Teachers' Retirement System of the State of Illinois (A Component Unit of the State of Illinois)

Independent Auditor's Reports and Financial Audit

For the Year Ended June 30, 2023

Performed as Special Assistant Auditors for
the Auditor General, State of Illinois

Teachers' Retirement System of the State of Illinois (A Component Unit of the State of Illinois)

Financial Audit

For the Year Ended June 30, 2023

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Teachers' Retirement System
of the State of Illinois
(A Component Unit of the State of Illinois)
Financial Audit
For the Year Ended June 30, 2023

System Officials

Executive Director	Stan Rupnik, CFA
Chief Investment Officer	Stan Rupnik, CFA
Chief Financial Officer	Deron Bertolo
General Counsel	Emily Peterson
Director of Internal Audit and Risk	Stacy Smith, CPA, CIDA

Governing Board Members

President	Mr. Matthew Hunt
Vice President	Mr. Andrew Hirshman
Board of Trustee (2/23 – Present)	Dr. Tony Sanders
Board of Trustee	Ms. Beth Anderson
Board of Trustee	Mr. Kevin Blackburn
Board of Trustee	Mr. Joseph Blomquist
Board of Trustee	Ms. Marsha Byas
Board of Trustee	Mr. Michael Goetz
Board of Trustee	Ms. Maria Jazo-Harris
Board of Trustee	Ms. Maureen Mena
Board of Trustee	Mr. David Miller
Board of Trustee	Mr. Fred Peronto
Board of Trustee	Mr. Larry Pfeiffer
Board of Trustee	Mr. Doug Strand

Office Locations

Springfield Office
2815 West Washington Street
Springfield, Illinois 62794

Lisle Office
4200 Commerce Court, Suite 100
Lisle, Illinois 60532-3611

Chicago Office
333West Wacher Drive, Suite 2610
Chicago, Illinois 60606

Teachers’ Retirement System
of the State of Illinois
(A Component Unit of the State of Illinois)
Financial Statement Report Summary
For the Year Ended June 30, 2023

Summary

The audit of the accompanying financial statements of the Teachers’ Retirement System of the State of Illinois (“System”) was performed by **FORVIS, LLP.**

Based on their audit, the auditors expressed an unmodified opinion on the System’s basic financial statements.

Exit Conference

The System waived an exit conference in a correspondence from Deron Bertolo, Chief Financial Officer, on December 11, 2023.

FORV/S

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Independent Auditor's Report

The Honorable Frank J. Mautino
Auditor General
State of Illinois
and
The Board of Trustees
Teachers' Retirement System of the State of Illinois

Report on the Audit of the Financial Statements

Opinion

As Special Assistant Auditors for the Auditor General, we have audited the Statement of Fiduciary Net Position of the Teachers' Retirement System of the State of Illinois (System), a component unit of the State of Illinois, as of June 30, 2023, and the related Statement of Changes in Fiduciary Net Position for the year then ended, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of June 30, 2023, and the respective changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System, and to meet our ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matter

The actuarially determined net pension liability, calculated as required by GASB Statement No. 67, *Financial Reporting for Pension Plans*, is dependent on several assumptions including the assumption that future required contributions from all sources are made based on statutory requirements in existence as of the date of this report. These assumptions are discussed in Note A.6 of the financial statements. Our opinion is not modified with respect to this matter.

Responsibilities of Management 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.

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

The Honorable Frank J. Mautino
and
The Board of Trustees
Teachers' Retirement System of the State of Illinois

Auditor's Responsibilities for the Audit of the Financial Statements

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

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- exercise professional judgement and maintain professional skepticism throughout the audit.
- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, no such opinion is expressed.
- evaluate the appropriateness of accounting polices used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- conclude whether, in our judgement, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

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

Required Supplementary Information

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

Supplementary 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. The other supplementary information, as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information, as listed in the table of contents, is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the System Officials' page, as listed in the table of contents but does not include the basic financial statements and our auditor's report thereon. Our opinion on the basic financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

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

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 15, 2023 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.

SIGNED ORIGINAL ON FILE

Decatur, Illinois
December 15, 2023

MANAGEMENT'S DISCUSSION AND ANALYSIS

This discussion and analysis of the Teachers' Retirement System of the State of Illinois provides an overview of financial activities for the fiscal year ended June 30, 2023. Please read it in conjunction with the Financial Statements and related notes that follow this discussion.

FINANCIAL HIGHLIGHTS

- The fiduciary net position of TRS at June 30, 2023 was $66.5 billion.
- During FY23, the fiduciary net position of TRS increased $3.7 billion.
- Defined benefit contributions from members, employers and the State of Illinois were $7.2 billion, an increase of $183.1 million or 2.6 percent for FY23.
- Deferred compensation contributions from employers and members were $6.7 million, an increase of $6.0 million for FY23.
- Total net investment gain was $4.4 billion, compared to a ($743) million decline in FY22, an increase of $5.2 billion.
- Defined benefits and refunds paid to members and annuitants were $8.0 billion, an increase of $297.8 million or 3.9 percent.
- The actuarial accrued liability was $148.4 billion at June 30, 2023.
- The unfunded actuarial accrued liability was $81.9 billion at June 30, 2023. The funded ratio was 44.8 percent at June 30, 2023. The unfunded liability and funded ratio are calculated using a smoothed value of assets, as required under Public Act 96-0043.
- The total pension liability (TPL) was $151.5 billion at June 30, 2023.
- The net pension liability (NPL) was $85.0 billion at June 30, 2023. The plan fiduciary net position, as a percentage of total pension liability, was 43.9 percent.

The Financial Statements consist of:

Statement of Fiduciary Net Position. This statement reports the fiduciary net position which represents the difference between the financial statement elements comprised of assets and liabilities. It is the balance sheet for the pension system and reflects the June 30, 2023 net position (assets less liabilities) available for the payment of benefits and other fiduciary activities of the System.

Statement of Changes in Fiduciary Net Position. This statement details transactions that occurred during the fiscal year. It is the income statement of TRS and reflects the additions and deductions to fiduciary net position recorded throughout the fiscal year. This statement supports the change in the value of net position reported on the Statement of Fiduciary Net Position.

Notes to the Financial Statements. The notes are an integral part of the financial statements and include additional information not readily evident in the statements themselves.

Required Supplementary Information and Other Supplementary Information. The required supplementary information and other supplementary information following the notes to the financial statements provide historical and additional detailed information considered useful in evaluating the pension system's financial condition.

Plan Changes. The financial statements and notes presented in the TRS FY23 ACFR will include two separately reported plans. The plans to be included are the TRS Defined Benefit Pension Plan as a fiduciary component unit of TRS and the Deferred Compensation Plan, not a component unit of TRS but a custodial fund reporting fiduciary activities.

The following are condensed comparative financial statements.

CONDENSED COMPARATIVE STATEMENTS OF FIDUCIARY NET POSITION AS OF JUNE 30

	2023	Percentage Change	2022
Cash	$16,768,742	(14.3%)	$19,555,871
Receivables and prepaid expenses	2,381,586,920	(55.0)	5,290,933,248
Investments	66,266,731,645	6.0	62,528,309,625
Invested securities lending collateral	1,874,005,888	(14.2)	2,183,903,100
Capital assets	9,947,467	20.7	8,238,075
Total assets	**70,549,040,662**	**0.7**	**70,030,939,919**
Total liabilities	**4,047,392,761**	**(43.8)**	**7,199,105,736**
Total fiduciary net position	**$66,501,647,901**	**5.8%**	**$62,831,834,183**

CONDENSED COMPARATIVE STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION FOR THE YEARS ENDED JUNE 30

	2023	Percentage Change	2022
Contributions	$7,250,076,955	2.7%	$7,061,038,548
Net investment income (loss)	4,427,042,975	695.8	(743,042,373)
Participant fee income	31,494	939.8	3,029
Total additions	11,677,151,424	84.8	6,317,999,204
Benefits and refunds	7,967,329,515	3.9	7,669,576,246
Administrative expenses	33,371,327	17.6	28,372,371
Contributions sent to third-party administrator	6,636,864	820.0	721,424
Total deductions	8,007,337,706	4.0	7,698,670,041
Net increase/decrease in fiduciary net position	**3,669,813,718**	**365.8**	**(1,380,670,837)**
Total fiduciary net position - beginning of year	**$62,831,834,183**	**(2.2)**	**64,212,505,020**
Total fiduciary net position - end of year	**$66,501,647,901**	**5.8%**	**$62,831,834,183**

FINANCIAL ANALYSIS

TRS was created to provide retirement, survivor and disability benefits to qualified members. Increases or decreases in the plan's fiduciary net position serve as useful indicators of TRS's financial position. The fiduciary net position was $66.5 billion at June 30, 2023.

CONTRIBUTIONS

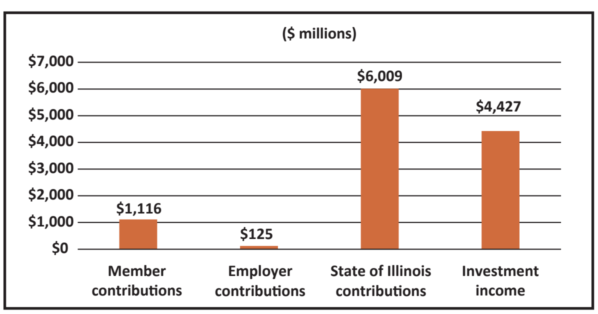
Defined benefit contributions increased $183.1 million during FY23. Contributions from the State of Illinois increased $142.3 million, member contributions increased $36.9 million and employer contributions from school districts increased $3.9 million.

The TRS Deferred Compensation Plan, a 457(b) plan, started accepting contributions in March 2022. Deferred compensation contributions totaled $6.7 million at June 30, 2023. This was an increase of $6.0 million.

Public Act 100-0023 requires that the impact on state contributions due to changes in actuarial assumptions be phased in over five years on a retroactive basis.

State funding law provides for a 50-year funding plan that includes a 15-year phase-in period and a goal of 90 percent funding in the year 2045.

Defined Benefit Revenues by Type for the Year Ended June 30, 2023



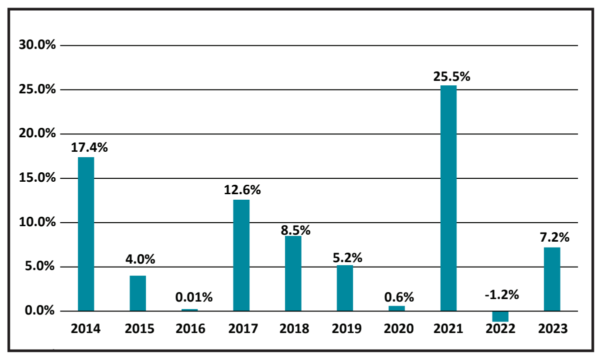
INVESTMENTS

The TRS trust fund is invested according to law under the "prudent person rule" requiring investments to be managed solely in the interest of fund participants and beneficiaries. Principles guiding the investment of funds include preserving the long-term principal of the trust fund and maximizing total return within prudent risk parameters.

The TRS investment portfolio earned 7.2 percent, net of fees, for the fiscal year ended June 30, 2023. In another year dominated by high inflation, market volatility and global geopolitical concerns, the investment strategy employed by TRS protected assets and limited the System's portfolio loss. TRS ended the fiscal year beating the assumed rate of return of 7.0 percent by two basis points.

During the fiscal year, total TRS investment assets increased approximately $3.7 billion, including a net investment gain of $4.4 billion. The material increase in investment income contributed to the portfolio's significantly positive return.

Annual Rate of Return (net of investment expenses)

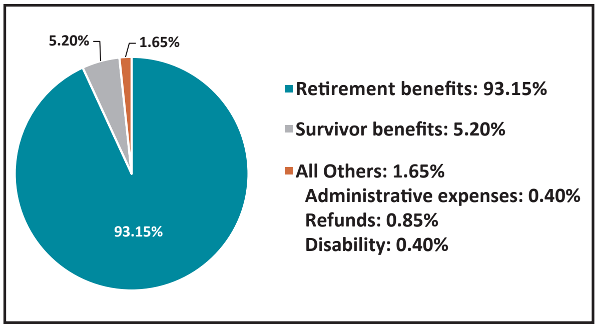


DEFINED BENEFITS AND REFUNDS

Retirement, survivor and disability benefit payments increased $292.1 million during FY23. Benefit payments increased to $7.9 billion with 131,017 recipients in FY23. The overall increase in benefit payments is due to an increase in retirement and survivor benefits as well as the number of retirees. Retirement benefits were higher as a result of annual increases in retirement benefits and an increase in the number of retirees from 115,778 as of June 30, 2022 to 116,991 as of June 30, 2023.

Refunds of contributions increased $5.6 million in FY23. The increase during FY23 is the result of more member and retirement refunds.

Defined Benefit Deductions by Type for the Year Ended June 30, 2023



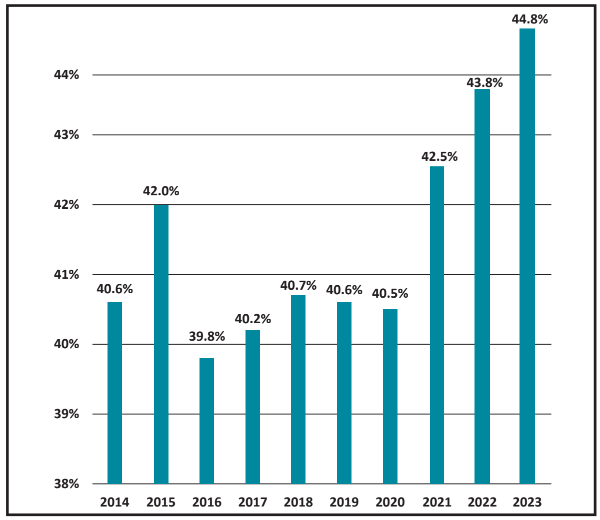
ACTUARIAL

For statutory funding and financial reporting, an actuarial valuation is performed annually and measures the total liability for all benefits earned to date. The actuarial accrued liability is a present value estimate of all benefits earned to date but not yet paid. The actuarial accrued liability based on statutory funding requirements increased $4.9 billion in FY23 to $148.4 billion at June 30, 2023. The actuarial unfunded liability is the present value of accrued benefits payable that are not covered by the actuarial value of assets as of the valuation date. The actuarial unfunded liability based on the actuarial value of assets increased $1.3 billion during FY23 to $81.9 billion at June 30, 2023. The funded ratio reflects the percentage of the actuarial accrued liability covered by the actuarial value of assets. The funded ratio increased from 43.8 percent on June 30, 2022 to 44.8 percent on June 30, 2023.

The actuarial unfunded liability and funded ratio are based on the actuarial value of assets. Public Act 96-0043 requires the five state retirement systems to smooth actuarial gains and losses on investments over a five-year period.

When the funded ratio was based on the fair value of assets, the reported funded ratio was impacted immediately by changes in market conditions. State funding requirements based on fair value assets also were impacted immediately and therefore were more volatile. Using the actuarial value of assets results in more stable reported funded ratios and state funding requirements over time.

Funded Ratio Based on Actuarial Value of Assets



The funded ratio in this chart is the ratio of actuarial assets to the actuarial liability. An increase in this ratio indicates an improvement in TRS's ability to meet future benefit obligations.

During FY14, TRS implemented GASB Statement No. 67, "Financial Reporting for Pension Plans." As a result of implementing the new statement, TRS is required to disclose the net pension liability (NPL) and total pension liability (TPL) in the Financial Statement Notes and Required Supplementary Information in accordance with criteria which differs from criteria used to disclose the actuarial accrued liability and actuarial unfunded liability. The TPL is $151.5 billion at June 30, 2023, while the NPL is $85 billion at June 30, 2023.

LEGISLATIVE

In addition to new programs and initiatives, TRS was affected by the enactment of several laws during FY23:

Deferred Compensation Plan AutoEnrollment — Public Act 102-0540

Enrolls all new TRS members in the Supplemental Savings Plan (SSP). TRS began auto enrollment on January 1, 2023. New TRS members who began their service in 2023 will have 3 percent of their compensation deferred into a personalized SSP account. All auto-enrolled members have the option of declining their participation in the SSP before the first payroll deferral is made. The TRS Board has the authority to increase the minimum compensation deferral.

Private School Credit Extension — Public Act 103-0017

Extends the time period in which eligible TRS members can establish up to two years of service credit for past employment as an administrator or teacher in a private school recognized by the Illinois State Board of Education until June 30, 2028. The law was scheduled to sunset on June 30, 2023.

Post-retirement Work Limits Extension for TRS Retirees — Public Act 103-0088

Extends the June 30, 2023 sunset of the 120-paid days or 600-paid hours post- retirement work limitation to June 30, 2026. The law allows retirees to teach for 120 days or 600 hours during a school year without negatively affecting retirement benefits. Retired members who teach beyond the legal limit lose their pension benefits.

Paid Student Teaching — Public Act 103-0525

Allows optional service credit for periods of paid student teaching as described in Section 24-8.5 of the School Code.

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS
STATEMENT OF FIDUCIARY NET POSITION
JUNE 30, 2023

	Defined Benefit Pension Plan	Deferred Compensation Custodial Fund	Total
Assets			
Cash	$16,768,356	$386	$16,768,742
Receivables and prepaid expenses:			
Member contributions	150,527,513	130,589	150,658,102
Participant DC fees	-	34,523	34,523
Employer contributions	21,529,465	277	21,529,742
State of Illinois	429,877	-	429,877
Investment income	178,530,783	-	178,530,783
Other receivables	3,141,515	-	3,141,515
Pending investment sales	2,027,262,378	-	2,027,262,378
Total receivables and prepaid expenses	2,381,421,531	165,389	2,381,586,920
Investments, at fair value:			
Fixed income	7,747,947,907	-	7,747,947,907
Public equities	22,725,959,017	-	22,725,959,017
Alternative investments	34,394,570,955	-	34,394,570,955
Derivatives	(6,255,095)	-	(6,255,095)
Short-term investments	1,307,235,638	-	1,307,235,638
Foreign currency	97,273,223	-	97,273,223
Total investments	66,266,731,645	-	66,266,731,645
Invested securities lending collateral:			
Securities lending collateral	1,847,994,888	-	1,847,994,888
Securities lending collateral with the State Treasurer	26,011,000	-	26,011,000
Total invested securities lending collateral	1,874,005,888	-	1,874,005,888
Capital assets:			
Capital assets, net of accumulated depreciation	6,875,407	-	6,875,407
Right to use assets, net of amortization	3,072,060	-	3,072,060
Total capital assets, net	9,947,467	-	9,947,467
Total assets	70,548,874,887	165,775	70,549,040,662
Liabilities			
Administrative expenses payable	4,337,347	3,141,515	7,478,862
Benefits and refunds payable	6,812,182	-	6,812,182
Lease and subscription liabilities	3,013,095	-	3,013,095
Investment expenses payable	108,984,942	-	108,984,942
Pending investment purchases	2,047,490,671	-	2,047,490,671
Securities lending collateral	1,873,519,231	-	1,873,519,231
Third-party administrator payable	-	93,778	93,778
Total liabilities	4,044,157,468	3,235,293	4,047,392,761
Total fiduciary net position (deficit) restricted for pensions and other	$66,504,717,419	($3,069,518)	$66,501,647,901

See accompanying Notes to Financial Statements.

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF ILLINOIS
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED JUNE 30, 2023

	Defined Benefit Pension Plan	Deferred Compensation Custodial Fund	Total
Additions			
Contributions:			
Members	$1,109,497,833	$6,647,472	$1,116,145,305
State of Illinois	6,009,158,073	-	6,009,158,073
Employers			
Federal funds	43,131,719	-	43,131,719
2.2 benefit formula	69,549,642	-	69,549,642
Excess employer costs	12,066,739	-	12,066,739
Employer SSP	-	25,477	25,477
Total contributions	7,243,404,006	6,672,949	7,250,076,955
Investment income:			
Net increase in fair value of investments	3,142,048,720	-	3,142,048,720
Alternatives income	1,201,253,640	-	1,201,253,640
Interest and dividends	1,007,810,906	-	1,007,810,906
Other investment income	8,540,734	-	8,540,734
Securities lending income	8,128,567	-	8,128,567
Less investment expenses:			
Alternatives expense	448,515,213	-	448,515,213
Direct investment expense	491,736,657	-	491,736,657
Securities lending management fees	487,722	-	487,722
Net investment income	4,427,042,975	-	4,427,042,975
Other income			
Participant fees and dividends	-	31,494	31,494
Total other income	-	31,494	31,494
Total additions	11,670,446,981	6,704,443	11,677,151,424
Deductions			
Retirement benefits	7,450,997,920	-	7,450,997,920
Survivor benefits	416,259,400	-	416,259,400
Disability benefits	31,885,365	-	31,885,365
Refunds	68,186,830	-	68,186,830
Contributions sent to third-party administrator	-	6,636,864	6,636,864
Administrative expenses	32,026,386	1,344,941	33,371,327
Total deductions	7,999,355,901	7,981,805	8,007,337,706
Net increase/(decrease) in net position	3,671,091,080	(1,277,362)	3,669,813,718
Total fiduciary net position			
Beginning of year (deficit)	62,833,626,339	(1,792,156)	62,831,834,183
End of year (deficit)	$66,504,717,419	($3,069,518)	$66,501,647,901

See accompanying Notes to Financial Statements.

NOTES TO FINANCIAL STATEMENTS

A. PLAN DESCRIPTIONS

1. Reporting Entity

a. Defined Benefit Plan

The Teachers' Retirement System of the State of Illinois (TRS) is a public employee retirement system (PERS), that administers a cost-sharing, multiple-employer defined benefit pension plan. That pension plan is a fiduciary component unit of TRS. Membership is mandatory for all full-time, part-time and substitute public school personnel employed outside of Chicago in positions requiring licensure. Persons employed at certain state agencies and certain non-government entities also are members. Established by the State of Illinois, TRS is governed by the Illinois Pension Code (40 ILCS 5/16). TRS is a component unit of the State of Illinois and is included in the State's financial statements as a pension trust fund.

b. Deferred Compensation Plan

TRS also administers a deferred compensation plan. Pursuant to Section 16-204 of the Illinois Pension Code, the Board of Trustees of TRS established the TRS Supplemental Savings Plan (SSP). The SSP is an eligible deferred compensation plan (DCP) under Section 457(b) of the Internal Revenue Code. Membership is voluntary for eligible TRS members first employed in a TRS-covered position prior to Jan. 1, 2023. Eligible members first employed on or after Jan. 1, 2023 are automatically enrolled unless they opt out of the program. The assets of the SSP are maintained under a trust for the exclusive benefit of participants and beneficiaries. TRS uses a third-party administrator and acts as a pass-through entity for contributions received, thus assets in the trust are not controlled by TRS. Participating members, not TRS, direct the third-party administrator regarding use, exchange or employment of assets within their own accounts. The SSP is not a component unit of TRS. Funds held by TRS prior to being paid to the third-party administrator are reported in a custodial fund as a fiduciary activity.

The net position deficit is a result of start-up expenses and technology costs expended in order to develop and implement a new SSP. The deficit will be eliminated in future years as SSP participants increase and participation fees begin to offset plan costs.

TRS uses criteria established by the Governmental Accounting Standards Board (GASB) to determine whether other entities should be included within its financial reporting entity.

2. Employers

Members of TRS are employed by school districts, special districts, certain state agencies and certain non-governmental entities. Each employer remits member contributions to TRS.

Employers are responsible for employer contributions for:

- Teachers paid from federal funds.
- The 2.2 formula increase.
- Salary increases in excess of 6 percent. When a member retires, the employer is required to pay TRS contributions equal to the actuarial value of a pension benefit that results from any salary increase over 6 percent that is used in a retiring member's final average salary calculation. Several permanent exemptions are in effect for excess salary increases.
- Sick leave days received in excess of the normal annual allotment and applied to service credit for members in their final four years prior to retirement.
- Any portion of a member's salary that is greater than the governor's statutory salary.

In addition, the State of Illinois is a nonemployer contributing entity that provides employer contributions on behalf of the System's employers. For information about employer contributions made by the State of Illinois, see "Schedule of Contributions from Employers and Other Contributing Entities" within the Required Supplementary Information (RSI) section of this report.

The state's statutory contribution requirements are described in the Actuarial Section under "Actuarial Standards and Illinois State Pension Funding."

Number of Employers (as of June 30)

	2023
Local school districts	851
Special districts	135
State agencies	9
Total	**995**

3. Members

TRS Membership (as of June 30)

	2023
Retirees and beneficiaries	131,017
Inactive members	147,329
Active members	169,889
Total	**448,235**

4. Board of Trustees

TRS is governed by a 15-member Board of Trustees. Trustees include the state superintendent of education, seven trustees appointed by the governor, five trustees elected by contributing TRS members, and two trustees elected by TRS annuitants. The president of the Board of Trustees, by law, is appointed by the governor from among the sitting trustees. The Board of Trustees elects its vice president from among its members. The Board of Trustees appoints an executive director who also serves as the secretary of the Board of Trustees. The executive director is responsible for daily operations at TRS.

5. Benefit Provisions

a. Defined Benefit Plan

Governed by the Illinois Pension Code (40 ILCS 5/16), which is subject to amendment by the Illinois General Assembly and approval by the governor, TRS provides retirement, death and disability benefits. Membership is mandatory for all full-time, part-time and substitute public school personnel who are licensed and employed in Illinois outside the city of Chicago.

Public Act 96-0889 (Act), which was signed into law in the spring of 2010, added a new section to the Pension Code that applies different benefits to anyone who first contributes to TRS on or after Jan. 1, 2011 and does not have any previous service credit with one of the reciprocal retirement systems in Illinois. Members who first participate on or after that date are members of Tier 2.

The Act does not apply to anyone who made contributions to TRS prior to Jan. 1, 2011. They remain participants of Tier 1.

Tier 3 was created in July 2017. It is a hybrid retirement plan with both defined benefit and defined contribution plan components.

Tier 1 Benefits

A member qualifies for an age retirement annuity after meeting one of the following requirements: age 62 with five years of service credit; age 60 with 10 years; or age 55 with 20 years. If a member retires between the ages of 55 and 60 with fewer than 35 years of service, the annuity will be reduced at the rate of 0.50 percent for each month the member is under age 60. A member with fewer than five years of creditable service and service on or after July 1, 1947, is entitled to a single-sum benefit payable at age 65.

A retirement benefit is determined by the average of the four highest consecutive annual salary rates within the last 10 years of creditable service with one exception. Public Act 102-0016 removes the consecutive years requirement for members who are retiring on or after June 1, 2021 and the 2020-21 school year is used in the member's final average salary. The final average salary will be based on the four highest years within the last 10 years of creditable service.

Most members retire under a formula that provides 2.2 percent of final average salary up to a maximum of 75 percent with 34 years of service. The 2.2 percent formula became effective July 1, 1998 but service earned before that date can be upgraded to the 2.2 formula with a member contribution. The cost of the upgrade can be reduced if members upgrade and continue teaching after 1998. A graduated formula applies to service earned before 1998 and provides a maximum benefit of 75 percent of average salary with 38 years of service.

Tier 1 members who contributed to TRS before July 1, 2005 receive a money purchase (actuarial) benefit if it provides a higher benefit than the 2.2 or graduated formulas. The 75 percent cap does not apply to the money purchase benefit.

All Tier 1 retirees receive an annual 3 percent increase in the current retirement benefit beginning Jan. 1 following the attainment of age 61 or on Jan. 1 following the member's first anniversary in retirement, whichever is later.

Disability and death benefits are provided.

If a member leaves covered employment, TRS will refund a member's retirement contributions upon request. The refund consists of actual contributions, excluding the 1 percent death benefit contribution.

Effective July 1, 2017, Tier 1 members contribute 9.0 percent of their creditable earnings to TRS and an additional contribution to a retiree health insurance program that is not administered by TRS.

Tier 2 Benefits

Differences with Tier 1 include raising the minimum eligibility to draw a retirement benefit to age 67 with 10 years of service. A discounted annuity can be paid at age 62 with 10 years of service. The Tier 2 law caps creditable earnings and contributions used for retirement purposes at a level that is lower than the Social Security wage base. Tier 2 annual increases will be the lesser of 3 percent or ½ percent of the rate of inflation of the original benefit beginning Jan. 1 following attainment of age 67 or on Jan. 1 following the member's first anniversary in retirement, whichever is later.

The 2.2 retirement formula also applies to Tier 2, but the final average salary is based on the member's highest average salary earned during eight consecutive years out of the last 10 years of service with one exception. Public Act 102-0016 removes the consecutive years requirement for members who are retiring on or after June 1, 2021 and the 2020-21 school year is used in the member's final average salary. The final average salary will be based on the eight highest years within the last 10 years of creditable service.

The single-sum benefit also is payable at age 65 to Tier 2 members with fewer than five years of service. The money purchase (actuarial) benefit is not available to Tier 2 members.

Disability and refund provisions for Tier 2 are identical to those that apply to Tier 1. Death benefits are payable under a formula that is different from Tier 1.

Effective July 1, 2017, Tier 2 members contribute 9.0 percent of their creditable earnings to TRS and an additional contribution to a retiree health insurance program that is not administered by TRS.

Tier 3 Benefits

Enacted in July of 2017, the Tier 3 benefit is designed to be a hybrid retirement plan with two parts – a defined benefit (DB) pension and a defined contribution (DC) savings plan.

Under the law, Tier 3 members would make payroll contributions to their DB pensions that are based on the full cost of this part of the benefit, but no more than 6.2 percent of salary. In addition, Tier 3 members would contribute a minimum of 4 percent of their pay to the DC portion of the plan.

At retirement, TRS members would receive a pension and be able to access funds from their DC savings account as they see fit.

However, an implementation date for Tier 3 has not been set. As written, the current language of the Tier 3 statute inadvertently conflicts with other provisions of the Illinois Pension Code. Until these differences are corrected by the legislative and executive branches, Tier 3 cannot be implemented.

b. Deferred Compensation Plan

The Deferred Compensation Plan provides retirement benefits to participating members. All contributions are held in Trust for the exclusive benefit of participants and beneficiaries. Participants are always 100 percent vested in all contributions and investment earnings (including employer contributions and related investment earnings), regardless of years of service credit attained. Participant is not entitled to a distribution of his/her accounts under the Plan until the earlier of the Participant's severance from employment or the calendar year in which the Participant attains age 59 and one half (59 ½). Exceptions to distribution restrictions rules include death, disability and unforeseeable financial emergency.

6. Actuarial Measurements

The Schedule of Changes in the Net Pension Liability, Schedule of the Net Pension Liability and the Schedule of Contributions from Employers and Other Contributing Entities may be found in the Required Supplementary Information. Other schedules pertaining to the System's funded status are in the Actuarial section.

Member, employer and state contributions are statutorily defined by the Illinois Pension Code (40 ILCS 5/16), which is subject to amendment by the Illinois General Assembly with approval by the governor. Since July 1, 1995, state appropriations have been made through a continuing appropriation.

Member contributions are allocated as follows: 7.5 percent for retirement; 0.5 percent for post-retirement increases; and 1 percent for death benefits.

Employer contributions are made by or on behalf of employers from several sources. The State of Illinois provides the largest source of contributions through state appropriations from the Common School Fund. Employers also make contributions for the 2.2 benefit formula and for teachers who are paid from federal funds. Additionally, employers contribute their portion of any excess salary increase or sick leave costs due and the total employer normal cost on salaries exceeding the governor's salary.

State funding law provides for a 50-year funding plan that includes a 15-year phase-in period.

Public Act 96-0043, which was effective July 15, 2009, requires TRS to use a five-year smoothing method for asset valuation beginning on June 30, 2009. State contribution requirements were first affected by this change in FY11.

Public Act 100-0023, which was effective July 6, 2017, requires the impact on state contributions due to changes in actuarial assumptions to be phased in over five years. State contribution requirements were first affected by this change in FY18. The FY18 requirement was recertified in January 2018 due to the new law.

Administrative expenses are budgeted and approved by the TRS Board of Trustees. Funding for these expenses is included in the employer contribution, as determined by the annual actuarial valuation.

Pension Liability

The actuarial assumptions included in the June 30, 2023 actuarial valuation were used to calculate the June 30, 2023 total pension liability. These assumptions were based on the latest experience study conducted by TRS actuaries, as discussed later in this section.

As of June 30, 2023, the assumption for future investment returns was 7.0 percent, a rate unchanged from June 30, 2022. The components which make up the investment return assumption, real rate of return, 4.50 percent, and inflation, 2.50 percent, were unchanged. The investment return assumption for the 2023 actuarial valuation is based on an asset allocation study conducted by the TRS investment consultant and additional analysis conducted by the actuary in 2023.

The TRS actuary used the following assumed rates of returns by asset class, excluding 2.50 percent for the assumed rate of inflation as well as investment expenses.

Expected Arithmetic Returns Over 10-20 Year Horizon

Asset Class	Return	Target Asset Allocation
Global Equity	5.35%	37.0%
Private Equity	8.03	15.0
Income	4.32	26.0
Real Assets	4.60	18.0
Diversifying Strategies	3.40	4.0
Total		**100.0**

If the plan's fiduciary net position is not sufficient to cover all benefit payments to current plan members, GASB Statement No. 67 requires the discount rate to be different from the assumed rate of return. Instead, the discount rate would be a blended rate, which includes the long-term expected rate of return and a municipal bond rate (the Bond Buyer's 20-Bond GO Index) as of the end of the current fiscal year. Based on the following projections, the System can use the long-term expected rate of return as the discount rate for the year ended June 30, 2023, as it did for the prior year.

TRS, with the assistance of the System's actuary, projected that the plan's fiduciary net position will provide for all benefit payments to current plan members. Projected contributions assume that all statutorily required contributions are made, including projected contributions from members, employers and the State of Illinois (nonemployer contributing entity). Projected state contributions reflect the changes enacted in Public Acts 100-0023, 100-0340, 100-0587, 101-0010 and 102-0718. However, the projections do not include any assumptions about the utilization of Tier 3 under PA 100-0023.

Estimated contributions from employers and the State of Illinois, of which the majority of the contributions (approximately 99 percent) are provided by the State of Illinois, are projected to be $6.0 billion in FY24 and grow to $10.5 billion by FY45 based on present statutory requirements for current members. Tier 1's liability is partially funded by Tier 2 because the Tier 2 contributions are higher than the cost of Tier 2 benefits. Due to this subsidy, contributions from future members in excess of the service cost are also included in the determination of the discount rate.

The actuarial cost method required for financial reporting purposes is the entry age normal method. For TRS, TPL is developed and rolled forward to the valuation date based on member census data one year prior. TPL is projected to the June 30, 2023 measurement date based on census data as of June 30, 2022. Assets, included in plan fiduciary net position, are measured at fair value.

Net Pension Liability

	June 30, 2023
Total pension liability	$151,485,294,234
Plan fiduciary net position	66,504,717,419
Net pension liability	$84,980,576,815
Plan fiduciary net position as a percentage of the total pension liability	43.9%

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	1% Decrease	Current	1% Increase
Discount rate	6.0%	7.0%	8.0%
Net pension liability	$104,599,123,559	$84,980,576,815	$68,699,254,139

Most of the actuarial assumptions used in the June 30, 2023 actuarial valuation are based on the actuarial experience analysis dated September 2021 that covered the period July 1, 2017 through June 30, 2020 and the economic experience review presented at the August 2023 Board meeting. TRS system actuaries will conduct the next experience study in 2024 for the period July 1, 2020 through June 30, 2023.

Actuarial Assumptions Used for Financial Reporting Disclosure

Actuarial Valuation Date	June 30, 2023
Census Date:	June 30, 2022 with total pension liability projected to June 30, 2023.
Actuarial Cost Method:	
For financial reporting purposes	Entry age normal
Asset Valuation Method:	
For financial reporting purposes	Fair value as of valuation date
Actuarial Assumptions:	
Investment rate of return	7.0% adopted effective June 30, 2022 and reaffirmed at the August 15, 2023 Board meeting.
Real rate of investment return	4.50%
Projected salary increases	8.75% with 1 year of service to 3.75% with 20 or more years of service. Includes inflation and real wage growth (productivity) assumptions.
Group size growth rate	0%
Assumed inflation rate	2.50%
Post-retirement increase	Tier 1: 3%, compounded; Tier 2: 1.25%, not compounded.
Mortality table:	PubT - 2010 adjusted for TRS experience with future mortality improvements on a fully generational basis using projection table MP-2020.

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

1. Basis of Accounting

The financial transactions of TRS are recorded using the economic resources measurement focus and the accrual basis of accounting. Member and employer contributions are recognized as additions when due pursuant to statutory or contractual requirements. Benefits and refunds are recognized as deductions when they are due and payable in accordance with the terms of the plan.

2. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements as well as the reported amounts of additions to and deductions from net position during the reporting period. Actual results could differ from these estimates. TRS uses an actuary to determine the total pension liability for the defined benefit plan and to determine the actuarially-required contribution.

3. Risks and Uncertainties

TRS investments are diversified and include various investment securities. Investment securities are exposed to a variety of risk including credit, market and interest rate risk. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that value changes will occur in the near-term and such changes could materially affect the amounts reported in the Statement of Fiduciary Net Position.

4. Adoption of GASB 96

GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*, became effective for fiscal year 2023. GASB 96 requires recognition of subscription-based Information technology arrangements (SBITAs) for software and IT assets over $25,000 as a right-to-use asset. The SBITAs are recognized by the System as a subscription liability and as an intangible right-to-use asset.

Adoption of GASB 96 had no effect on beginning fiduciary net position and was not material to the financial statements.

5. Method Used to Value Investments

TRS reports investments at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value for publicly traded equities, foreign currency and exchange traded derivatives is determined by using the closing price listed on national securities exchanges as of June 30. Fair value for most of fixed income securities and over-the-counter derivatives is determined primarily by using quoted market prices provided by independent pricing services. Short-term investments are generally reported at amortized cost, which approximates fair value. Appraisals are used to determine fair value on directly owned real estate investments. Fair value for private equity investments, diversifying funds and partnership interests in real estate and real assets is determined by TRS staff and the general partners or investment managers in accordance with the provisions in the individual agreements. These agreements also require that an independent audit be performed on an annual basis.

6. Capital Assets, Lease and Subscription

TRS categorizes capital assets as tangible capital assets and intangible right to use assets.

Tangible capital assets are stated on the basis of historical cost. Depreciation is computed using the straight-line method based upon the estimated useful lives of the assets (Building and building improvements: $25,000, 10 - 40 years; Equipment and furniture $5,000, 3 - 10 years; Computer software: $25,000 3 - 5 years).

Intangible right-to-use assets are measured at the present value of expected payments over the term of the contract. The capitalization threshold for lease assets and subscriptions is $25,000 for a term greater than one year. Capital assets activity for the year ended June 30, 2023 was as follows:

	Beginning Balance	Additions/ Transfers In	Disposals/ Transfers Out	Ending Balance
Capital Assets, not depreciated:				
Land	$235,534	$ -	$ -	$235,534
Mineral lease Rights	2,643	-	-	2,643
	238,177	-	-	238,177
Capital Assets, depreciated:				
Office building	9,648,053	236,985	-	9,885,038
Site improvements	1,127,708	61,336	47,858	1,141,186
Equipment and furniture	3,316,727	78,502	39,510	3,355,719
Purchased Software	295,045	-	-	295,045
Internally Generated Software (IGS)	11,677,793	734,699	-	12,412,492
	26,065,326	1,111,522	87,368	27,089,480
Less accumulated depreciation:				
Office building	8,183,261	247,677	-	8,430,938
Site improvements	1,100,933	9,702	47,858	1,062,777
Equipment and furniture	3,016,742	157,825	39,510	3,135,057
Purchased Software	295,045	-	-	295,045
Internally Generated Software (IGS)	5,469,447	2,058,986	-	7,528,433
	18,065,428	2,474,190	87,368	20,452,250
Right to Use Assets				
Office buildings	-	1,792,579	-	1,792,579
Copiers	-	104,529	-	104,529
Computer software	-	2,116,797	-	2,116,797
	-	4,013,905	-	4,013,905
Less Accumulated Amortization:				
Office buildings	-	218,928	-	218,928
Copiers	-	34,843	-	34,843
Computer software	-	688,074	-	688,074
	-	941,845	-	941,845
Total Net Capital Assets	**$8,238,075**	**$1,709,392**	**$ -**	**$9,947,467**

7. Compensated Absences

When employment is terminated, TRS employees are entitled to receive compensation for all accrued unused vacation time and one-half of all unused sick leave earned through Dec. 31, 1997. (Lump-sum payments for sick leave earned prior to Jan. 1, 1984, are subject to a maximum of 60 days or 420 hours.) Sick time earned after Dec. 31, 1997 is not compensable at termination.

At June 30, 2023, the System had a liability of $2,322,170 for compensated absences. The liability is included in administrative and investment expenses payable on the Statement of Fiduciary Net Position. For non-investment staff, the increase or decrease in liability is reflected in the financial statements as administrative expense. For investment staff, the increase or decrease is reflected as investment expense. Compensated absences payable for the year ended June 30, 2023 was as follows:

	Beginning Balance	Additions	Reductions	Ending Balance
Compensated absences payable	$2,167,568	$1,436,255	$1,281,653	$2,322,170

The estimated amount due within one year is: $235,016

8. Receivables

Receivables consist primarily of 1) member and employer contributions owed and yet to be remitted by the employing districts, 2) interest, dividends, real estate and private equity income owed to TRS, 3) appropriations not yet received from the State of Illinois as of June 30 and 4) pending investment sales.

TRS assesses penalties for late payment of contributions and may collect any unpaid amounts from the employing districts by filing a claim with the appropriate regional superintendent of education or the Office of the Comptroller against future state aid payments to the employer. TRS considers these amounts to be fully collectible.

9. Risk Management

TRS, as a component unit of the State of Illinois, provides for risks of loss associated with workers' compensation and general liability through the State's self-insurance program. TRS obtains commercial insurance for fidelity, surety and property.

No material commercial insurance claims have been filed in the last three fiscal years.

C. CASH

Custodial credit risk for deposits is the risk that, in the event of a bank failure, TRS's deposits may not be returned. TRS has a formal policy to address custodial credit risk. The policy is designed to minimize custodial credit risk through proper due diligence of custody financial institutions and investment advisors; segregate safekeeping of TRS assets; establish investment guidelines and work to have all investments held in custodial accounts through an agent, in the name of custodian's nominee, in a corporate depository or federal book entry account system. For those investment assets held outside of the custodian, TRS will follow the applicable regulatory rules.

The non-investment bank balance and carrying amount of TRS's deposits was $16,768,356 at June 30, 2023. Of the bank balance, $16,768,106 was on deposit with the State Treasurer at June 30, 2023. State Treasurer deposits are in an internal investment pool collateralized at a third-party custodial bank and are not subject to custodial credit risk.

Certain investments of TRS with maturities of 90 days or less consisting of bank-sponsored, short-term investment funds, commercial paper, and certificates of deposit are reported as short-term investments in the Statement of Fiduciary Net Position. Included in the reported balances is the State Street Global Advisors Short-Term Investment Fund (STIF) with a value of $1,269,950,764 at June 30, 2023. The STIF fund has an average credit quality rating of A1P1 and a weighted average maturity of 25.0 days.

For purposes of this disclosure, foreign currency held by investment managers is considered a deposit. However, for financial statement presentation and investment purposes, TRS considers foreign currency an investment asset. Uncollateralized foreign currency subject to custodial credit risk was $97,273,223 at June 30, 2023.

D. INVESTMENTS

1. Investment Policies

Through the TRS Board of Trustees, as authorized in the Illinois Pension Code, TRS serves as fiduciary for the members' trust funds and is responsible for investment of those funds by authority of the "prudent person rule." This rule establishes a standard for all fiduciaries by specifying fiduciary responsibility with regard to the members' trust funds.

Long-Term Asset Allocation

The TRS Board of Trustees has the responsibility of establishing and maintaining broad policies and objectives for all aspects of the System's operations, including the allocation of invested assets. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully-funded status for the benefits provided through the pension plan. The following table summarizes the board-adopted, long-term allocation targets in effect as of June 30, 2023.

Long-term Asset Allocation Policy Mix	
Equity	52%
Real assets	18
Diversifying strategies	4
Income	26
Total	**100%**

2. Investment Risk

Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of a financial institution failure, TRS would not be able to recover the value of the investments in the possession of an outside party. The TRS investment policy adopted by the TRS Board of Trustees includes a formal process to address custodial credit risk. This policy requires the custodian to provide safekeeping of the System's assets in segregated accounts and to have the assets registered in TRS's name, custodian's nominee name or in a corporate depository or federal book entry system.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of an investment in any one issuer. Investment parameters established in the Investment Management Agreements with external managers restrict holdings to no more than 5 percent of a single issuer within an account. The TRS portfolio has no investments in any one issuer that comprise 5 percent or more of the System's total investments or fiduciary net position.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to TRS. Credit risk exposure is dictated by each investment manager's agreement. Each portfolio is managed in accordance with investment guidelines that are specific as to permissible credit quality ranges, exposure levels within individual security quality rating tiers and/or the average credit quality of the overall portfolio. Most guidelines allow managers to hold bonds with a minimal quality S&P rating of B- or Moody's equivalent rating of B3. However, in circumstances where position downgrades occur, investment managers have been given permission to hold securities below this rating due to circumstances such as a higher peer group rating from another nationally-recognized statistical rating organization, the investment manager's internal ratings or other mitigating factors.

As of June 30, 2023, TRS held the following fixed income investments with respective Moody's quality ratings or equivalent rating. Obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk.

Quality Rating	Corporate Debt Securities	Asset-Backed Securities	Foreign Debt Securities	U.S. Agency Obligations	U.S. Government Backed Mortgages	Municipals	Commingled Funds	Total
Aaa	$153,399,383	$42,238,241	$ -	$146,085,843	$145,698,126	$ -	$538,760,573	$1,026,182,166
Aa1	-	-	-	-	-	-	118,489,160	118,489,160
Aa2	707,289	1,722,274	45,631,670	-	-	-	176,027,534	224,088,767
Aa3	2,952,262	3,659,709	49,904,756	-	-	1,170,297	9,495,663	67,182,687
A1	157,449,391	-	117,244,182	-	-	-	1,184,832,116	1,459,525,689
A2	89,733,289	3,736,875	65,899,538	-	-	-	726,262,690	885,632,392
A3	158,305,803	5,320,636	65,473,485	-	-	-	-	229,099,924
Baa1	83,797,470	2,340,483	138,167,834	-	-	-	-	224,305,787
Baa2	272,695,238	7,517,140	405,204,936	-	-	-	-	685,417,314
Baa3	329,637,711	-	200,771,556	-	-	-	-	530,409,267
Ba1	94,782,473	979,118	84,199,250	-	-	275,907	164,447,404	344,684,152
Ba2	56,649,696	3,794,004	209,192,286	-	-	-	-	269,635,986
Ba3	74,578,155	-	180,575,405	-	-	-	-	255,153,560
B1	77,009,860	-	72,153,188	-	-	-	41,115,794	190,278,842
B2	26,927,823	-	51,130,541	-	-	-	-	78,058,364
B3	28,916,163	-	62,381,166	-	-	-	-	91,297,329
Caa1	1,411,129	-	29,392,118	-	-	-	-	30,803,247
Caa2	-	-	10,293,803	-	-	-	-	10,293,803
Caa3	1,348,775	-	20,101,730	-	-	-	-	21,450,505
Ca	163,179	1,295,415	18,989,308	-	-	-	-	20,447,902
C	-	46,275	5,992,492	-	-	-	-	6,038,767
Not rated	27,800,380	7,377,297	14,780,753	-	-	-	-	49,958,430
Withdrawn	10,666,818	35,680	11,202,506	-	-	-	-	21,905,004
Total credit risk, bonds, corporate notes and government obligations	**1,648,932,287**	**80,063,147**	**1,858,682,503**	**146,085,843**	**145,698,126**	**1,446,204**	**2,959,430,934**	**6,840,339,044**
U.S. Treasuries								907,608,863
Total bonds, corporate notes & government obligations	**$1,648,932,287**	**$80,063,147**	**$1,858,682,503**	**$146,085,843**	**$145,698,126**	**$1,446,204**	**$2,959,430,934**	**$7,747,947,907**

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. TRS's fixed income investments are managed in accordance with operational guidelines that are specific as to the degree of interest rate risk that can be taken. TRS manages the interest rate risk within the portfolio using various methods including effective duration, option adjusted duration, average maturity and segmented time distribution, which reflect the total fair value of investments maturing during a given time period.

The segmented time distribution of the various investment types of TRS debt securities as of June 30, 2023 is as follows:

		Maturity in Years				
Type	2023 Fair Value	Less Than 1 year	1 to 5 years	5 to 10 years	10 to 20 years	More Than 20 years
U.S. treasuries/agencies	$1,053,694,706	$429,692,244	$505,672,076	$74,847,915	$23,827,980	$19,654,491
U.S. government-backed mortgages	145,698,126	718	8,372	-	1,548,402	144,140,634
Municipals	1,446,204	-	275,907	-	-	1,170,297
Asset-backed securities	80,063,147	444,800	58,953,390	1,402,730	6,306,634	12,955,593
Commingled funds (U.S. & international)*	2,959,430,934	118,489,160	590,202,287	1,850,249,557	243,757,840	156,732,090
Corporate debt securities	1,648,932,287	122,350,836	1,179,645,562	151,397,251	71,795,876	123,742,762
Foreign debt/corporate obligations	1,858,682,503	47,118,192	832,426,963	528,195,558	244,697,453	206,244,337
Total bonds, corporate notes and government obligations	**7,747,947,907**	**718,095,950**	**3,167,184,557**	**2,606,093,011**	**591,934,185**	**664,640,204**
Derivatives	(6,255,095)	(2,116,189)	(3,642,668)	(496,238)	-	-
Total bonds, corporate notes, government obligations, securities lending collateral and derivatives	**$7,741,692,812**	**$715,979,761**	**$3,163,541,889**	**$2,605,596,773**	**$591,934,185**	**$664,640,204**

** Weighted average maturity figures were used if available to plot the commingled funds within the schedule.*

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. TRS's currency risk exposure, or exchange rate risk, is primarily derived from its holdings in foreign currency-denominated equity, fixed income and derivative investments as well as foreign currency. According to TRS's Investment Policy and investment manager agreements, international equity and global fixed income managers, at their discretion, may or may not hedge the portfolio's foreign currency exposures with currency forward contracts or options, depending upon their views on a specific country or foreign currency relative to the U.S. dollar.

TRS's exposure to foreign currency risk in U.S. dollars as of June 30, 2023 is as follows:

Currency	Foreign Currency	Equities	Fixed Income	Derivatives	Total
Australian Dollar	$3,271,772	$284,690,471	$ -	$ -	$287,962,243
Brazilian Real	6,420,949	150,838,828	80,314,987	336,803	237,911,567
British Pound	8,380,457	1,036,463,514	-	-	1,044,843,971
Canadian Dollar	3,572,912	456,625,912	-	-	460,198,824
Chilean Peso	826,849	10,664,531	12,123,839	(116,006)	23,499,213
Chinese Yuan	179,946,909	-	-	-	179,946,909
Chinese Yuan Renminbi	(183,096,283)	381,156,344	6,361,805	107,477	204,529,343
Colombia Peso	793,179	1,355,303	50,101,051	(2,140,881)	50,108,652
Czech Koruna	(1,972,296)	783,422	45,061,846	(297,270)	43,575,702
Danish Krone	1,551,466	185,121,676	-	-	186,673,142
Dominican Peso	-	-	2,264,744	-	2,264,744
Egyptian Pound	10,536,374	3,507,589	-	-	14,043,963
Emirati Dirham	11,626	30,208,687	-	-	30,220,313
Euro	17,740,344	2,117,167,384	55,326,990	(544,284)	2,189,690,434
Hong Kong Dollar	4,678,609	574,232,750	-	(108,325)	578,803,034
Hungarian Forint	912,929	14,684,398	24,181,803	179,017	39,958,147
Indian Rupee	174,325	401,917,862	-	-	402,092,187
Indonesian Rupiah	1,485,373	81,411,244	72,024,059	-	154,920,676
Israeli Shekel	(71,770)	23,935,688	-	(327,632)	23,536,286
Japanese Yen	16,151,690	1,363,441,556	-	-	1,379,593,246
Kuwati Dinar	2,438	3,214,985	-	-	3,217,423
Malaysian Ringgit	449,473	27,736,228	31,187,388	(445)	59,372,644
Mexican Peso	2,106,877	72,363,706	85,562,967	214,277	160,247,827
New Taiwan Dollar	2,517,525	498,925,468	-	-	501,442,993
New Zealand Dollar	100,282	1,491,434	-	-	1,591,716
Nigerian Naira	534,379	-	-	-	534,379
Norwegian Krone	727,036	65,086,888	-	-	65,813,924
Pakistani Rupee	2,082	219,345	-	-	221,427
Peruvian Sol	1,659,429	-	41,170,020	-	42,829,449
Philippine Peso	247,723	13,465,886	-	-	13,713,609
Polish Zloty	5,161,358	34,152,651	37,130,141	1,214,112	77,658,262
Qatari Riyal	142,146	18,508,218	-	-	18,650,364
Romanian Leu	105,781	-	19,072,250	-	19,178,031
Russian Ruble	2,377,521	-	-	-	2,377,521
Singapore Dollar	691,754	104,393,102	-	67,396	105,152,252
South African Rand	953,991	65,286,825	81,443,575	164,283	147,848,674
South Korean Won	2,508,781	423,336,547	-	(480,024)	425,365,304
Swedish Krona	2,411,337	199,790,893	-	-	202,202,230
Swiss Franc	748,557	490,684,435	-	-	491,432,992
Thailand Baht	1,954,750	74,052,089	32,474,012	-	108,480,851
Turkish Lira	363,576	60,769,906	-	-	61,133,482
Ukraine Hryvnia	191,013	-	-	-	191,013
Uruguayan Peso	-	-	5,272,120	-	5,272,120
Vietnam Dong	-	2,287,022	-	-	2,287,022
Uzbekistani Som	-	-	1,137,771	-	1,137,771
Total subject to foreign currency risk	**97,273,223**	**9,273,972,787**	**682,211,368**	**(1,731,502)**	**10,051,725,876**
Investments in international securities payable in U.S. dollars	-	1,007,829,418	1,176,471,135	(1,295,425)	2,183,005,128
Total international investment securities (including domestic securities payable in foreign currency)	**97,273,223**	**10,281,802,205**	**1,858,682,503**	**(3,026,927)**	**12,234,731,004**
Domestic investments (excluding securities payable in foreign currency)	-	12,444,156,812	5,889,265,404	(3,228,168)	18,330,194,048
Total fair value	**$97,273,223**	**$22,725,959,017**	**$7,747,947,907**	**($6,255,095)**	**$30,564,925,052**

In addition to the previous table, the fair value of TRS's investments in foreign currency denominated real asset, private credit and private equity funds was $511,008,344, $39,082,607 and $678,196,850 at June 30, 2023, respectively. Currencies included Euro, British pound, Canadian dollar, and South Korean won.

3. Securities Lending Program

The TRS Board of Trustees' policies permit TRS to use investments to enter into securities lending transactions, which are loans of securities to broker-dealers or other approved entities. The borrower of a security must post collateral in excess of the fair value of the security. TRS receives both cash and non-cash (i.e., securities) collateral.

Eligible forms of collateral include cash consisting of U.S. dollar, euro, sterling and yen, U.S. treasuries, government agency securities, certificates of deposit, letters of credit issued by approved banks and specific types of corporate debt obligations and common stock. Initial collateral received from the borrower must be at least 102 percent of the fair value of all loaned securities except non-U.S. securities, which require 105 percent. Securities on loan are marked to market daily and collateral for the loan is required not to fall below minimum levels established by TRS and its lending agent. Agreements are in place allowing TRS, upon demand, to return the collateral in exchange for the original securities. TRS does not have the authority to pledge or sell collateral securities without borrower default; as such, the collateral security or non-cash collateral is not reported in TRS's financial statements in accordance with GASB Statement No. 28, "Accounting and Financial Reporting for Securities Lending Transactions."

As of June 30, 2023, Citibank, N.A. served as the third-party securities lending agent for the fixed income, domestic equity, international equity and global equity lending programs. In this capacity, TRS reduces credit risk by allowing Citibank to lend securities to a diverse group of dealers on behalf of TRS. At fiscal year end, TRS has no credit risk exposure to borrowers because the amount TRS owes the borrowers exceeds the amount the borrowers owe TRS. The weighted average term of the loans is one day as securities on loan can be recalled on demand by TRS or the borrower can return the loaned securities at any time. Since loans are terminable at will, the maturity of loans generally does not match the maturity of collateral investments. TRS may enter into term loan agreements, evaluated on an individual basis, but as of June 30, 2023, there were no term loans outstanding.

Cash collateral received is invested in a separate account managed by the lending agent, with a weighted average maturity of 66 days at June 30, 2023. There were no significant violations of legal or contractual provisions, and there were no borrower or lending agent default losses known to the securities lending agent.

As of June 30, 2023, TRS had outstanding loaned investment securities with a fair value of $1,826,529,349 against which it had received cash and non-cash collateral with a fair value of $1,869,613,027. The securities on loan remain on TRS's Statement of Fiduciary Net Position in their respective investment categories. As of June 30, 2023, TRS cash collateral received and reported as securities lending obligation on the Statement of Fiduciary Net Position totaled $1,847,508,231; whereas the fair value of re-invested cash collateral reported as securities lending collateral was $1,847,994,888. The net increase (decrease) in fair value of investments within the Statement of Changes in Fiduciary Net Position reflects the change in fair value of the re-invested cash collateral. TRS also reports securities lending collateral with the Office of the Illinois State Treasurer on the Statement of Fiduciary Net Position. Further detail on this amount can be obtained by calling the Office of the Illinois State Treasurer at (217) 558-1250 or by visiting **www.illinoistreasurer.gov**.

Income earned and costs related to securities lending activities are reported on the Statement of Changes in Fiduciary Net Position. For fiscal year 2023, the System earned net income of

$7,640,845 from securities lending. Additional detail regarding securities lending activity is included within the Investments section.

4. Derivatives

TRS, through its investment managers, invests in derivative securities as a fundamental part of the overall investment process. All TRS derivatives are considered investments and the fair value is reported in the Statement of Fiduciary Net Position. TRS does not directly invest in derivatives but allows certain external managers to utilize these instruments within the investment portfolio for a variety of purposes. TRS managers may hold derivatives to hedge investment transactions accounted for at fair value. The term "hedge" in this context denotes the broad economic activity of entering into contracts intended to offset risks associated with certain transactions, such as the changes in interest rates on investments in debt securities, commodities or instruments denominated in a foreign currency. Assets and liabilities that are measured at fair value, such as investments, do not qualify as hedgeable items and do not meet the requirements for hedge accounting.

A derivative security is an investment whose return depends upon the value of another financial instrument or security such as stocks, bonds, commodities or a market index. The derivative investments in TRS's portfolio are used primarily to enhance performance and reduce volatility. TRS's investments in derivatives are not leveraged through borrowing. In the case of an obligation to purchase (long a financial future or call option), the full value of the obligation is primarily held in cash or cash equivalents. For obligations to sell (short a financial future or put option), the reference security is held in the portfolio.

To varying degrees, derivative transactions involve credit risk, sometimes known as default or counterparty risk, and market risk. Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to the established contract terms. To eliminate credit risk, derivative securities can be acquired through a clearinghouse that guarantees delivery and accepts the risk of default by either party. The Commodity Futures Trading Commission (CFTC) mandates that any entity that trades or is counterparty to OTC (over-the-counter) derivatives must have a Global Market Entity Identifier (GMEI). TRS is registered and maintains a legal entity identifier.

Market risk is the possibility that a change in interest, currency or other pertinent market rates will cause the value of a financial instrument to decrease or become more costly to settle. Imposing limits on the types, amounts and degree of risk that investment managers may undertake restricts the market risk associated with the constantly fluctuating prices of derivatives. These limits and derivative positions of the investment managers are reviewed on a regular basis to monitor compliance.

As of June 30, 2023, derivative investments in the TRS investment portfolio included currency forward contracts, rights, warrants, futures, options, swaps and swaptions. Within the financial statements, currency forward contracts are reflected as investment payables/receivables, rights and warrants are reflected as equities, and all futures, options, swaps and swaptions are classified as derivatives. The change in fair value of derivative investments is included in investment income on the Statement of Changes in Fiduciary Net Position.

The following tables summarize the derivatives held within the TRS investment portfolio and the change in fair value of derivative investments, realized and unrealized, during the fiscal year. The notional amounts shown represent TRS's financial exposure to these instruments in U.S. dollars. Investments in limited partnerships and commingled funds may include derivatives that are not covered in the following disclosure.

As of June 30, 2023, the TRS investment portfolio held the following derivatives.

Investment Derivatives	Fair Value at June 30, 2023	Change in Fair Value	Shares/Par	Notional
Credit default swaps buying protection	($2,017,768)	($12,144,640)	167,805,806	$169,450,214
Credit default swaps selling protection	(987,627)	7,089,876	17,680,000	16,697,775
Index and variance swaps	(407,551)	(8,007,334)	(53,693,391)	7,444,969
Pay fixed interest rate/inflation swaps	1,441,996	(6,523,794)	228,722,583	229,678,500
Receive fixed interest rate/inflation swaps	(2,286,366)	2,030,159	344,722,822	343,409,194
Equity futures long	-	12,363,389	45,363,810	70,928,624
Equity futures short	-	(1,623,173)	(720,622)	(44,130,370)
Fixed income futures long	-	(20,096,371)	230,600,000	265,264,094
Fixed income futures short	-	5,668,162	(42,610,505)	(49,258,657)
Currency forward options purchased	411,604	(1,655,571)	109,458,863	49,679,319
Currency forward options written	(2,802,435)	1,113,693	(65,867,863)	41,605,819
Swaptions purchased	593,132	(1,245,647)	81,880,000	59,313,217
Swaptions written	(200,080)	902,720	(81,880,000)	20,007,951
FX forwards	1,437,818	14,492,118	-	-
Rights	204	(220,687)	2,242	2,242
Warrants	7,314,688	(1,624,859)	837,819	837,819
Grand total	**$2,497,615**	**($9,481,959)**		**$1,180,930,710**

Currency Forward Contracts

Objective: Currency forward contracts are agreements to exchange one currency for another at an agreed upon price and settlement date. TRS's investment managers use these contracts primarily to hedge the currency exposure of its investments.

Terms: Currency forward contracts are two-sided contracts in the form of either forward purchases or forward sales. Forward purchases obligate TRS to purchase specific currency at an agreed upon price. Forward sales obligate TRS to sell specific currency at an agreed upon price. As of June 30, 2023, TRS had currency forward purchase or sale contracts for 35 different currencies with various settlement dates.

Fair Value: As of June 30, 2023, TRS's open currency forward contracts had a net fair value (unrealized gain) of $1,437,818.

Financial Futures

Objective: Financial futures are agreements to purchase or sell a specific amount of an asset at a specified delivery or maturity date for an agreed upon price. These derivative securities are used to improve yield, adjust the duration of the fixed income portfolio, protect against changes in interest rates or replicate an index.

Terms: Futures contracts are standardized and traded on organized exchanges, thereby minimizing TRS's credit risk. As the daily fair value of the futures contract varies from the original contract price, a gain or loss is recognized and paid to, or received from, the clearinghouse. As of June 30, 2023, TRS had outstanding futures contracts with a notional value, or exposure, of $242,803,691. Notional values do not represent the actual values in the Statement of Fiduciary Net Position. The contracts have various expiration dates through September 2023.

Fair Value: Gains and losses on futures contracts are settled daily based on the change of the index or commodity price for the underlying notional value. Because of daily settlement, the futures contracts have no fair value. TRS's realized loss on futures contracts was $3,687,993 during FY23.

Type	Number of Contracts	Notional Principal
Equity Futures		
International equity index futures - long	1,179	$70,928,624
International equity index futures - short	(4,276)	(44,130,370)
Fixed Income/Cash Equivalent Futures		
Fixed income index futures – long	2,171	265,264,094
Fixed income index futures – short	(257)	(28,938,437)
International fixed income index futures – short	(155)	(20,320,220)

Financial Options

Objective: Financial options are agreements that give one party the right, but not the obligation, to buy or sell a specific amount of an asset for a specified price, called the strike price, on or before a specified expiration date. The owner (buyer) of an option has all the rights, while the seller (writer) of an option has the obligations of the agreement. As a writer of financial options, TRS receives a premium at the outset of the agreement and bears the risk of an unfavorable change in the price of the financial instrument underlying the option. Premiums received are recorded as a liability when the financial option is written. The Options Clearing Corporation (OCC) performs much the same function for options markets as the clearinghouse does for futures markets.

Terms: As of June 30, 2023, the TRS investment portfolio held currency forward options with notional value of $91,285,138. Contractual principal/notional values do not represent the actual values in the Statement of Fiduciary Net Position. The contracts have various expiration dates through September 2023.

Fair Value: Fluctuations in the fair value of financial options are recognized in TRS's financial statements as incurred rather than at the time the options are exercised or expire. As of June 30, 2023, the fair value of all option contracts, gross of premiums received, was ($2,390,831). The fair value represents the amount needed to close all positions as of that date. The following table presents the aggregate contractual principal (notional value) of outstanding contracts as of June 30, 2023. Notional principal amounts are often used to express the volume of these transactions but do not reflect the extent to which positions may offset one another. Options on futures represent the corresponding futures exposure.

Type	Number of Contracts	Notional Principal
Currency Forward Options		
Currency forward call options - purchased	5	$9,901,362
Currency forward call options - written	1	1,828,392
Currency forward put options - purchased	11	39,777,957
Currency forward put options - written	10	39,777,427

Swaptions

Objective: Swaptions are options on swaps that give the purchaser the right, but not the obligation, to enter into a swap at a specific date in the future. In a written call swaption, the seller (writer) is obligated to pay a fixed rate in exchange for a floating rate for a stated period of time and in a written put swaption, the seller is obligated to receive a fixed rate in exchange for a floating rate if the swaption is exercised. A purchased (long) call swaption gives the buyer the right to receive a fixed rate in exchange for a floating rate for a stated period of time while a purchased (long) put swaption gives the buyer the right to pay a fixed rate in exchange for a floating rate if the swaption is exercised.

As the writer of a swaption, TRS receives a premium at the outset of the agreement. Premiums are recorded as a liability when the swaption is written. As the purchaser of a swaption, TRS pays an upfront premium.

Terms: As of June 30, 2023, TRS had outstanding written call swaption exposure of $20,007,951 and purchased call swaption exposure of $59,313,217. The contracts have various maturity dates through

August 2023. Exposure amounts for swaptions do not represent the actual values in the Statement of Fiduciary Net Position.

Fair Value: Fluctuations in the fair value of swaptions are recognized in TRS's financial statements as incurred rather than at the time the swaptions are exercised or when they expire. As of June 30, 2023, the fair value of swaption contracts was $393,052.

Credit Default Swaps/Index Swaps

Objective: Credit default swaps are financial instruments used to replicate the effect of investing in debt obligations of corporate bond issuers as a means to manage bond exposure, effectively buying or selling insurance protection in case of default. Credit default swaps may be specific to an individual security or to a specific market sector (index swaps). The risk of the credit default/index swap is comparable to the credit risk of the underlying debt obligations of issuers that comprise the credit default/index swap, with the primary risk being counterparty risk. The owner/buyer of protection (long the swap) pays an agreed upon premium to the seller of protection (short the swap) for the right to sell the debt at a previously agreed upon value in the event of a default by the bond issuer. The premium is paid periodically over the term of the swap or until a credit event of the bond issuer occurs. In the event of a default, the swap is called, and the seller of protection makes a payment to the buyer, which is usually based on a fixed percentage of total par.

Purchased credit default swaps decrease credit exposure (buying protection), providing the right to sell debt to the counterparty in the event of a default. A buyer of credit protection against a basket of securities pays an upfront or periodic payment until either maturity or default. In the event of a default, the buyer receives a lump-sum payment. If no default occurs, the buyer loses only the premium paid.

Written credit default swaps increase credit exposure (selling protection), obligating the portfolio to buy debt from counterparties in the event of a default. A seller of credit protection against a basket of securities receives an upfront or periodic payment to compensate against potential default events. If a default event occurs, the seller must pay the buyer the full notional value of the obligation in exchange for the obligation. If no default occurs, the seller will have earned the premium paid.

Terms: As of June 30, 2023, TRS had credit default/index swaps in its portfolio with various maturity dates through June 2028. The notional values as of June 30, 2023, included purchased credit default swaps (buying protection) of $169,450,214, written credit default swaps (selling protection) of $16,697,775 and index swaps of $7,444,969.

Fair Value: The fair value of credit default swaps, including index swaps, held by TRS was ($3,412,946) as of June 30, 2023. This represents the amount due to or (from) TRS under the terms of the counterparty agreements.

Interest Rate/Inflation Swaps

Objective: Interest rate swaps are agreements between parties to exchange a set of cash flow streams over a period of time. In the most common type of interest rate swap arrangement, one party agrees to pay fixed interest payments on designated dates to a counterparty who, in turn, agrees to make return interest payments that float with some reference rate. Long positions (receive fixed) increase exposure to long-term interest rates; short positions (pay fixed) decrease interest rate/risk exposure. Inflation-linked swaps are agreements where a fixed payment is exchanged for a variable payment linked to an inflation index. These swaps can protect against unfavorable changes in inflation expectations and are used to transfer inflation risk from one counterparty to another.

Terms: As of June 30, 2023, TRS held interest rate swaps in various currencies with various expiration/maturity dates ranging from 2024 to 2033. Swap agreements typically are settled on a net basis, with a party receiving or paying only the net amount of the fixed/floating payments. Payments may be made at the conclusion of a swap agreement or periodically during its term.

Fair Value: The table at right presents the fair value of TRS's interest rate swap exposure as of June 30, 2023.

	As of June 30, 2023
Receive floating/pay fixed	$1,441,996
Receive fixed/pay floating	(2,286,366)

Derivative Interest Rate Risk

Interest rate risk for derivative securities is disclosed in the Financial Note D. 2. Both interest rate and inflation rate swaps have fair values that are sensitive to interest rate changes. TRS had the following interest rate and inflation swaps at June 30, 2023.

Asset Description	Par	Gross Notional	TRS Receives	TRS Pays	Maturity Date	Fair Value 6/30/23
Pay Fixed Interest Rate/Inflation Swaps:						
Interest Rate Swap PLN	22,450,000	$5,615,760	6 month WIBOR	1.35%	10/5/2023	$115,732
Interest Rate Swap PLN	22,450,000	5,615,760	6 month WIBOR	1.38	10/5/2023	114,377
Interest Rate Swap PLN	22,865,000	5,644,583	6 month WIBOR	2.40	12/15/2023	59,032
Interest Rate Swap CLP	38,250,000,000	47,684,348	6 month Chile Interbank Rate	7.37	11/29/2024	53,854
Interest Rate Swap PLN	31,340,000	7,932,019	6 month WIBOR	4.30	2/1/2025	279,405
Interest Rate Swap USD	55,500,000	55,577,885	SOFR	3.95	6/18/2025	965,728
Interest Rate Swap PLN	15,699,055	3,871,206	6 month WIBOR	6.02	6/21/2025	(18,528)
Interest Rate Swap ZAR	96,630,000	5,126,967	3 month JIBAR	8.25	6/21/2025	22,148
Interest Rate Swap USD	27,700,000	27,700,000	SOFR	4.42	9/17/2025	139,703
Interest Rate Swap MXN	110,030,000	6,415,556	28 day Mexican TIIE	9.14	9/18/2025	15,468
Interest Rate Swap CLP	2,602,000,000	3,252,003	6 month Chile Interbank Rate	3.17	6/23/2026	244,030
Interest Rate Swap BRL	39,497,263	8,187,658	3 month Brazilian CDI	11.12	1/4/2027	(191,749)
Interest Rate Swap COP	4,845,670,000	1,160,424	3 month IBRCO	6.85	1/12/2027	54,604
Interest Rate Swap HUF	1,970,000,000	6,028,247	6 month BUBOR	6.25	3/17/2027	559,395
Interest Rate Swap MXN	2,608,000	152,891	28 day Mexican TIIE	8.54	6/9/2027	190
Interest Rate Swap COP	7,751,620,000	1,856,331	3 month IBRCO	11.30	11/4/2027	(231,337)
Interest Rate Swap COP	6,053,540,000	1,449,681	3 month IBRCO	10.13	12/21/2027	(127,292)
Interest Rate Swap COP	18,589,540,000	4,451,758	3 month IBRCO	10.19	12/21/2027	(401,003)
Interest Rate Swap COP	11,300,020,000	2,706,089	3 month IBRCO	10.96	12/21/2027	(320,359)
Interest Rate Swap COP	9,268,290,000	2,219,538	3 month IBRCO	11.97	12/21/2027	(344,525)
Interest Rate Swap COP	15,513,910,000	3,715,217	3 month IBRCO	9.10	3/15/2028	(202,122)
Interest Rate Swap MXN	3,626,000	212,098	28 day Mexican TIIE	8.66	6/14/2028	(2,480)
Interest Rate Swap COP	15,828,030,000	3,790,441	3 month IBRCO	8.77	6/21/2028	(178,014)
Interest Rate Swap ZAR	2,691,799	142,821	3 month JIBAR	8.46	6/21/2028	1,420
Interest Rate Swap EUR	3,955,000	4,385,922	12 month ESTR	2.05	4/11/2031	236,969
Interest Rate Swap ZAR	60,660,000	3,266,317	3 month JIBAR	7.42	7/13/2031	353,742
Interest Rate Swap ZAR	45,070,000	2,387,981	3 month JIBAR	7.49	9/27/2031	259,522
Interest Rate Swap EUR	1,275,000	1,413,919	12 month ESTR	2.08	10/30/2031	76,840
Interest Rate Swap PLN	4,407,154	1,095,303	6 month WIBOR	6.41	5/10/2032	(104,814)
Interest Rate Swap CLP	1,386,730,000	1,733,695	6 month Chile Interbank Rate	5.28	6/22/2033	(26,892)

(continued)

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Asset Description	Par	Gross Notional	TRS Receives	TRS Pays	Maturity Date	Fair Value 6/30/23
Interest Rate Swap CLP	2,647,750,000	$3,300,817	6 month Chile Interbank Rate	4.79%	9/20/2033	$32,662
Interest Rate Swap CLP	1,271,620,000	1,585,265	6 month Chile Interbank Rate	4.86	9/20/2033	6,290
Total Pay Fixed Interest Rate/Inflation Swaps:		**$229,678,500**				**$1,441,996**
Receive Fixed Interest Rate/Inflation Swaps:						
Interest Rate Swap PLN	15,800,000	$3,721,931	1.80%	6 month WIBOR	7/24/2024	($232,365)
Interest Rate Swap CLP	5,000,000,000	6,226,208	7.37	6 month Chile Interbank Rate	11/29/2024	(7,040)
Interest Rate Swap BRL	6,307,119	1,150,912	5.76	3 month Brazilian CDI	1/2/2025	(156,533)
Interest Rate Swap BRL	17,568,466	3,591,284	11.19	3 month Brazilian CDI	1/2/2025	(50,604)
Interest Rate Swap CLP	1,812,000,000	2,068,239	1.66	6 month Chile Interbank Rate	4/23/2025	(197,877)
Interest Rate Swap COP	13,845,650,000	2,956,485	3.67	3 month IBRCO	5/7/2025	(359,223)
Interest Rate Swap USD	55,500,000	54,595,204	3.95	SOFR	6/18/2025	(965,728)
Interest Rate Swap MXN	540,000,000	31,481,960	9.27	28 day Mexican TIIE	9/17/2025	(4,003)
Interest Rate Swap BRL	22,730,580	4,731,415	10.36	3 month Brazilian CDI	1/2/2026	19,437
Interest Rate Swap BRL	69,774,825	14,765,614	11.36	3 month Brazilian CDI	1/2/2026	301,512
Interest Rate Swap CLP	2,334,600,000	2,660,280	3.51	6 month Chile Interbank Rate	7/12/2026	(298,320)
Interest Rate Swap BRL	15,828,004	3,304,187	10.35	3 month Brazilian CDI	1/4/2027	23,091
Interest Rate Swap BRL	17,752,333	3,718,856	10.54	3 month Brazilian CDI	1/4/2027	38,854
Interest Rate Swap BRL	58,489,480	12,124,685	11.24	3 month Brazilian CDI	1/4/2027	-
Interest Rate Swap BRL	10,417,637	2,240,492	11.80	3 month Brazilian CDI	1/4/2027	80,948
Interest Rate Swap BRL	65,517,026	14,136,070	11.95	3 month Brazilian CDI	1/4/2027	554,597
Interest Rate Swap KRW	5,886,500,000	4,267,020	2.18	91 day CD-KSDA	1/7/2027	(223,120)
Interest Rate Swap CNY	51,680,000	7,123,575	2.31	3 Month CNRR	8/31/2027	(4,757)
Interest Rate Swap KRW	7,806,851,769	5,822,962	3.09	91 day CD-KSDA	9/21/2027	(106,837)
Interest Rate Swap PLN	9,341,000	2,640,523	6.83	6 month WIBOR	10/6/2027	226,231
Interest Rate Swap CNY	58,469,000	8,170,705	2.68	3 Month CNRR	12/15/2027	112,235
Interest Rate Swap KRW	8,750,000,000	6,835,440	4.20	91 day CD-KSDA	12/21/2027	187,256
Interest Rate Swap PLN	31,618,000	8,864,067	6.85	6 month WIBOR	12/21/2027	801,833
Interest Rate Swap MXN	70,180,000	4,061,234	8.11	28 day Mexican TIIE	3/8/2028	(52,895)
Interest Rate Swap MXN	69,978,000	4,108,616	8.48	28 day Mexican TIIE	3/8/2028	5,332
Interest Rate Swap KRW	8,670,000,000	6,468,027	3.10	91 day CD-KSDA	3/15/2028	(120,738)
Interest Rate Swap ZAR	84,876,000	4,354,239	7.77	3 month JIBAR	3/15/2028	(153,805)
Interest Rate Swap MYR	31,100,000	6,669,328	3.44	3 month KLIBOR	6/21/2028	68,897

(continued)

(continued)

Asset Description	Par	Gross Notional	TRS Receives	TRS Pays	Maturity Date	Fair Value 6/30/23
Interest Rate Swap MYR	31,400,000	$6,702,479	3.57%	3 month KLIBOR	6/21/2028	($31,408)
Interest Rate Swap MYR	31,300,000	6,691,196	3.60	3 month KLIBOR	6/21/2028	(21,304)
Interest Rate Swap MYR	32,700,000	6,996,144	3.62	3 month KLIBOR	6/21/2028	(16,630)
Interest Rate Swap PLN	4,189,000	1,039,959	5.17	6 month WIBOR	6/21/2028	7,477
Interest Rate Swap PLN	7,667,191	1,914,064	5.31	6 month WIBOR	6/21/2028	24,229
Interest Rate Swap CLP	2,278,040,000	2,831,818	4.85	6 month Chile Interbank Rate	9/20/2028	(8,100)
Interest Rate Swap CLP	1,297,180,000	1,623,653	5.01	6 month Chile Interbank Rate	9/20/2028	6,524
Interest Rate Swap CLP	4,003,070,000	5,029,482	5.10	6 month Chile Interbank Rate	9/20/2028	39,056
Interest Rate Swap ILS	80,400,000	21,404,450	3.36	3 month TELBOR	9/20/2028	(261,161)
Interest Rate Swap KRW	13,950,000,000	10,553,734	3.41	91 day CD-KSDA	9/20/2028	(33,296)
Interest Rate Swap ZAR	45,142,000	2,409,361	8.98	3 month JIBAR	9/20/2028	19,789
Interest Rate Swap BRL	5,966,502	1,057,641	6.78	3 month Brazilian CDI	1/2/2029	(179,196)
Interest Rate Swap BRL	12,545,197	2,600,580	10.31	3 month Brazilian CDI	1/2/2029	-
Interest Rate Swap BRL	5,885,091	1,231,792	10.60	3 month Brazilian CDI	1/2/2029	11,831
Interest Rate Swap CZK	35,245,000	1,331,647	1.52	6 month PRIBOR	1/29/2030	(297,270)
Interest Rate Swap HUF	938,520,000	2,364,731	1.96	6 month BUBOR	5/5/2030	(380,377)
Interest Rate Swap USD	4,198,000	4,096,158	2.92	SOFR	4/11/2031	(205,355)
Interest Rate Swap USD	1,350,000	1,316,442	2.92	SOFR	10/30/2031	(66,892)
Interest Rate Swap COP	2,683,430,000	611,010	6.65	3 month IBRCO	11/9/2031	(31,609)
Interest Rate Swap CLP	1,567,600,000	1,998,882	5.38	6 month Chile Interbank Rate	12/27/2031	43,467
Interest Rate Swap MXN	45,300,000	2,777,979	8.81	28 day Mexican TIIE	6/24/2032	121,790
Interest Rate Swap MXN	27,600,000	1,691,129	8.80	28 day Mexican TIIE	6/25/2032	73,192
Interest Rate Swap MXN	46,400,000	2,727,398	8.15	28 day Mexican TIIE	7/30/2032	12,750
Interest Rate Swap ZAR	13,823,000	725,482	9.16	3 month JIBAR	11/10/2032	(15,703)
Interest Rate Swap CLP	187,800,000	234,002	5.10	6 month Chile Interbank Rate	3/15/2033	(3,662)
Interest Rate Swap ZAR	111,286,062	5,590,103	8.72	3 month JIBAR	3/15/2033	(323,097)
Interest Rate Swap USD	9,490,000	9,299,981	3.21	SOFR	3/21/2033	(276,303)
Interest Rate Swap MXN	26,000,000	1,553,033	8.43	28 day Mexican TIIE	6/8/2033	33,495
Interest Rate Swap MXN	37,050,000	2,145,306	7.87	28 day Mexican TIIE	9/7/2033	(14,981)
Total Receive Fixed Interest Rate/Inflation Swaps:		**$343,409,194**				**($2,286,366)**

BUBOR - *Budapest Interbank Offered Rate,* **CDI** - *Cetip Interbank Deposit (interbank lending rate),* **CD-KSDA** - *Certificates of Deposit, Korean Securities Dealer Assoc.,* **CNRR** - *China Fixing Repo Rates,* **ESTR** - *Euro Short-Term Rate,* **IBRCO** - *Colombia Interbank Rate,* **JIBAR** - *Johannesburg Interbank Average Rate,* **KLIBOR** - *Kuala Lumpur Interbank Offered Rate,* **PRIBOR** - *Prague Interbank Offered Rate,* **TIIE** - *Mexico Interbank Equilibrium Interest Rate,* **SOFR** - *Secured Interbank Overnight Interest Rate,* **TELBOR** - *Tel Aviv Interbank Offered Rate,* **TIIE** - *Mexico Interbank Equilibrium Interest Rate,* **WIBOR** - *Warsaw Interbank Offered Rate*

Derivative Credit Risk

Credit risk is the possibility that a loss may occur because a party to a transaction fails to perform according to the established terms. In order to eliminate credit risk, derivative securities are traded through a clearing house which guarantees delivery and accepts the risk of default by either party. Derivatives which are exchange traded are not subject to credit risk and are evaluated within the investment risk disclosure.

Non-exchange traded derivative instruments may expose TRS to credit/counterparty risk. TRS investment managers reduce credit risk by evaluating the credit quality and operational capabilities of the counterparties. Because the counterparty risk of a security will fluctuate with market movements, all TRS managers using non-exchange traded derivatives operate a collateral call process ensuring full collateralization of these derivatives. TRS does not have a policy regarding master netting arrangements.

As of June 30, 2023, the aggregate fair value of non-exchange traded derivative instruments in asset positions was $25,488,184. All applicable futures, options and swaps are in compliance with Dodd-Frank requirements and cleared through the appropriate futures and swaps exchanges. The counterparty risk exposure below is primarily unsettled currency forward contracts. This represents the maximum loss that would be recognized at the reporting date if all counterparties failed to perform as contracted.

Counterparty Ratings for Non-Exchange Traded Derivatives

Quality Rating	Fair Value at June 30, 2023
Aa1	$453,894
Aa2	787,607
Aa3	8,669,850
A1	13,560,103
A2	1,188,454
A3	828,276
Total subject to credit risk	**$25,488,184**

Although the derivative instruments held within the TRS investment portfolio are executed with various counterparties, approximately 99 percent of the fair value exposure to credit risk is for non-exchange traded derivative contracts held with 11 counterparties.

5. Investment Commitments

Investments in certain limited partnerships commit TRS to possible future capital contributions. As of June 30, 2023, TRS had remaining unfunded commitments of $14,125,830,088 within the real estate, other real assets, private equity, diversifying strategies and global income asset classes.

6. Schedule of Investment Returns

For the year ended June 30, 2023, the annual money-weighted rate of return on pension plan investments, net of investment expense, was 7.2 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the timing of cash flows and the changing amounts invested.

7. Fair Value Measurement

TRS categorizes investments measured at fair value within the fair value hierarchy established by generally accepted accounting principles. The hierarchy prioritizes valuation inputs used to measure the fair value of the asset or liability into three broad categories. The inputs or methodology used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. Levels 1, 2 and 3 (lowest priority level) of the fair value hierarchy are defined as follows:

Level 1 Inputs using unadjusted quoted prices in active markets or exchanges for identical assets and liabilities.

Level 2 Significant other observable inputs, which may include quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in non-active markets; and inputs other than quoted prices that are observable for the assets or liabilities, either directly or indirectly.

Level 3 Valuations for which one or more significant inputs are unobservable and may include situations where there is minimal, if any, market activity for the investment.

If the fair value is measured using inputs from different levels in the fair value hierarchy, the measurement should be categorized based on the lowest priority level input that is significant to the valuation. The System's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the investment. Investments measured at fair value using net asset value (NAV) per share (or equivalent) as a practical expedient to fair value are not classified in the fair value hierarchy; however, separate disclosures for these investments are required.

Debt and equity investments classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets, to the extent these securities are actively traded.

Short-term investments consisting of money market funds, certificates of deposit and highly liquid cash equivalents are generally reported at amortized cost which approximates fair value. These investments are not categorized in the fair value hierarchy.

Debt and investment derivatives classified in Level 2 of the fair value hierarchy are normally valued based on price data obtained from observed transactions and market price quotations from broker dealers and/or pricing vendors. Valuation estimates from service providers' internal models use observable inputs such as interest rates, yield curves, credit/risk spreads and default rates. Matrix pricing techniques value securities based on their relationship to benchmark quoted prices. Exchange traded and over-the-counter investment derivatives valued by independent pricing service providers, where the value is derived from underlying asset prices, reference rates, indices or other observable inputs are also included in Level 2.

Debt securities classified as Level 3 include valuations using significant unobservable inputs, valuations using proprietary information, inputs that cannot be corroborated by observable market data and securities valued with last trade date due to limited trading volume. Real assets classified as Level 3 include direct investments in real estate. Valuations for real estate investments are performed quarterly by investment managers. An appraisal by an independent third-party member of the Appraisal Institute is obtained once every three years for each property and is used to establish fair value.

The following table summarizes the valuation of TRS investments by the fair value hierarchy levels as of June 30, 2023.

Investments and Derivative Instruments Measured at Fair Value ($ thousands)

Investments by fair value level	June 30, 2023	Fair Value Measurements Using Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Debt securities				
Asset-backed securities	$80,063	$ -	$80,063	$ -
Commercial/collateralized mortgages & loans	210,124	-	210,124	-
Domestic corporate obligations	1,438,809	-	1,438,809	-
Fixed income mutual funds	2,334,024	-	462,404	1,871,620
Foreign debt/corporate obligations	1,858,682	-	1,858,682	-
Municipals	1,446	-	1,446	-
U.S. agencies obligations	146,086	-	146,086	-
U.S. government-backed mortgages	145,698	-	145,698	-
U.S. treasuries	907,609	-	907,609	-
Total debt securities	**7,122,541**	**-**	**5,250,921**	**1,871,620**
Equity investments				
International common and preferred stock	10,280,980	10,253,975	27,005	-
U.S. common and preferred stock	12,444,979	12,444,725	254	-
Total equity investments	**22,725,959**	**22,698,700**	**27,259**	**-**
Real assets				
Real estate	4,967,746	-	-	4,967,746
Total real assets	**4,967,746**	**-**	**-**	**4,967,746**
Total investments by fair value level	**$34,816,246**	**$22,698,700**	**$5,278,180**	**$6,839,366**
Investments measured at the net asset value (NAV)				
Commingled fixed income funds	$625,408			
Diversifying strategies	3,399,530			
Private debt partnerships	7,399,862			
Private equity partnerships	11,270,891			
Private real estate partnerships	5,608,109			
Real asset partnerships	1,748,432			
Total investments measured at the NAV	**30,052,232**			
Total investments measured at fair value	**$64,868,478**			
Investment derivative instruments				
Credit default swaps	($3,005)	$ -	($3,005)	$ -
Index and variance swaps	(408)	-	(408)	-
Interest rate and inflation swaps	(844)	-	(844)	-
Options/swaptions	(1,998)	-	(1,998)	-
Total investment derivative instruments	**($6,255)**	**$ -**	**($6,255)**	**$ -**
Total invested securities lending collateral*	**$1,847,995**	**$277,126**	**$1,570,869**	**$ -**

** Does not include lending collateral with the State Treasurer.*

Investments measured at NAV for fair value are not subject to level classification. The valuation method for investments measured at the NAV per share (or its equivalent) is presented on the following table.

Investments Measured at the Net Asset Value (NAV) ($ thousands)

	Fair Value June 30, 2023	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Commingled fixed income funds[1]	$625,408	$ -	Monthly, quarterly	30-60 days
Diversifying funds - liquid[2]	2,989,721	-	Daily, weekly, monthly, quarterly	1-90 days
Diversifying funds - illiquid[3]	409,809	209,738	Not eligible	N/A
Total diversifying strategies	**3,399,530**	**209,738**		
Custom private debt partnerships	3,652,948	978,912	Monthly, quarterly, not eligible	60-90 days; N/A
Private debt partnerships	3,746,914	2,687,566	Not eligible	N/A
Total private debt partnerships[4]	**7,399,862**	**3,666,478**		
Private equity partnerships[5]	11,270,891	6,506,839	Not eligible	N/A
Private real estate partnerships[5]	5,608,109	2,982,803	Not eligible	N/A
Real assets partnerships[6]	1,748,432	759,972	Not eligible	N/A
Total investments measured at the NAV	**$30,052,232**	**$14,125,830**		

1) **Commingled fixed income funds:** The investment strategies for the five fixed income funds include ESG, high yield, defensive bond arbitrage, global liquidity relative value and emerging market debt. The fair value of the investments has been determined using the NAV per share (or its equivalent) of the investments. Liquidity is available monthly upon notice of redemption.

2) **Diversifying funds (liquid strategies):** The diversifying strategies asset class applies various strategies that provide diversification to the total investment portfolio. Investments focus on reducing equity-like risk characteristics encompassed in the overall TRS portfolio by enhancing exposures to strategies that show little to no correlation to growth factors while adding positive skew and active risk management characteristics. Three factor portfolio direct investments include trend/momentum exposures and alternative risk premia. One risk parity investment focuses on optimizing Chinese beta. The systematic and discretionary macro strategies include direct investments in five funds diversifying through regional and product expertise, speed of algorithms and style of trading. Opportunistic funds, including four direct investments and one diversified fund of funds, use idiosyncratic alpha capture through liquidity and security selection. The fair value of these investments has been determined using the NAV per share of the investments. Most strategies maintain a liquidity profile of less than one year, ranging from daily to quarterly and require advance notice prior to redemption.

3) **Diversifying funds (illiquid strategies):** The diversifying strategies asset class includes seven opportunistic alpha funds in which redemptions are restricted over the life of the partnership. The partnership's interest is valued using the NAV per share (or its equivalent). The most significant element of NAV is the fair value of the underlying investment holdings which are valued on either a monthly or quarterly basis by the general partner and are audited annually. The average life of these funds spans five to 10 years and the funds will distribute any free cash from the Master fund in excess of the amount needed to maintain prudent liquidity. TRS has no plans to liquidate as of June 30, 2023.

4) **Private debt partnerships:** Private debt funds consist of 72 funds investing across strategies such as stressed debt/credit, direct and specialty lending, real estate and real asset credit and global multi-credit strategies. Eight of these funds are custom partnerships investing in opportunistic investments. The private debt funds provide additional exposure to niche and/or specific non-traditional point-in-time opportunities that are not normally targeted by traditional fixed income managers. Funds are valued using the NAV per share (or its equivalent) and are audited annually. Redemption restrictions are in place over the life of the partnership. The average life of these funds span three to 12 years and distributions are received throughout the life of the fund. Most custom partnerships allow TRS to liquidate upon giving advanced notice. TRS has no plans to liquidate as of June 30, 2023, and TRS did not sell any funds on the secondary market during the fiscal year. As of June 30, 2023, it is probable that all investments in this type will be sold at an amount different from the current NAV of the Plan's ownership interest.

5) **Private equity and real estate partnerships:** TRS has 250 private equity partnerships which include investments in privately held equity, such as buyouts, co-investments, venture capital and growth equity, as well privately held debt. The 67 real estate limited partnerships invest in various property types across multiple geographic regions. Investments in limited partnerships are normally long-term with an approximate life of 10 to 15 years and considered illiquid. Investors are subject to redemption restrictions which limit and restrict the ability of limited partners to exit prior to dissolution. Partnership interests are valued using their respective NAV calculated by the general partner's fair valuation policy and are generally audited annually. The most significant element of NAV is the fair value of the investment holdings which are typically valued on a quarterly basis by the general partners. Distributions are received as the funds sell underlying portfolio company investments. TRS has no plans on liquidating the portfolio; however, will opportunistically sell funds in the secondary market to reposition the portfolio and optimize returns. During the fiscal year, TRS sold full or partial interest in five private equity funds on the secondary market. As of June 30, 2023, it is probable that all investments in this type will be sold at an amount different from the current NAV of the Plan's ownership interest.

6) **Real assets partnerships:** Real assets strategies include 14 limited partnerships investing in global infrastructure, direct energy, renewables, and non-U.S. agriculture. These partnerships are not eligible for redemption, considered illiquid and have an approximate life of six to 20 years. Distributions are received during the life of the fund as underlying investments are liquidated. Partnership interests are valued by the general partner using their respective NAV per share (or equivalent), with the most significant element of NAV being the fair value of the investment holdings. TRS has no plans to liquidate these funds. As of June 30, 2023, it is probable that all investments in this type will be sold at an amount different from the current NAV of the Plan's ownership interest.

E. RESERVES

TRS maintains statutory reserve accounts in accordance with the provisions of 40 ILCS 5/16-101 et seq. In 1997, the Illinois General Assembly passed legislation that allowed the crediting of additions at fair value, as opposed to book value, to the Benefit Trust Reserve.

1. Benefit Trust

	2023
Balances at June 30	$66,492,484,642

This reserve serves as a clearing account for TRS additions and deductions. The reserve is credited with contributions from the State of Illinois that are not specifically allocated to the Minimum Retirement Annuity Reserve, member and employer contributions, income from TRS invested assets and contributions from annuitants who qualify for automatic annual increases in annuity.

The reserve accumulates, with 6 percent interest, the contributions by members prior to retirement. Contributions have been 7.5 percent of salary since July 1, 1998. Contributions are fully refundable upon withdrawal from TRS, excluding interest credited thereon. The interest accrued is refundable only in the event of death. Interest is credited as of the date of retirement or death of those retiring or dying during the year and as of the end of the fiscal year for all other members. Interest is computed annually based upon the individual member's balance in the reserve at the beginning of the fiscal year.

This reserve is charged for transfers to the Minimum Retirement Annuity Reserve and all

- refunds to withdrawing members,
- retirement annuity payments (except as provided by the Minimum Retirement Annuity Reserve),
- benefits that are paid to disabled members,
- death benefits paid and
- refunds to annuitants for survivor benefit contributions.

The expected benefit payments do not equal the present value of the reserve. The additional amount needed (the unfunded actuarial accrued liability) as calculated by the actuary was $81.9 billion in FY23 based on the actuarial value of assets.

2. Minimum Retirement Annuity

	2023
Balances at June 30	$12,232,777

The minimum annuity is set by law at $25 per month for each year of creditable service to a maximum of $750 per month after 30 or more years of creditable service. To qualify, annuitants are required to make a one-time contribution that is credited to the reserve. Interest at 6 percent is credited to the reserve annually based upon the average reserve balance. The State of Illinois also appropriated funds necessary to pay the minimum benefits. All benefits paid under this program are charged to the reserve. This reserve is fully funded.

F. OTHER POST EMPLOYMENT BENEFITS FOR TRS EMPLOYEES

The state provides health, dental, vision and life insurance benefits for retirees and their dependents in a program administered by the Department of Central Management Services (CMS). Substantially all state employees become eligible for post employment benefits if they eventually become annuitants of one of the state-sponsored pension plans.

Health, dental and vision benefits include basic benefits for annuitants and dependents under the state's self-insurance plan and insurance contracts currently in force. Annuitants may be required to contribute towards health, dental and vision benefits with an amount based on factors such as date of retirement, years of credited service with the State of Illinois, whether the annuitant is covered by Medicare and whether the annuitant has chosen a managed health care plan. Employees of the System who retired before Jan. 1, 1998 and are vested in either SERS or TRS do not contribute towards health and vision benefits. A premium is required for dental. For annuitants who retired on or after Jan. 1, 1998, the annuitant's contribution amount is reduced 5 percent for each year of credited service with the state allowing those annuitants with 20 or more years of credited service to not have to contribute towards health and vision benefits. A premium is required for dental. Annuitants also receive life insurance coverage equal to the annual salary of their last day of employment until age 60, at which time the benefit becomes $5,000.

The State of Illinois pays the TRS portion of employer costs for the benefits provided. The total cost of the state's portion of health, dental, vision and life insurance benefits of all members, including post employment health, dental, vision and life insurance benefits, is recognized as an expenditure by the state in the Illinois Annual Comprehensive Financial Report. The System adopted GASB 75, but has chosen not to record the other post employment liability because it is deemed insignificant to the financial statements. The footnote and required supplementary information also required by GASB 75 have been excluded, as well, due to the insignificance of the liability.

A summary of post employment benefit provisions, changes in benefit provisions and employee eligibility requirements, including eligibility for vesting and the authority under which benefit provisions are established, are included as an integral part of the financial statements for CMS. A copy of the financial statements may be obtained by contacting their office, Department of Central Management Services, 704 Stratton Office Building, Springfield, IL 62706.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the Net Pension Liability for Fiscal Years:

	2023	2022	2021	2020
Total pension liability				
Service cost	$2,229,200,487	$2,097,274,410	$2,032,149,463	$1,991,622,987
Interest	10,144,364,716	9,834,039,952	9,580,886,840	9,296,897,060
Changes of benefit terms	-	-	-	-
Difference between expected and actual experience	405,098,326	(260,304,587)	(370,469,646)	(28,215,833)
Change of assumptions	-	448,727,943	(162,359,084)	-
Benefit payments, including refund of member contributions	(7,967,329,515)	(7,669,576,246)	(7,388,142,712)	(7,099,524,955)
Net change in total pension liability	4,811,334,014	4,450,161,472	3,692,064,861	4,160,779,259
Total pension liability - beginning	146,673,960,220	142,223,798,748	138,531,733,887	134,370,954,628
Total pension liability - ending (a)	151,485,294,234	146,673,960,220	142,223,798,748	138,531,733,887
Plan fiduciary net position				
Contributions - employer	124,748,100	120,876,570	97,594,081	92,658,238
Contributions - nonemployer contributing entity	6,009,158,073	5,866,799,836	5,140,648,356	4,813,451,679
Contributions - member	1,109,497,833	1,072,639,330	1,023,531,951	994,400,416
Net investment income (loss)	4,427,042,975	(743,042,373)	13,046,153,685	275,669,398
Benefit payments, including refund of member contributions	(7,967,329,515)	(7,669,576,246)	(7,388,142,712)	(7,099,524,955)
Administrative expense	(32,026,386)	(26,575,798)	(23,758,112)	(22,966,372)
Net change in plan fiduciary net position	3,671,091,080	(1,378,878,681)	11,896,027,249	(946,311,596)
Plan fiduciary net position - beginning	62,833,626,339	64,212,505,020	52,316,477,771	53,262,789,367
Plan fiduciary net position - ending (b)	66,504,717,419	62,833,626,339	64,212,505,020	52,316,477,771
Employers' net pension liability - ending (a) - (b)	**$84,980,576,815**	**$83,840,333,881**	**$78,011,293,728**	**$86,215,256,116**

Schedule of the Net Pension Liability for Fiscal Years:

	2023	2022	2021	2020
Total pension liability	$151,485,294,234	$146,673,960,220	$142,223,798,748	$138,531,733,887
Plan fiduciary net position	66,504,717,419	62,833,626,339	64,212,505,020	52,316,477,771
Net pension liability	**$84,980,576,815**	**$83,840,333,881**	**$78,011,293,728**	**$86,215,256,116**
Plan fiduciary net position as a percentage of the total pension liability	43.9%	42.8%	45.1%	37.8%
Covered payroll	$12,382,202,189	$11,647,247,711	$11,120,776,122	$10,827,438,800
Net pension liability as a percentage of covered payroll	686.3%	719.8%	701.5%	796.3%

2019	2018	2017	2016	2015	2014
$1,947,627,286	$1,838,002,948	$1,877,570,053	$1,681,242,232	$1,948,079,771	$1,894,351,211
8,991,684,121	8,703,519,454	8,390,352,464	8,264,257,311	7,864,916,421	7,561,104,814
-	(374,603,419)	-	-	-	-
258,778,925	1,191,346,970	482,486,212	701,827,169	(90,079,446)	39,950,212
77,241,572	(666,054,719)	(2,725,599,755)	7,553,894,504	1,136,454,886	-
(6,818,760,572)	(6,551,634,376)	(6,438,005,920)	(5,931,207,177)	(5,625,037,173)	(5,320,662,979)
4,456,571,332	4,140,576,858	1,586,803,054	12,270,014,039	5,234,334,459	4,174,743,258
129,914,383,296	125,773,806,438	124,187,003,384	111,916,989,345	106,682,654,886	102,507,911,628
134,370,954,628	129,914,383,296	125,773,806,438	124,187,003,384	111,916,989,345	106,682,654,886
88,514,781	84,633,117	149,495,577	148,040,767	145,591,585	158,334,598
4,466,020,692	4,095,125,358	3,986,363,699	3,742,469,245	3,377,664,945	3,438,382,892
963,972,120	938,037,245	929,130,165	951,809,398	935,451,049	928,745,853
2,617,831,332	4,049,271,728	5,520,453,001	(44,103,178)	1,770,549,533	6,782,031,720
(6,818,760,572)	(6,551,634,376)	(6,438,005,920)	(5,931,207,177)	(5,625,037,173)	(5,320,662,979)
(24,335,680)	(21,550,896)	(22,728,735)	(22,967,917)	(21,686,860)	(21,218,069)
1,293,242,673	2,593,882,176	4,124,707,787	(1,155,958,862)	582,533,079	5,965,614,015
51,969,546,694	49,375,664,518	45,250,956,731	46,406,915,593	45,824,382,514	39,858,768,499
53,262,789,367	51,969,546,694	49,375,664,518	45,250,956,731	46,406,915,593	45,824,382,514
$81,108,165,261	**$77,944,836,602**	**$76,398,141,920**	**$78,936,046,653**	**$65,510,073,752**	**$60,858,272,372**

2019	2018	2017	2016	2015	2014
$134,370,954,628	$129,914,383,296	$125,773,806,438	$124,187,003,384	$111,916,989,345	$106,682,654,886
53,262,789,367	51,969,546,694	49,375,664,518	45,250,956,731	46,406,915,593	45,824,382,514
$81,108,165,261	**$77,944,836,602**	**$76,398,141,920**	**$78,936,046,653**	**$65,510,073,752**	**$60,858,272,372**
39.6%	40.0%	39.3%	36.4%	41.5%	43.0%
$10,450,452,444	$10,163,980,000	$9,965,569,893	$9,811,614,284	$9,641,170,627	$9,512,809,680
776.1%	766.9%	766.6%	804.5%	679.5%	639.8%

Schedule of Investment Returns for Fiscal Years:

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	7.2%	(1.2%)	25.4%	0.6%	5.1%	8.5%	12.5%	(0.1%)	4.0%	17.4%

Schedule of Contributions from Employers and Other Contributing Entities, Last 10 Fiscal Years ($ thousands)

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Actuarially-determined contribution (ADC)	$9,201,648	$8,947,919	$8,441,258	$7,988,612	$7,429,037	$7,080,756	$6,248,879	$4,582,530	$4,119,526	$4,091,978
Contributions in relation to the actuarially-determined contribution:*										
State	6,008,948	5,866,530	5,140,337	4,813,078	4,465,578	4,094,616	3,985,783	3,741,802	3,376,878	3,437,478
Federal & Employer Contributions	123,194	120,441	97,082	92,038	87,707	84,034	148,749	147,408	144,780	157,228
Total contributions	6,132,142	5,986,971	5,237,419	4,905,116	4,553,285	4,178,650	4,134,532	3,889,210	3,521,658	3,594,706
Contribution deficiency	**3,069,506**	**$2,960,948**	**$3,203,839**	**$3,083,496**	**$2,875,752**	**$2,902,106**	**$2,114,347**	**$693,320**	**$597,868**	**$497,272**
Covered payroll	$12,382,202	$11,647,248	$11,120,776	$10,827,439	$10,450,452	$10,163,980	$9,965,570	$9,811,614	$9,641,171	$9,512,810
Contributions as a percentage of covered payroll	49.5%	51.4%	47.1%	45.3%	43.6%	41.1%	41.5%	39.6%	36.5%	37.8%

** Contributions for minimum benefits from the state and for excess sick from employers do not count towards actuarial funding requirements. Beginning in FY18, employer contributions on salaries exceeding the statutory salary of the governor are included and the projected excess salary contribution is included in the ADC. In all years, employer contributions for excess salary increases are included. However, employer contributions for excess sick leave are not included because there is no assumption for excess sick leave, and it is not included in the funding requirements. Before FY17, the actuarially determined contribution was based on GASB Statement No. 25. Beginning in FY17, a different basis for determining the actuarially-determined contribution is used, as described in the following table. For FY22, the state contribution amount includes an additional one-time contribution of $173 million appropriated for TRS per Public Act 102-0696. For FY23, the state contribution amount includes an additional one-time contribution of $115 million appropriated for TRS per Public Act 102-0698. An additional $115,215,500 was appropriated in a FY23 supplemental bill, Public Act 103-000, however, it was not received by TRS until FY24.*

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

The Schedule of Changes in Net Pension Liability and the Schedule of Net Pension Liability are affected by various factors. In FY23, the total pension liability increased by $4.8 billion.

The Schedule of Contributions from Employers and Other Contributing Entities compares actual and actuarially-determined contributions. There is a difference between these amounts because actual contributions are based on state statute under a methodology that does not conform to that used to determine the actuarially-determined contribution.

The following assumptions were used to determine the statutory and actuarially-determined contributions for FY23.

	For Funding per State Statute	For Determining the Actuarially-determined Contribution
Valuation Used to Determine Funding Amount:	June 30, 2021	June 30, 2021
Actuarial Cost Method:	Projected unit credit	Entry age normal
Amortization Method:	15-year phase-in to a level percent of payroll reached in FY10; then level percent of payroll until a 90 percent funding level is achieved in FY45	Level percent of payroll. Amortization payments increase at the rate of future state revenue growth, assumed to be 2%.
Remaining Amortization:	22 years, closed	20 years, closed beginning with 2015 actuarial valuation; subsequent increases in the UL amortized over subsequent 20-year periods.
Asset Valuation Method:	Actuarial value of assets with five-year smoothing of investment gains and losses	Actuarial value of assets with five-year smoothing of investment gains and losses

OTHER SUPPLEMENTARY INFORMATION
SCHEDULE OF ADMINISTRATIVE EXPENSES
FOR THE YEARS ENDED JUNE 30

	2023	2022
Personnel services		
Salaries	$14,142,121	$12,615,302
Retirement contributions	1,541,483	1,734,781
Insurance and payroll taxes	4,969,463	4,560,695
	20,653,067	18,910,778
Professional services		
Actuarial services	166,000	162,225
External auditors	227,483	229,699
Legal services	374,144	283,682
Legislative consulting	87,000	84,000
Information systems consulting	4,795,053	2,519,746
Operations consulting	218,973	338,032
Other	21,063	23,139
	5,889,716	3,640,523
Communications		
Postage	173,794	215,229
Printing and copying	57,634	35,701
Telephone	171,544	132,339
	402,972	383,269
Other services		
Administrative services	303,435	353,549
Building operations and maintenance	399,768	422,932
EDP supplies and equipment	249,155	134,226
Equipment repairs, rental and maintenance	143,914	239,161
Insurance	677,540	447,821
Memberships and subscriptions	283,934	138,872
Office equipment and furniture	40,469	52,481
Office supplies	20,094	15,043
Software licenses and maintenance	731,639	1,299,437
Travel, conferences, education	160,172	89,575
	3,010,120	3,193,097
Depreciation expense	3,415,452	2,244,704
Total administrative expenses	**$33,371,327**	**$28,372,371**

Note: Above amounts do not include investment administrative expenses, which are deducted from investment income and shown in a separate schedule on the following page.

SCHEDULE OF INVESTMENT EXPENSES
FOR THE YEARS ENDED JUNE 30

	2023	2022
Investment manager fees*	$474,328,976	$449,288,368
Master custodian fees*		
State Street Bank and Trust Company	4,071,150	3,952,800
Investment consultants		
Aksia, L.L.C.	700,000	700,000
RVK, Inc.	465,000	465,000
Stepstone Group, L.P.	1,022,973	993,177
Stepstone Group Real Estate, L.P.	339,197	329,317
	2,527,170	2,487,494
Co-investment advisors		
Meketa Investment Group, Inc.	480,000	240,000
Stout Risius Ross, Inc.	277,500	175,000
	757,500	415,000
Secondary market advisors		
Evercore Group L.L.C.	-	4,849,348
Legal services		
DLA Piper, L.L.P.	1,031,864	1,102,148
Tax advisory services		
Ernst & Young Private, Ltd.	160,589	255,654
Other investment expense		
Auditing costs	145,250	228,530
Communication services	28,620	22,602
Education, meetings and travel	75,404	38,617
Investment activity expenses	1,929,009	1,946,218
Investment analytical systems	1,132,249	956,396
Personnel costs	5,344,295	4,767,793
Research, subscriptions and memberships	64,275	62,230
Other costs	140,306	203,052
	8,859,408	8,225,438
Total investment expenses	**$491,736,657**	**$470,576,250**

SCHEDULE OF PROFESSIONAL SERVICES FOR THE YEARS ENDED JUNE 30

	2023	2022
Actuarial services		
The Segal Company Midwest, Inc.	$166,000	$162,225
External auditors		
Office of the Auditor General (FORVIS, L.L.P.)	227,483	229,699
Legal services		
Elrod Friedman L.L.P.	16,838	32,730
Holland & Knight, L.L.P.	144,057	101,397
Howard & Howard Attorneys, P.L.L.C.	23,987	65,308
Ice Miller L.L.P.	93,965	13,072
Nixon Peabody L.L.P.	17,568	2,056
Reinhart Boerner Van Deuren s.c.	76,079	67,081
Whitt Law, L.L.C.	1,650	2,038
	374,144	283,682
Legislative consulting		
Leinenweber Baroni & Daffada Consulting, L.L.C.	87,000	84,000
Information systems consulting		
AT & T Corp.	6,971	-
Apex Systems	694,756	680,076
Capitol Strategies Consulting Inc.	1,249,501	684,981
CapTech Ventures Inc.	1,293,120	-
CDW L.L.C.	9,900	-
Compulink Management Center Inc.	89,460	38,250
Dayagdag, Chris	157,575	185,844
Decker Innovations Inc.	608,238	395,895
Ellerman, Greg	169,583	137,183
HSO North America, L.L.C.	50,000	78,600
McDonald Hopkins L.L.C.	4,020	1,567
Mellor, William Thomas	-	19,800
Mythics Emergent Group Inc.	-	4,844
Promet Solutions Corporation	41,281	68,375
Sentinel Technologies, Inc.	383,398	132,911
Telos Corporation	14,500	76,800
The Segal Company Midwest Inc.	-	14,620
VPMA Global Services L.L.C.	22,750	-
	4,795,053	2,519,746
Operations consulting		
CapFinancial Partners L.L.C.	60,000	115,000
CEM Benchmarking, Inc.	50,000	50,000
Higher Logic, L.L.C.	10,812	10,812
Hudepohl & Associates Inc.	-	86,458
Jasculca Terman Strategic Communications	35,000	46,000
Management Association	-	4,100
Mosaic Governance Advisors L.L.C.	33,135	-
Navigate 360 L.L.C.	28,244	-
SABA Software	1,782	4,662
The Segal Co. Western Stats Inc.	-	21,000
	218,973	338,032
Other	21,063	23,139
Total professional services	**$5,889,716**	**$3,640,523**

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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*

Honorable Frank J. Mautino
Auditor General
State of Illinois
and
The Board of Trustees
Teachers' Retirement System of the State of Illinois

As Special Assistant Auditors for the Auditor General, we have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Teachers' Retirement System of the State of Illinois (System), a component unit of the State of Illinois, as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the System's basic financial statements, and have issued our report thereon dated December 15, 2023, which contained an emphasis of matter paragraph regarding actuarial assumptions used in the actuary's calculation of the net pension liability.

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

The Honorable Frank J. Mautino
and
The Board of Trustees
Teachers' Retirement System of the State of Illinois

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

SIGNED ORIGINAL ON FILE

Decatur, Illinois
December 15, 2023