Teachers' Retirement System of Oklahoma

Financial Statements as of and for the
Year Ended June 30, 2020 (with Comparative Totals as of June 30, 2019)
Required Supplementary Information, and
Related Independent Auditor's Report

Contents

CPAs & BUSINESS ADVISORS

Independent Auditor's Report

To the Board of Trustees
Teachers' Retirement System of Oklahoma
Oklahoma City, Oklahoma

Report on the Financial Statements
We have audited the accompanying financial statements of the Teachers' Retirement System of Oklahoma (the System), a component unit of the state of Oklahoma, which comprise the statement of fiduciary net position as of June 30, 2020, and the related statement of changes in fiduciary net position, for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of 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 auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the financial statements referred to above present fairly, in all material respects, the statement of fiduciary net position of the Teachers' Retirement System of Oklahoma, as of June 30, 2020, and the respective changes in fiduciary net position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Report on Summarized Comparative Information
We have previously audited the System's June 30, 2019 financial statements, and we expressed an unmodified opinion on the statement of fiduciary net position and the statement of changes in fiduciary net position in our report dated October 18, 2019. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2019, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Alternative Investments
As discussed in Notes 2 and 3 to the financial statements, total system investments include investments valued at $2,777,337,842 (15.1% of total assets), as of June 30, 2020, whose fair values have been estimated by management in the absence of readily determinable values. Management's estimates are based on information provided by the fund managers or the general partners. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information
Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplementary information on pages 4 to 9 and 32 to 41 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements as a whole. The other supplementary information is presented for purposes of additional analysis and is not a required part of the financial statements.

The other supplementary information accompanying financial information listed as other supplementary information on pages 42 to 44 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 accompanying financial information listed as supplemental information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 16, 2020, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Eide Bailly LLP

Oklahoma City, Oklahoma
October 16, 2020

Management is pleased to present this discussion and analysis of the financial activities of the Teachers' Retirement System of Oklahoma ("TRS" or the "System") for the years ended June 30, 2020 and 2019. The System is responsible for administering retirement benefits for the following plans: an Internal Revenue Code (IRC) section 401(a) defined benefit plan (401(a) Plan) and an IRC Section 401(h) medical supplement defined benefit plan (OPEB Plan), (collectively "the Plans"). The 401(a) Plan is available for all educational employees of the state of Oklahoma. The 401(h) Plan is available for all eligible members. Finally the 403(b) Plan is a tax-advantaged retirement savings plan also available to all educational employees of the State.

The System was established on July 1, 1943, for the purpose of providing these retirement benefits and other specific benefits for qualified persons employed by public educational institutions. The main purpose of the System is to provide a primary source of lifetime retirement benefits relative to years of service at the time of retirement. It is the objective of the System to provide these benefits in a prudent, responsible, and cost-effective manner. Plan net assets are used to pay current and future benefits to retired clients.

This discussion and analysis is intended to serve as an introduction to the System's basic financial statements. TRS's basic financial statements are comprised of three components: 1) *statement of fiduciary net position*, 2) *statement of changes in fiduciary net position,* and 3) *notes to the financial statements*. This report also contains *required supplementary information* and *other supplementary information* in addition to the basic financial statements' themselves.

The *Statement of Fiduciary Net Position* presents information on all of the System's assets and liabilities, with the difference between these reported as *net position restricted for pensions and OPEB.* Over time, increases or decreases in plan net position may serve as a useful indicator of whether the financial position of the System is improving or deteriorating. Information relating to the System's ability to meet the cost of future benefit payments is not shown on the *statement of fiduciary net position* but is located in both the *notes to the financial statements* and the *required supplementary information*.

The *Statement of Changes in Fiduciary Net Position* presents information showing how the System's net position changed during the most recent fiscal year. Changes in net position are recognized using the accrual basis of accounting, in which expenses are recorded when the liability is incurred and revenues are recorded in the accounting period in which they are earned and become measurable.

The *notes to the financial statements* are critical to the reader's understanding of the financial status of the System. These notes include a description of the System, details on the cash and investments of the System, as well as contribution and benefit information.

The *required supplementary information (RSI)* presents various required schedules for pensions and OPEB.

The *other supplementary information* includes the Schedule of Administrative Expenses, the Schedule of Investment Expenses, and the Schedule of Professional/Consultants Fees. These schedules provide additional analysis of the information provided in the financial statements.

The following are condensed schedules of financial information about the Plans in the System for the years ended June 30, 2020, 2019 and 2018 and the results of the years then ended.

Condensed Financial Information

Fiduciary net position as of June 30:

				System Total			2020	2019
	OPEB Plan	401(a) Plan	403(b) Plan	2020	2019	2018	% Change	% Change
Assets								
Cash	$ -	$ 26,064,064	$ -	$ 26,064,064	$ 22,473,742	$ 14,647,016	16.0%	53.4%
Receivables	4,845,720	242,462,013	-	247,307,733	309,141,320	336,640,442	-20.0%	-8.2%
Long- and short-term investments, at fair value	443,636,929	16,507,118,019	153,884,145	17,104,639,093	17,537,310,521	16,785,027,025	-2.5%	4.5%
Capital assets, net	112,611	4,088,623	-	4,201,234	4,419,523	4,500,123	-4.9%	-1.8%
Total investments and other assets	448,595,260	16,779,732,719	153,884,145	17,382,212,124	17,873,345,106	17,140,814,606	-2.8%	4.3%
Securities lending institutional daily assets fund	27,665,653	1,004,474,122	-	1,032,139,775	1,400,061,005	1,729,963,543	-26.3%	-19.1%
Total assets	476,260,913	17,784,206,841	153,884,145	18,414,351,899	19,273,406,111	18,870,778,149	-4.5%	2.1%
Liabilities								
Investment settlements and other liabilities	8,006,767	290,706,675	-	298,713,442	589,414,537	345,111,757	-49.3%	70.8%
Payable under securities lending agreement	27,665,653	1,004,474,122	-	1,032,139,775	1,400,061,005	1,729,963,543	-26.3%	-19.1%
Total liabilities	35,672,420	1,295,180,797	-	1,330,853,217	1,989,475,542	2,075,075,300	-33.1%	-4.1%
Net Position								
Net position restricted for pensions and OPEB	$ 440,588,493	$ 16,489,026,044	$ 153,884,145	$ 17,083,498,682	$ 17,283,930,569	$ 16,795,702,849	-1.2%	2.9%

Changes in fiduciary net position for the year ended June 30:

	OPEB Plan	401(a) Plan	403(b) Plan	System Total 2020	System Total 2019	System Total 2018	2019 % Change	2018 % Change
Additions:								
Member contributions	$ -	$ 340,057,646	$ -	$ 340,057,646	$ 325,766,148	$ 312,866,576	4.4%	4.1%
Employer contributions	914,797	457,391,205	-	458,306,002	447,039,679	415,981,030	2.5%	7.5%
Matching contributions	-	28,745,259	-	28,745,259	27,969,601	26,437,350	2.8%	5.8%
Dedicated tax revenue	-	330,620,451	-	330,620,451	343,701,556	318,172,751	-3.8%	8.0%
Member tax shelter contributions	-	-	2,349,639	2,349,639	1,660,076	1,723,454	41.5%	-3.7%
Net investment income gain (loss)	3,045,318	110,576,703	8,139,442	121,761,463	810,595,831	1,500,561,135	-85.0%	-46.0%
Security lending net income	177,243	6,435,280	-	6,612,523	6,282,180	7,746,700	5.3%	-18.9%
Total additions	4,137,358	1,273,826,544	10,489,081	1,288,452,983	1,963,015,071	2,583,488,996	-34.4%	-24.0%
Deductions:								
Benefit payments	35,672,198	1,396,258,730	-	1,431,930,928	1,414,686,012	1,360,875,891	1.2%	4.0%
Refund of member contributions and other payments	-	35,183,705	16,499,697	51,683,402	54,902,369	60,496,096	-5.9%	-9.2%
Administrative expenses	4,165	5,266,375	-	5,270,540	5,198,970	4,211,448	1.4%	23.4%
Total deductions	35,676,363	1,436,708,810	16,499,697	1,488,884,870	1,474,787,351	1,425,583,435	1.0%	3.5%
Net increase (decrease) in net position	(31,539,005)	(162,882,266)	(6,010,616)	(200,431,887)	488,227,720	1,157,905,561	-141.1%	-57.8%
Net Position Restricted for Pensions and OPEB								
Beginning of year	472,127,498	16,651,908,310	159,894,761	17,283,930,569	16,795,702,849	15,637,797,288	2.9%	7.4%
End of year	$ 440,588,493	$ 16,489,026,044	$ 153,884,145	$ 17,083,498,682	$ 17,283,930,569	$ 16,795,702,849	-1.2%	2.9%

Financial Highlights and Analysis

The pension system's net position decreased 1.0 percent and the OPEB net position decreased 6.7 percent. The decrease was due to modest investment returns in an environment dominated by the global pandemic. The domestic equity portfolio earned a negative net return of (3.24) percent. The international equity portfolio also earned a negative net return of (4.87) percent. The fixed income portfolio earned a strong net return of 10.51 percent as it benefited from falling interest rates. The System's core and non-core real estate portfolios earned modestly negative net returns of (2.32) percent and (0.21) percent respectively. The System exited its exposure to Master Limited Partnerships in September of 2019 avoiding the 2020 oil-price disruption and subsequent significant pandemic-related downdraft in the energy sector. The System's private equity portfolio earned strong net returns of 11.02 percent while the private credit portfolio earned negative net returns of (8.22) percent. In total, the System's portfolio earned a net return of 0.77 percent falling short of the portfolio's policy benchmark return of 3.54 percent and the System's actuarial assumed return of 7 percent.

				System Totals		
	OPEB Plan	401(a) Plan	403(b) Plan	2020	2019	2018
Plan net position	$ 440,588,493	$ 16,489,026,044	$ 153,884,145	$ 17,083,498,682	$ 17,283,930,569	$ 16,795,702,849
Yearly % change	-6.7%	-1.0%	-3.8%	-1.2%	2.9%	7.4%

The total investment return for the five-year period of 5.8 percent is below the 7.0 percent actuarial assumed rate of investment return. The five-year return is lower than the previous year due to weak returns for 2020.

Total Returns	1 Year	3 Year	5 Year	10 Year
2020	1.0%	5.5%	5.8%	9.5%
2019	5.5%	10.2%	6.3%	11.1%
2018	10.0%	7.5%	9.5%	8.6%

Benefit payments increased 1.2 percent in FY2020 compared to FY2019. The increase is a result of a 1.5 percent increase in the number of benefit recipients and a 1.3 percent increase in the average monthly benefit. Benefit payments to retired members in FY2020 exceeded contributions from members and employers by $323 million, or a ratio of 1.23 to 1. A ratio of more than one signifies that the System is receiving fewer contributions than it pays out in benefits. In a mature pension system like TRS a significant percentage of the benefits is paid out of investment earnings that are not reflected in this ratio. The table on the following page reflects the ongoing employer and member contributions.

				System Totals		
	OPEB Plan	401(a) Plan	403(b) Plan	2020	2019	2018
Member contributions	$ -	$ 340,057,646	$ 2,349,639	$ 342,407,285	$ 327,426,224	$ 314,590,030
Employer contributions	914,797	457,391,205	-	458,306,002	447,039,679	415,981,030
State matching funds	-	28,745,259	-	28,745,259	27,969,601	26,437,350
Dedicated tax revenue	-	330,620,451	-	330,620,451	343,701,556	318,172,751
Total contributions	$ 914,797	$ 1,156,814,561	$ 2,349,639	$ 1,160,078,997	$ 1,146,137,060	$ 1,075,181,161
Benefit payments	$ 35,672,198	$ 1,396,258,730	$ -	$ 1,431,930,928	$ 1,414,686,012	$ 1,360,875,891
Refund of contributions	-	35,183,705	16,499,697	51,683,402	54,902,369	60,496,096
Total payments	$ 35,672,198	$ 1,431,442,435	$ 16,499,697	$ 1,483,614,330	$ 1,469,588,381	$ 1,421,371,987
Ratio of benefit payments to contributions	38.99:1	1.21:1	7.02:1	1.23:1	1.28:1	1.32:1

Financial Highlights and Analysis (Continued)

The number of pension benefit recipients increased 1.5 percent in FY2020 as compared to 1.6 percent in FY2019 and 2.3 percent in FY2018. There was a net increase of 957; 1,025 and 1,405 members that retired for FY 2020, FY2019 and FY2018, respectively. The number of OPEB benefit recipients increased 1.0 percent in FY2020 as compared to 1.1 percent for FY2019 and 1.7 percent for FY2018. There was an increase of 567 members that retired and opted to receive the OPEB benefit in FY2020 as compared to 644 for FY2019.

	OPEB Plan 2020	401(a) Plan 2020	OPEB Plan 2019	401(a) Plan 2019	OPEB Plan 2018	401(a) Plan 2018
Benefit recipients	59,077	65,778	58,510	64,821	57,866	63,796
Yearly % change	1.0%	1.5%	1.1%	1.6%	1.7%	2.3%
Net increase	567	957	644	1,025	965	1,405

The following table reflects the average monthly benefit for service retirements. While the table above reflects an increase in the number of retirees in the past year of 1.5 percent, the table below reflects the average benefit per retiree has only increased by 1.3 percent in FY2020 as compared to 1.2 percent and 1.4 percent in FY2019 and FY2018 respectively. The increase in benefit recipients was 0.2 percent higher in FY2020 as compared to 0.4 percent in FY2019 and 0.9 percent in FY2018 than the increase in average benefit payment below.

	2020	2019	2018
Average monthly benefit	$ 1,749	$ 1,726	$ 1,705
Yearly % change	1.3%	1.2%	1.4%

The following table shows the ratio of active members to retired members of the System is 1.39 to 1 in FY2020, compared to 1.39 to 1 in FY2019, and 1.39 to 1 in FY2018. The ratio for FY2020 remained the same as fiscal year 2019 due to retiring teachers being replaced by new hires. Contributing members increased by 1,457 in FY2020; 1,480 in FY2019 and 1,405 in FY2018, while benefit recipients increased by 957 in FY2020; 1,025 in FY2019 and 1,405 in FY2018.

	401(a) Plan 2020	401(a) Plan 2019	401(a) Plan 2018
Members contributing	91,471	90,014	88,534
Yearly % change	1.6%	1.7%	0.8%
Benefit recipients	65,778	64,821	63,796
Yearly % change	1.5%	1.6%	2.3%
Ratio contributing/retired	1.39	1.39	1.39

In the table below the ratio of the 401(a) plan fiduciary net position to the total 401(a) plan liability decreased by 8.1 percent in FY2020 and decreased by 1.1 percent in FY2019. The OPEB plan fiduciary net position to the total OPEB plan liability decreased by 12.8 percent in FY2020 and decreased by 0.3 percent in FY2019. The funded ratios of the 401(a) plan and the OPEB plan are 63.5 percent and 102.3 percent respectively for FY2020.

	OPEB Plan 2020	401(a) Plan 2020	OPEB Plan 2019	401(a) Plan 2019	OPEB Plan 2018	401(a) Plan 2018
Total pension liability	$ -	$ 25,979,258,830	$ -	$ 23,269,907,920	$ -	$ 22,196,455,995
Total OPEB liability	430,681,821		410,294,941	-	419,430,692	
Fiduciary net position -Pensions or similar	440,588,493	16,489,026,044	472,127,498	16,651,908,311	484,056,162	16,145,072,793
Employers' net pension liability	-	9,490,232,786	-	6,617,999,609	-	6,051,383,202
Employers' net OPEB asset	(9,906,672)	-	(61,832,557)	-	(64,625,470)	
Ratio of Employers' fiduciary net position to applicable liabilities	102.3%	63.5%	115.1%	71.6%	115.4%	72.7%

Financial Highlights and Analysis (Continued)

Under GASB Statement 67 the 401(a) plan ratio above represents the Total Pension Liability compared to the Plan's total net position at fair value. Prior to GASB Statement 67 this ratio was calculated using the actuarial value of the Plan's net position.

Under GASB Statement 74 the ratio above represents the Total OPEB Liability compared to the Plan's total net position at fair value.

Based on the actuarial value of assets or the market value of assets at the end of FY 2019, and the projected continuation of contribution rates and other revenue, and all assumptions hold constant, the Plan's actuary projects a "funding period" of 21 years.

In June of 2018 TRS purchased the Harvey Parkway building located on the northwest corner of NW 63rd and N. Harvey Place in Oklahoma City. The six story office building was purchased as a real estate investment, but TRS also plans to relocate the TRS office to the new building by December 1, 2020. The move in date was delayed because of the onset of COVID-19.

House Bill 3350 passed in the 2020 Legislative Session. This granted Cost of Living Adjustments (COLAs) for retirees who had been retired at least two (2) years as of July 1, 2020. Retirees who had been retired for at least two (2) years but under five (5) years, received 2% COLAs. Those who had been retired for at least five (5) years or more received 4% COLAs. The increased benefit began with the retirees' July 2020 benefit payment.

House Bill 2741 also passed in the 2020 session. This bill temporarily changes the rate of dedicated revenue from state sales and use take, as well as personal and corporate income tax. for FY 2021 through FY 2027. The rate was reduced to 3.50% for FY 2021 and 3.75% for FY 2022. The rate then increases to 5.50% for FY 2023 through FY 2027 and returns back to 5.00% beginning in FY 2028.

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest in the System. Questions concerning any of the information provided in this report or requests for additional information should be addressed to the Executive Director of the Teachers' Retirement System of Oklahoma, P.O. Box 53524, Oklahoma City, Oklahoma 73152 or (405) 521-2387.

Teachers’ Retirement System of Oklahoma

Statement of Fiduciary Net Position
June 30, 2020 (With Comparative Totals as of June 30, 2019)

	OPEB Plan	401(a) Plan	403(b) Plan	Totals June 30, 2020	Totals June 30, 2019
Assets					
Cash	$ -	$ 26,064,064	$ -	$ 26,064,064	$ 22,473,742
Short-term investments	15,898,315	577,230,039	-	593,128,354	498,543,221
Accrued interest and dividends receivable	1,629,846	59,175,844	-	60,805,690	65,929,644
Member contributions receivable	-	26,608,835	-	26,608,835	27,636,163
Employer contributions receivable	1,154,611	41,921,176	-	43,075,787	45,263,083
Receivable from the State of Oklahoma	-	39,916,588	-	39,916,588	42,010,878
Due from brokers for securities sold	2,061,263	74,839,570	-	76,900,833	128,301,552
Security lending institutional daily assets fund	27,665,653	1,004,474,122	-	1,032,139,775	1,400,061,005
Long-term investments:					
Mutual funds	-	-	153,884,145	153,884,145	159,894,761
U.S. government securities	32,160,584	1,197,727,956	-	1,229,888,540	1,496,701,473
U.S. corporate bonds	51,041,100	1,900,878,195	-	1,951,919,295	1,934,923,665
International corporate bonds and government securities	11,143,029	414,989,885	-	426,132,914	476,412,832
Equity securities	260,768,778	9,711,579,225	-	9,972,348,003	10,127,480,600
Private equity	42,206,150	1,571,846,013	-	1,614,052,163	1,509,462,971
Real estate	30,418,973	1,132,866,706	-	1,163,285,679	1,333,890,998
Total long-term investments	427,738,614	15,929,887,980	153,884,145	16,511,510,739	17,038,767,300
Capital assets, net	112,611	4,088,623	-	4,201,234	4,419,523
Total assets	$ 476,260,913	$ 17,784,206,841	$ 153,884,145	$ 18,414,351,899	$ 19,273,406,111
Liabilities					
Benefits in process of payment	$ 2,615,474	$ 94,961,639	$ -	$ 97,577,113	$ 94,727,185
Due to brokers for securities purchased	5,167,904	187,634,306	-	192,802,210	483,459,869
Payable under security lending agreement	27,665,653	1,004,474,122	-	1,032,139,775	1,400,061,005
Other liabilities	223,389	8,110,730	-	8,334,119	11,227,483
Total liabilities	$ 35,672,420	$ 1,295,180,797	$ -	$ 1,330,853,217	$ 1,989,475,542
Net Position					
Net position restricted for pensions and OPEB	$ 440,588,493	$ 16,489,026,044	$ 153,884,145	$ 17,083,498,682	$ 17,283,930,569

See Notes to Financial Statements.

Teachers' Retirement System of Oklahoma

Statement of Changes in Fiduciary Net Position
For the year ended June 30, 2020 (With Comparative Totals for the Year Ended June 30, 2019)

	OPEB Plan	401(a) Plan	403(b) Plan	Totals Year Ended June 30, 2020	Totals Year Ended June 30, 2019
Additions:					
Members	$ -	$ 340,057,646	$ -	$ 340,057,646	$ 325,766,148
Contributions to 403(b) plan	-	-	2,349,639	2,349,639	1,660,076
Employer statutory requirement from local school districts	914,797	457,391,205	-	458,306,002	447,039,679
Matching funds	-	28,745,259	-	28,745,259	27,969,601
Dedicated tax	-	330,620,451	-	330,620,451	343,701,556
Total contributions	914,797	1,156,814,561	2,349,639	1,160,078,997	1,146,137,060
Investment income:					
Interest and dividends	9,803,888	355,960,031	6,630,994	372,394,913	413,162,007
Net appreciation (depreciation) in fair value of investments	(5,201,217)	(188,835,392)	1,508,448	(192,528,161)	465,040,551
Investment expenses	(1,557,353)	(56,547,936)	-	(58,105,289)	(67,606,727)
Gain from investing activities	3,045,318	110,576,703	8,139,442	121,761,463	810,595,831
Income from securities lending activities:					
Securities lending income	196,937	7,150,311	-	7,347,248	6,980,200
Securities lending expenses:					
Management fees	(19,694)	(715,031)	-	(734,725)	(698,020)
Net income from securities lending activities	177,243	6,435,280	-	6,612,523	6,282,180
Net investment gain	3,222,561	117,011,983	8,139,442	128,373,986	816,878,011
Total additions	4,137,358	1,273,826,544	10,489,081	1,288,452,983	1,963,015,071
Deductions:					
Retirement, death, survivor and health benefits	35,672,198	1,396,258,730	-	1,431,930,928	1,414,686,012
Refund of member contributions and other payments	-	35,183,705	16,499,697	51,683,402	54,902,369
Administrative expenses	4,165	5,266,375	-	5,270,540	5,198,970
Total deductions	35,676,363	1,436,708,810	16,499,697	1,488,884,870	1,474,787,351
Net increase (decrease) in net position	(31,539,005)	(162,882,266)	(6,010,616)	(200,431,887)	488,227,720
Net position restricted for:					
Beginning of year	472,127,498	16,651,908,310	159,894,761	17,283,930,569	16,795,702,849
End of year	$ 440,588,493	$ 16,489,026,044	$ 153,884,145	$ 17,083,498,682	$ 17,283,930,569

See Notes to Financial Statements.

Note 1. Description of the System

The following brief description of the Teachers' Retirement System of Oklahoma (the "System" or "TRS") is provided for general information purposes only. The plan's benefits are established and amended by State Statute and participants should refer to Title 70 of the Oklahoma Statutes, 1991, Sections 17-101 through 121, as amended.

The System was established as of July 1, 1943 for the purpose of providing retirement allowances and other specified benefits for qualified persons employed by state-supported educational institutions. The System is a part of the state of Oklahoma financial reporting entity, which is combined with other similar funds to comprise the fiduciary-pension trust funds of the state of Oklahoma (the "State"). The System administers a cost-sharing multiple-employer pension plan which is a defined benefit pension plan ("DB Plan"), a cost-sharing multiple-employer benefit plan other than pensions ("OPEB Plan") as well as a tax-deferred defined contribution plan ("DC Plan").

The supervisory authority for the management and operation of the System is a 15-member Board of Trustees, which acts as a fiduciary for investment of the funds and the application of plan interpretations. The Board of Trustees is comprised of six appointees from the Governor's Office, two appointees by the Senate Pro Tempore, two appointees by the House Speaker, four Ex Officio positions, and one non-voting member representing Retired Professional Oklahoma Educators. Out of the six appointees from the Governor's Office, one must be a Higher Education representative, one is a non-classified optional personnel, and the remaining four must work in the public or private funds management, banking, law or accounting field. Out of the two Senate Pro Tempore's as well as the House Speaker's appointees, one must be an active classroom teacher while the other be a retired member of Oklahoma Teachers Retirement. The Ex Officio trustees are the State School Superintendent, the Office of Management and Enterprise Services Director, the Career-Tech Director or their designee, and the State Treasurer.

DB Plan: Oklahoma teachers and other certified employees of common schools, faculty and administrators in public colleges and universities, and administrative personnel of state educational boards and employees of agencies who are employed at least half-time must join the System's DB Plan. Membership is optional for all other regular employees of public educational institutions who work at least 20 hours per week. There are 600 contributing employers in the System. The DB Plan's membership consisted of the following as of June 30, 2020:

Pension	
Inactive Plan Members or Beneficiaries Currently Receiving Benefits	65,778
Inactive Plan Members Entitled to But Not Yet Receiving Benefits*	13,091
Active Plan Members	91,471
	170,340

* Does not include 13,686 of non-vested terminated members entitled to a refund of their member contributions.

OPEB Plan: TRS will pay a monthly health insurance premium supplement for each retired member who is enrolled in the health insurance plan provided by the State and Education Employees Group Health and Dental Insurance plan or in an insurance program provided by a participating education employer who provides health insurance coverage to former employees, provided the retired member had at least ten (10) years of Oklahoma service prior to retirement. The supplement paid by TRS shall be the premium rate of the Medicare supplement charged to the retired employees not to exceed an amount between $100 and $105, depending on length of service and the final average salary of the retired member.

Note 1. Description of the System (Continued)

OPEB Plan: The OPEB Plan's membership consisted of the following as June 30, 2020:

OPEB	
Inactive Plan Members or Beneficiaries Currently Eligible to Receive Benefits	59,077
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	5,409
Active Plan Members	91,471
Total Plan Members	155,957

DC Plan: Members are also offered a tax-deferred defined contribution plan qualified under the Internal Revenue Code ("IRC") Section 403(b). The DC Plan is also referred to by the System as the Tax-Sheltered Annuity Plan. Membership in the DC Plan is voluntary, and investments primarily consist of mutual funds and are participant directed. Voya, a service provider, is responsible for administrative services, including custody and record keeping services.

The DC Plan had approximately 2,772 participants as of June 30, 2020. Contributions are voluntary and require a minimum of $200 per year. The maximum deferral amount is the lesser of 100 percent of the participant's compensation or the maximum amount allowed by the IRC, currently $19,500. Participants age 50 and older may contribute an additional $6,500 if they qualify for the catch up provision.

Note 2. Summary of Significant Accounting Policies

Basis of accounting: The System has prepared its financial statements in accordance with accounting principles generally accepted in the United States of America and using the economic resources measurement focus. The financial statements are prepared using the accrual basis of accounting, under which expenses are recorded when the liability is incurred, revenues are recorded in the accounting period they are earned and become measurable, and investment purchases and sales are recorded as of their trade dates. Member and employer contributions are established by Oklahoma Statutes as a percentage of salaries and are recognized when due, pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the Oklahoma Statutes. Administrative expenses are funded through investment earnings.

Budgetary control: The System prepares and submits an annual budget of operating expenses on the cash basis for monitoring and reporting to the Office of Management and Enterprise Services. The System's budget process follows the budget cycle for State operations as outlined by the Office of Management and Enterprise Services.

The Executive Director may approve changes within the budget, but a change to the total budget must be handled according to the provision of Title 62 O.S. Sec. 41.12 of the Oklahoma Statutes.

Investments: The System is authorized to invest in eligible investments as approved by the Board of Trustees as set forth in the System's investment policy. The Board reviews and updates the plan investment policy at least annually, making changes as deemed necessary to achieve policy goals. An investment policy change can be made at any time during the year at the discretion of the Board.

System investments are reported at fair value within the hierarchy established by generally accepted accounting principles, most recently by Governmental Accounting Standards Board (GASB) Statement No. 72, *Fair Value Measurement and Application*. The short-term investment fund is comprised primarily of investments in a money market fund, which are reported at cost, which approximates fair value. Debt and equity securities are reported at fair value, as determined by the System's custodial agent, using pricing services or prices quoted by independent brokers based on the latest reported sales prices at current exchange rates for securities traded on national or international exchanges.

Note 2. Summary of Significant Accounting Policies (Continued)

The System also invests as a limited partner in alternative investments. These investments employ specific strategies such as leveraged buyouts, venture capital, growth capital, distressed investments, and mezzanine capital. The strategies of all such funds are long term and illiquid in nature. As a result, investors are subject to redemption restrictions which generally limit distributions and restrict the ability of limited partners to exit a partnership investment prior to its dissolution. Alternative investment partnerships are valued using their respective net asset value (NAV) and are audited annually. The most significant input into the NAV of such an entity is the fair value of its investment holdings. These holdings are valued by the general partners on a quarterly or semi-annual basis, in conjunction with management and investment advisors and consultation with valuation specialists. The management assumptions are based upon the nature of the investment and the underlying business. The valuation techniques vary based upon investment type and involve a certain degree of expert judgment.

The System's real estate investments are primarily through limited partnerships. Properties owned by the partnership are subject to independent third-party appraisals performed every three years in accordance with the Uniform Standards of Professional Appraisal Practice. The System's real estate investments are long term and illiquid in nature. As a result, investors are subject to redemption restrictions which generally limit distributions and restrict the ability of limited partners to exit a partnership investment prior to its dissolution. Limited partner interests are valued by the System using the NAV of the partnership. The most significant input into the NAV of such an entity is the value of its investment holdings. These holdings are valued by the general partners on a continuous basis, audited annually, and may be periodically appraised by an independent third party. The valuation assumptions are based upon both market and property specific inputs which are not observable and involve a certain degree of expert judgment. The System evaluates investments in conjunction with their custodial bank and investment managers for impairment whenever events or changes in circumstances indicate that the carrying or fair value of the asset may not be recoverable. Should investments be deemed permanently impaired, the carrying or fair value is adjusted to the impaired value with an adjustment to investment income.

Net investment income includes net appreciation (depreciation) in the fair value of investments, interest income, dividend income, investment income from foreign currency translation gains and losses, securities lending income and expenses, and investment expenses, which includes investment management and custodial fees and all other significant investment related costs.

International investment managers use forward foreign exchange contracts to enhance returns or to control volatility. Currency risks arise due to foreign exchange rate fluctuations. Forward foreign exchange contracts are negotiated between two counter-parties. The System could incur a loss if its counter-parties failed to perform pursuant to the terms of their contractual obligations. The gains and losses on these contracts are included in the income in the period in which the exchange rates change. See Note 3 for additional information regarding investment derivatives as of June 30, 2020.

The System's investment policy provides for investment diversification of stocks, bonds, fixed income securities, real estate, alternative investments, and other investment securities along with investment in commingled or mutual funds. Investment securities and investment securities underlying commingled or mutual fund investments are exposed to various risks, such as interest rate, market, and credit risks.

Due to the risks associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities may occur in the near term, and those changes could materially affect the amounts reported in the statements of fiduciary net position.

Note 2. Summary of Significant Accounting Policies (Continued)

At June 30, 2020, the asset allocation guidelines established by the Board's investment policy were:

Asset Class	Target Asset Allocation
Domestic Equity	43.5%
International Equity	19.0%
Domestic Fixed Income	22.0%
Real Estate	9.0%
Alternative Assets	6.5%
Total	100.0%

Capital assets: Capital assets are stated at cost when acquired, net of accumulated depreciation. Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets, which range from five to ten years.

Risks and uncertainties: Contributions to the System and the actuarial information included in Note 10 and the required supplementary information are reported based on certain assumptions pertaining to interest rates, inflation rates, employee compensation, and demographics. Due to the changing nature of these assumptions, it is at least reasonably possible that changes in these assumptions may occur in the near term and, due to the uncertainties inherent in setting assumptions, that the effect of such changes could be material to the financial statements.

Income taxes: The System is exempt from federal and state income taxes and has received a favorable determination from the Internal Revenue Service (the "IRS") under Internal Revenue Code (the "IRC") Section 401(a). The System's 403(b) Plan is also tax-exempt and has received a private letter ruling from the IRS.

Compensated absences: It is the State's policy to permit employees to accumulate earned but unused vacation and sick leave. Employees earn annual vacation leave based upon their start date and years of service. All accrued vacation leave is payable upon termination, resignation, retirement, or death. Sick leave does not vest to the employee and therefore is not recorded as a liability. Amounts due to the employees for compensated absences were approximately $290,000 at June 30, 2020.

Plan termination: In the event the System terminates, the board of trustees will distribute the net position of the System to provide the following benefits in the order indicated:

Accumulated contributions will be allocated to each respective member, former member, retired member, joint annuitant, or beneficiary then receiving payments.

The balance of such assets, if any, will be allocated to each member then having an interest in the System based upon the excess of their retirement income under the System less the retirement income, which is equal to the actuarial equivalent of the amount allocated to them in accordance with the preceding paragraph in the following order:

- Those retired members, joint annuitants, or beneficiaries receiving payments
- Those members eligible to retire
- Those members eligible for early retirement
- Former members electing to receive a vested benefit
- All other members

Note 2. Summary of Significant Accounting Policies (Continued)

Use of estimates: The preparation of the System's financial statements in conformity with accounting principles generally accepted in the United States of America requires the System's management to make significant estimates and assumptions. Management of the System has made a number of estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these financial statements, note disclosure and required supplementary information (RSI) in conformity with U.S. generally accepted accounting principles (GAAP). Actual results could differ from these estimates.

Note 3. Cash and Investments

At June 30, 2020, the carrying amount of the System's bank deposits was approximately $26,064,000. The bank balance of the System's bank deposits at June 30, 2020 was approximately $22,230,000.

Custodial credit risk: Custodial credit risk is the risk that in the event of the failure of a counterparty, the System will not be able to recover the value of its bank deposits or investments. Bank deposits are exposed to custodial credit risk if they are uninsured and uncollateralized. In relation to its bank deposits, the System is not considered to be exposed to custodial credit risk. Although the System does not have a formal bank deposit policy for custodial credit risk, the State Treasurer holds all of the System's bank deposits. As required by Oklahoma Statutes, all bank deposits held by the State Treasurer are insured by Federal Deposit Insurance Corporation, collateralized by securities held by the cognizant Federal Reserve Bank, or invested in U.S. government obligations.

Fair Value Measurements – The System categorizes fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements) as follows:

- Level 1 Unadjusted quoted prices for identical instruments in active markets.
- Level 2 Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.
- Level 3 Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured using the net asset value per share (NAV) (or its equivalent) as a practical expedient are not classified in the fair value hierarchy. In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation.

Note 3. Cash and Investments (Continued)

The System's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. The following table shows the fair value levels of the investments for the System as of June 30, 2020:

		Fair Value Measurements Using		
Investments by fair value level		**Quoted Prices in Active Markets for Identical Assets Level 1**	**Significant Other Observable Inputs Level 2**	**Significant Unobservable Inputs Level 3**
Mutual Funds	$ 153,884,145	$ 153,884,145	$ -	$ -
Total mutual funds	153,884,145	153,884,145	-	-
Fixed Income securities				
Asset Backed Securities	234,905,827	-	234,382,192	523,635
Bank Loans	13,064,664	-	13,000,793	63,871
Commercial Mortgage-Backed	142,067,247	-	141,442,418	624,829
Corporate Bonds	1,892,756,556	-	1,884,969,381	7,787,175
Corporate Convertible Bonds	23,833,274	-	23,833,274	-
Government Agencies	9,536,642	-	9,536,642	-
Government Bonds	1,009,426,843	-	1,009,426,843	-
Government Mortgage Backed Securities	208,967,329	-	208,967,329	-
Gov't-issued Commercial Mortgage-Backed	2,351,528	-	2,351,528	-
Index Linked Government Bonds	31,504,587	-	31,504,587	-
Municipal/Provincial Bonds	14,032,642	-	14,032,642	-
Non-Government Backed C.M.O.s	25,493,610	-	22,686,485	2,807,125
Total fixed income securities	3,607,940,749	-	3,596,134,114	11,806,635
Equity securities				
Common Stock	9,671,834,923	9,654,647,227	7,647,722	9,539,974
Convertible Equity	10,197,004	10,197,004	-	-
Funds - Equities ETF	24,077,836	24,077,836	-	-
Preferred Stock	24,625,102	24,625,102	-	-
Rights/Warrants	422,357	311,840	-	110,517
Other Securities	149,837	-	36,000	113,837
Total equity securities	9,731,307,059	9,713,859,009	7,683,722	9,764,328
Total investments by fair value level	$ 13,493,131,953	$ 9,867,743,154	$ 3,603,817,836	$ 21,570,963
Investments measured at the net asset value (NAV)				
Alternative investments				
Private Equity Investments	1,614,052,163			
Real Estate Investments	1,163,285,679			
Total alternative investments	2,777,337,842			
Commingled Mutual Funds	241,040,944			
Total Investments measured at the NAV	3,018,378,786			
Total Investments measured at fair value and NAV	$ 16,511,510,739			

Note 3. Cash and Investments (Continued)

Equity, derivative securities, and governmental debt securities classified in Level 1 are valued using prices quoted in active markets for those securities. Debt and debt derivative securities classified in Level 2 and Level 3 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features and ratings. Matrix pricing is used to value securities based on the securities relationship to benchmark quoted prices. Index linked debt securities are valued by multiplying the external market price feed by the applicable day's Index Ratio.

Level 2 debt securities have non-proprietary information that was readily available to market participants, from multiple independent sources, which are known to be actively involved in the market. Level 3 debt securities use proprietary information or single source pricing. Equity and equity derivative securities classified in Level 2 are securities whose values are derived daily from associated traded securities.

Equity securities classified in Level 3 are valued with last trade data having limited trading volume.

Investments in Entities that Calculate Net Asset Value per Share

The System holds shares or interests in investment companies at where the fair value of the investments are measured on a recurring basis using net asset value per share (or its equivalent) of the investment companies as a practical expedient.

The System's policy is to obtain an external appraisal a minimum of every year for properties or portfolios over which the System has some degree of control or discretion. In practice, some investments are appraised annually. Appraisals are performed by an independent appraiser with preference for Member Appraisal Institute (MAI) designated appraisers. The appraisals are performed using generally accepted valuation approaches applicable to the property type.

At year end, the NAV value, unfunded commitments, and redemption rules of those investments is as follows:

	Net Asset Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Private Equity investments	$ 1,614,052,163	$ 491,753,924	N/A	N/A
Real Estate investments	1,163,285,679	310,585,445	N/A	N/A
Commingled Mutual Funds	241,040,944		Daily	1 Day
Total investments measured at the NAV	$ 3,018,378,786			

Real Estate Investments: This type includes 18 real estate funds that invest primarily in commercial real estate. The values of the investments in this type have been determined using the NAV per share (or its equivalent) of the portfolio's ownership interest in partners' capital. These investments can never be redeemed from the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 20 years. Because it is not probable that any individual investment will be sold, the value of each individual investment has been determined using the NAV per share (or its equivalent) of the portfolio's ownership interest in partners' capital.

Note 3. Cash and Investments (Continued)

Private Equity Funds: This type includes 7 private equity funds that invest primarily in leveraged buyouts. The values of the investments in this type have been determined using the NAV per share (or its equivalent) of the portfolio's ownership interest in partners' capital. These investments can never be redeemed from the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 20 years. Because it is not probable that any individual investment will be sold, the value of each individual investment has been determined using the NAV per share (or its equivalent) of the portfolio's ownership interest in partners' capital.

Commingled Mutual Funds: This type includes investments in an open-end mutual fund that emphasizes broad diversification and consistent exposure to emerging market small company stocks. The value of the investment in this type has been determined using the NAV per share of the investment.

The System does not anticipate restrictions, other than those outlined in the table, on the ability to sell individual investments at the measurement date. Additionally, the System does not anticipate that NAV-driven investments will become redeemable at valuations materially different from the corresponding NAV listed above. The System has no prescribed time frame to liquidate the investments.

Custodial Credit Risk of Investments: Investment securities are exposed to custodial credit risk if they are uninsured, are not registered in the name of the System, and are held by a counterparty or the counterparty's trust department but not in the name of the System. While the System's investment policy does not specifically address custodial credit risk, it does limit the amount of cash equivalents and short-term investments to no more than 5 percent of each manager's portfolio. At June 30, 2020, the System had uninsured and uncollateralized deposits translated to approximately $6,011,000 with its custodial agent.

Credit risk: Fixed-income securities are subject to credit risk. Credit quality rating is one method of assessing the ability of the issuer to meet its obligation. The System's investment policy places limits on the amount of the fixed income portfolio that may be invested in bonds rated Ba1 or lower by Moody's or BB+ or lower by Standard & Poor's. Short-term investments include United States Treasury bills that mature in less than 90 days.

Note 3. Cash and Investments (Continued)

The following table presents the System's fixed income securities subject to credit risk (amounts in thousands):

Investment Type	AAA	AA	A	BBB	BB	B
Asset backed securities	$ 78,531	$ 12,393	$ 13,220	$ 17,314	$ 2,521	$ -
Bank loans	-	-	-	-	2,249	7,422
Collateralized Bonds	-	-	-	-		
Commercial mortgage-backed	36,221	13,368	6,610	3,921	3,210	4,678
Corporate bonds	-	11,781	111,435	884,321	490,052	271,620
Corporate convertible bonds	-	-	-	-	933	-
Government agencies	-	843	-	7,966	-	-
Government bonds	-	8,811	683	12,175	2,722	3,976
Government mortgage-backed securities	-	-	-	-	-	-
Gov't-issued commercial mortgage-backed	-	-	-	-	-	-
Index linked government bonds	-	-	-	-	-	-
Municipal/Provincial bonds	1,215	8,497	3,756	-	-	-
Non-government backed C.M.O.s	7,855	-	-	1,576	-	-
Total fixed income	123,822	55,693	135,704	927,273	501,687	287,696
Short-term investments	-	-	-	-	-	-
	$ 123,822	$ 55,693	$ 135,704	$ 927,273	$ 501,687	$ 287,696

Investment Type	CCC	CC	C	D	Not Rated	US Government Securities	Total
Asset backed securities	$ 2,841	$ -	$ -	$ -	$ 108,086	$ -	$ 234,906
Bank loans	1,115	-	-	57	2,222	-	13,065
Commercial mortgage-backed	2,064	-	-	-	71,992	3	142,067
Corporate bonds	74,858	850	9	415	47,416	-	1,892,757
Corporate convertible bonds	10,110	-	-	136	12,654	-	23,833
Government agencies	728	-	-	-	-	-	9,537
Government bonds	-	-	-	-	15,688	965,372	1,009,427
Government mortgage-backed securities	-	-	-	-	-	208,967	208,967
Gov't-issued commercial mortgage-backed	-	-	-	-	-	2,351	2,351
Index linked government bonds	-	-	-	-	-	31,505	31,505
Municipal/Provincial bonds	-	564	-	-	-	-	14,032
Non-government backed C.M.O.s	169	-	-	-	15,894	-	25,494
Total fixed income	91,885	1,414	9	608	273,952	1,208,198	3,607,941
Short-term investments	-	-	-	-	-	17,604	17,604
	$ 91,885	$ 1,414	$ 9	$ 608	$ 273,952	$ 1,225,802	$ 3,625,545

Note 3. Cash and Investments (Continued)

Interest rate risk: Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates based upon the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. Effective duration estimates the sensitivity of a bond's price to interest rate changes and makes assumptions regarding the most likely timing and amounts of variable cash flows arising from investments such as callable bonds, collateralized mortgage obligations, and other mortgage-backed securities. While all investments are subject to market changes, securities invested in index funds are more sensitive to market risk. Although the System's investment policy does not specifically address the duration of fixed-income securities, the System's management does monitor interest rate risk by monitoring the performance of each investment manager. As of June 30, 2020, the System had the following investments with maturities (dollars in thousands):

Investment Type	Fair Value	Effective Duration in Years
Asset-backed securities	$ 234,906	2.2
Bank Loans	11,369	2.0
Commercial mortgaged-backed	142,067	3.1
Corporate bonds	1,892,400	6.5
Corporate convertible bonds	23,833	5.0
Government agencies	9,537	7.4
Government bonds	1,009,427	20.1
Government mortgage-backed securities	208,967	2.9
Government issued commercial mortgaged-backed	2,352	3.5
Index linked government bonds	31,505	5.2
Municipal/Provincial bonds	7,161	14.8
Non-government backed CMOs	25,493	3.3
Other fixed income securities	8,924	13.0
Total fixed income and portfolio duration	$ 3,607,941	9.6

Concentration of credit risk: Investments can be exposed to concentration of credit risk if significant amounts are invested in any one issuer. The System's investment policy places limits on the amount that may be invested in securities of any single issuer. As of June 30, 2020, the System did not hold 5% or more of its total investments in any one issuer.

Note 3. Cash and Investments (Continued)

Foreign currency risk: Foreign currency risk is the potential risk for loss due to changes in exchange rates. The System's investment policy provides that international investment managers invest no more than 30 percent of their portfolio's total assets in one or more issuers in a single country, provided that in the U.K. or Japan such limit shall be 35 percent. Investment in cash and cash equivalents, foreign equities, and fixed-income securities as of June 30, 2020 is shown in the following table by monetary unit to indicate possible foreign currency risk (dollars in thousands):

Currency	Equities	Corporate Bonds	Government Bonds	Foreign Exchange Contracts	Cash and Cash Equivalents	Other Investments	Grand Total
Argentine Peso	$ -	$ -	$ 564	$ -	$ 662	$ -	$ 1,226
Australian Dollar	80,726	-	-	-	10	-	80,736
Brazilian Real	17,404	-	-	-	4	-	17,408
British Pound Sterling	270,824	-	-	77	(77)	-	270,824
Canadian Dollar	91,202	1,987	-	(4,168)	3,946	-	92,967
Chilean Peso	-	-	-	214	-	-	214
Czech Koruna	459	-	-	-	-	-	459
Danish Krone	33,933	-	-	-	-	-	33,933
Euro	593,111	232	-	(124)	134	15,335	608,688
HK offshore Chinese Yuan Renminbi	35,982	-	-	-	4	-	35,986
Hong Kong Dollar	214,302	-	-	-	125	-	214,427
Hungarian Forint	2,954	-	-	-	-	-	2,954
Indonesian Rupiah	11,493	-	-	-	-	-	11,493
Japanese Yen	418,556	-	-	(557)	581	-	418,580
Malaysian Ringgit	4,662	-	-	-	5	-	4,667
Mexican Peso	9,626	-	-	-	-	-	9,626
New Israeli Shekel	6,900	-	-	-	-	-	6,900
New Taiwan Dollar	122,579	-	-	(43)	127	-	122,663
New Zealand Dollar	3,196	-	-	-	-	-	3,196
Norwegian Krone	8,873	-	-	-	113	-	8,986
Phillipine Peso	374	-	-	-	-	-	374
Polish Zloty	2,390	-	-	-	-	-	2,390
Qatari Rial	566	-	-	-	-	-	566
Singapore Dollar	9,162	-	-	(41)	41	-	9,162
South African Rand	6,573	-	-	-	-	-	6,573
South Korean Won	73,738	-	-	(68)	-	-	73,670
Swedish Krona	53,741	-	-	(316)	316	-	53,741
Swiss Franc	184,114	-	-	1	20	-	184,135
Thai Baht	11,161	-	-	(661)	-	-	10,500
Turkish Lira	6,384	-	-	-	-	-	6,384
UAE Dirham	229	-	-	-	-	-	229
Total	$ 2,275,214	$ 2,219	$ 564	$ (5,686)	$ 6,011	$ 15,335	$ 2,293,657

Note 3. Cash and Investments (Continued)

Derivative instruments: The System's investment derivatives include forward currency and futures contracts. These investments are not speculative in nature and do not increase investment risk beyond allowable limits specified in the System's investment policy. A futures contract is a contract to buy or sell units of an index or financial instrument at a specified future date at a price agreed upon when the contract is originated. The System purchases and sells futures contracts as a means of adjusting the System portfolio mix at a lower transaction cost than the transactions, which would otherwise occur in the underlying portfolios. During fiscal year ended June 30, 2020, S&P 500 futures and U.S. Treasury note futures were utilized. Upon entering into such a contract, the System pledges cash or U.S. government securities to the broker equal to the minimum initial margin requirement of the futures exchange. Additionally, TRS receives or pays a daily variation margin, which is an amount of cash equal to the daily fluctuation in value of the contract. The change in fair value of the futures contracts is presented in the statement of changes in fiduciary net position as "Net change in fair value of investments." The net change in fair value from futures contracts for fiscal year ended June 30, 2020 was ($58,326). At June 30, 2020, the foreign currency futures contracts outstanding were as follows:

Description	Expiration Date	Open Position	Number of Contracts	Notional Contract Size	Fair Value	Notional Value
U.S. Treasury note	September 2020	Long	1	10-year U.S. Treasury note	$ 5,288,531	$ 5,273,464
U.S. Treasury bond	September 2020	Long	2	U.S. Treasury bond	62,392,688	61,949,466
U.S. Treasury note	September 2020	Long	1	U.S. Treasury note	2,047,297	2,037,953
Russell 2000	September 2020	Long	1	N/A	143,760	140,144
S&P 500 Index	September 2020	Long	3	N/A	35,382,790	35,351,360
Russell Mid Cap	September 2020	Long	3	N/A	13,165,340	13,084,984
U.S. Treasury bond	September 2020	Long	1	U.S. Treasury bond	14,999,250	14,907,714
U.S. Treasury note	September 2020	Long	2	2-year U.S. Treasury note	138,017,578	137,935,547
U.S. Treasury note	September 2020	Short	1	10-year U.S. Treasury note	(15,030,563)	(14,979,908)
U.S. Treasury note	September 2020	Short	2	5-year U.S. Treasury note	(42,878,086)	(42,794,674)
U.S. Treasury note	September 2020	Short	2	U.S. Treasury note	(135,436,563)	(134,845,524)
German Gov't Bond	September 2020	Short	1	Eurx Eur-Bond	(2,577,360)	(2,531,288)
U.S. Treasury note	September 2020	Short	1	U.S. Treasury note	(4,999,750)	(4,956,000)
					$ 70,514,912	$ 70,573,238

A foreign currency forward contract is an agreement that obligates the parties to exchange given quantities of currencies at a pre-specified exchange rate on a certain future date. The fair values of the forward contracts are estimated based on the present value of their estimated future cash flows.

The foreign currency forward contracts subject the System to foreign currency risk because the investments are denominated in international currencies. The risks are described in the foreign currency risk schedule where the fair value of the foreign currency contracts in U.S. dollars is presented. The System enters into foreign exchange forward contracts for TRS to manage foreign currency exposure, as permitted by portfolio policies. The fair values of the contracts are presented in the Statement of Fiduciary Net Position as Investments, at fair value – Equities. The change in fair value of the forward contracts is presented in the statement of changes in fiduciary net position as "Net change in fair value of investments." The net change in fair value from foreign currency forward contracts for fiscal year ended June 30, 2020 was $11,924. At June 30, 2020, the foreign currency forward contracts outstanding were as follows:

Note 3. Cash and Investments (Continued)

Description	Fair Value (U.S. Dollars)	Currency	Value Date	Notional Value
Forward sale	$ (464,017)	AUD	7/1/2020	$ (461,760)
Forward sale	$ (652,020)	DKK	7/1/2020	(651,494)
Forward sale	$ (1,416,435)	GBP	7/1/2020	(1,407,283)
Forward sale	$ (1,493,072)	USD	7/1/2020	(1,493,072)
Forward sale	$ (338,664)	AUD	7/2/2020	(338,245)
Forward sale	$ (446,848)	CAD	7/2/2020	(445,244)
Forward sale	$ (16,801)	USD	7/2/2020	(16,801)
Forward sale	$ (1,498,095)	HKD	7/6/2020	(1,498,086)
Forward purchase	$ 3,510,182	USD	7/1/2020	3,510,182
Forward purchase	$ 569,224	CAD	7/2/2020	567,181
Forward purchase	$ 1,583,935	USD	07/02/020	1,583,935
Forward purchase	$ 1,281,135	USD	9/16/2020	1,281,135

Rate of return - Pension: For the year ended June 30, 2020, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 0.71 percent. The money-weighted rate of return expresses investment performance, net of investment expense, as adjusted for the changing amounts actually invested.

Rate of return - OPEB: For the year ended June 30, 2020, the annual money-weighted rate of return on OPEB plan investments, net of OPEB plan investment expense, was 0.70 percent. The money-weighted rate of return expresses investment performance, net of investment expense, as adjusted for the changing amounts actually invested.

Note 4. Commitments

At June 30, 2020, the System has total capital commitments related to alternative and real estate investments of $3,435,400,000. Of this amount, approximately $802,339,000 remained unfunded.

Note 5. Securities Lending Activity

The System's investment policy and State statutes provide for its participation in a securities lending program. The program is administered by the System's master custodian, and there are no restrictions on the amount of loans that can be made. Certain securities of the System are loaned to participating brokers, who must provide collateral in the form of cash, U. S. Treasury or government agency securities, or letters of credit issued by approved banks.

Under the terms of the agreement, collateralization of the fair value of the loaned securities must be provided in the amount of 102 percent when the security to be loaned and the collateral are in the same currency and 105 percent when the loan and collateral currencies are dissimilar. The securities on loan as of June 30, 2020 collateralized by cash were approximately $1,012,793,000 and the cash collateral received for those securities on loan was approximately $1,032,140,000. Securities on loan as of June 30, 2020 consisted of equity loans, corporate fixed income and US government and agencies securities collateralized by cash and non-cash securities. Because the System cannot pledge or sell collateral securities and letters of credit received unless the borrower defaults, the collateral and related liability are not presented in the accompanying statements of fiduciary net position. The following table describes the types of securities lent and collateral as of June 30, 2020 (dollars in thousands):

Note 5. Securities Lending Activity (Continued)

	Fair Value of Securities on Loan	Collateral Value	Collateral Percentage
Governmental loans compared to collateral	$ 77,546	$ 79,372	102%
Equity loans compared to collateral	830,906	846,160	102%
Corporate loans compared to collateral	104,341	106,608	102%
	$ 1,012,793	$ 1,032,140	

At June 30, 2020, the System had no credit risk exposure since the amounts the System owed to borrowers exceeded the amounts borrowers owed the System. The contract with the System's lending agent requires it to indemnify the System if the borrowers fail to return the lent securities. In the event of a collateral shortfall due to a loss in value of investments made with cash collateral, such loss would be the responsibility of the System.

All securities loans can be terminated on demand by either the System or the borrower. Cash collateral is invested in a separate account for the System in accordance with investment guidelines approved by the System. At June 30, 2020, the weighted average maturity of the cash collateral investments was 19 days. The dollar-weighted average maturity of cash collateral investments shall not exceed ninety days. For purposes of this restriction, the average maturity of variable rate instruments will be calculated to the next interest reset date. The Cash Collateral Account's minimum overnight liquidity level shall not be less that twenty percent. The cash collateral investments are structured and maintained by the lending agent's investment desk utilizing an asset and liability methodology designed to manage to an appropriate extent any mismatch between the investment maturities and the System's loans.

Note 6. Capital Assets

Capital assets consist of the following at June 30, 2020:

	Balance June 30, 2019	Additions	Deletions	Balance June 30, 2020
Furniture, fixtures and equipment	$ 5,265,743	$ 343,901	$ -	$ 5,609,644
Accumulated depreciation	(846,219)	(562,191)	-	(1,408,410)
Capital assets, net	$ 4,419,524			$ 4,201,234

The System has commitments to lease building space as well as leases on certain equipment. The future minimum commitment for operating leases as of June 30, 2020 was approximately $200,000. The System's leases are one-year renewable contracts. Rental expense for all operating leases amounted to approximately $200,000 for the year ended June 30, 2020.

Note 7. Member and Employer Contributions

All contribution rates are defined or amended by the Oklahoma Legislature. All active members contribute to the System; however, the employer may elect to pay all or part of the contribution for its employees. There are special provisions for members of higher education who joined the System before July 1, 1995. The annual employer contributions reported for the year ended June 30, 2020 were $458,306,002. Employers satisfied 100 percent of their contribution requirements for 2020.

Note 7. Member and Employer Contributions (Continued)

All members must contribute 7.0 percent of regular annual compensation, not to exceed the member's maximum compensation level, which for the year ended June 30, 2020 was the full amount of regular annual compensation.

The employers are required to contribute a fixed percentage of annual compensation on behalf of active members. The employer contribution rate was 9.5 percent beginning on January 1, 2011 for all remitting entities other than comprehensive and four year regional universities. The employer contribution rate was 8.55 percent starting on January 1, 2011 for comprehensive and four year universities. The rates for fiscal year 2020 are applied on the full amount of the member's regular annual compensation up to certain limits prescribed by the IRC.

Note 8. Benefits

The System provides defined retirement benefits based on members' final compensation, age, and term of service. In addition, the retirement program provides for benefits upon disability and to survivors upon the death of eligible members. Title 70 O. S. Sec. 17-105 defines all retirement benefits. The authority to establish and amend benefit provisions rests with the State Legislature.

Benefit provisions include:

- Members who join TRS after July 1, 1991 become fully vested in retirement benefits earned to date after five years of credited service. Members who join TRS on or after November 1, 2017 become fully vested after seven years of credited service. Any member who has attained age fifty-five (55) or who has completed thirty (30) years of creditable service, or for any person who initially became a member prior to July 1, 1992, whose age and number of years of creditable service total eighty (80) may be retired upon proper application for retirement on forms established by the System and executing a retirement contract. Any person who became a member after June 30, 1992, but prior to November 1, 2011, whose age and number of years of creditable service total ninety (90) may be retired upon proper application for retirement and executing a retirement contract. Any person who becomes a member on or after November 1, 2011, who attains the age of sixty-five (65) years or who reaches a normal retirement date having attained a minimum age of sixty (60) years may be retired upon proper application for retirement and executing a retirement contract.

- Final compensation for members who joined the System prior to July 1, 1992 is defined as the average salary for the three highest years of compensation. Final compensation for members joining the System after June 30, 1992 is defined as the average of the highest five consecutive years of annual compensation in which contributions have been made. The final average compensation is limited for service credit accumulated prior to July 1, 1995 to $40,000 or $25,000, depending on the member's election. Monthly benefits are 1/12 of this amount. Service credits accumulated after June 30, 1995 are calculated based on each member's final average compensation, except for certain employees of the two comprehensive universities. Upon the death of a member who has not yet retired, the designated beneficiary shall receive the member's total contributions plus 100 percent of interest earned through the end of the fiscal year, with interest rates varying based on time of service. A surviving spouse of a qualified member may elect to receive, in lieu of the aforementioned benefits, the retirement benefit the member was entitled to at the time of death as provided under the Joint Survivor Benefit Option.

- Upon the death of a retired member, the System will pay $5,000 to the designated beneficiary, in addition to the benefits provided for the retirement option selected by the member.

Note 8. Benefits (Continued)

- A member is eligible for disability benefits after ten years of credited Oklahoma service. The disability benefit is equal to 2 percent of final average compensation for the applicable years of credited service.

- Upon separation from the System, members' contributions are refundable with interest based on certain restrictions provided in the plan, or by the IRC.

- Members may elect to make additional contributions to a tax-sheltered annuity program up to the exclusion allowance provided under the IRC under Code Section 403(b).

Supplemental Health Insurance Program (OPEB Plan)

The System makes payments to certain retiree health insurance providers that are subsidies to help pay for certain supplemental health benefits that are available to eligible retired members who elect such coverage. The subsidy payments are made to the Employees Group Insurance Division (EGID) of the Office of Management and Enterprise Services (OMES) for retirees who opt to continue their employer-provided insurance and are also made to employers who provide health insurance options through other insurers as long as the plans provide health insurance options to both the employers' active and retired employees.

All retirees are eligible except for special retirees (as defined) and spouses and beneficiaries as long as they have at least 10 years of service. Retirees who elect such coverage receive the smaller of (i) a Medicare supplement benefit, if eligible, or (ii) an amount between $100 and $105 per month, depending on service and final average compensation. Payments are made on their behalf monthly (i) to EGID as described above, if the member continues health coverage under that Plan, or (ii) to the member's former employer, if the member retains health coverage under a plan maintained by the former employer as described above. The amounts paid to EGID or local employers were approximately $35,672,000 in 2020 and are included in retirement and other benefits expense.

Employer and employee contributions are made based upon the TRS Plan provisions contained in Title 70 of the Oklahoma Statutes, as amended. However the statutes do not specify or identify any particular contribution source to pay the health insurance subsidy. The cost of the subsidy averages 0.13% of normal cost, as determined by an actuarial valuation.

Each employer in the OPEB Plan discloses the employer's own apportioned elements of the OPEB plan.

Assumptions: For OPEB, the actuarial valuation date was performed as of June 30, 2020. The measurement date was June 30, 2020. The benefits are only available to those retirees that participate and have at least 10 years of service credit at retirement.

Note 9. Dedicated Tax

The plan receives funds provided by the State of Oklahoma, a non-employer contributing entity, through 5.0 percent of the State's sales, use, and corporate and individual income taxes collected as dedicated tax. The System receives 1.0 percent of the cigarette taxes collected by the State and receives 5.0 percent of net lottery proceeds collected by the State. The System received approximately $330,620,000 from the State in 2020. Amounts due from the State were approximately $39,917,000 at June 30, 2020.

Note 10. DB Plans (Pension and OPEB Actuarial Information)

The components of the net pension liability of the employers at June 30, 2020 were as follows:

Total pension liability	$	25,979,258,830
Plan fiduciary net position		(16,489,026,044)
Employers' net pension liability	$	9,490,232,786
Plan fiduciary net position as a percentage of the total pension liability		63.47%

The components of the net OPEB asset at June 30, 2020 were as follows:

Total OPEB liability	$	430,681,821
Plan fiduciary net position		(440,588,493)
Employers' net OPEB asset	$	(9,906,672)
Plan fiduciary net position as a percentage of the total OPEB asset		102.30%

The total pension and OPEB liability and total pension and OPEB asset as of June 30, 2020, were determined based on actuarial valuations prepared as of June 30, 2020 using the following actuarial assumptions:

- Actuarial Cost Method—Entry Age Normal
- Inflation—2.25 percent
- Future Ad Hoc Cost-of-living Increases—None
- Salary Increases—Composed of 2.25 percent wage inflation, plus 0.75% productivity increase rate, plus step-rate promotional increases for members with less than 25 years of service
- Investment Rate of Return—7.00 percent
  Retirement Age— Experience-based table of rates based on age, service, and gender. Adopted by the Board in July 2020 in conjunction with the five year experience study for the period ending June 30, 2019
- Mortality Rates after Retirement— Males and females: 2020 GRS Southwest Region Teacher Mortaility Table. Generational mortality improvements in accordance with the Ultimate MP scales are projected from the year 2020.
- Mortality Rates for Active Members— Pub-2010 Teachers Active Employee Mortality table. Generational mortality improvements in accordance with the Ultimate MP scales are projected from the year 2010.

Measurement of the net pension liability: The net pension liability is measured as the total pension liability, less the amount of the plan's fiduciary net position. In actuarial terms, this is analogous to the accrued liability as measured using the individual entry age normal actuarial cost method less the fair value of assets (not the smoothed actuarial value of assets seen in actuarial valuations based on the Board's adopted assumptions and methods).

Note 10. DB Plans (Pension and OPEB Actuarial Information) (Continued)

For the valuation period ending June 30, 2020, a single discount rate of 7.00% was used to measure the total pension liability. Based on the stated assumptions and the projection of cash flows, the pension plan's fiduciary net position and future contributions were projected to be available to finance all projected future benefit payments of current plan members.

Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The projection of cash flows used to determine this single discount rate assumed that plan member and employer contributions will be made at the current statutory levels and remain a level percentage of payroll. The projection of cash flows also assumed that the State's contribution plus the matching contributions will remain a constant percent of projected member payroll based on the past five years of actual contributions.

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

The target asset allocation and best estimates of arithmetic expected real rates of return for each major asset class as of June 30, 2020 are summarized in the following table:

Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return
Domestic Equity	43.5%	7.5%
International Equity	19.0%	8.5%
Domestic Fixed Income	22.0%	2.5%
Real Estate	9.0%	4.5%
Alternative Assets	6.5%	6.2%
Total	100.0%	

** The Real Estate total expected return is a combination of US Direct Real Estate (unleveraged) and US Value added Real Estate (unleveraged).

Sensitivity of the net pension liability and net OPEB asset to the single discount rate assumptions: The following table provides the sensitivity of the net pension liability and net OPEB asset to changes in the discount rate as of June 30, 2020. In particular, the table presents the plan's net pension liability and net OPEB asset, if they were calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher than the single discount rate:

Note 10. DB Plans (Pension and OPEB Actuarial Information) (Continued)

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net pension liability	$ 12,666,237,617	$ 9,490,232,786	$ 6,860,995,248

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB asset	$ 35,962,469	$ (9,906,672)	$ (48,803,044)

Due to the structure of the OPEB plan, healthcare cost trend rate sensitivity analysis is not meaningful.

Note 11. New Accounting Pronouncements Issued, Not Yet Adopted

GASB Statement No. 97, Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans, provides clarity and consistency in the reporting of potential component units that are defined contribution pension or OPEB plans as well as other employee benefit plans, such as certain (not all) Internal Revenue Code Section 457 plans. Upon implementation, the provisions of GASB Statement No. 32, Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans are superseded. Some of the elements of GASB Statement No. 97 became effective immediately, including the provisions exempting governments such as the System, that perform the duties that a governing board typically performs from treating the absence of a governing board the same as the appointment of a voting majority of a governing board in determining whether they are financially accountable for defined contribution pension plans, defined contribution OPEB plans, or other employee benefit plans. Another provision that became effective immediately was the limitation of the applicability of the financial burden criterion in GASB Statement No. 84 solely to defined benefit pension plans and defined benefit OPEB plans that are administered through trusts. The remaining provisions of GASB Statement No. 97 will become effective for the fiscal year ended June 30, 2022. The System is analyzing the effect of this pronouncement.

GASB Technical Bulletin No. 2020-1, Accounting and Financial Reporting Issues Related to the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) and Coronavirus Diseases became effective upon issuance at the close of this fiscal year. The provisions of the Technical Bulletin provide six questions and answers related to the CARES Act, of which five had no impact on the System as it did not receive CARES Act funding. Question 6 of the Technical Bulletin discusses the reporting of outflows of resources incurred in response to the coronavirus disease, such as funds used to slow the spread of the virus, adjustments in the provision of services and the implementation of 'stay-at-home' orders. GASB pronouncements require that these outflows of resources not be reported as extraordinary nor special items and therefore, no impact on the System occurred despite the flows as a result of the pandemic.

Due to the issuance of GASB Statement No. 95, (GASB-95) *Postponement of the Effective Dates of Certain Authoritative Guidance*, the System exercised the option to delay implementation of previously issued GASB pronouncements that were supposed to be implemented during the fiscal year ended June 30, 2020.

As adjusted by GASB-95, the System is due to implement the following GASB pronouncements during the following fiscal years then ended:

Fiscal Year Ended June 30, 2021:

GASB Statement No. 84, *Fiduciary Activities*, clarifies fiduciary relationships and reporting. The System is analyzing the effect of this pronouncement along with amendments made to the Statement by GASB Statement No. 92 and GASB Statement No. 97 (both discussed herein).

GASB Statement No. 90, *Majority Equity Interests*, clarifies reporting of when a government has a majority equity position in another entity, which may result in the equity method of reporting or a component unit relationship. This pronouncement will likely not apply as the System is precluded by State statute from holding a majority equity position in another entity.

Fiscal Year Ended June 30, 2022:

GASB Statement No. 87, *Leases*, changes reporting of nearly all leasing arrangements for lessors and lessees. The System is analyzing the effect of this pronouncement.

GASB Statement No. 89, *Accounting for Interest Cost before the End of a Construction Period*, removes the GAAP related to capitalization of interest costs. The pronouncement will likely not apply.

As introduced previously, GASB Statement No. 92, *Omnibus* 2020, includes guidance addressing various accounting and financial reporting issues identified during the implementation and application of certain GASB pronouncements, including GASB Statement No. 84. Issued clarified by GASB Statement No. 92 include the reporting of intra-equity transfers of assets to other bodies within a reporting entity, including plans such as the System and applicability of certain provisions of recently issued GASB pronouncements. In addition, terminology used to refer to derivatives and other investments is converting to the use of the word 'instruments' as part of a global change and became effective upon issuance. The System is analyzing the effect of this Statement.

GASB Statement No. 93, *Replacement of Interbank Offered Rates*, includes the removal of the London Interbank Offered Rate (LIBOR) as an appropriate benchmark interest rate for variable rate payments. The removal is a result of global reference rate reform. LIBOR is expected to cease to exist in its current form at the end of 2021. Financial instruments benchmarked to such rates may be amended as part of this global change. GASB Statement No. 93 provides exceptions to recognition of a gain or loss on termination when the replacement provisions are enabled, among other elements in the pronouncement. GASB Statement No. 93 is effective for reporting periods ending after December 31, 2021. However, the removal of LIBOR and other reference rate reform may be further delayed by central banks as a result of the pandemic, which may cause an extension of the implementation of GASB-93. The System is analyzing the effect of this Statement.

Fiscal Year Ended June 30, 2023:

GASB Statement No. 91, *Conduit Debt Obligations*, clarifies the reporting of conduit debt. The pronouncement will not apply to the System as the System does not issue such obligations, nor is it a party to such obligations.

GASB Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*, provides guidance to improve accounting and financial reporting such transactions (commonly referred to as P3s). The System is analyzing the effect of this Statement.

GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*, provides accounting and financial reporting guidance for such arrangements (also known as SBITAs). The framework for the accounting and financial reporting is based on the provisions established in GASB Statement No. 87, *Leases*. The System is analyzing the effect of this Statement.

Schedule of Changes in Employers' Net Pension Liability (Unaudited)
Fiscal Year Ended June 30,

	Year Ended June 30						
	2020	2019	2018	2017	2016	2015	2014
Total pension liability:							
Service cost	$ 482,233,224	$ 444,005,366	$ 432,592,587	$ 446,728,754	$ 428,904,761	$ 415,702,261	$ 409,199,801
Interest	1,709,647,749	1,628,247,388	1,586,869,029	1,599,025,933	1,609,511,334	1,538,893,982	1,491,722,137
Benefit changes	425,115,415	-	18,410,937	-	-	-	-
Difference between actual and expected return	247,417,000	418,186,187	(99,947,351)	(373,928,623)	(36,212,168)	(159,980,414)	(105,344,633)
Assumption changes	1,276,379,957	-	-	(482,042,966)	933,294,515	346,488,630	-
Benefit payments	(1,396,258,730)	(1,378,984,998)	(1,323,912,271)	(1,281,816,606)	(1,257,276,705)	(1,201,350,907)	(1,153,051,607)
Refunds	(35,183,705)	(38,002,018)	(42,940,983)	(40,944,298)	(36,109,832)	(35,240,176)	(28,718,256)
Net change in total pension liability	2,709,350,910	1,073,451,925	571,071,948	(132,977,806)	1,642,111,905	904,513,376	613,807,442
Total pension liability:							
Beginning	23,269,907,920	22,196,455,995	21,625,384,047	21,758,361,853	20,551,132,567	19,646,619,191	19,032,811,749
Ending (a)	25,979,258,830	23,269,907,920	22,196,455,995	21,625,384,047	22,193,244,472	20,551,132,567	19,646,619,191
Plan fiduciary net position:							
Contributions-Employer/State	816,756,915	817,833,074	757,678,568	698,695,713	725,425,216	728,442,070	707,052,675
Contributions-Members	340,057,646	325,766,148	312,866,576	292,949,337	294,459,090	303,677,304	301,300,811
Net investment income	117,011,982	785,418,295	1,455,605,848	1,945,898,975	(357,443,247)	428,855,747	2,571,707,952
Benefit payments	(1,396,258,730)	(1,378,984,998)	(1,323,912,271)	(1,281,816,606)	(1,257,276,705)	(1,201,350,906)	(1,153,051,607)
Refunds	(35,183,705)	(38,002,018)	(42,904,983)	(40,944,298)	(36,109,832)	(35,240,176)	(28,718,256)
Administrative expense	(5,266,375)	(5,194,983)	(4,200,021)	(4,028,080)	(4,458,336)	(4,358,938)	(4,282,605)
Net change in plan fiduciary net position	(162,882,267)	506,835,518	1,155,133,717	1,610,755,041	(635,403,814)	220,025,101	2,394,008,970
Plan fiduciary net position:							
Beginning	16,651,944,311	16,145,108,793	14,989,975,076	13,379,220,035	14,449,506,469	14,229,481,368	11,835,472,398
Ending (b)	16,489,062,044	16,651,944,311	16,145,108,793	14,989,975,076	13,814,102,655	14,449,506,469	14,229,481,368
Plan's net pension liability (a)-(b)	$ 9,490,196,786	$ 6,617,963,609	$ 6,051,347,202	$ 6,635,408,971	$ 8,379,141,817	$ 6,101,626,098	$ 5,417,137,823

See notes to required supplementary information

Information to present a 10 year schedule is not currently available.

Teachers' Retirement System of Oklahoma

Required Supplementary Information

Schedule of Employers' Net Pension Liability (Unaudited)

Fiscal Years Ended June 30,

	Year Ended June 30						
	2020	2019	2018	2017	2016	2015	2014
Total pension liability	$ 25,979,258,830	$ 23,269,907,920	$ 22,196,455,995	$ 21,625,384,047	$ 22,193,244,472	$ 20,551,132,567	$ 19,646,619,191
Plan fiduciary net position	16,489,026,044	16,651,908,311	16,145,072,793	14,989,675,076	13,814,102,655	14,449,506,469	14,229,481,368
Employers' net pension liability	$ 9,490,232,786	$ 6,617,999,609	$ 6,051,383,202	$ 6,635,708,971	$ 8,379,141,817	$ 6,101,626,098	$ 5,417,137,823
Employers' fiduciary net position as a percentage of the total pension liability	63.47%	71.56%	72.74%	69.32%	62.24%	70.31%	72.43%
Covered payroll	$ 4,739,701,022	$ 4,473,511,671	$ 4,149,557,077	$ 4,070,723,673	$ 4,206,558,429	$ 4,338,247,200	$ 4,304,297,300
Employers' net pension liability as a percentage of covered payroll	200.23%	147.94%	145.83%	163.00%	199.19%	140.65%	125.85%

See notes to required supplementary information

Information to present a 10 year schedule is not currently available.

Schedule of Contributions From Employers and Other Contributing Entities (Unaudited)

	2020	2019	2018	2017	2016
Actuarially determined contributions	$ 810,488,875	$ 760,496,984	$ 705,424,703	$ 689,580,590	$ 723,528,050
Contributions in relation to the actuarially determined contribution:					
Employers (Schools)	457,391,205	446,161,917	413,068,467	396,743,812	409,753,221
State of Oklahoma, a non-employer contributing entity	359,365,710	371,671,157	344,610,101	301,951,901	315,671,995
Contribution deficiency (excess)	$ (6,268,040)	$ (57,336,090)	$ (52,253,865)	$ (9,115,123)	$ (1,897,166)
Covered payroll	$ 4,739,701,022	$ 4,473,511,671	$ 4,149,557,077	$ 4,070,723,673	$ 4,206,558,429
Contributions as a percentage of covered payroll	17.23%	18.28%	18.26%	17.16%	17.25%

	2015	2014	2013	2012	2011
Actuarially determined contributions	$ 550,652,420	$ 602,936,966	$ 619,805,640	$ 588,287,377	$ 822,419,996
Contributions in relation to the actuarially determined contribution:					
Employers (Schools)	392,051,458	386,895,127	373,789,020	376,635,234	364,025,589
State of Oklahoma, a non-employer contributing entity	336,390,612	320,157,548	327,505,309	304,995,663	274,452,205
Contribution deficiency (excess)	$ (177,789,650)	$ (104,115,709)	$ (81,488,689)	$ (93,343,520)	$ 183,942,202
Covered payroll	$ 4,338,247,200	$ 4,304,297,300	$ 3,933,100,000	$ 3,924,800,000	$ 3,773,300,000
Contributions as a percentage of covered payroll	16.79%	16.43%	17.83%	17.37%	16.92%

See notes to required supplementary information

Notes to Schedule:

The covered payroll is an estimate of the actual payroll, imputed from individual member contributions.

The assumption change in fiscal year 2015 is attributible to the new assumptions adopted by the Board in May 2015.

The assumption change in fiscal year 2016 is attributible to the new economic assumptions adopted by the Board in September 2016.

The beginning balances for the total pension liability and the plan fiduciary net position were both restated as of June 30, 2016 to remove $434,882,619 which will be reported as an OPEB going forward.

The assumption change in fiscal year 2017 is attributible to the change in assumed election rate for the Supplemental Medical Insurance benefit adopted by the Board in August 2017.

The assumption change in fiscal year 2020 is attributible to the new assumptions adopted by the Board in July 2020.

Schedule of Pension Investment Returns (Unaudited)
Fiscal Year Ended June 30,

	Year Ended June 30						
	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expenses	0.71%	4.95%	9.87%	14.72%	-2.50%	3.04%	21.95%

See notes to required supplementary information

Information to present a 10 year schedule is not currently available.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION:

Actuarially determined contribution rates are calculated as of June 30.

Members and employers contribute based on statutorily fixed rates. The State of Oklahoma contributes 5.0% of revenues from sales taxes, use taxes, corporate and individual income taxes and lottery proceeds. An additional contribution is made for members whose salary is paid from federal funds or certain grant money.

Beginning with fiscal year ending June 30, 2016, the Actuarially Determined Employer Contribution (ADEC) is determined as the employer contribution amount necessary to discharge the Unfunded Actuarial Accrued Liability over a period equal to the funding period for the current actuarial valuation for plan funding purposes (i.e., 17 years as of June 30, 2017). However, in no event shall the amortization period be in excess of a fixed period of twenty (20) years. ADEC rates are calculated as of June 30.

Beginning with the fiscal year ending June 30, 2017, an actuarially determined portion of the employers' contributions (0.07% of pay for FY2018) is allocated to the OPEB Plan and reported under GASB 74. As a result, these contributions are not included in either the actual or actuarially determined contributions above.

The ADEC was previously determined as the total employer contribution necessary to fund the normal cost and to amortize the UAAL as a level percentage of payroll over 30 years.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age normal
Amortization method	Level percentage of payroll
Remaining Amortization period	20 years
Asset valuation method	5-year smooth market
Inflation	2.25%
Salary increase	Composed of 2.25% inflation, plus 0.75% productivity increase rate, plus step-rate promotional increases for members with less than 25 years of service.
Investment rate of return	7.00%
Retirement age	Experience-based table of rates based on age, service and gender. Adopted by the Board in July 2020 in conjunction with the five year experience study for the period ending June 30, 2019.
Mortality	2020 GRS Southwest Region Teacher Mortality Table for males and females. Generational mortality improvements in accordance with the Ultimate MP scales are projected from the year 2020.
Notes	New assumptions were adopted in July 2020 and were effective as of June 30, 2020.

Information to present a 10 year schedule in not currently available

Schedule of Changes in Employers’ Net OPEB (Asset)/Liability (Unaudited)
Fiscal Years Ended June 30,

	2020	2019	2018	2017
Total OPEB liability:				
Service cost	$ 6,219,278	$ 6,160,629	$ 6,431,010	$ 6,647,749
Interest on the total OPEB liability	29,667,636	30,349,537	31,012,327	31,728,895
Benefit changes	-	-	-	-
Difference between actual and expected return	(5,384,475)	(9,944,903)	(9,813,028)	(14,186,133)
Assumption changes	25,556,639	-	-	-
Benefit payments	(35,672,198)	(35,701,014)	(36,963,620)	(30,309,127)
Net change in total OPEB liability	20,386,880	(9,135,751)	(9,333,311)	(6,118,616)
Total OPEB liability:				
Beginning	410,294,941	419,430,692	428,764,003	434,882,619
Ending (a)	430,681,821	410,294,941	419,430,692	428,764,003
Plan fiduciary net position:				
Employer contributions	914,797	877,762	2,912,563	6,513,158
Employee contributions	-	-	-	-
OPEB net investment income	3,222,561	22,898,575	44,760,425	62,298,027
Benefit payments	(35,672,198)	(35,701,014)	(36,963,620)	(30,309,127)
Administrative expense	(4,165)	(3,987)	(11,427)	(26,457)
Net change in plan fiduciary net position	(31,539,005)	(11,928,664)	10,697,941	38,475,601
Plan fiduciary net position:				
Beginning	472,127,498	484,056,162	473,358,220	434,882,619
Ending (b)	440,588,493	472,127,498	484,056,161	473,358,220
Employers' Net OPEB liability (asset) (a)-(b)	$ (9,906,672)	$ (61,832,557)	$ (64,625,469)	$ (44,594,217)

Information to present a 10 year schedule is not currently available.

Schedule of Employers' Net OPEB Liability (asset) (Unaudited)
Fiscal Years Ended June 30,

	2020	2019	2018	2017
Total OPEB liability	$ 430,681,821	$ 410,294,941	$ 419,430,692	$ 428,764,003
OPEB fiduciary net position	440,588,493	472,127,498	484,056,162	473,358,220
Employers' net OPEB liability (asset)	$ (9,906,672)	$ (61,832,557)	$ (64,625,470)	$ (44,594,217)
Emplyers' fiduciary net position as a percentage of the total OPEB liability	102.30%	115.07%	115.41%	110.40%
Covered payroll	$4,739,701,022	$4,473,511,671	$4,149,557,077	$4,070,723,673
Employers' net OPEB liability (asset) as a percentage of covered OPEB payroll	(0.21)%	(1.38)%	(1.56)%	(1.10)%

See notes to required supplementary information

Information to present a 10 year schedule is not currently available.

Schedule of OPEB Contributions From Employers

	2020	2019	2018	2017
Actuarially determined contributions	$ 914,797	$ 877,762	$ 2,912,563	$ 6,513,158
Contributions in relation to the actuarially determined contribution:				
Employers	914,797	877,762	2,912,563	6,513,158
Contribution deficiency (excess)	$ -	$ -	$ -	$ -
Covered payroll	$ 4,739,701,022	$ 4,473,511,671	$ 4,149,557,077	$ 4,070,723,673
Contributions as a percentage of covered payroll	0.02%	0.02%	0.07%	0.16%

Information to present a 10 year schedule is not currently available.

Schedule of OPEB Investment Returns (Unaudited)
Fiscal Year Ended June 30,

	Year Ended June 30			
OPEB Plan	2020	2019	2018	2017
Annual money-weighted rate of return, net of investment expenses	0.70%	4.91%	9.71%	14.72%

See notes to required supplementary information

Information to present a 10 year schedule is not currently available.

NOTES TO SCHEDULE OF CONTRIBUTIONS

The ADEC is the amount needed to fund the normal cost, the anticipated administrative expenses, and a payment towards eliminating the Unfunded Actuarial Accrued Liability (UAAL). The payment towards eliminating the UAAL is based on an closed period of twenty (20) years calculated as a level percentage of future payroll with the initial period beginning on July 1, 2016.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial cost method	Entry age normal
Amortization method	Level percentage of payroll
Remaining Amortization period	20 years beginning on July 1, 2016
Asset valuation method	5-year smoothed market
Inflation	2.25%
Salary increase	Composed of 2.25% inflation, plus 0.75% productivity increase rate, plus step-rate promotional increases for members with less than 25 years of service.
Investment rate of return	7.00%
Retirement age	Experience-based table of rates based on age, service and gender. Adopted by the Board in July 2020 in conjunction with the five year experience study for the period ending June 30, 2019.
Mortality	2020 GRS Southwest Region Teacher Mortality Table for males and females. Generational mortality improvements in accordance with the Ultimate MP scales are projected from the year 2020.
Notes	New asumptions were adopted in July 2020 and were effective as of June 30, 2020.

Information to present a 10 year schedule in not currently available

Schedule of Investment Expenses
For the Year Ended June 30, 2020

Investment managers	$ 56,591,927
Investment consultants	1,157,659
Investment personnel	355,703
Total investment expenses	$ 58,105,289

Schedule of Administrative Expenses
For the Year Ended June 30, 2020

Salaries and benefits	$ 3,451,162
General and miscellaneous	579,396
Professional/consultant fees	647,273
Travel and related expenses	30,518
Depreciation expense	562,191
Total administrative expenses	$ 5,270,540

Schedule of Professional/Consultant Fees
For the Year Ended June 30, 2020

Actuarial	$	108,365
Medical		9,400
Legal		43,641
Audit		232,096
Data processing		186,192
Miscellaneous		67,579
Total professional/consultant fees	$	647,273

CPAs & BUSINESS ADVISORS

Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

To the Board of Trustees
Teachers' Retirement System of Oklahoma
Oklahoma City, Oklahoma

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the Teachers' Retirement System of Oklahoma (the System), which comprise the statement of fiduciary net position as of June 30, 2020, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated October 16, 2020.

Internal Control over Financial Reporting
In planning and performing our audit of the financial statements, we considered the System's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System's internal control.

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

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

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

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

Eide Bailly LLP

Oklahoma City, Oklahoma
October 16, 2020