-	344,375,223	-
	6,161,634,182	-	6,161,634,182	-
Equities				
Equity commingled funds	598,912,573	-	598,912,573	-
Equity securities - domestic	1,775,502,236	1,775,502,236	-	-
Equity securities - international	1,376,209,643	1,376,209,643	-	-
	3,750,624,452	3,151,711,879	598,912,573	-
Real return funds	32,489,875	-	-	32,489,875
Absolute return funds	106,548,100	-	-	106,548,100
Private real estate funds	162,690,328	-	-	162,690,328
Investment derivative instruments				
Foreign currency contracts	1,580,137	1,580,137	-	-
Futures contracts	(10,789)	(10,789)	-	-
	1,569,348	1,569,348	-	-
Total investments by fair value level	**10,922,756,966**	**3,153,281,227**	**7,467,747,436**	**301,728,303**
Investments measured at the net asset value (NAV)				
Non-core fixed-income funds	1,296,080,388			
Real return funds	880,989,862			
Equity commingled funds	7,588,834,163			
Absolute return funds	2,642,621,605			
Private real estate funds	2,020,423,054			
Private equity funds	116,403,554			
Total investments measured at the NAV	**14,545,352,626**			
Other investments not at fair value level				
Short-term investments				
Certificates of deposit	360,677,858			
Broker collateral	1,444,000			
Total other investments not at fair value level	**362,121,858**			
Total Investments	**$ 25,830,231,450**			

Investments and Derivative Instruments Measured at Fair Value				
		Fair Value Measurements Using		
	Fair Value at 12/31/2015	Level 1	Level 2	Level 3
Investments by fair value level				
Short-term investments				
Short-term investment funds	$ 400,180,204	$ -	$ 400,180,204	$ -
Repurchase agreements	1,003,200,000	-	1,003,200,000	-
	1,403,380,204	-	1,403,380,204	-
Fixed-income				
U.S. Treasury bonds/notes	1,236,099,105	-	1,236,099,105	-
U.S. Treasury inflation-protected	607,621,673	-	607,621,673	-
U.S. government agency	224,629,745	-	224,629,745	-
Municipal	159,151,287	-	159,151,287	-
Corporate	2,711,999,973	-	2,711,999,973	-
Residential mortgage-backed	1,913,683,259	-	1,913,683,259	-
Commercial mortgage-backed	878,576,781	-	878,576,781	-
Other asset-backed	93,246,404	-	93,246,404	-
Foreign government	438,636,889	-	438,636,889	-
Foreign government inflation-linked	347,195,879	-	347,195,879	-
	8,610,840,995	-	8,610,840,995	-
Equities				
Equity commingled funds	562,468,291	-	562,468,291	-
Equity securities - domestic	1,248,341,263	1,248,341,263	-	-
Equity securities - international	1,152,995,623	1,152,995,623	-	-
	2,963,805,177	2,401,336,886	562,468,291	-
Private real estate funds	152,921,271	-	-	152,921,271
Investment derivative instruments				
Foreign currency contracts	(2,855,209)	(2,855,209)	-	-
	(2,855,209)	(2,855,209)	-	-
Total investments by fair value level	**13,128,092,438**	**2,398,481,677**	**10,576,689,490**	**152,921,271**
Investments measured at the net asset value (NAV)				
Non-core fixed-income funds	740,942,387			
Equity commingled funds	7,519,273,466			
Absolute return funds	1,576,279,728			
Private real estate funds	1,310,739,794			
Private equity funds	13,805,553			
Total investments measured at the NAV	**11,161,040,928**			
Other investments not at fair value level				
Short-term investments				
Broker collateral	(80,000)			
Total other investments not at fair value level	**(80,000)**			
Total Investments	**$ 24,289,053,366**			
Invested securities lending collateral	**$ 864,114,464**	-	**$ 864,114,464**	-

Fixed income securities and securities lending collateral classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the

securities' relationship to benchmark quoted prices. Certain equity commingled funds and short-term investments classified in Level 2 of the fair value hierarchy are priced using published prices received from investment managers, based on the fair values of underlying investments. Equity securities and derivatives contracts classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those investments. Investments in certain real return funds, absolute return funds, and private real estate funds classified in Level 3 of the fair value hierarchy are valued at TMRS' percentage ownership of the net assets of the funds as of December 31, 2016 and 2015, as reported by the funds' audited financial statements. These funds do not meet the definition of net asset value (NAV) as a practical expedient.

Investments measured at the net asset value (NAV) per share (or its equivalent) generally do not have readily obtainable market values. TMRS values these investments based on the financial statements of the investment funds. The following table presents the unfunded commitments, redemption frequency (if currently eligible), and the redemption notice period for TMRS' alternative investments measured at NAV.

Investments Measured at the Net Asset Value (NAV)	Fair Value at 12/31/2015	Fair Value at 12/31/2016	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Equities					
U.S. commingled funds	$ 4,984,891,970	$ 4,922,518,557	$ -	Daily	1 - 2 days
International commingled funds	2,534,381,496	2,666,315,606	-	Daily	1 - 2 days
Non-core fixed income funds:					
Bank loan/collateralized loan obligation funds	740,942,387	816,230,250	-	Quarterly	45 - 60 days
Direct lending funds	-	164,255,732	789,897,003	Quarterly, N/A	30 - 90 days, N/A
Opportunistic credit funds	-	315,594,406	495,002,760	N/A	N/A
Real return funds	-	880,989,862	299,503,294	N/A	N/A
Absolute return funds					
Fund of hedge funds	1,576,279,728	1,512,598,825	-	Quarterly	95 days
Equity hedge funds	-	196,349,280	-	Monthly, Quarterly	45 - 80 days
Global macro hedge funds	-	220,347,560	-	Quarterly	30 - 90 days
Multi strategy-opportunistic hedge funds	-	103,075,800	-	Quarterly	60 days
Credit hedge funds	-	332,359,870	-	Quarterly, Annually	90 days
Relative value hedge funds	-	222,929,610	-	Monthly, Quarterly	25 - 90 days
Event-driven hedge funds	-	54,960,660	-	Quarterly	90 days
Private equity funds	13,805,553	116,403,554	579,224,021	N/A	N/A
Private real estate funds					
Core real estate funds	942,496,583	1,221,373,541	65,605,501	Quarterly, N/A	45 - 90 days, N/A
Opportunistic real estate funds	50,768,529	124,922,275	346,035,577	N/A	N/A
Value-added real estate funds	317,474,682	674,127,238	373,181,377	N/A	N/A
Total Investments Measured at the NAV	**$ 11,161,040,928**	**$ 14,545,352,626**	**$ 2,948,449,533**		

- **Equity commingled funds.** TMRS invests in six passively managed commingled fund structures that offer daily liquidity. TMRS commingled funds essentially have the same objective – to provide similar return and risk characteristics that approximate the overall performance of domestic and international securities included in the underlying index.
- **Absolute return funds:**
  - **Fund of hedge funds.** TMRS invests in a custom fund of hedge funds with the objective of pursuing capital appreciation by allocating assets among a variety of alternative investment strategies. The mandate seeks to decrease portfolio risk by providing attractive, risk-adjusted returns with low correlation to traditional asset classes. The fund allows for quarterly redemptions, with a notice period of 95 days.
  - **Equity hedge funds**. Equity hedge funds hold positions in equities on both the long and short side. Typically, managers will rely on fundamental bottom-up research in order to select stocks to go long or short, but managers may also incorporate technical analysis. Often managers will use a top-down approach looking at macro themes and trends to direct research and portfolio construction. Some managers will add a macro overlay in order to guide regional or country allocations. On occasion, managers may make use of non-equity instruments such as CDs, swaps, currency overlay, or even credit positions if valuations are compelling. Managers may define their regional exposure based on the domicile of the company that they are investing in or the operating markets of the company. One of the funds in this group is subject to gate provisions, limiting withdrawals to 25% of the NAV of each fund. One fund is subject to fees if investments are redeemed within the first 12 months after acquisition.
  - **Global macro hedge funds.** Global macro hedge funds take directional positions in currencies, bonds, equities, and commodities. Investment decisions are based on a manager's top-down view of the world: analysis of the economy, interest rates, inflation, government policy, and geopolitical factors. The relative valuations of financial instruments within or between asset classes can also play a role in investment decisions. Two of the funds in this group are subject to gate provisions, limiting withdrawals to 25% of the NAV of the fund. One fund is subject to fees if investments are redeemed within the first 12 months after acquisition.
  - **Multi-strategy-opportunistic hedge funds.** Multi-strategy hedge funds include hedge funds where capital is shifted on an opportunistic basis between a small number of hedge fund styles. One of the funds in this group is subject to gate provisions, limiting withdrawals to 16.6% of the NAV of the fund. One fund is subject to fees if investments are redeemed within the first 18 months after acquisition.
  - **Credit hedge funds.** Credit hedge funds may invest in a variety of fixed income strategies. While many invest in multiple strategies, others may focus on a single strategy less followed by most fixed income hedge funds. Areas of focus include municipal bonds, corporate bonds, and global fixed income securities. Each of the funds in this group is subject to gate provisions, limiting withdrawals from 25% to 30% of the NAV of each fund. One fund is subject to fees if investments are redeemed within the first 24 months after acquisition.
  - **Relative value hedge funds.** Relative value hedge funds attempt to take advantage of relative pricing discrepancies between instruments, including equities, debt, options, and futures. Managers may use mathematical, fundamental, or technical analysis to determine misvaluation. Securities may be mispriced relative to the underlying security, related securities, groups of securities, or the overall market. Many funds use leverage and seek opportunities globally. Arbitrage strategies include dividend arbitrage, pairs trading, options arbitrage, and yield curve trading. Three of the funds in this group are subject to gate

provisions, limiting withdrawals from 8.33% to 25% of the NAV of each fund. One fund is subject to fees ifinvestments are redeemed within the first 12 months after acquisition.

- **Event-driven hedge funds.** This involves investing in opportunities created by significant transactional events, such as spin-offs, mergers and acquisitions, bankruptcy, reorganizations, recapitalizations, and share buybacks. The portfolio of some event-driven managers may shift in majority weighting between Risk Arbitrage and Distressed Securities, while others may take a broader scope. Instruments include long and short common and preferred stocks, as well as debt securities and options. Leverage may be used by some managers. Fund managers may hedge against market risk by purchasing S&P put options or put option spreads. One of the funds in this group is subject to gate provisions, limiting withdrawals to 12.5% of the NAV of the fund.

- **Private real estate funds.** Real estate funds generally invest primarily in U.S. and other global commercial real estate or similarly debt collateralized by commercial real estate. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. TMRS classifies its real estate investments into three fund strategies – Core, Value-Added, and Opportunistic – and are held in two structural categories: i) open end funds; and ii) closed end funds. TMRS invests in 7 open end funds, 5 of which TMRS may redeem capital on a quarterly basis with 45-90 day notice, 2 of which TMRS may redeem on an annual basis with 90-day notice, 4 of which are subject to initial lock-out periods, and all of which have provisions for administering limited liquidity and/or gated liquidity in any given period. TMRS invests in 20 closed end funds with average contractual vehicle lives of 8 – 12 years over which the funds will first purchase and subsequently dispose of assets. Distributions from each fund will be received as the underlying investments of the funds are liquidated. TMRS has invested in closed end real estate vehicles since calendar year 2012 and accordingly is receiving distributions from earlier vintage funds (i.e., capital is being returned to TMRS). TMRS has continued to invest in closed end funds in each calendar year since that time, resulting in net capital call activity (i.e. capital is being funded into these vehicles) for later vintage funds.
- **Real return funds.** Real return funds invest primarily in the capital structures of U.S. and other global hard assets such as infrastructure, minerals, agriculture, energy, timber, etc. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. TMRS' real return fund investments may be classified into two structural categories: i) open end vehicles; and ii) closed end funds. TMRS' invests in 1 open end vehicle, a commingled investment trust which invests in publicly tradable assets. TMRS has daily liquidity in this vehicle. TMRS invests in 4 closed end funds with average contractual vehicle lives of 6 – 14 years over which the funds will first purchase and subsequently dispose of assets. Distributions from each fund will be received as the underlying investments of the funds are liquidated. TMRS has invested in closed end real return vehicles since calendar year 2015. Accordingly, given the recent vintage profile, net capital call activity (i.e., capital is being funded into these vehicles) is currently occurring.
- **Non-core fixed income funds**. Non-core fixed income includes a wide variety of fixed income strategies, including emerging market debt, high yield, bank loans, CLO, direct lending, mortgage-backed securities, and asset-backed securities, among others. These investments are research-intensive based on fundamental bottom-up analysis. Generally, non-core fixed income seeks to capture both high income and price appreciation. Liquidity, volatility, expected return and investment horizon vary with each strategy.
- **Private equity funds.** Private equity funds generally invest primarily in non-publicly traded equity and debt securities in U.S. and other global companies. The fair values of the investments in this type have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. TMRS invests in 14 closed end funds with average contractual vehicle

lives of 10 – 14 years over which the funds will first purchase and subsequently dispose of assets. Distributions from each fund will be received as the underlying investments of the funds are liquidated. TMRS has invested in closed end real return vehicles since calendar year 2015. Accordingly, given the recent vintage profile, net capital call activity (i.e., capital is being funded into these vehicles) is currently occurring.

C. Deposit and Investment Risk

State and local governments have deposits and investments that are subject to various risks. GASB Statement No. 40, *Deposit and Investment Risk Disclosures – an amendment of GASB Statement No. 3*, provides disclosure requirements related to deposit and investment risks: custodial credit risk, credit risk, concentrations of credit risk, interest rate risk, and foreign currency risk.

Custodial Credit Risk — Deposits

Custodial credit risk is the risk that, in the event of a bank failure, the System's deposits might not be recovered. TMRS does not have a formal deposit policy for custodial credit risk of its deposits. Demand deposits held by the depository bank as of December 31, 2016 and 2015, to the extent not insured by the Federal Deposit Insurance Corporation, were collateralized by securities held by a third party independent custodian, in the System's name, under a joint custody agreement giving the System unconditional rights and claims to collateral. The current FDIC coverage limit is $250,000 for deposits held in noninterest-bearing accounts. Deposits denominated in a foreign currency are neither collateralized nor insured as of December 31, 2016 and 2015.

Custodial Credit Risk — Investments

Custodial credit risk is the risk that, in the event of failure of the counterparty, 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 assets of the System may be held in the name of agents, nominees, depository trust companies, or other entities designated by the Board of Trustees. At December 31, 2016 and 2015, all investment securities were registered in the System's name or in the name of the System's custodian, which was established through a master trust custodial agreement, and are held by the custodian in the name of the System.

The System's investments in repurchase agreements of $419,700,000 and $1,003,200,000 at December 31, 2016 and 2015 were collateralized by U.S. Treasury notes, held in the System's name, with a total market value of $427,224,000 and $1,019,962,258, respectively.

Credit Risk — Investments

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. According to TMRS investment policy as adopted by the TMRS Board of Trustees, credit default risk of the core fixed income portfolio is managed by requiring minimum credit ratings by sector and mandate as outlined below:

(1) All securities must be rated at least B- by S&P or Fitch, or B3 by Moody's. (2) The portfolio shall maintain a minimum weighted average credit quality of A+. (3) Global U.S. dollar denominated – issue and national government of the country where the issuer's primary operations are located (if the issuer is not the national government itself) must be rated investment grade, at least BBB- by S&P or Fitch, or Baa3 by Moody's. (4) Securitized – the weighted average credit quality of securitized product must be AA. (5) Municipal – Municipal issues must be rated investment grade, at least BBB- by S&P or Fitch, or Baa3 by Moody's. (6) Non U.S. dollar denominated bonds – Both the issue and issuer's national government

(if the issuer is not the national government itself) must be rated at least A- by S&P or Fitch, or A3 by Moody's.

Investment guidelines established with the individual investment managers address the management of credit default risk for the Non-Core Fixed Income and Real Return portfolios. The System's long-term fixed income investments with exposure to credit risk as of December 31, 2016 and 2015 are presented on the following page by quality category:

	Fair Value at 12/31/16	Fair Value at 12/31/15	Rating
U.S. government agency	$ 91,950,903	$ 13,793,123	AAA
U.S. government agency	-	156,606,378	AA
U.S. government agency	14,600,249	54,230,244	NR
Municipal	11,524,900	31,386,708	AAA
Municipal	70,188,871	96,687,782	AA
Municipal	65,124,942	31,076,797	A
Municipal	974,411	-	BBB
Residential mortgage-backed	1,388,405,075	1,913,683,259	NR
Corporate	84,553,456	132,635,855	AAA
Corporate	90,232,892	235,862,823	AA
Corporate	635,316,471	983,332,501	A
Corporate	780,214,760	1,197,745,076	BBB
Corporate	190,537,848	124,314,833	BB
Corporate	73,872,129	33,437,187	B
Corporate	9,771,896	2,926,000	CCC
Corporate	4,919,632	1,745,698	NR
Other asset-backed	9,928,870	23,480,511	AAA
Other asset-backed	27,801,908	-	AA
Other asset-backed	7,905,311	36,221,818	A
Other asset-backed	671,242	-	BB
Other asset-backed	1,043,833	1,682,614	B
Other asset-backed	7,719,742	18,753,304	CCC
Other asset-backed	6,199,813	-	CC
Other asset-backed	-	2,403,621	D
Other asset-backed	7,676,696	10,704,536	NR
Commercial mortgage-backed	58,812,617	103,660,430	AAA
Commercial mortgage-backed	13,434,456	60,623,584	AA
Commercial mortgage-backed	1,150,250	-	A
Commercial mortgage-backed	2,154,543	16,585,676	BBB
Commercial mortgage-backed	157,085,181	45,164,876	BB
Commercial mortgage-backed	142,341,136	234,194,261	B
Commercial mortgage-backed	203,579,329	192,333,430	CCC
Commercial mortgage-backed	53,261,866	61,245,101	CC
Commercial mortgage-backed	5,323,436	-	C
Commercial mortgage-backed	60,254,583	145,650,088	D
Commercial mortgage-backed	37,460,090	19,119,335	NR
Foreign government	15,526,986	2,627,362	AAA
Foreign government	49,672,534	137,200,629	AA
Foreign government	15,817,895	126,182,567	A
Foreign government	38,492,689	103,869,151	BBB
Foreign government	-	2,254,000	BB
Foreign government	6,857,427	66,503,180	NR
Foreign government inflation-linked	75,934,156	51,540,711	AAA
Foreign government inflation-linked	204,182,512	251,415,318	AA
Foreign government inflation-linked	64,258,555	44,239,850	A
Non-core fixed income funds	1,296,080,388	740,942,387	NR
Total	$ 6,082,816,479	$ 7,508,062,604	

Concentration of Credit Risk — Investments

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 issuer diversification limits be applied to the core fixed income portfolio as follows:

1. Investments in a single government related issuer (excluding U.S. Treasuries and U.S. government agencies) will not exceed 5% of the total market value of the Core Fixed Income and Manager mandates;
2. Investments in a single corporate issuer will not exceed 2% of the total market value of the Core Fixed Income and Manager mandates; and
3. For asset-backed, non-agency mortgage-backed, and commercial mortgage-backed securities, each separate trust (pool of assets) is defined as a separate issuer and shall not exceed 1.5% of the total market value of the Core Fixed Income and Manager mandates.

Investment guidelines established with the individual investment managers address the management of concentration of credit risk for the Non-Core Fixed Income and Real Return portfolios. As of December 31, 2016 and 2015, the System did not exceed any of the issuer diversification limits.

Interest Rate Risk — Investments

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 states that interest rate risk of the Core Fixed Income portfolio will be controlled through duration management. Duration is a measure of the sensitivity of the price (the value of principal) of a fixed income investment to a change in interest rates, and is expressed as a number of years. TMRS' Investment Policy requires duration of the Core Fixed Income Portfolio be maintained within +/- 25% of the Barclay's U.S. Aggregate Bond Index.

Investment guidelines established with the individual investment managers address the management of interest rate risk for the Non-Core Fixed Income and Real Return portfolios. The following tables display the fair value and weighted-average effective duration as of December 31, 2016 and 2015 for TMRS' long-term fixed income securities.

	Fair Value at 12/31/2016	Effective Duration
U.S. Treasury bonds/notes	$993,210,007	8.27
U.S. Treasury inflation-protected	381,688,084	10.65
U.S. government agency	106,551,152	8.89
Municipal	147,813,124	9.43
Corporate	1,869,419,084	4.87
Residential mortgage-backed	1,388,405,075	5.06
Commercial mortgage-backed	734,857,487	2.50
Other asset-backed	68,947,415	3.25
Foreign government	126,367,531	4.12
Foreign government inflation-linked	344,375,223	9.75
TOTAL	$6,161,634,182	5.95

	Fair Value at 12/31/2015	Effective Duration
U.S. Treasury bonds/notes	$1,236,099,105	6.49
U.S. Treasury inflation-protected	607,621,673	9.41
U.S. government agency	224,629,745	8.66
Municipal	159,151,287	10.06
Corporate	2,711,999,973	4.85
Residential mortgage-backed	1,913,683,259	4.22
Commercial mortgage-backed	878,576,781	2.02
Other asset-backed	93,246,404	2.81
Foreign government	438,636,889	8.48
Foreign government inflation-linked	347,195,879	10.53
TOTAL	$8,610,840,995	5.57

Note 1: Mortgage-backed securities are sensitive to changes in prepayment rates, which impact duration.

Note 2: Excluded from the tables above are investments in non-core fixed income funds. While such investments are exposed to interest rate risk, duration information for these funds is not available.

Foreign Currency Risk — Investments

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. Currency risk is generally considered in the diversification benefits of foreign investments and so is not expected to be hedged except as specifically authorized by TMRS and according to the relevant asset class mandate guidelines. Otherwise, foreign securities managers may engage in forward currency transactions only to eliminate foreign currency risk in the settlement of trades. Foreign currency exposure of the Core Fixed Income asset class is addressed in the IPS, which allows for foreign currency be held for the purposes of settling a transaction and foreign currency forward contracts for purposes of hedging or settling a transaction. TMRS may invest in non-dollar denominated securities on a currency hedged or unhedged basis. TMRS' exposure to foreign currency risk (in U.S. dollars) as of December 31, 2016 and 2015, is presented as follows.

Foreign Currency Exposure at December 31, 2016						
Currency	Cash Equivalents	Foreign Currency Contracts	Fixed Income Securities	Equities	Private Real Estate	Total
Australian Dollar	$ 8	$ 684,459	$ 29,405,051	$ 79,253,661	$ -	$ 109,343,179
Brazilian Real	88,352	-	-	41,088,266	-	41,176,618
Canadian Dollar	90,494	(39)	-	80,436,794	-	80,527,249
Chilean Peso	-	-	-	1,893,645	-	1,893,645
Colombian Peso	-	-	6,857,427	-	-	6,857,427
Czech Krona	59,102	-	-	47,941	-	107,043
Danish Krone	-	-	-	2,153,791	-	2,153,791
Egyptian Pound	-	-	-	340,367	-	340,367
Euro Currency	69,711	(398)	74,242,031	245,133,685	4,954,374	324,399,403
Hong Kong Dollar	14,725	-	-	82,817,072	-	82,831,797
Hungarian Forint	18,852	-	-	2,020,940	-	2,039,792
Indonesian Rupiah	48,570	-	-	19,586,001	-	19,634,571
Japanese Yen	105	226,983	21,807,099	187,901,581	-	209,935,768
Malaysian Ringgit	48,367	-	-	8,594,507	-	8,642,874
Mexican Peso	567,160	(48,178)	26,571,859	14,875,191	-	41,966,032
New Israeli Shequel	-	-	-	2,998,558	-	2,998,558
New Taiwan Dollar	-	-	-	15,876,665	-	15,876,665
New Zealand Dollar	70,859	819,504	54,658,344	13,284,316	-	68,833,023
Norwegian Krone	-	-	643,083	11,760,059	-	12,403,142
Philippine Peso	1,352	(138)	-	4,837,291	-	4,838,505
Polish Zloty	1,833	(102,164)	15,879,598	3,798,056	-	19,577,323
Pound Sterling	25,830	14	173,458,486	150,890,271	27,185,522	351,560,123
Singapore Dollar	-	-	-	27,226,518	-	27,226,518
South African Rand	2,798	94	-	22,496,977	-	22,499,869
South Korean Won	99,340	-	-	68,913,303	-	69,012,643
Swedish Krona	-	-	6,323,988	13,187,100	-	19,511,088
Swiss Franc	-	-	-	27,415,326	-	27,415,326
Thailand Baht	1,896	-	-	25,720,632	-	25,722,528
Turkish Lira	6,408	-	-	11,615,999	-	11,622,407
UAE Dirham	-	-	-	1,642,791	-	1,642,791
Total	$ 1,215,762	$ 1,580,137	$ 409,846,966	$ 1,167,807,304	$ 32,139,896	$ 1,612,590,065

Foreign Currency Exposure at December 31, 2015						
Currency	Cash Equivalents	Foreign Currency Contracts	Fixed Income Securities	Equities	Private Real Estate	Total
Australian Dollar	$ -	$ 185,792	$ 42,184,949	$ 37,836,609	$ -	$ 80,207,350
Brazilian Real	213,147	307,968	39,869,823	22,314,621	-	62,705,559
Canadian Dollar	50,702	(3)	-	14,975,756	-	15,026,455
Czech Krona	-	-	-	830,359	-	830,359
Danish Krone	-	-	-	5,295,401	-	5,295,401
Euro Currency	3,248	(4)	124,858,016	180,098,647	1,692,941	306,652,848
Hong Kong Dollar	144,379	-	-	75,532,982	-	75,677,361
Hungarian Forint	-	-	-	973,111	-	973,111
Indonesian Rupiah	1,184	(2,386)	-	10,351,193	-	10,349,991
Japanese Yen	24,574	(884,995)	110,743,030	214,439,024	-	324,321,633
Malaysian Ringgit	32,033	-	-	-	-	32,033
Mexican Peso	161,403	(133,903)	99,419,253	-	-	99,446,753
New Israeli Shequel	149,142	-	-	4,747,341	-	4,896,483
New Zealand Dollar	426,104	(2,327,604)	74,715,339	-	-	72,813,839
Philippine Peso	3,363	-	-	-	-	3,363
Polish Zloty	30,498	-	24,757,750	-	-	24,788,248
Pound Sterling	2	(4)	176,699,979	170,106,469	12,827,356	359,633,802
South African Rand	230,973	-	-	-	-	230,973
South Korean Won	-	(70)	-	-	-	(70)
Swiss Franc	-	-	-	37,757,830	-	37,757,830
Swedish Krona	-	-	9,355,762	-	-	9,355,762
Thailand Baht	1,757	-	-	-	-	1,757
UAE Dirham	-	-	-	3,538,486	-	3,538,486
Total	$ 1,472,509	$ (2,855,209)	$ 702,603,901	$ 778,797,829	$ 14,520,297	$ 1,494,539,327

Note: Amounts in U.S. Dollars.

Derivatives

Derivate instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates, or financial indexes. They include forward currency contracts and futures contracts. TMRS' derivative instruments are considered investments and not hedges for accounting purposes. The notional values associated with the derivative contracts are generally not recorded on the financial statements; however, the exposure to forward currency contracts is recorded in the Statements of Fiduciary Net Position. The change in unrealized appreciation on futures contracts for the year is included as investment income in the Statements of Changes in Fiduciary Net Position.

Foreign currency managers may engage in forward currency transactions to eliminate foreign currency risk in the settlement of trades. The following table summarizes the foreign currency contracts in the portfolio as of December 31, 2016 and 2015.

Foreign Currency Contracts at December 31, 2016		
Currency	**Net Notional Long/(Short)**	**Exposure**
Australian Dollar	$ (26,200,531)	$ 684,459
Canadian Dollar	(13,823)	(39)
Euro Currency	932,976	(398)
Japanese Yen	(10,640,846)	226,983
Mexican Peso	(10,990,753)	(48,178)
New Zealand Dollar	(53,108,254)	819,504
Philippine Peso	(63,776)	(138)
Polish Zloty	(12,871,647)	(102,164)
Pound Sterling	12,081	14
South African Rand	154,237	94
U.S. Dollar	114,370,473	-
Total	$ 1,580,137	$ 1,580,137

Foreign Currency Contracts at December 31, 2015		
Currency	**Net Notional Long/(Short)**	**Exposure**
Australian Dollar	$ (40,591,493)	$ 185,792
Brazilian Real	(27,121,813)	307,968
Canadian Dollar	(17,650)	(3)
Hong Kong Dollar	967,432	(4)
Indonesian Rupiah	297,866	(2,386)
Japanese Yen	(65,371,456)	(884,995)
Mexican Peso	(67,031,556)	(133,903)
New Zealand Dollar	(73,676,356)	(2,327,604)
Pound Sterling	(14,285)	(4)
South Korean Won	72,625	(70)
U.S. Dollar	269,631,477	-
Total	$ (2,855,209)	$ (2,855,209)

Note: Amounts in U.S. Dollars.

TMRS could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. Currently, TMRS' counterparty exposure on its foreign currency contracts is limited to its custodian bank.

TMRS' investment managers may be allowed to invest in U.S. Treasury Note and U.S. Treasury Bond futures contracts, cleared on a U.S. futures exchange, with a maximum maturity of the

contract being no greater than 360 days. U.S. Treasury futures contracts that are used to gain nominal exposure in a portfolio must be fully backed by cash equivalents equaling the notional contract value. U.S. Treasury futures contracts used solely for risk management purposes do not need to be backed by cash equivalents.

The following table lists the open futures contracts at December 31, 2016. There were no open futures contracts at December 31, 2015.

Futures Contracts at December 31, 2016				
Futures Contract	**Expiration Date**	**Notional Value**	**Notional Cost**	**Accumulated Gain /(Loss)**
U.S. 2-Yr Treasury Note Futures	3/31/17	$26,002,500	$25,957,500	$45,000
U.S. 5-Yr Treasury Note Futures	3/31/17	18,120,266	18,160,078	(39,812)
U.S. 10-Yr Treasury Note Futures	3/22/17	10,191,062	10,241,672	(50,610)
U.S. 5-Yr Treasury Note Futures	3/31/17	(21,061,867)	(21,096,500)	34,633
Total		$33,251,961	$33,262,750	$(10,789)

4. Property and Equipment

The following is a schedule of property and equipment balances as of December 31, 2016 and 2015, and changes to those account balances during the years then ended:

	Land	Buildings and Improvements	Furniture, Software, and Equipment	Total
Property and Equipment				
Balances, December 31, 2014	$ 254,388	$ 11,984,784	$ 12,440,388	$ 24,679,560
Additions	-	1,625,114	1,018,320	2,643,434
Retirements	-	-	(2,382)	(2,382)
Balances, December 31, 2015	254,388	13,609,898	13,456,326	27,320,612
Additions	-	247,084	294,367	541,451
Retirements	-	-	(2,008)	(2,008)
Balances, December 31, 2016	254,388	13,856,982	13,748,685	27,860,055
Accumulated Depreciation				
Balances, December 31, 2014	-	4,582,311	12,207,889	16,790,200
Additions	-	401,092	222,532	623,624
Retirements	-	-	(2,382)	(2,382)
Balances, December 31, 2015	-	4,983,403	12,428,039	17,411,442
Additions	-	407,916	276,031	683,947
Retirements	-	-	(2,008)	(2,008)
Balances, December 31, 2016	-	5,391,319	12,702,062	18,093,381
Net balances, December 31, 2016	$ 254,388	$ 8,465,663	$ 1,046,623	$ 9,766,674

5. Commitments and Contingencies

As of December 31, 2016, TMRS had outstanding commitments to private investment funds of $2.9 billion.

6. Risk Management

The System is exposed to various risks of loss related to torts; errors and omissions; violation of civil rights; theft of, damage to, and destruction of assets; and natural disasters. These risks, with the exception of pension and welfare fund fiduciary responsibility insurance, are covered by the System's participation in the Texas Municipal League Intergovernmental Risk Pool. This is a pooled arrangement whereby the participants pay experience-rated annual premiums that are designed to pay claims and build sufficient reserves so that the pool will be able to protect the participating entities with its own capital. The pool reinsures excess losses to preserve the capital base. Property physical damage is insured to replacement value with a $1,000 deductible and a limit of coverage of $16,700,000; automobile liability limits are set at $1,000,000 for each occurrence and physical damage is insured to actual value with a $10,000 deductible per occurrence; general liability is limited to $1,000,000 per occurrence; sudden events involving pollution are limited to $1,000,000 for each occurrence with an annual aggregate of $2,000,000; workers' compensation coverage is in compliance with the workers' compensation laws of the State of Texas with no accident or aggregate deductibles.

The System maintains a pension and welfare fund fiduciary responsibility insurance policy with a commercial carrier. The policy has an aggregate limit of liability of $1,000,000.

No significant reductions in insurance coverage occurred in the past year, and settled claims have not exceeded insurance coverage in any of the past three fiscal years. ■

Pension Trust Fund

	Schedule of Investment Returns Last 10 Fiscal Years*
	Annual money-weighted rate of return, net of investment expense
2016	7.55%
2015	0.08%
2014	5.85%

* Schedule is intended to show information for 10 years. Additional years will be displayed as they become available. See accompanying Independent Auditors' Report.

Changes in Fiduciary Net Position — by Fund • Year Ended December 31, 2016

	Benefit Accumulation Fund	Full Benefit Arrangement	Supplemental Disability Benefits Fund	Endowment Fund	Expense Fund	Total Pension Trust Fund	Supplemetal Death Benefits Fund	Total
ADDITIONS:								
Employer contributions	$ 767,061,890	$ 1,190,448	$ -	$ -	$ -	$ 768,252,338	$ 6,983,501	$ 775,235,839
Plan member contributions	389,919,391	-	-	-	-	389,919,391	-	389,919,391
Net investment income	-	-	-	1,609,522,712	(7,335,294)	1,602,187,418	-	1,602,187,418
Other miscellaneous	-	-	-	25,956	-	25,956	-	25,956
Total additions	1,156,981,281	1,190,448	-	1,609,548,668	(7,335,294)	2,760,385,103	6,983,501	2,767,368,604
DEDUCTIONS:								
Service retirement benefits	1,004,294,691	1,190,448	-	-	-	1,005,485,139	-	1,005,485,139
Disability retirement benefits	16,944,393	-	74,795	-	-	17,019,188	-	17,019,188
Partial lump sum distributions	139,559,781	-	-	-	-	139,559,781	-	139,559,781
Supplemental death benefits	-	-	-	-	-	-	8,486,173	8,486,173
Refunds of contributions	54,181,595	-	-	-	-	54,181,595	-	54,181,595
Administrative expenses	-	-	-	-	18,095,315	18,095,315	-	18,095,315
Total deductions	1,214,980,460	1,190,448	74,795	-	18,095,315	1,234,341,018	8,486,173	1,242,827,191
FUND TRANSFERS:								
Operating budget transfer	-	-	-	(21,859,000)	21,859,000	-	-	-
Income allocation	1,587,612,937	-	24,672	(1,588,638,501)	-	(1,000,892)	1,000,892	-
Escheated funds	(1,538,504)	-	-	1,538,504	-	-	-	-
Net Fund Transfers	1,586,074,433	-	24,672	(1,608,958,997)	21,859,000	(1,000,892)	1,000,892	-
Total Change in Plan Net Position	1,528,075,254	-	(50,123)	589,671	(3,571,609)	1,525,043,193	(501,780)	1,524,541,413
Net Position, beginning of year	23,577,523,671	-	530,830	117,537,668	12,570,411	23,708,162,580	21,129,830	23,729,292,410
Net Position, end of year	$ 25,105,598,925	$ -	$ 480,707	$ 118,127,339	$ 8,998,802	$ 25,233,205,773	$ 20,628,050	$ 25,253,833,823

See accompanying Independent Auditors' Report.

Schedule of Administrative Expenses Year ended December 31, 2016	
Personnel services	
Staff salaries	$ 7,880,662
Payroll taxes	519,319
Retirement contributions	3,438,497
Insurance	923,094
Total personnel services	12,761,572
Professional services	
Consulting	491,884
Actuarial	521,970
Banking	43,692
Legal	225,162
Medical	20,900
Audit	268,342
Online Services	141,838
Total professional services	1,713,788
Communication	
Printing	12,553
Postage	272,702
Travel	267,598
Telephone	86,063
Member education and mailings	349,807
Total communication	988,723
Rentals/equipment maintenance	
Data processing	568,340
Office equipment	117,763
Offsite record storage	134,664
Total rentals/equipment maintenance	820,767
Miscellaneous	
Dues, subscriptions, and training	250,241
Utilities	184,064
Supplies	149,017
Building/grounds maintenance	174,097
Building security	121,393
Bonds and insurance	81,999
Board and Advisory Committee expenses	119,741
Depreciation	683,948
Other administrative expenses	45,965
Total miscellaneous	1,810,465
Total administrative expenses	$ 18,095,315

See accompanying Independent Auditors' Report.

Schedule of Professional Services • Year ended December 31, 2016

Consulting		
City contribution/payroll workflow process reengineering	$	129,780
Governance/strategic planning		95,500
Legislative		82,500
Business continuity plan refresh		42,700
Content image conversion		40,000
Human resources management		23,526
Disaster recovery		23,267
Annuity mortality records and address research		22,997
Bi-weekly payroll conversion		21,051
Information systems support		4,163
Internal audit consultant		3,207
Space planning/office expansion		3,193
Total Consulting		491,884
Actuarial		
Gabriel, Roeder, Smith & Company (GRS)		521,970
Banking		
JPMorgan Chase Bank		43,692
Legal		
Klausner, Kaufman, Jensen & Levinson		143,102
Groom Law Group		71,203
Norton Rose Fulbright		5,266
Graves, Dougherty, Hearon & Moody		4,466
Bickerstaff Health Delgado Acosta LLP		1,125
Total Legal		225,162
Medical		
Ace Alsup, III, M.D.		4,800
Marvin Cressman, M.D.		1,700
John A. Genung, M.D.		7,400
William E. McCarron, M.D.		3,000
William P. Taylor, M.D.		4,000
Total Medical		20,900
Audit		
KPMG LLP - annual financial audit		97,200
KPMG LLP - Service Organization Controls Report		86,500
Weaver and Tidwell, LLP - co-source internal audits		84,642
Total Audit		268,342
Online Services		
Bloomberg Finance		43,588
Paycom - payroll processing services		37,870
Lexis Nexis - online tracking services		29,019
Alert Logic - log monitoring services		28,254
Other misc. online services		3,107
Total Online Services		141,838
Total Professional Services	$	1,713,788

Note:

The members of the Board of Trustees serve without compensation; they are reimbursed for actual expenses incurred.

See accompanying Independent Auditors' Report.

Schedule of Investment Expenses Year ended December 31, 2016	
Internal operating expenses	
Staff salaries	$ 2,236,072
Payroll taxes	137,833
Retirement contributions	376,051
Insurance	206,667
Online services	1,115,573
Travel	130,078
Dues, subscriptions, and training	46,670
Other administrative expenses	3,189
Total	4,252,133
Investment management and other external expenses	
Investment management	53,842,543
Custodial services	626,843
Consulting	1,786,200
Legal	670,118
Total	56,925,704
Total investment expenses	$ 61,177,837

See accompanying Independent Auditors' Report.

Notes