

# Financial Section

Independent Auditors' Report  
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Supplemental Schedules

# Independent Auditors' Report



CliftonLarsonAllen LLP  
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## INDEPENDENT AUDITORS' REPORT

The Board of Trustees  
Texas Municipal Retirement System  
Austin, Texas

### **Report on the Audit of the Financial Statements**

#### ***Opinion***

We have audited the accompanying financial statements of the Texas Municipal Retirement System (TMRS), which comprise the statement of fiduciary net position and the related statement of changes in fiduciary net position as of and for the year ended December 31, 2021, and the related notes to the financial statements, which collectively comprise the TMRS' basic financial statements, as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the TMRS as of December 31, 2021, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### ***Basis for Opinion***

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the TMRS and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### ***Responsibilities of Management for the Financial Statements***

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the TMRS' ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.



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# Independent Auditors' Report

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Board of Trustees  
Texas Municipal Retirement System

## ***Auditors' Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 TMRS' internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the TMRS' ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

## ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and money-weighted rate of return – pension trust fund, as listed in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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 GAAS, 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.

# Independent Auditors' Report

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Board of Trustees  
Texas Municipal Retirement System

## **Supplementary Information**

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the TMRS' basic financial statements. The combined schedule of changes in fiduciary net position, schedule of administrative expenses and investment expenses, and schedule of professional services (supplementary information) are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

## **Other Information**

Management is responsible for the other information included in the annual report. The other information comprises the introductory, investment, actuarial and statistical sections but does not include the basic financial statements and our auditors' report thereon. Our opinion on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.



**CliftonLarsonAllen LLP**

Baltimore, Maryland  
June 9, 2022

# Management's Discussion and Analysis

Management's Discussion and Analysis (MD&A) provides an overview of the financial activities of the Texas Municipal Retirement System (TMRS) for the year ended December 31, 2021.

MD&A is intended to help the reader understand the key components of TMRS' financial statements and provide a summary of its financial condition. It should be read along with the Executive Director's Letter of Transmittal in the Introductory Section and the Basic Financial Statements that follow.

## Overview of the Financial Statements

TMRS administers three Trust Funds: the Pension Trust Fund, the Full Benefit Arrangement Fund (FBAF) and the Supplemental Death Benefits Fund (SDBF). The Pension Trust Fund accounts for the resources available for service and disability retirement benefits to TMRS retirees and their beneficiaries. The FBAF pays benefits that are in excess of the limits established by Section 415(b) of the Internal Revenue Code, and is included with the Pension Trust Fund for presentation purposes only. The SDBF provides a lump sum death benefit to the beneficiaries of active members and retirees of TMRS participating cities that provide supplemental death benefits.

- The Basic Financial Statements:
  - The Statement of Fiduciary Net Position presents the assets available for future payments of benefits to members, retirees and beneficiaries and current liabilities owed as of December 31, 2021.
  - The Statement of Changes in Fiduciary Net Position includes the annual additions (investment income and contributions) and deductions (benefit payments and other expenses) for the year ended December 31, 2021.
  - The Notes to the Financial Statements provide additional information that is essential to a full understanding of the data in the Basic Financial Statements.
- The Required Supplementary Information includes the historical money-weighted investment returns on TMRS' Trust Fund investments.
- The Supplemental Schedules include additional information regarding changes in fiduciary net position by fund, administrative and investment expenses and professional services for the year ended December 31, 2021.

These financial statements and the required disclosures are prepared in accordance with Generally Accepted Accounting Principles and reporting guidelines as set forth by the Governmental Accounting Standards Board (GASB).

# Management's Discussion and Analysis

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## Financial Highlights

### Net Position Restricted for Pensions – Pension Trust Fund

Tables F-1 and F-2 display a summary of assets, liabilities and fiduciary net position for the Pension Trust Fund (including the FBAF) as of December 31, 2021 and 2020, and a summary of changes in fiduciary net position for the years then ended. The fiduciary net position of the Pension Trust Fund increased by \$4.31 billion from 2020 to 2021, or 12.6%, primarily from investment returns in 2021.

**Table F-1**

<b>Summary of Fiduciary Net Position – Pension Trust Fund (dollars in millions)</b>				
As of December 31				
	<b>2021</b>	<b>2020</b>	<b>Increase (Decrease)</b>	<b>% Change</b>
<b>ASSETS</b>				
Investments, at fair value	\$ 38,790.2	\$ 34,522.3	\$ 4,267.9	12.4 %
Receivables	524.0	832.8	(308.8)	(37.1)
Cash and other assets	15.7	7.8	7.9	101.3
Capital assets, net	9.6	7.9	1.7	21.5
Total assets	39,339.5	35,370.8	3,968.7	11.2
<b>LIABILITIES</b>				
Payables and other liabilities	741.9	1,068.7	(326.8)	(30.6)
Due to depository bank	—	7.5	(7.5)	(100.0)
Funds held for SDBF	4.6	11.7	(7.1)	(60.7)
Total liabilities	746.5	1,087.9	(341.4)	(31.4)
<b>FIDUCIARY NET POSITION</b>	<b>\$ 38,593.0</b>	<b>\$ 34,282.9</b>	<b>\$ 4,310.1</b>	<b>12.6 %</b>

The most significant component of TMRS' fiduciary net position is the fair value of its Trust Fund investment portfolio. The change in investments reflects the net appreciation in the investment portfolio during 2021. The fluctuation of receivables and payables is due primarily to the change in unsettled trades from year to year (i.e., timing of trade activity near year-end).

# Management's Discussion and Analysis

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Table F-2

<b>Summary of Changes in Fiduciary Net Position – Pension Trust Fund (dollars in millions)</b>				
For the Year Ended December 31				
	2021	2020	Increase (Decrease)	% Change
<b>ADDITIONS</b>				
City contributions	\$ 1,076.9	\$ 1,191.7	\$ (114.8)	(9.6) %
Member contributions	492.3	479.2	13.1	2.7
Net investment income	4,469.1	2,414.5	2,054.6	85.1
Other	0.5	—	0.5	—
Total additions	6,038.8	4,085.4	1,953.4	47.8
<b>DEDUCTIONS</b>				
Retirement benefits	1,645.3	1,544.0	101.3	6.6
Member account refunds	62.3	56.0	6.3	11.3
Administrative expenses	20.7	15.6	5.1	32.7
Income allocated to SDBF	0.4	0.7	(0.3)	(42.9)
Total deductions	1,728.7	1,616.3	112.4	7.0
<b>CHANGE IN FIDUCIARY NET POSITION</b>	<b>4,310.1</b>	<b>2,469.1</b>	<b>1,841.0</b>	<b>74.6</b>
<b>FIDUCIARY NET POSITION</b>				
Beginning of year	34,282.9	31,813.8	2,469.1	7.8
<b>END OF YEAR</b>	<b>\$ 38,593.0</b>	<b>\$ 34,282.9</b>	<b>\$ 4,310.1</b>	<b>12.6 %</b>

The change in city contributions is due to lump sum contributions received from cities (\$214.4 million in 2020 compared with \$62.3 million in 2021).

Net investment income includes interest, dividends and net appreciation in the fair value of investments, less investment expenses. The increase in net investment income from 2020 to 2021 is due to the net appreciation experienced over the periods. The time-weighted net investment returns were 12.86% in 2021 and 7.65% in 2020.

The increase in retirement benefits is due to an increase in the number of retirement beneficiaries (from 64,121 in 2020 to 68,092 in 2021), and cost of living adjustments (COLA) that were applied in each year.

# Management's Discussion and Analysis

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## Net Position – Supplemental Death Benefits Fund

Tables F-3 and F-4 display a summary of fiduciary net position as of December 31, 2021 and 2020 for the SDBF and a summary of changes in fiduciary net position for the years then ended. The fiduciary net position of the SDBF decreased over the two-year period by 54.0% due to supplemental death benefit payments exceeding contributions.

**Table F-3**

<b>Summary of Fiduciary Net Position – SDBF (dollars in millions)</b>				
As of December 31				
	2021	2020	Increase (Decrease)	% Change
<b>TOTAL ASSETS AND FIDUCIARY NET POSITION</b>	\$ 5.8	\$ 12.6	\$ (6.8)	(54.0) %

**Table F-4**

<b>Summary of Changes in Fiduciary Net Position – SDBF (dollars in millions)</b>				
For the Year Ended December 31				
	2021	2020	Increase (Decrease)	% Change
<b>ADDITIONS</b>				
City contributions	\$ 10.6	\$ 8.9	\$ 1.7	19.1 %
Income allocated from Interest Reserve	0.4	0.7	(0.3)	(42.9)
Total additions	11.0	9.6	1.4	14.6
<b>DEDUCTIONS</b>				
Supplemental death benefits	17.8	11.1	6.7	60.4
Total deductions	17.8	11.1	6.7	60.4
<b>CHANGE IN FIDUCIARY NET POSITION</b>	<b>(6.8)</b>	<b>(1.5)</b>	<b>(5.3)</b>	<b>(353.3)</b>
<b>FIDUCIARY NET POSITION</b>				
Beginning of year	12.6	14.1	(1.5)	(10.6)
<b>END OF YEAR</b>	<b>\$ 5.8</b>	<b>\$ 12.6</b>	<b>\$ (6.8)</b>	<b>(54.0) %</b>

Contributions from cities participating in the SDBF are based on the payroll of covered members at actuarially determined rates. TMRS' Board of Trustees approved new actuarial assumptions effective with the December 31, 2019 actuarial valuation, increasing the retiree death benefit used in the SDBF rate calculation from \$2,500 to \$7,500. Contribution rates from the 2019 valuation were effective January 1, 2021. The fluctuation in supplemental death benefits over the two-year period is a result of the number and type of claims in those years (active or retired). The SDBF receives a 5% statutory interest allocation from the Interest Reserve Account based on the Fund's average balance during the year.

## Requests for Information

MD&A is designed to provide a general overview of TMRS' finances. Questions and requests for additional information should be emailed to [finance@tmrs.com](mailto:finance@tmrs.com).

# Basic Financial Statements

Table F-5

<b>Statement of Fiduciary Net Position</b>			
As of December 31, 2021			
	Pension Trust Fund	Supplemental Death Benefits Fund	Total
<b>ASSETS</b>			
Cash	\$ 9,959,259	\$ —	\$ 9,959,259
Receivables			
Contributions	140,779,141	1,189,678	141,968,819
Interest and dividends	22,314,890	—	22,314,890
Unsettled investment trades	360,869,082	—	360,869,082
Total receivables	523,963,113	1,189,678	525,152,791
Investments, at fair value			
Short term investments	727,050,696	—	727,050,696
Fixed income securities	3,336,959,069	—	3,336,959,069
Public equities	16,363,719,812	—	16,363,719,812
Non-core fixed income funds	5,908,218,775	—	5,908,218,775
Other public & private markets funds	1,785,527,467	—	1,785,527,467
Hedge funds	3,150,685,294	—	3,150,685,294
Private equity funds	3,140,031,298	—	3,140,031,298
Private real estate funds	4,378,033,443	—	4,378,033,443
Total investments	38,790,225,854	—	38,790,225,854
Capital assets, net	9,585,115	—	9,585,115
Other Assets	5,748,571	—	5,748,571
Funds held by Interest Reserve Account	—	4,625,805	4,625,805
<b>TOTAL ASSETS</b>	<b>39,339,481,912</b>	<b>5,815,483</b>	<b>39,345,297,395</b>
<b>LIABILITIES</b>			
Accounts payable and other accrued liabilities	21,851,012	—	21,851,012
Unsettled investment trades payable	719,990,711	—	719,990,711
Funds held for Supplemental Death Benefits Fund	4,625,805	—	4,625,805
<b>TOTAL LIABILITIES</b>	<b>746,467,528</b>	<b>—</b>	<b>746,467,528</b>
<b>FIDUCIARY NET POSITION</b>			
Net position restricted for pensions	38,593,014,384	—	38,593,014,384
Fiduciary net position held in trust for other benefits	—	5,815,483	5,815,483
<b>TOTAL FIDUCIARY NET POSITION</b>	<b>\$ 38,593,014,384</b>	<b>\$ 5,815,483</b>	<b>\$ 38,598,829,867</b>

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

# Basic Financial Statements

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**Table F-6**

<b>Statement of Changes in Fiduciary Net Position</b>			
<b>For the Year Ended December 31, 2021</b>			
	<b>Pension Trust Fund</b>	<b>Supplemental Death Benefits Fund</b>	<b>Total</b>
<b>ADDITIONS</b>			
Contributions			
City	\$ 1,076,907,798	\$ 10,655,161	\$ 1,087,562,959
Member	492,319,722	—	492,319,722
Total contributions	1,569,227,520	10,655,161	1,579,882,681
Net investment income			
Net appreciation in fair value of investments	4,012,087,723	—	4,012,087,723
Interest and dividends	499,024,961	—	499,024,961
Total investment income	4,511,112,684	—	4,511,112,684
Less investment expense	(42,010,847)	—	(42,010,847)
Net investment income	4,469,101,837	—	4,469,101,837
Other miscellaneous	560,172	—	560,172
Income allocated from Interest Reserve Account	—	418,537	418,537
<b>TOTAL ADDITIONS</b>	<b>6,038,889,529</b>	<b>11,073,698</b>	<b>6,049,963,227</b>
<b>DEDUCTIONS</b>			
Retirement benefits	1,645,334,415	—	1,645,334,415
Supplemental death benefits	—	17,849,592	17,849,592
Member account refunds	62,336,087	—	62,336,087
Administrative expenses	20,679,140	—	20,679,140
Income allocated to Supplemental Death Benefits Fund	418,537	—	418,537
<b>TOTAL DEDUCTIONS</b>	<b>1,728,768,179</b>	<b>17,849,592</b>	<b>1,746,617,771</b>
<b>CHANGE IN FIDUCIARY NET POSITION</b>	<b>4,310,121,350</b>	<b>(6,775,894)</b>	<b>4,303,345,456</b>
<b>FIDUCIARY NET POSITION</b>			
Fiduciary net position restricted for pensions			
Beginning of year	34,282,893,034	—	34,282,893,034
End of year	38,593,014,384	—	38,593,014,384
Fiduciary net position held in trust for other benefits			
Beginning of year	—	12,591,377	12,591,377
End of year	—	5,815,483	5,815,483
<b>TOTAL FIDUCIARY NET POSITION</b>	<b>\$ 38,593,014,384</b>	<b>\$ 5,815,483</b>	<b>\$ 38,598,829,867</b>

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

# Notes to Financial Statements

## 1. Summary of Significant Accounting Policies

### A. Reporting Entity

The Texas Municipal Retirement System (TMRS) is a statewide public retirement plan created by the State of Texas and administered in accordance with Texas Government Code, Title 8, Subtitle G (TMRS Act) for the benefit of the employees of Texas participating cities. The TMRS Act places the administration and management of TMRS with a six-member Board of Trustees (Board) appointed by the Governor with the advice and consent of the Texas Senate. TMRS does not receive any funding from the State of Texas.

The accompanying financial statements include only the operations of TMRS. TMRS is not a component unit of any other entity and has no component units. TMRS manages three fiduciary trust funds: the Pension Trust Fund, the Full Benefit Arrangement Fund (FBAF) and the Supplemental Death Benefits Fund (SDBF). The FBAF is legally separate from the Pension Trust Fund, but is combined with the Pension Trust Fund for presentation purposes on the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position.

### B. Basis of Accounting

TMRS' financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP), as prescribed by the Governmental Accounting Standards Board (GASB). The Pension Trust Fund and the SDBF are maintained on the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when incurred, regardless of when payments are made. City and active member contributions are recorded when due, which is in the period the city reports compensation for its member employees. Benefits are recorded when payable, in accordance with TMRS' plan terms. Member account refunds are recorded and paid upon receipt of an approved refund application.

The preparation of financial statements in accordance with GAAP 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.

TMRS invests city and active member contributions in a diversified investment portfolio. Investments are exposed to various risks, such as interest rate risk, credit risk and market volatility risk. Due to the risks associated with certain investments, changes in the fair value of investments will occur in the future and any such changes could materially affect the amounts reported in the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position.

# Notes to Financial Statements

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## C. Basis of Presentation

TMRS maintains separate funds that are segregated for the purpose of carrying out specific activities or complying with applicable statutory guidelines or restrictions.

The following is a brief description of each fund.

### Fiduciary Fund — Pension Trust Fund

The Pension Trust Fund records the resources held in trust for the benefit of TMRS' active members, vested terminated members, retirees and beneficiaries (Members). The TMRS Act does not create legally required reserves, but establishes the following accounts:

**Benefit Accumulation Fund (BAF).** The activity affecting each participating city's reserve fund is recorded in the BAF. The BAF is increased by contributions from participating cities and active members and decreased by benefit payments and refunds. Effective each December 31, the Board approves an interest credit or debit to the BAF, allocated to each city in proportion to its BAF balance at January 1 of that year. The BAF received an approximate 12.26% interest credit effective December 31, 2021.

**Supplemental Disability Benefits Fund.** Effective January 1, 1988, the TMRS Act was amended to terminate the Supplemental Disability Benefits Fund and closed participation to new members. There have been no contributions to this fund since 1987, but supplemental disability benefit payments continue to be paid. The TMRS Act requires that a 5% interest credit be allocated to the Supplemental Disability Benefits Fund effective each December 31 based on the average balance in the fund during the year.

**Endowment Fund.** The Endowment Fund accumulates unallocated investment income in the Interest Reserve Account and escheated member balances in the Perpetual Endowment Account.

**Expense Fund.** The Expense Fund records the expenses incurred for TMRS' administration. The Board authorizes transfers from the Endowment Fund's Interest Reserve Account to the Expense Fund for the amount estimated to cover annual administrative expenses.

### Fiduciary Fund — Full Benefit Arrangement Fund (FBAF)

Any portion of a retiree's annual retirement benefit that exceeds the limit set by Section 415(b) of the Internal Revenue Code (IRC) cannot be paid from the Pension Trust Fund. In accordance with the TMRS Act and IRC Section 415(m), cities pay these excess amounts through a separate fund. The FBAF receives contributions from cities and pays benefits from such contributions for any benefits exceeding the Section 415(b) limit.

### Fiduciary Fund — Supplemental Death Benefits Fund (SDBF)

The SDBF records the resources available to pay supplemental death benefit claims for covered members and retirees. Cities may elect, by ordinance, to provide a supplemental death benefit (SDB) for their active members and may also cover retirees. The TMRS Act requires that a 5% interest credit be allocated to the SDBF effective each December 31 based on the average balance in the SDBF during the year. SDB payments are payable only from the SDBF and are not an obligation of, or a claim against, other TMRS funds.

# Notes to Financial Statements

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## D. Investments

As of December 31, 2021, TMRS' investments include short term, domestic and international fixed income securities, domestic and international public equities, non-core fixed income funds, other public and private markets (OPPM) funds, hedge funds, private equity funds and private real estate funds. Investment transactions are reported on a trade-date basis, with resulting gains/losses from sales determined by the average cost method. Short term investments are reported at cost, which approximates fair value. Fixed income securities are valued by pricing vendors using quoted market prices, broker prices or other valuation methodologies. Public equity securities are valued by TMRS' custodian bank using the last trade date "quoted market price" supplied by various pricing data vendors. Fair values of commingled public equity funds are determined based on the funds' net asset values at the date of valuation. Fair values of non-core fixed income funds, OPPM funds, hedge funds, private equity funds and private real estate funds (alternative investments) are reported at the net asset values as provided by the fund's investment manager, which are based on audited financial statements of the respective funds. Withdrawal from alternative investments prior to a fund's liquidation may be allowed, subject to constraints as set forth in the private fund's documents.

Forward currency contracts and futures contracts are considered derivative financial instruments and are reported at fair value, with valuation changes reported as investment income. The accumulated gain/loss of these derivative contracts is included in unsettled investment trades receivable or payable in the accompanying Statement of Fiduciary Net Position.

Investment expenses presented on the Statement of Changes in Fiduciary Net Position include the internal direct costs of investment administration and the fees invoiced and paid directly to external investment managers. Expenses of alternative investments are not reported separately but are included in the net appreciation/(depreciation) in fair value of investments.

## E. Capital Assets

Capital assets, which include land, building and improvements, leasehold improvements, furniture, software and equipment, are reported at cost less accumulated depreciation/amortization. TMRS capitalizes items that individually exceed \$10,000. Depreciation of furniture, equipment and software is calculated on a straight-line basis over estimated useful lives, which range from three to ten years; depreciation of building and improvements is calculated on a straight-line basis over forty years. Amortization of leasehold improvements is calculated on a straight-line basis over the lease term. Land is not depreciated.

## 2. Plan Description

### A. Pension Trust Fund

TMRS administers a defined benefit cash-balance plan for the eligible employees of 901 participating cities. Under GASB, TMRS is an agent multiple-employer public employee retirement system.

**Membership.** A participating city employee, in a position the city determines normally requires at least 1,000 hours of work in a year, must be a TMRS member. A member terminates participation in TMRS upon their account refund, death or, if not vested, absence from service with a participating city for more than 60 consecutive months. Member account information in Table F-7 includes multiple accounts for Members that have service with more than one TMRS participating city.

# Notes to Financial Statements

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**Table F-7**

<b>TMRS Member Accounts</b>	
As of December 31, 2021	
Active member accounts:	
Vested	68,912
Non-vested	47,141
<b>TOTAL</b>	<b>116,053</b>
Inactive member accounts entitled to but not yet receiving benefits:	
Vested	36,566
Non-vested	37,520
<b>TOTAL</b>	<b>74,086</b>
Retirees and beneficiaries currently receiving benefits	76,675
<b>TOTAL MEMBER ACCOUNTS</b>	<b>266,814</b>

**Service Credit.** An active member receives service credit for each month they work in an eligible position at any participating city and their required member contribution is paid. Service credit can include other types of credit as defined in the TMRS Act (e.g., military service credit and repurchased previously refunded TMRS service credit.)

**Vesting and Retirement Eligibility.** An active member vests after either five or 10 years of service, depending on their city’s plan provisions. Members may work for more than one participating city during their career. If a member becomes vested in one participating city, they are vested upon employment with any other participating city.

Depending on a city’s plan provisions, a member is eligible to retire at age 60 with either five or 10 years of service, or at any age with 20 or 25 years of service.

If a vested member leaves city employment before reaching retirement eligibility, they may leave their contributions with TMRS, receive interest credits on their contributions, and upon reaching that city’s retirement eligibility, apply for and receive a lifetime monthly retirement benefit.

**Contributions.**

*Active Members.* Active member contribution rates are adopted by a participating city and may be either 5%, 6% or 7% of the member’s total compensation. A city withholds the member’s contribution from wages on a pre-tax basis and sends it to TMRS monthly.

*Cities.* A participating city’s contribution rate is determined annually by TMRS using the Entry Age Normal actuarial cost method based on the liabilities created from the city’s benefit options and any changes in benefits or actual experience over time. The city’s contribution rate consists of the normal cost contribution rate and the prior service contribution rate, which is calculated as a level percent of the city’s reported payroll. The normal cost contribution rate is the percentage of total gross payroll that, if applied to all employees’ compensation throughout their period of anticipated employment with the city, would be sufficient to pay the expected benefits. The prior service contribution rate amortizes any unfunded actuarial accrued liability over the amortization period for that city. Both the normal cost and prior service contribution rates include the projected costs of annually repeating benefits adopted by a city, such as updated service credit and cost of living adjustments.

# Notes to Financial Statements

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City contributions are required to be deposited with TMRS monthly. There is a one-year delay between the actuarial valuation that serves as the basis for a city's contribution rate and the calendar year when the rate goes into effect. Cities may make contributions to TMRS in excess of their actuarially determined contributions as additional monthly contributions or lump sum contributions.

**Retirement Benefit Calculation.** A member's retirement benefit is calculated based on the sum of the member's contributions with interest, the city-financed monetary credits with interest, and their age at retirement and other actuarial factors. City-financed monetary credits, which do not affect the amount a member will receive if they refund their account, are composed of three sources:

- Prior Service Credit is a monetary credit that a city may grant to eligible employees when the city joins TMRS. The credit is used in calculating the employee's retirement benefit and is based on compensation they earned while working for the city before the city joined TMRS.
- Current Service Credit is a monetary credit for service performed by a member after a city joins TMRS and is based on a city's matching ratio (1:1, 1.5:1 or 2:1) of the member's total contributions and interest. A change in a city's matching ratio is applied prospectively.
- Updated Service Credit (USC) is a monetary credit a city may grant to active members. The USC calculation is performed annually on a member's account and may grant supplemental financial credits. The USC calculation considers a member's salary history and the city's plan changes and may increase the value of a member's benefit at retirement.

## Retirement Benefits.

*Benefit Payment Options.* When a member applies for retirement, they have three options to determine how their lifetime monthly benefit will be paid.

- Retiree Life Only provides the largest monthly retirement benefit. A retiree will receive a lifetime monthly retirement benefit with no survivor benefits. At their death, all TMRS payments will cease.
- Retiree Life and Survivor provides a reduced lifetime monthly retirement benefit, but it provides a lifetime monthly benefit after the retiree's death to their beneficiary. At the retiree's death, the beneficiary will receive a percentage (50%, 75% or 100%) of the retiree's monthly benefit each month for the rest of the beneficiary's life.
- Retiree Life and Guaranteed Term provides a reduced lifetime monthly retirement benefit, but it provides a monthly benefit to their beneficiary(ies) if the retiree dies before the guaranteed payment term ends. At retirement, the retiree will select a guaranteed payment term of 5, 10 or 15 years that begins at their retirement date. Then, if the retiree dies before their selected term ends, the beneficiary(ies) will receive their benefit for the remainder of that term.

*Partial Lump Sum Distribution (PLSD).* After a member selects one of the three benefit payment options, they can choose to receive a PLSD equal to 12, 24 or 36 times the Retiree Life Only monthly benefit. The PLSD cannot exceed 75% of the total member contributions and interest. If a member chooses a PLSD, it will reduce the amount of their monthly retirement benefit.

*Cost of Living Adjustment (COLA).* A participating city can increase the retiree's monthly benefit payment annually, effective January 1. Cities may adopt a COLA at a rate equal to either 30%, 50% or 70% of any increase in the Consumer Price Index — All Urban Consumers between the December preceding the retiree's retirement date and the December one year before the effective date of the increase, minus any previously granted COLA increases.

# Notes to Financial Statements

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**Member Account Refunds.** If a member terminates employment with all participating cities, they can request a refund of their total contributions, plus credited interest. A refund does not include any of the city-financed monetary credits.

**Investment Policy.** The Board approves an Investment Policy Statement (IPS) that governs the investment and management of Pension Trust Fund assets. The IPS describes investment objectives, benchmarks, restrictions and responsibilities for the Board, TMRS staff, investment managers, consultants and TMRS stakeholders.

The IPS contains the Board's strategic target allocation that reflects the IPS' investment return objective. The strategic target allocation is designed to meet or exceed the Board's objectives at a controlled level of risk and liquidity.

In 2021, the Board amended the IPS to decrease the strategic target allocation to hedge funds and increase the allocation to global public equity.

**Table F-8**

<b>Strategic Target Allocation</b>			
<b>As of December 31, 2021</b>			
<b>Asset Class</b>	<b>Minimum %</b>	<b>Target %</b>	<b>Maximum %</b>
Core fixed income	1%	6%	11%
Non-core fixed income	15%	20%	25%
Global public equity	25%	35%	45%
Real estate	7%	12%	17%
Other public & private markets	7%	12%	17%
Hedge funds	0%	5%	10%
Private equity	5%	10%	15%
Cash equivalents	0%	0%	3%

As of December 31, 2021, the annual money-weighted rate of return on Pension Trust Fund assets, net of investment expenses, was 12.92%. The money-weighted rate of return reflects investment performance, net of investment expense, adjusted for assets invested.

## **B. Supplemental Death Benefits Fund**

TMRS administers the Supplemental Death Benefits Fund (SDBF), which is an optional death benefit plan that operates like a group-term life insurance plan. The SDBF allows participating cities to provide supplemental death benefits for their active members, with optional coverage for their retirees. A city may terminate coverage in the SDBF by adopting an ordinance before November 1 of any year to be effective the following January 1. The SDBF had 783 participating cities as of December 31, 2021.

# Notes to Financial Statements

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Table F-9

<b>Supplemental Death Benefits Fund Member Accounts</b>	
As of December 31, 2021	
Active member accounts	79,205
Inactive vested member accounts	11,284
Retirees eligible for benefits	35,323
<b>Total</b>	<b><u>125,812</u></b>

**Contributions.** Participating cities contribute to the SDBF monthly based on the payroll of their covered members at an actuarially determined rate. There is a one-year delay between the actuarial valuation that serves as the basis for the city's contribution rate and the calendar year when the rate goes into effect.

TMRS pools the SDBF contributions with those of the Pension Trust Fund for investment purposes. The SDBF's funding policy assures that adequate resources are available to meet all death benefit payments for the upcoming year. The SDBF is a pay-as-you-go fund, and any excess contributions are available for future SDBF benefits.

**Benefits.** SDBF benefits are paid to designated beneficiaries upon TMRS' receipt of an approved benefit application. The death benefit for active members is a lump sum payment approximately equal to the member's annual salary. The death benefit for retirees is \$7,500 and is an "other post-employment benefit." SDBF benefits are paid from the SDBF and are not an obligation of the Pension Trust Fund.

## 3. TMRS as Employer

### A. Pension Plan

TMRS participates in the TMRS pension plan and provides pension benefits to all of its eligible employees. Eligible employees may retire at age 60 with five years of service or at any age with 20 years of service. The contribution rate for TMRS employees is 7% and TMRS' matching ratio is 2:1. TMRS has a repeating 100% USC and a repeating COLA at 70% of the change in the CPI-U. Employees are vested after five years of service. See Note 2-A.

TMRS' net pension liability (NPL) and pension expense were measured as of the December 31, 2020 actuarial valuation, TMRS' measurement date for GASB Statement No. 68. The NPL of \$5,852,956 is included in "accounts payable and other accrued liabilities" in the accompanying Statement of Fiduciary Net Position. TMRS' pension expense of \$1,684,665 for the fiscal year 2021 is included in "administrative expenses" in the accompanying Statement of Changes in Fiduciary Net Position.

# Notes to Financial Statements

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**Table F-10**

<b>TMRS as Employer — Actuarial Valuation</b>	
As of Measurement Date	
<b>Member Accounts</b>	
Active member accounts	120
Inactive member accounts	35
Retiree accounts	41
Total	196
<b>Net Pension Liability</b>	
Total pension liability	\$ 57,863,517
Fiduciary net position	52,010,561
Net pension liability	\$ 5,852,956
<b>Plan Fiduciary Net Position as a % of Total Pension Liability</b>	89.88 %
<b>Sensitivity of the NPL to changes in discount rate</b>	
1% increase to 7.75%	\$ (699,371)
Current rate assumption of 6.75%	\$ 5,852,956
1% decrease to 5.75%	\$ 13,745,582

## B. Supplemental Death Benefits

As an employer, TMRS provides a supplemental death benefit to beneficiaries of its employees and retirees. TMRS contributes to the Supplemental Death Benefits Fund (SDBF) at an actuarially determined contribution rate. For 2021, the rate was 0.17% as a percentage of payroll of covered members, of which 0.05% represented the retiree-only (other post-employment benefit) portion. TMRS' employer contributions to the SDBF for the years ended December 31, 2021, 2020 and 2019 were \$24,025, \$25,665 and \$21,140, respectively, representing contributions for both employee and retiree coverage.

See Note 2-B.

## C. TMRS Insurance Benefits

TMRS' employees and retirees are eligible for insurance through the Texas Employees Group Benefits Program (GBP), administered by the Employees Retirement System of Texas (ERS). The GBP is administered through a trust, governed and managed by ERS' Board of Trustees. TMRS provides its employees with health, life, disability and dental insurance benefits, and subsidizes the cost of health coverage for its retirees. TMRS' contributions to the GBP for active employees for the years ended December 31, 2021, 2020 and 2019 were \$1,171,811, \$1,256,990 and \$1,236,717, respectively, and \$76,233, \$50,614 and \$48,674, respectively, for retirees.

TMRS' retirees participate in the GBP's State Retiree Health Plan (SRHP), which is a cost-sharing multiple-employer defined benefit post-employment healthcare plan that covers retired employees of the State and other entities as specified by the state legislature, including TMRS. The SRHP's assets are legally protected from State of Texas and ERS creditors. As a cost-sharing plan, all assets and risks are pooled in the SRHP and the contribution rates are the same for each participating employer. Contribution requirements are established and may be amended by the Texas Legislature. ERS issues an Annual Comprehensive Financial Report that includes financial statements and required supplementary information for the GBP, available at [ers.texas.gov](http://ers.texas.gov).

# Notes to Financial Statements

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## D. Deferred Compensation

TMRS employees may participate in a deferred compensation plan created in accordance with Internal Revenue Code Section 457. The plan permits the deferral of a portion of the participant's salary during their employment.

## 4. Cash

### A. Cash in Bank

Cash is held in demand deposit accounts with a local banking institution under terms of a depository contract and with TMRS' custodian bank.

Demand deposit balances with TMRS' depository bank totaled \$10,085,077, with a book value of \$3,072,819 as of December 31, 2021. Cash on deposit with TMRS' custodian bank totaled \$6,886,440 as of December 31, 2021.

### B. Custodial Credit Risk

TMRS' deposits are subject to custodial credit risk, which is the risk that, in the event of a bank failure, the 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, 2021, to the extent not insured by the Federal Deposit Insurance Corporation (FDIC), were collateralized by securities held by a third-party independent custodian, in TMRS' name, under a joint custody agreement giving TMRS unconditional rights and claims to collateral. Securities pledged as collateral had a fair value of \$145,917,361 as of December 31, 2021. 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, 2021.

## 5. Investments

### A. Fair Value of Investments

TMRS categorizes its fair value measurements within the hierarchy established by GAAP, which recognizes 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.

# Notes to Financial Statements

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**Table F-11**

Fair Value of Investments As of December 31, 2021	Fair Value Measurements Using			
	Total Fair Value	Level 1	Level 2	Level 3
<b>Fixed income</b>				
U.S. Treasury bonds/notes	\$ 519,635,229	\$ —	\$ 519,635,229	\$ —
U.S. government agency	131,503,223	—	131,503,223	—
U.S. government-sponsored enterprise	414,699,959	—	414,699,959	—
Municipal bonds	11,542,014	—	11,542,014	—
Corporate bonds	1,044,891,218	—	1,044,891,218	—
Collateralized mortgage obligations	818,030,257	—	818,030,257	—
Other asset-backed securities	364,554,743	—	364,554,743	—
Foreign government bonds	32,102,426	—	32,102,426	—
	<u>3,336,959,069</u>	<u>—</u>	<u>3,336,959,069</u>	<u>—</u>
<b>Public equities</b>				
Equity securities, domestic	1,259,917,078	1,259,917,078	—	—
Equity securities, international	1,271,934,443	1,271,934,443	—	—
Global equity REITs	53,921,725	53,921,725	—	—
	<u>2,585,773,246</u>	<u>2,585,773,246</u>	<u>—</u>	<u>—</u>
<b>Total investments by fair value level</b>	<b>\$ 5,922,732,315</b>	<b>\$ 2,585,773,246</b>	<b>\$ 3,336,959,069</b>	<b>\$ —</b>
<b>Investments measured at Net Asset Value (NAV)</b>				
Non-core fixed income funds	\$ 5,908,218,775			
Other public & private markets funds	1,785,527,467			
Equity commingled funds	13,777,946,566			
Hedge funds	3,150,685,294			
Private equity funds	3,140,031,298			
Private real estate funds	4,378,033,443			
<b>Total investments measured at NAV</b>	<b>32,140,442,843</b>			
<b>Short term investments at cost</b>	<u>727,050,696</u>			
<b>Total investments</b>	<b><u>\$ 38,790,225,854</u></b>			

Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those investments. Fixed income securities classified in Level 2 of the fair value hierarchy are valued using matrix pricing. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. TMRS did not hold any Level 3 investments as of December 31, 2021.

Investments measured at NAV per share (or its equivalent) generally do not have readily obtainable fair values. TMRS values these investments based on the financial statements of the investment funds. Table F-12 presents the unfunded commitments, redemption frequency (if currently eligible), and the redemption notice period for TMRS' investments measured at NAV.

# Notes to Financial Statements

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**Table F-12**

<b>Investments Measured at Net Asset Value (NAV)</b>				
<b>As of December 31, 2021</b>				
	<b>Fair Value</b>	<b>Unfunded Commitments</b>	<b>Redemption Frequency</b>	<b>Redemption Notice Period</b>
<b>Equity commingled funds</b>				
Domestic commingled funds	\$ 7,341,836,574	\$ —	Daily	1 – 2 days
International commingled funds	6,436,109,992	—	Daily	1 – 2 days
<b>Non-core fixed income funds</b>				
Emerging market debt	1,013,866,744	—	Weekly	10 days
High yield	379,703,730	—	Daily	10 days
Loans	2,637,838,679	694,117,845	Quarterly	Varies: 45 – 60 days
Opportunistic credit	1,636,334,761	908,227,324	Varies: Monthly, Quarterly, Yearly, N/A	Varies: 60 – 90 days, N/A
Structured credit	240,474,861	—	Quarterly	Varies: 45 – 60 days
<b>Other public &amp; private markets funds</b>				
Agriculture	127,417,573	18,898,871	N/A	N/A
Energy	230,855,117	351,945,586	N/A	N/A
Esoterics	131,574,942	346,999,109	N/A	N/A
Infrastructure	998,950,020	1,248,309,300	Varies: Daily, N/A	Varies: 90 days, N/A
Mining	296,729,815	289,398,314	N/A	N/A
<b>Hedge funds</b>				
Credit	620,089,369	18,708,999	Varies: Quarterly, Yearly, N/A	Varies: 90 – 180 days
Equity	693,842,060	47,655,509	Varies: Monthly, Quarterly, N/A	Varies: 45 – 80 days
Event-driven	979,828	—	Quarterly	90 days
Fund of funds	4,636,797	—	Quarterly	95 days
Global macro	537,214,605	—	Quarterly	Varies: 30 – 90 days
Multi-strategy opportunistic	547,164,237	94,230,709	Varies: Quarterly, Rolling 3-year	Varies: 60 days, N/A
Relative value	746,758,398	—	Varies: Monthly, Quarterly, 2.5 years	Varies: 25 – 180 days
<b>Private equity funds</b>				
Buy-out	1,487,165,598	1,500,231,726	N/A	N/A
Special situations	337,655,019	988,940,702	N/A	N/A
Venture/growth	1,315,210,681	666,078,646	N/A	N/A
<b>Private real estate funds</b>				
Core	2,578,341,011	200,361,856	Varies: Quarterly, N/A	Varies: 45 – 90 days, N/A
Opportunistic	557,459,060	272,501,191	N/A	N/A
Value-added	1,242,233,372	1,072,253,673	N/A	N/A
<b>Total</b>	<b>\$ 32,140,442,843</b>	<b>\$ 8,718,859,360</b>		

# Notes to Financial Statements

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- **Equity commingled funds.** Equity commingled funds offer daily liquidity and provide return and risk characteristics that approximate the overall domestic and international securities included in an underlying index.
- **Non-core fixed income funds.** Non-core fixed income seeks high income and price appreciation. Liquidity, volatility, expected return and investment horizon vary with each strategy.
- **Other public and private markets funds (OPPM).** OPPM funds invest primarily in global hard assets such as agriculture, energy, esoterics, infrastructure, minerals and timber. TMRS invests in closed-end funds with average term lengths of 6 – 14 years, during which the funds will purchase and dispose of assets. Distributions from each fund will be received as the underlying assets are liquidated.
- **Hedge funds.** Hedge funds offer both favorable stand-alone risk-adjusted returns and diversification for the overall plan. Strategies TMRS may utilize include: credit, commodities, currencies, equity, event-driven, global macro, multi-strategy and relative value. Leverage may be used by some managers. Hedge funds are typically subject to gating provisions, which may limit withdrawals.
- **Private equity funds.** Private equity funds primarily invest in non-publicly traded equity and debt securities in the U.S. and internationally. These investments are typically closed-end funds with average term lengths of 10 – 14 years, during which the funds will purchase and dispose of assets. Distributions from each fund will be received as the underlying assets are liquidated.
- **Private real estate funds.** Private real estate funds invest in global commercial real estate, equity or debt collateralized by commercial real estate. TMRS invests in these closed-end funds with average term lengths of 8 – 12 years, during which the funds will purchase and dispose of assets. Distributions from each fund will be received as quarterly income or as the underlying assets are liquidated.

## B. Investment Risk

TMRS' investments are subject to various risks, including custodial credit risk, credit default risk, concentration of credit risk, interest rate risk and foreign currency risk.

### **Custodial Credit Risk**

Custodial credit risk is the risk that, in the event of failure of the counterparty, TMRS will not be able to recover the value of its investments or collateral securities that are in the possession of the counterparty. TMRS' assets may be held in the name of agents, nominees, depository trust companies or other entities designated by the Board. As of December 31, 2021, all investment securities were registered in TMRS' name or in the name of its custodian, and are held by the custodian.

### **Credit Default Risk**

Credit default risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. TMRS' Investment Policy Statement (IPS) sets minimum credit ratings for the core fixed income portfolio to manage credit default risk. As of December 31, 2021, TMRS' core fixed income portfolio complied with the IPS guidelines on credit default risk. Investment guidelines established with the individual investment managers address the management of credit default risk for the non-core fixed income portfolio.

# Notes to Financial Statements

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Table F-13

Fixed Income Securities with Exposure to Credit Default Risk								
As of December 31, 2021								
Bond Rating	Total Fair Value	U.S. Government- Sponsored Enterprise	Municipal Bonds	Corporate Bonds	Collateralized Mortgage Obligations	Other Asset-Backed Securities	Foreign Government Bonds	
<b>Securities subject to credit default risk</b>								
AAA	\$ 94,517,704	\$ —	\$ —	\$ 522,000	\$ 88,631,955	\$ 5,363,749	\$ —	
AA	67,391,174	—	3,990,889	12,796,059	36,196,327	13,654,997	752,902	
A	305,818,515	—	3,282,840	268,784,239	13,804,589	15,418,263	4,528,584	
BBB	483,263,669	—	4,268,285	379,053,733	44,569,149	28,551,563	26,820,939	
BB	201,785,939	—	—	167,960,953	33,712,675	112,311	—	
B	203,678,773	—	—	155,435,075	42,845,352	5,398,346	—	
CCC	158,148,637	—	—	59,808,425	75,659,952	22,680,260	—	
CC	56,336,257	—	—	130,515	32,757,114	23,448,628	—	
C	42,786,274	—	—	—	8,855,901	33,930,373	—	
D	11,747,057	—	—	—	3,655,428	8,091,629	—	
Not Rated	1,060,346,617	414,699,959	—	400,219	437,341,815	207,904,624	—	
<b>Total</b>	<b>\$ 2,685,820,616</b>	<b>\$ 414,699,959</b>	<b>\$ 11,542,014</b>	<b>\$ 1,044,891,218</b>	<b>\$ 818,030,257</b>	<b>\$ 364,554,743</b>	<b>\$ 32,102,425</b>	
<b>Securities not subject to credit default risk</b>								
U.S. Treasury bonds/notes	\$ 519,635,230							
U.S. government agency	131,503,223							
<b>Total</b>	<b>\$ 3,336,959,069</b>							

Table F-13 excludes non-core fixed income funds, which are exposed to credit default risk but credit ratings for these investments are not available.

## Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of TMRS' investment in a single issuer.

The IPS sets forth the following investment guidelines to address the management of concentration of credit risk for the core fixed income asset class portfolio.

- 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 portfolio and manager mandates.
- Investments in a single corporate issuer will not exceed 2% of the total market value of the core fixed income portfolio and manager mandates.
- 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 will not exceed 2% of the total market value of the core fixed income portfolio and manager mandates.

# Notes to Financial Statements

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Concentration risk for the other asset class portfolios is managed through diversification of investment managers, investment vehicles, sectors and geographic/economic locations.

As of December 31, 2021, TMRS did not exceed any of the issuer diversification limits in the IPS.

## Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment.

*Core Fixed Income.* The IPS 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. The IPS requires duration of the core fixed income portfolio remain within +/- 25% of the Bloomberg Barclay's U.S. Aggregate Bond Index, which was 6.7 years as of December 31, 2021. As of December 31, 2021, TMRS' core fixed income portfolio was in compliance with the IPS on interest rate risk.

*Non-Core Fixed Income.* Investment guidelines established with the individual investment managers address the management of interest rate risk for the non-core fixed income portfolio.

**Table F-14**

<b>Fixed Income Securities with Exposure to Interest Rate Risk</b>		
As of December 31, 2021		
	Fair Value	Effective Duration
<b>Securities subject to interest rate risk</b>		
U.S. Treasury bonds/notes	\$ 519,635,230	9.16
U.S. government agency	131,503,223	3.92
U.S. government-sponsored enterprise	414,699,959	4.72
Municipal bonds	11,542,014	13.86
Corporate bonds	1,044,891,218	5.92
Collateralized mortgage obligations	818,030,257	2.80
Other asset-backed securities	364,554,743	2.66
Foreign government bonds	32,102,425	11.42
<b>Total</b>	<b>\$ 3,336,959,069</b>	<b>5.16</b>

Table F-14 excludes non-core fixed income funds, which are exposed to interest rate risk but duration information for these investments is not available.

## Foreign Currency Risk

Foreign currency risk is the risk that changes in currency exchange rates will adversely affect the fair value of an investment or a deposit. Foreign currency risk is generally considered a diversification benefit of foreign investments. Table F-15 displays TMRS' direct exposure to foreign currency risk but does not include indirect exposure from the underlying assets of a commingled or private investment fund.

# Notes to Financial Statements

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**Table F-15**

<b>Foreign Currency Exposure (in U.S. dollars)</b>									
<b>As of December 31, 2021</b>									
<b>Currency</b>	<b>Cash Equivalents</b>	<b>Foreign Currency Contracts</b>	<b>Fixed Income Securities</b>	<b>Equities</b>	<b>Private Equity</b>	<b>OPPM</b>	<b>Private Real Estate Funds</b>	<b>Total</b>	
Australian Dollar	\$ —	\$ —	\$ —	\$ 21,529,057	\$ —	\$ 54,794,934	\$ —	\$ 76,323,991	
Brazilian Real	845,967	—	—	46,907,305	—	—	—	47,753,272	
Canadian Dollar	65,109	—	—	69,468,221	—	—	—	69,533,330	
Chilean Peso	29,142	—	—	1,803,174	—	—	—	1,832,316	
Czech Koruna	7,030	—	—	—	—	—	—	7,030	
Colombian Peso	1,079	—	477,763	76,451	—	—	—	555,293	
Danish Krone	—	—	—	10,552,924	—	—	—	10,552,924	
Egyptian Pound	2,271	—	—	33,595	—	—	—	35,866	
Euro Currency	212	—	—	134,671,875	24,107,813	—	68,920,191	227,700,091	
Hong Kong Dollar	40,264	(38)	—	129,934,586	—	—	—	129,974,812	
Hungarian Forint	—	—	—	4,790,491	—	—	—	4,790,491	
Indian Rupee	192,257	—	—	144,019,673	—	—	—	144,211,930	
Indonesian Rupiah	22,592	—	—	14,520,220	—	—	—	14,542,812	
Japanese Yen	2,409	—	—	146,860,771	—	—	—	146,863,180	
Malaysian Ringgit	15,840	—	—	262,375	—	—	—	278,215	
Mexican Peso	80,686	(83)	—	25,444,401	—	—	—	25,525,004	
New Israeli Shequel	—	—	—	2	—	—	—	2	
New Taiwan Dollar	131,269	—	—	132,259,093	—	—	—	132,390,362	
Norwegian Krone	—	—	—	6,608,837	—	—	—	6,608,837	
Philippine Peso	4,138	—	—	185,628	—	—	—	189,766	
Polish Zloty	232	—	—	12,226,219	—	—	—	12,226,451	
Pound Sterling	22	902	—	132,634,371	—	—	19,966,541	152,601,836	
Qatari Rial	—	—	—	1,569,767	—	—	—	1,569,767	
Saudi Riyal	49,769	—	—	18,460,501	—	—	—	18,510,270	
Singapore Dollar	475	—	—	—	—	—	—	475	
South African Rand	13,249	—	—	22,925,980	—	—	—	22,939,229	
South Korean Won	86,627	—	—	89,768,541	—	—	—	89,855,168	
Swedish Krona	—	—	—	6,057,898	—	—	—	6,057,898	
Swiss Franc	39	—	—	38,514,572	—	—	—	38,514,611	
Thailand Baht	5,527	—	—	12,143,563	—	—	—	12,149,090	
Turkish Lira	—	—	—	1,007,604	—	—	—	1,007,604	
UAE Dirham	3,227	—	—	1,309,004	—	—	—	1,312,231	
Yuan Renminbi	77,420	—	—	52,348,095	—	—	—	52,425,515	
<b>Total</b>	<b>\$ 1,676,852</b>	<b>\$ 781</b>	<b>\$ 477,763</b>	<b>\$1,278,894,794</b>	<b>\$ 24,107,813</b>	<b>\$ 54,794,934</b>	<b>\$ 88,886,732</b>	<b>\$1,448,839,669</b>	

# Notes to Financial Statements

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## C. Derivatives

Derivative 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 derivative contracts are not recorded on the financial statements. The exposure to forward currency contracts and accumulated gain/loss on futures contracts are recorded as unsettled trades on the Statement of Fiduciary Net Position.

Foreign currency managers may engage in forward currency transactions to eliminate foreign currency risk in the settlement of trades.

**Table F-16**

<b>Foreign Currency Contracts</b>		
As of December 31, 2021		
<b>Currency</b>	<b>Net Notional Long/(Short)</b>	<b>Exposure</b>
Hong Kong Dollar	\$ (551,927)	\$ (38)
Mexican Peso	(79,676)	(83)
Pound Sterling	255,902	902
U.S. Dollar	376,482	—
<b>Total</b>	<b>\$ 781</b>	<b>\$ 781</b>

TMRS could be exposed to risk if the counterparties to the derivatives contracts are unable to meet the terms of the contracts. Currently, TMRS limits counterparty risk exposure on its forward currency contracts to its custodian bank.

TMRS may allow its investment managers to invest in U.S. Treasury note and U.S. Treasury bond futures contracts, cleared on a U.S. futures exchange, with a maximum contractual maturity of no greater than 360 days. U.S. Treasury futures contracts are used to gain nominal exposure in a portfolio and must be fully backed by cash equivalents equaling the notional contract value, unless otherwise permitted in the IPS.

**Table F-17**

<b>Futures Contract</b>				
As of December 31, 2021				
<b>Futures Contract</b>	<b>Expiration Date</b>	<b>Notional Value</b>	<b>Notional Proceeds</b>	<b>Accumulated Gain/(Loss)</b>
U.S. 10-Yr Treasury Note Futures	3/22/2022	\$ 35,487,500	\$ 35,466,925	\$ (20,575)
<b>Total</b>		<b>\$ 35,487,500</b>	<b>\$ 35,466,925</b>	<b>\$ (20,575)</b>

## 6. Commitments and Contingencies

As of December 31, 2021, TMRS had \$8.7 billion of unfunded commitments to private investment funds.

## Required Supplementary Information

**Table F-18**

**Money-Weighted Rate of Return — Pension Trust Fund**  
For the Years Ended December 31

Year	Rate of Return
2021	12.92%
2020	7.55%
2019	14.68%
2018	(2.38)%
2017	13.82%
2016	7.55%
2015	0.08%
2014	5.85%

See accompanying Independent Auditors' Report.

Table F-18 presents the money-weighted rate of return for TMRS' investments in accordance with GASB 67, which differs from the time-weighted performance reported elsewhere in this Report. This table is intended to show information for 10 years, and additional years will be displayed as they become available.

# Supplemental Schedules

Table F-19

## Combined Schedule of Changes in Fiduciary Net Position For the Year Ended December 31, 2021

	Benefit Accumulation Fund	Supplemental Disability Benefits Fund	Endowment Fund	Expense Fund	Full Benefit Arrangement Fund	Total Pension Trust Fund	Supplemental Death Benefits Fund	Total
<b>ADDITIONS</b>								
City contributions	\$ 1,074,590,007	\$ —	\$ —	\$ —	\$ 2,317,791	\$ 1,076,907,798	\$ 10,655,161	\$ 1,087,562,959
Member contributions	492,319,722	—	—	—	—	492,319,722	—	492,319,722
Net investment income	—	—	4,480,455,839	(11,354,002)	—	4,469,101,837	—	4,469,101,837
Other	—	—	832,234	(272,062)	—	560,172	—	560,172
<b>Total additions</b>	<b>1,566,909,729</b>	<b>—</b>	<b>4,481,288,073</b>	<b>(11,626,064)</b>	<b>2,317,791</b>	<b>6,038,889,529</b>	<b>10,655,161</b>	<b>6,049,544,690</b>
<b>DEDUCTIONS</b>								
Retirement benefits	1,642,971,751	44,873	—	—	2,317,791	1,645,334,415	—	1,645,334,415
Supplemental death benefits	—	—	—	—	—	—	17,849,592	17,849,592
Member account refunds	62,336,087	—	—	—	—	62,336,087	—	62,336,087
Administrative expenses	—	—	—	20,679,140	—	20,679,140	—	20,679,140
<b>Total deductions</b>	<b>1,705,307,838</b>	<b>44,873</b>	<b>—</b>	<b>20,679,140</b>	<b>2,317,791</b>	<b>1,728,349,642</b>	<b>17,849,592</b>	<b>1,746,199,234</b>
<b>FUND TRANSFERS</b>								
Operating budget transfer	—	—	(34,500,000)	34,500,000	—	—	—	—
Allocation from Interest Reserve	4,149,658,871	14,443	(4,150,091,851)	—	—	(418,537)	418,537	—
Escheated funds	(2,964,966)	—	2,964,966	—	—	—	—	—
<b>Net fund transfers</b>	<b>4,146,693,905</b>	<b>14,443</b>	<b>(4,181,626,885)</b>	<b>34,500,000</b>	<b>—</b>	<b>(418,537)</b>	<b>418,537</b>	<b>—</b>
<b>CHANGE IN FIDUCIARY NET POSITION</b>	<b>4,008,295,796</b>	<b>(30,430)</b>	<b>299,661,188</b>	<b>2,194,796</b>	<b>—</b>	<b>4,310,121,350</b>	<b>(6,775,894)</b>	<b>4,303,345,456</b>
<b>FIDUCIARY NET POSITION</b>								
Beginning of year	33,858,014,915	311,327	411,879,517	12,687,275	—	34,282,893,034	12,591,377	34,295,484,411
End of year	\$ 37,866,310,711	\$ 280,897	\$ 711,540,705	\$ 14,882,071	\$ —	\$ 38,593,014,384	\$ 5,815,483	\$ 38,598,829,867

See accompanying Independent Auditors' Report.

The Full Benefit Arrangement Fund is separate from the Pension Trust Fund, but is combined for presentation purposes only.

# Supplemental Schedules

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**Table F-20**

<b>Schedule of Administrative and Investment Expenses</b>				
<b>For the Year Ended December 31, 2021</b>				
	<b>Administrative Expenses</b>		<b>Investment Expenses</b>	
<b>Personnel services</b>				
Staff salaries and benefits	\$	12,390,730	\$	4,832,682
Payroll taxes		703,245		243,753
Contract labor/temporary services		211,402		—
Total personnel services		13,305,377		5,076,435
<b>Professional services</b>				
Actuarial		588,300		—
Audit		177,150		—
Banking and custodial		54,220		2,331,000
Consulting		1,500,815		1,423,604
Legal		121,962		977,075
Other services		32,970		—
Total professional services		2,475,417		4,731,679
<b>Information technology</b>				
Cloud services		751,338		1,480,303
Hardware/software and support		934,588		—
Equipment/services		243,120		—
Total information technology		1,929,046		1,480,303
<b>Other administrative</b>				
Board and Committees		61,555		—
Business insurance		197,277		—
City and member outreach		599,325		—
Depreciation/amortization		592,191		—
Facilities		985,823		—
Professional development		158,609		3,726
Miscellaneous		374,520		61,859
Total other administrative		2,969,300		65,585
<b>Investment fees paid from Trust Fund</b>				
Management fees		—		28,787,810
Transaction costs		—		1,869,035
Total investment fees paid from Trust Fund		—		30,656,845
<b>Totals</b>	<b>\$</b>	<b>20,679,140</b>	<b>\$</b>	<b>42,010,847</b>

See accompanying Independent Auditors' Report.

Fees for private investments are not reflected as investment expenses in TMRS' financial statements but are included in the net appreciation in fair value of investments as reported on the Statement of Changes in Fiduciary Net Position.

# Supplemental Schedules

CONTINUED

**Table F-21**

<b>Schedule of Professional Services</b>	
For the Year Ended December 31, 2021	
<b>Actuarial</b>	
Gabriel, Roeder, Smith & Company	\$ 588,300
<b>Audit</b>	
CliftonLarsonAllen LLP	177,150
<b>Banking</b>	
JPMorgan Chase Bank, N.A.	54,220
<b>Consulting</b>	
Pension administration system	843,840
Information systems support	195,971
Architectural and construction management	161,500
Network management and security	86,246
Governmental relations support	84,000
Executive recruiting	64,458
Member mortality records	27,633
Benefit processing workflow	14,229
Insurance risk management	12,720
Human resources management	9,090
Governance/strategic planning	1,128
Total consulting	1,500,815
<b>Legal</b>	
Fiduciary counsel	27,186
Other legal services	94,776
Total legal	121,962
<b>Other Services</b>	
Disability review	32,970
<b>Total Professional Services</b>	<b>\$ 2,475,417</b>

See accompanying Independent Auditors' Report.